MOTIVATIONAL ORIENTATIONS OF REGISTERED NURSES WHO PURSUE AN ADVANCED EDUCATION

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A DISSERTATION

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The purpose of this study was to examine the motivational orientations (intrinsic motivation-to know, intrinsic motivation-toward accomplishment, intrinsic motivation-to experience stimulation, extrinsic motivation-identified, extrinsic motivation-introjected, extrinsic motivation-external regulation, and amotivation) of registered nurses who pursued a graduate degree. In addition, the study looked at the differences in demographic characteristics (age, income, and years of experience) and psychological needs (competence, relatedness, and autonomy). Lastly, it looked at the relationship between motivational orientations and psychological needs.

The research problem included the following four questions: 1) are there differences between the motivational orientations of registered nurses who seek a master’s versus those who seek a doctorate; 2) are there differences in demographic characteristics of those nurses pursuing a master’s degree versus a doctoral degree; 3) are there differences in the psychological needs identified between those pursuing a master’s versus a doctoral degree; and 4) is there a relationship between the types of motivational orientation and psychological needs?

Results indicated no statistical differences in the motivational orientations reported by registered nurses who pursued a doctoral or master’s degree. Registered nurses seeking a master’s or doctoral degree scored the highest on intrinsic motivation-to know, extrinsic motivation-identified second, and third on intrinsic motivation-toward accomplishment. There were no significant differences in the three demographic characteristics self-reported by the
nurses pursuing a master’s degree or doctoral degree. Results revealed that there were no significant differences in the three psychological needs for these nurses. Results also revealed that there was a significant correlation between both extrinsic motivation-introjected and intrinsic motivation-experience stimulation to autonomy. In addition, there was a significant correlation between both extrinsic motivation-introjected and intrinsic motivation-experience stimulation and relatedness. Lastly, there was a significant correlation between intrinsic motivation-to know and competence.
DEDICATION

This doctoral dissertation is dedicated in loving memory of my sister, Lorane Banks for her inspiration and encouragement to pursue my dreams. My sister finished her assignment on earth before I officially started the dissertation part of my doctoral degree requirement. I know in my heart that she would be proud of me, and I believe she was with me in spirit to celebrate the end of this journey and the beginning of something new.
### LIST OF ABBREVIATIONS AND SYMBOLS

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>Std. Deviation</td>
<td>Standard Deviation: a measure of dispersion that is calculated based on the values of the data.</td>
</tr>
<tr>
<td>p</td>
<td>Probability associated with the occurrence under the null hypothesis of a value as extreme as or more extreme than the observed value.</td>
</tr>
<tr>
<td>N</td>
<td>Number of Sample Population</td>
</tr>
<tr>
<td>df</td>
<td>Degrees of Freedom: number of values free to vary after certain restrictions have been placed on the data.</td>
</tr>
<tr>
<td>F</td>
<td>Fisher’s F ratio: a ratio of two variances.</td>
</tr>
<tr>
<td>Std. Error</td>
<td>Standard of Error of the mean: the standard deviation of a sampling distribution of means.</td>
</tr>
<tr>
<td>t</td>
<td>T score: a standard indicates how many standard deviations the datum is above or below the mean.</td>
</tr>
<tr>
<td>Asymp. Sig.</td>
<td>Asymptotic significance: refers to using both tails as the critical regions of a normal theoretical sampling distribution to ascertain statistical significance.</td>
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ACKNOWLEDGMENTS

I would be personally and spiritually remiss if I did not start by saying Thank you Lord!
I praise and worship your Holy name.

I would like to thank my chair and advisor, Dr. Marietta Stanton, and committee members, Dr. Rick Houser, Dr. Linda Dunn, Dr. Becky Atkinson, and Dr. Cecil Robinson, for their support and guidance. Additionally, I would like to extend a special thank you to my family and to the nursing students who participated in this research.

“It is never too late to be what you might have been”- George Eliot.
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CHAPTER I:

INTRODUCTION

Statement of the Problem

An increase in the demand for more advanced nursing knowledge in both the hospital and community health care environments have created the demand for more nurses prepared at the graduate level. In the United States, changing demographics were increasing at an alarming rate with a growing elderly population. In this particular population, there were more chronic illnesses and a greater need for health care than any other age groups. Patients have more complex health conditions and a greater need for advanced nursing care. In addition, patients who were in the hospital generally would be more acutely ill and would also have a higher need for more specialized nursing care. Both in the acute care and community setting of today and future, nurses would need advanced knowledge in critical thinking, leadership, and management in nursing practice (Oermann, 1994a). The growing demand for qualified professionals to fill leadership and management positions in nursing has increased attention on graduate education (Iava, 1994). As technology continues to advance and the status of hospitalized patients becomes increasingly complex, nurses are challenged to adapt rapidly to an ever-changing health care environment (Stevenson, 2003). To keep pace with the increasing demand for nurses who were prepared at the master’s and doctoral levels, schools of nursing must re-evaluate their recruitment strategies to ensure that they were meeting the demands of the nursing profession (Mackin, Kayser-Jones, Franklin, Evans, Sullivan-Marx, Herr, et al., 2006).
In the past, most of the nurses graduating were at the associate degree level. Also, the majority of applicants to nursing programs continued to select the associate nursing degree programs, due to cost and convenience. A study by the Health Resources and Services Administration (HRSA) (2001) showed that out of a sample of 49,000 nurses, only 9.6% had a master’s degrees and 0.6% had doctoral degrees. By 2005, the number of nurses doctorally prepared still remained at less than 1% and only 10% for master’s prepared nurses (Dracup & Bryan-Brown, 2005). In 2007, the Canadian Association of Schools of Nursing projected for both Canada and the United States, the need for approximately 3,673 more nurses with master’s degrees and 650 additional nurses with doctoral degrees to meet the demand for nurse educators. By 2009, there were only 15% of the 3,673 nurses who actually attained a masters and 5.8% of the 650 nurses attained a doctorate (Cash et al., 2009). According to Apold (2008), doctoral nursing programs have graduated less than 420 individuals per year. It was apparent that only a very low percentage or number of nurses, from a pool of more than 2.6 million nurses pursued an advanced education.

Warren and Mills (2009) conducted a study to describe the various methods utilized to increase the number of nursing faculty. The results of their study revealed that nurses who were satisfied with their careers had little, if any, drive or motivation to return to college for an advanced degree. Additionally, organizational rewards were not enough to motivate that particular group of participants to return to college. The number of graduate nursing programs has increased rapidly over the past few years in an attempt to meet the present demand. Now would be a good time for nurses to seek advanced education as opportunities were booming in this career field for nurses with graduate degrees. An advanced education would give nurses the advantage of a broad selection of professional career choices. Nurses can teach at universities
and schools of nursing with a master’s or a doctoral degree. However, career advancement opportunities may be more limited for nurses pursuing a master’s degree versus those pursuing a doctoral degree. Furthermore, a doctorate would provide them more opportunities than a master’s degree (Stevenson, 2003). A doctorate is considered generally necessary for administrative, research, consulting, and teaching positions.

Background to the Problem

Currently, the United States is facing an unprecedented nursing shortage that the HRSA predicts it will only get worse (HRSA, 2004). By 2020, HRSA estimated that there would be one million job vacancies for registered nurses to fill. However, due to the recent downturn in the U.S. economy, in various parts of the country there was an easing of the shortage of nurses. Although the nursing labor force was showing signs of stabilizing, personnel analysts warned nurse educators, policymakers, employers, and other stakeholders from thinking this was the end of the shortage (AACN) (AACN, 2009b). Concurrently, there was a shortage of nursing faculty occurring along with the shortage of nurses. Most importantly, the shortage of nurses was directly linked to the shortages of nurse educators. The recent rate of vacancies for nurse educators was reported at 8.8% with a rate of two vacancies per school of nursing. The AACN reported that more than 71% of nursing schools were in need of more nurse educators (AACN, 2009a). The shortage of experienced nursing faculty prohibited the nursing profession from increasing the current supply of qualified nurses available for patient care. Furthermore, the shortage of nurse educators and the capacity limits placed on schools actually mean that the number of nurses graduating would remain below the level necessary to address the shortage (Lotas et al., 2008). In 2008, schools of nursing denied almost 50,000 well-qualified students to undergraduate and graduate nursing programs. The main reason given by the schools for
denying admission to qualified candidates was due to the current shortage of faculty. Overall, this ongoing shortage was the result of: 1) an inadequate number of nurse educators; 2) a drop in the number of clinical agencies available to provide student learning experiences; 3) a lack of clinical nurse preceptors for nursing students; and 4) budget constraints on schools of nursing (AACN, 2009a).

In the middle of both a nursing and faculty shortage, recruitment of new faculty would be of the greatest importance if we were to prepare and graduate an adequate supply of nurses to meet the current demand. Without a sufficient number of qualified nurse educators, the supply of nurses would only decrease. Therefore, quality patient care would also decrease with the small number of nurses at the bedside (Warren & Mills, 2009). Society has held the nursing profession accountable for providing quality care to their patients. According to Myers (2001), the purpose of continuing formal education was to maintain knowledge and skills, to improve existing competencies and develop new competencies with the ultimate objective of improving patient care. Therefore, nurses have to maintain several competencies and stay abreast of the most recent research and developments in patient care (Richards & Potgletter, 2010). As health care systems became more complex, nurses were required to: 1) embrace change; 2) be more knowledgeable; and 3) promote innovation (Lawton & Wimpenny, 2003). One way that nurses could embrace change, become more knowledgeable, and promote innovation was by attaining an advanced degree.

Statement of Purpose

The purpose of this study was to: 1) determine if there were differences in the motivational orientations (intrinsic motivation-to know, intrinsic motivation-toward accomplishment, intrinsic motivation-to experience stimulation, extrinsic motivation-identified,
extrinsic motivation-introjected, extrinsic motivation-external regulation, and amotivation) of registered nurses who pursued a master’s versus a doctoral degree; 2) identify if there were differences in demographic characteristics (age, income, and years of experience) between the two groups of nurses; 3) identify if there were differences in psychological needs (competence, autonomy, and relatedness) between the two groups of nurses; and 4) determine if there was a relationship between motivational orientations and psychological needs.

Theoretical Framework

Motivation was considered to be one the most essential psychological concepts in education. One theoretical view, Self-Determination Theory (SDT), believed that individual behavior can be intrinsically motivated, extrinsically motivated, or amotivated. This theoretical approach to academic motivation has produced an extensive amount of research relevant to the discipline of education and specifically to teaching (Deci & Ryan, 1985, 1991). SDT has been used frequently to describe academic motivation of college-level students. Deci, Kasser, & Ryan (1997) argued that the concept of self-determination was a crucial factor “for understanding effective teaching at the post-secondary level because a great deal of research across many different types of activities has shown convincingly that self-determined behavior involved higher-quality functioning than controlled behavior” (p. 59).

The theory proposed that human beings have a natural desire for stimulation and learning from birth, which was either supported or discouraged within their own environment (Deci & Ryan, 1985; Ryan & Deci, 2000). The main point of the theory was to know the circumstances that led to positive motivation. SDT was primarily based on the assumption that people, with their inherent psychological needs, pursued challenges in an effort to improve their environments (Ballmann & Mueller, 2008).
Basically, to identify the motives behind why individuals engaged in any activity, according to the SDT, it was essential first to distinguish between the different forms of motivation. The theory suggested that there was a linear scale of human self-determination related to the things that people do. To the far left on the scale was amotivation and to the far right on the scale was intrinsic motivation. In addition, there were four distinctive types of extrinsic motivation that lay between amotivation and intrinsic motivation (Ballmann & Mueller, 2008).

As shown in Figure 1, this study was based on the theoretical framework that adult learners have different motivational orientations in pursuing higher education. The different motivational orientations were categorized as intrinsic motivation-to know, intrinsic motivation-toward accomplishment, intrinsic motivation-to experience stimulation, extrinsic motivation-identified, extrinsic motivation-introjected, extrinsic motivation-external regulation, and amotivation.
Figure 1. Theoretical Framework
Intrinsic motivation referred primarily to the fact of doing a particular activity for itself, and the pleasure and satisfaction obtained from participation (Deci 1975; Deci & Ryan, 1985). It also referred to autonomous behaviors engaged in primarily for the feelings of fun, enjoyment, and pleasure that came from participation in an activity. According to Deci and Ryan (1985), intrinsic motivation originates from the natural psychological needs of competence and self-determination. Therefore, activities that permitted people engaged in freely to experience pleasure and satisfaction were a type of intrinsic motivation. A study conducted by Vallerand et al. (1989) revealed a tripartite taxonomy of intrinsic motivation. Three types of intrinsic motivation were identified as the intrinsic motivation to know, to accomplish things, and to experience stimulation. Intrinsic motivation to know was the desire to do an act or activity for the mere enjoyment an individual gets while learning something new. Intrinsic motivation to accomplish was the desire to do an activity for the satisfaction that a person got from accomplishing something new. Last, intrinsic motivation to experience stimulation was considered to be the desire to carry out an activity in order to experience intellectual or physical stimulation (Fairchild, Horst, Finney, & Barron, 2005).

In contrast to intrinsic motivation, extrinsic motivation concerned a large variety of behaviors which individuals engaged in as a means to an end only (Deci, 1975). Deci, Ryan and their peers (1975; 1985) suggested that three types of extrinsic motivation occurred along a self-determination continuum. These types of extrinsic motivation were named external regulation, introjected regulation, identified regulation, and integrated regulation which were arranged from the lowest to the highest levels of self-determination.
External regulation was the least self-determined or autonomous, of the externally regulated behaviors. It referred to actions that were done to satisfy external demands. Introjected regulation referred to behavior that was intentionally aimed at avoiding guilt or to boost an individual’s ego. Next, identified regulation was an autonomous or self-determined type of extrinsic motivation. Primarily, it was when an individual identified with the personal meaning or significance of a behavior. Finally, integrated regulation was when a person’s behaviors are the most harmonious or fitting with one’s values and needs. This type of motivation was the most self-determined of the externally regulated behaviors. In general, these four forms of extrinsic motivation differ in the amount of self-determination that one related more to the behavior, whereas more internalized or integrated behaviors created an increased sense of self-determination (Ballmann & Mueller, 2008).

Deci and Ryan (1985) envisioned a third type of motivation, amotivation, to be considered in order to completely understand human behavior. People were labeled amotivated when they generally do not see the possibilities between outcomes and their individual actions. They saw their behaviors as a result of forces out of their personal control. Typically, they felt mislead, and began to question why they went to school. In time, they might drop out of college (Vallerand et al., 1992).

Psychological Needs for Self-Determination Theory

The self-determination theory’s fundamental premise assumed that human behavior was directed by three psychological needs: 1) competence, 2) autonomy, and 3) relatedness. These psychological needs were explained as the basis for intrinsic motivation, whenever an individual engaged in behaviour for its own sake.
Competence. The need for competence assumed that the individual knows how to accomplish something and had the ability to do so. According to Wlodkowski (1999), an individual wanted to be effective at what he or she valued, a desire influenced more and more by others as we developed and aged. As learners, individuals might feel competent when they have reached a certain level of expertise in something or when they could apply their knowledge. Humans received pleasure from doing things well. The achievement of competence itself was an intrinsic motive for learning. In SDT, competence referred to a sense of mastery and efficacy in regards to human interactions with the world. In other words, it was the need to experience pleasure in exercising and extending a person’s abilities (Levesque, Zuehlke, Stanek, & Ryan, 2004). This conceptualization of competence stemmed from the previous work of Robert White (1959) who described the important role of competence in motivating individuals’ behavior. White proposed that human beings have an inherent (intrinsic) need to grow and master their environment. When an individual was considered competent, one felt effective and experienced the world around them as a more manageable place.

Autonomy. Another need, autonomy, was shaped by the individual’s ability to independently initiate and control an action. In SDT, an environment could be perceived as either controlled or supportive. In a social context, a controlled action could be the use of external rewards to motivate a person, rather than an individual taking action to motivate him or herself (Pelletier et al., 2001). In an academic context, the student might or might not feel that he or she was responsible for his or her learning because the instructor established the course requirements, assessed his or her efforts, and generally controlled the learning environment. Because the learner was responsible for his or her own educational achievements by studying, paying attention, and so on, he or she might feel very dependent on the instructor, thus reducing
feelings of control and autonomy. In an environment where the teacher used a style that supported autonomy in communication with the class, the focus was on the learners and their internal locus of control, which helped them see themselves as self-determined learners. When a teacher used a controlled style of communication that used rewards or negative consequences to motivate learners, the learners believed the motivation for learning falls outside of their internal locus of control or causality, thus exhibiting an external locus of causality. In order for learners to take control of the situation, Wlodkowski (1999), an authority on adult motivation to learn, proposed that they need to use such techniques as setting personal goals for learning, using self-assessment methods, and seeking feedback.

Relatedness. The third need was relatedness, which was the need to establish emotional bonds or relationships with others, the yearning one had to be allied or “related” to others or someone else. In order for individuals to sustain their mental well-being, it was important that these fundamental needs be met. Deci and Ryan (1985) explained that the need for interpersonal relatedness was the reason why people would often convert external goals into internal goals. The SDT proposed that individuals are lead by an inherent need for self-determination in that they preferred to have a choice over their actions and behaviour rather than being controlled by environmental rewards or pressures. If the environment was supportive of an individual accomplishing those three psychological needs of autonomy, competence, and relatedness, it was essentially a self-determined environment.

In the academic domain, relatedness taught students the beliefs, orientations, and values required to function effectively in various educational environments. If positive and adaptive, these beliefs directed behavior in the form of improved persistence, goal striving, and self-regulation. In good quality relationships, people essentially internalized the beliefs valued by
significant others (Wentzel, 1999). In fact, beliefs held by others became a part of one’s personal belief system. From an academic perspective, quality relationships with a particular teacher were more likely to lead students to internalize some of their teacher’s beliefs and values about school and schoolwork. In essence, these internalized beliefs and values have the potential to be transferred to other educational settings. Thereby, students learned to behave in a particular academic environment and how to be a student in various academic settings (Ryan & Deci, 2000). In the classroom, relatedness was deeply related to a student feeling that the instructor genuinely liked, respected, and valued him or her. Students who identified the need for relatedness were more likely to exhibit identified and integrated regulation for the activities involved in learning processes. However, students who felt rejected by instructors were more likely to move away from internalization and respond just too external contingencies and controls.

Motivation Continuum

Deci and Ryan (1985) believed motivation to be a continuum ranging from non self-determined types of regulation (amotivation, external regulation, and introjected regulation) to self-determined types of regulation (identified regulation, and integrated regulation). This continuum of motivation accounted for the reasons why individuals did things or demonstrated certain behaviors. It started with amotivation, not feeling motivated at all, and ended with intrinsic motivation, doing something solely for the joy of doing it (see Figure 2). According to Deci and Ryan, movement along the continuum was motivated by the three basic psychological needs of relatedness, competence, and autonomy.
The research questions addressed in this study were:

1. Are there differences between the motivational orientations (intrinsic motivation-to know, intrinsic motivation-toward accomplishment, intrinsic motivation-to experience stimulation, extrinsic motivation-identified, extrinsic motivation-introjected, extrinsic motivation-external regulation, and amotivation) of registered nurses who seek a master’s versus those who seek a doctorate;
2. Are there differences in demographic characteristics (age, income, and years of nursing experience) of those nurses pursuing a master’s degree versus a doctoral degree;

3. Are there differences in the three psychological needs (autonomy, competence, and relatedness) between those pursuing a master’s versus a doctoral degree; and

4. Is there a relationship between motivational orientations and psychological needs?

**Operational Definitions**

*Motivation* is having the energy or desire to do something. It can be operationalized as the underlying “why” of human behavior and the apparent reasons for engaging in the activity (Ballmann & Mueller, 2008).

*Motivational orientations* are the dimensions underlying the reasons that registered nurses pursue advanced education; specifically, the factors from the Academic Motivation Scale:
a) intrinsic motivation-to know, b) intrinsic motivation-toward accomplishment, c) intrinsic motivation-to experience stimulation, d) external motivation-identified, e) external motivation-introjected, f) external motivation-external regulation, and g) amotivation (Ballmann & Mueller, 2008).

*Registered nurse* is a nurse who has graduated from an accredited nursing program, has passed the state examination for licensure, and has been registered and licensed to practice by a state authority.

*Advanced education* is an academic degree higher than a bachelor’s degree. Allied health care professionals are audiologists, dietitians, nurses, occupational therapists, pharmacists, physical therapists, respiratory therapists, and speech pathologists (Tassone & Heck, 1997).
Professional advancement is to gain knowledge and skills to increase competence, to promote job advancement, to improve job status, or to attain certification (Armstrong, Clark, & Stuppy, 1995).

Psychological need is the nutriments or conditions deemed vital to an individual’s health and integrity. In SDT, the satisfaction of three basic psychological needs is conceptualized as essential to facilitating the integrative processes that enhance psychological growth and well-being (Deci & Ryan, 1985b).

Need for autonomy entails being agentic and experiencing one’s actions as emanating from the self (Deci & Ryan, 1991).

Need for competence involves striving for attaining outcomes and experiencing effectance (Deci & Ryan, 1991).

Need for relatedness encompasses relating to and caring for others as well as feeling related to or cared for by others in authentic ways (Deci & Ryan, 1991).

Internalization is the process by which people can take in or integrate regulations that originate external to the self so that what was once an external regulation becomes an internal regulation of the self (Williams, Deci, & Ryan, 1998).

Significance of the Study

The shortage of educationally prepared nursing faculty was linked with the present shortage of nurses in the United States. The nursing shortage required academic programs to increase the supply of both nurses and nurse educators. However, the shortage of nursing faculty would put a limit on student enrollment and decrease the number of new graduates. Equally, the nursing shortage would offer many other opportunities and choices to potential nursing students
and might reduce the number selecting advanced studies and a teaching career, thereby, contributing to the current faculty shortage (Hinshaw, 2001).

The nursing faculty shortage would have negative effects on the creation or generation of the knowledge base for nursing practice. Due to a decline in the number of nurses to conduct research and the loss of senior investigators to retirement, the future production of nursing knowledge may be reduced. Additionally, the shortage of faculty will decrease the number of professional nursing leaders who helped to shape health policy on all levels (Hinshaw, 2001).

As the nursing profession attempted to find solutions during this shortage and recruit additional people into the profession, in addition to retaining others, it was important to understand why registered nurses chose to pursue advanced education in nursing. If those reasons were fully understood, more appropriate recruitment strategies could be developed. To better understand how to recruit students into higher education, research-based information was needed about students’ motivation for seeking an advanced education program (Larsen et al., 2003).

Basically, the nursing profession was faced with the problem of how to recruit an adequate number of nurses into higher education. This statement raises the following questions: 1) what recruitment strategies could be used to attract registered nurses into masters and/or doctoral programs; and 2) what motivated registered nurses to pursue graduate education? In order to understand what recruitment strategies could be employed to attract more nurses into advanced education programs, one must first know what motivated them to pursue an advance education (Garst & Ried, 1999). However, very little research had been conducted in the area of motivation and higher education in nursing. There were only a few studies found that examined the motivating factors influencing registered nurses to pursue advanced degree. Therefore, this
study was conducted in order to contribute important information to help nurse educators know what motivated nurses to pursue higher education. In addition, it would add to the body of knowledge on motivation and provide the basis for future research.

Summary

To keep abreast of the nation’s demand for an adequate supply of nurses, innovative recruitment strategies need to be developed to increase the number of qualified faculty members in nursing schools. Research-based information on the motivational orientations and the underlying reasons that nurses participated in masters and doctoral nursing education programs could be valuable to nurse educators. The findings could help nurse educators and nursing leadership in higher education to better understand how to recruit registered nurses into graduate education programs. Due to the great demand for qualified nursing faculty and nurses, the results of this study could help educators and leadership to improve their recruitment strategies.

This chapter discussed the statement of the problem, the purpose, theoretical framework, research questions, operational definitions, and the significance of the study. In the next chapter, the shortage of nurses and nurse educators on a national level, theories of motivation, theory selection, application of SDT in education, studies on motivation with regard to nurses and allied health professionals were presented.
CHAPTER II:
LITERATURE REVIEW

According to Armstrong, Clark, and Stuppy (1995), adults return to school for various reasons, thus student motivation was an ongoing area of interest to nurse educators in academic settings. Most of the prior studies on motivational orientations in nursing focused on participation in continuing education. The nursing literature that explored motivational orientations was very limited and dated back to 1970s through 1990s. However, a few of these studies did explore the relationship between demographic variables and motivational orientations. Due to the gap in the nursing literature, literature from both nursing and other professional disciplines provided the foundation upon which to build this research.

The studies selected by the researcher formulated the theoretical framework for this investigation and the selection of the design, a survey questionnaire, which focused on the reasons “why” RNs pursue an advanced education. This study was designed to identify the differences in motivational orientations between registered nurses who pursued a master’s versus a doctoral degree. To explore the theoretical concept of motivation, this chapter examined at the different theories of motivation. In addition, articles on the nursing shortage along with the shortage of nurse educators and studies on motivation.

Theories of Motivation

Generally, motivation theories were based on a set of assumptions about the nature of individuals and about the factors that led them to take action. Although there were many theories of motivation, there were only a few relevant and important theories in the academic
environment. Before deciding on one theory to use in this study, a better understanding of some of the most prominent motivational theories was required. The literature on theories of motivation was divided into five broad categories: 1) theories focused on expectancies for success such as self-efficacy theory and control theory; 2) theories focused on task value such as self-determination theory and flow; 3) theories that incorporated both expectancies and values, for example, attribution theory and self-worth theory; 4) theories integrating motivation and cognition, for instance, social cognitive theories of self-regulation and motivation, and theories linking motivation and cognition; 5) theories based on human needs such as Maslow’s Hierarchy of Needs, Herzberg’s Two-Factor Theory, and McClelland’s Need Theory.

**Theories Focused on Expectancy**

There were many theories that focused on people’s beliefs concerning their competence and efficacy, expectancies for success or failure, and sense of control over outcomes. In essence, these beliefs were directly linked to the question, “Can I do this task?” Essentially, when people answered this question affirmatively, they were better motivated to engage in more challenging tasks (Eccles & Wigfield, 2002).

**Self-Efficacy Theory**

Albert Bandura (1997) proposed a social cognitive model of motivation, the self-efficacy theory, which focused on the role of perceptions of efficacy and human agency. He defined self-efficacy as individuals’ confidence in their ability to manage and complete a given course of action to solve a problem or accomplish a task. He described self-efficacy as a multidimensional construct that differed in strength, generality, and complexity. Bandura believed that some individuals have a strong sense of self-efficacy and others do not; some people have efficacy beliefs that included many situations, while others only have limited efficacy beliefs;
and some individuals believed they were efficacious on the most complex tasks, while others believed they are efficacious just on simple (easy) tasks. His theory of motivation focused on expectancies for success. He differentiated between two types of expectancy beliefs, outcome expectations and efficacy expectations. Outcome expectations were beliefs that specific behaviors would lead to certain outcomes. Efficacy expectations were beliefs about whether the individual could successfully perform the behaviors required to produce the outcome. These two types of expectancy beliefs were quite different because people could believe that a particular behavior would produce a certain outcome, but they might not believe that they could perform that particular behavior. Bandura believed that individuals’ efficacy expectations were the main determinant of goal setting, activity selection, motivation to expend effort, and persistence (Eccles & Wigfield, 2002).

Control Theories

A different type of expectancy-based theory was the locus of control theories. According to control theories, a person should look forward to succeeding to the point that one felt in control of one’s successes and failures. Thus, one has a deep or internal need for control (Eccles & Wigfield, 2002). Connell and Wellborn (1991) integrated control beliefs into a broader theoretical framework in which they suggested three basic psychological needs: 1) competence, 2) autonomy, and 3) relatedness. They associated control beliefs with competence needs; typically, students who thought that they control their achievement outcomes should feel more competent. They hypothesized that the extent to which these needs were satisfied is highly influenced by attributes of their family, peers, and school contexts. The school contexts were inclusive of the amount of structure, the extent of autonomy provided, and the degree of involvement in the students’ activities. Last, they assumed that the ways in which these needs
were satisfied determine one’s involvement in different activities. Additionally, when needs were met (satisfied), students would become totally engaged in tasks. However, when one or more of the needs was not satisfied, students would become unmotivated or uninterested.

Theories Focused on the Reasons for Engagement

Theories associated with competence, expectancy, and control beliefs provided great explanations of individuals’ performance on various types of achievement tasks, however, these theories did not explore the reasons people had for engaging in various achievement tasks. Although individuals were convinced that they could perform a particular task, they might have no compelling reason to do it. The theories in this section focused primarily on the question of why (Eccles & Wigfield, 2002).

Self-Determination Theory

Self-determination theory focused on the difference between intrinsic and extrinsic motivation. In 1985, Deci and Ryan proposed self-determination theory in which they integrated two viewpoints on human motivation: 1) humans were primarily motivated to maintain an optimal level of stimulation; and 2) human beings have fundamental needs for competence and self-determination. They strongly believed that individuals seek out challenging activities and they found these activities intrinsically motivating because they have a basic need for competence. Additionally, they believed that intrinsic motivation was maintained only when individuals felt competent and self-determined. They also argued that the basic needs for competence and self-determination (autonomy) play an important role in more extrinsically motivated behavior. For example, a student selects a specific major because it will help him or her earn a big salary. This student was led and guided by his basic needs for competence and autonomy, but his choice of major was based totally on extrinsic reasons. Deci and Ryan (1985)
assumed that a basic need for interpersonal relatedness explained why individuals turned external goals into internal goals through internalization. In addition, they believed that when individuals were self-determined (autonomy), their reasons for engaging in behavior were fully internalized (Hidi & Harackiewicz, 2000).

**Flow Theory**

Mihaly Csikszentmihaly (1988) defined intrinsically motivated behavior as the personal experience that happened when individuals were engaged in a particular activity. Basketball players, dancers, chess players, and composers explained their experiences when fully engaged in terms of an emotional state called flow. It was characterized by 1) a holistic feeling of being engrossed in, and carried by, an activity; 2) an integration of action and awareness; 3) focus of attention on a limited field, one engaged in the activity would have the chance to focus and to dig deeply into it; 4) loss of self-consciousness, the merging of action and awareness; and 5) a sense of self-control over the activity. According to Csikszentmihalyi, the state of flow occurred when one felt completely immersed and involved in an activity, in control, capable of mastering any challenge, with a complete lack of self-consciousness. Typically, a flow experience occurred only when both the challenge and the skills were rather high. Generally, the challenge of an activity might possibly be tangible or intangible, or just a puzzle to be solved. The flow theory supposed that human beings have certain basic drives that could influence individuals to do something. For instance, a person would learn to do something if one was rewarded for an action, and would tend to not do those things for which they were punished. In fact, individuals would do what they wanted to do, and this was based on the priorities established by those needs.
Theories on Expectancy and Values

Attribution Theory

Basically, attribution theorists emphasized that an individual’s interpretation of his or her achievement outcomes, instead of motivational dispositions, determined the next achievement strivings. Attribution theory was about how people interpreted (understood) events and how this was related to their thinking and behavior. Attribution theorists believed that individuals tried to determine why they did what they did, by interpreting causes related to an event or behavior. Bernard Weiner developed a theoretical framework that had become an important theory of motivation for more than three decades (Weiner, 1985). Weiner maintained that one’s causal attributions (explanations) for achievement outcomes determined succeeding achievement strivings and, therefore, were main motivational beliefs. According to Weiner (1992), the most significant factors affecting attributions were ability, effort, task difficulty, and luck. For instance, failure on an exam could be attributed to bad luck, tough questions, lack of ability, or low effort. Typically, attributions were classified into three causal dimensions: 1) locus of control; 2) stability; and 3) controllability. The locus of control dimension had two poles, internal versus external. The stability dimension denoted whether causes change over time or not. Controllability referred to causes that an individual could control such as skills versus causes a person cannot control such as luck or others’ actions. Weiner’s attribution theory was primarily about achievement (Eccles & Wigfield, 2002).

Self-Worth Theory

Martin Covington (1998), in his self-worth theory, defined the motive for self-worth as the propensity to create and maintain a positive self-image, or sense of self-worth. Self-worth motivation theory explained the foundations of, and the processes involved in, protecting one’s
self-worth. Within this framework, the search for self-acceptance was the top human priority, and that in schools self-acceptance came to be contingent upon one’s ability to achieve competitively. In our Western society there was a strong tendency to link accomplishment with human value, or simply put, people were considered to be only as worthy as their achievements. Because of this, it was practical that students frequently confused (mix up) ability with worth. For those students who were already insecure, attaching a sense of worth to ability was a dangerous step because schools could threaten their belief in their ability. This was true because schools generally provided poor rewards for all students to strive for success. As an alternative, most students must strive simply to avoid failure. Self-worth theory focused mainly on the relationship between achievement and worth. It assumed that school achievement was best understood as attempts by students to preserve a positive self-image of competency, especially when risking competitive failure.

Theories Integrating Motivation and Cognition

Generally, motivation theorists were very interested in the ways in which motivation and cognition work together. One group of theorists was concerned with how people regulated their behavior to meet their learning goals (Schunk & Zimmerman, 1994). Other motivation theorists, such as Pintrich et al. (1993), have examined the relationships between motivation and the utilization of different cognitive strategies. But, Corno (1993) has argued for the separation of motivation and volition, with motivation guiding one’s decisions about engaging in certain activities, and volition guiding the behaviors used to reach the goal. In essence, these theories focused on two primary issues: 1) how motivation gets converted into regulate behavior; and 2) how motivation and cognition were related (Eccles & Wigfield, 2002).
Self-Regulation and Motivation

Because Schunk and Zimmerman directly linked motivation to self-regulation, their work was the focus of this section. Zimmerman (1986) explained that self-regulated students were metacognitively, behaviorally, and motivationally active participants in their own learning processes and in attaining their personal goals. In essence, self-regulated learning was about how students became masters of their own learning. In terms of metacognitive processes, self-regulated students plan, set goals, manage, self-monitor, and self-evaluate at a different point during the acquisition process (Corno, 1989). In self-regulated learning, the focus of educational investigation shifts from students’ learning ability and environments as fixed entities to their personally initiated processes designed to improve their ability and their environments for learning (Zimmerman, 1990). Schunk confirmed that when goals are proximal, specific, and challenging they were most valuable in motivating students’ behavior and enhancing their sense of self-efficacy (Eccles & Wigfield, 2002). Perhaps, the best way to understand the role of motivation in self-regulation was as one of the essential ingredients necessary for successful self-regulation. For example, if motivation was high, such as when an individual truly and strongly wanted to measure up to some particular standard, this might compensate for a somewhat lower than usual level of determination or a greater difficulty of self-monitoring (Baumeister & Vohs, 2007).

Theories Linking Motivation and Cognition

Social Cognitive Theory

Social cognitive theory (Bandura, 1986) provided the theoretical basis for the development of a model of self-regulated learning in which personal, contextual and behavioral factors work together to give students a chance to control their own learning. Within this
theoretical framework, Pintrich (1999) explained self-regulated learning as an active, constructive process whereby students set goals for their learning environment, planned and monitored their actions, regulated and controlled their cognition, motivation, and behavior. This set of actions was guided and controlled both by their goals and the contextual framework and could arbitrate the relationships among people and the context and their overall achievement (Zimmerman, 2000). Using a theoretical framework to conceptualize student motivation, Pintrich and De Groot (1990) believed that there existed three motivational components that were probably linked to the three dimensions of self-regulated learning, that was: 1) an expectancy component, which concerned students’ beliefs about their own expected success in accomplishing a task; 2) a value component, which referred to students’ approval of and beliefs about the significance of the task for them; and 3) an affective component, covered students’ emotional responses to the task. Thus, motivational components were found to be significantly linked to students’ cognitive engagement and academic performance in the classroom setting, with mastery goal orientation strongly related to the utilization of cognitive strategies, self-regulation, and self-efficacy (Pintrich & De Groot, 1990). In essence, the cognitive and motivational constructs were believed to influence students’ engagement in their learning and, thus, achievement outcomes (Eccles & Wigfield, 2002).

Need Theories

Need theories were based on the needs of individuals. Basically, these theories described why the needs of people keep changing over time, thus, focusing on the specific factors that motivate them. Essentially, they explained what drives behavior in humans. Needs were deficiencies that triggered behaviors to satisfy those needs. Generally, unfulfilled needs created a tension that made one want to find ways to satisfy or meet those needs. However, the stronger
a person’s need, the more motivated one was to satisfy them. In contrast, a satisfied need did not motivate. The theories in this section placed emphasis on what motivated (Hendriks, 1999).

**Maslow’s Hierarchy of Needs**

According to Abraham Maslow, needs could be arranged in a hierarchy, and people moved from one level of the hierarchy to a higher level once the needs on the lower level were met. The hierarchy included five levels beginning with basic survival needs, through safety or security, to esteem, social, and self-actualization (Urbano & Jahns, 1988). Maslow’s hierarchy of needs was generally displayed as a pyramid. The pyramid shape was intended to show that some needs were more important than others and must be met before the other needs could be motivators (Schermerhorn, 2003). Whenever a lower level of need attainment was achieved, the person could direct activities toward higher level needs. Maslow believed that people were motivated to satisfy their physiological needs before they expressed an interest in safety needs and safety needs must be met prior to social needs becoming the primary motivator (Urbano & Jahns, 1988). However, once a lower-level need had been satisfied, its impact on an individual’s behavior diminishes (Schermerhorn, 2003). When a need at a lower level in the hierarchy was not satisfied, the person cannot move to higher order needs within the hierarchy. The person’s level of need achievement and subsequent position in the hierarchy of needs control that individual’s beliefs, values, and attitudes about self, others, and the surrounding environment. Motivation was based upon the need to satisfy the majority of needs at each level (Urbano & Jahns, 1988).

**Herzberg’s Two-Factor Theory**

Herzberg’s Two-Factor Theory separated motivation and job satisfaction into two distinct groups that he referred to as the motivation factors and hygiene factors. He proposed that the
motivating factors are the job content factors that incorporated achievement, recognition, work itself, responsibility, advancement, and personal growth. The hygiene factors were the job context factors, such as supervision, relationship with boss, work conditions, relationship with colleagues, salary, job security, job status, and private life (Ruthankoon, 2003). In essence, Herzberg’s theory differentiated between intrinsic motivators and extrinsic motivators. The intrinsic motivators or job content factors were associated with those things that the people actually did in their work including individual responsibility and achievements. These factors were the motivators that might possibly contribute to the level of job satisfaction a worker might felt on their job. The job context factors or extrinsic factors that a person as an employee did not have a great deal of control over, related more to the environment in which people work rather than the nature of the work itself. These factors were considered a source of dissatisfaction for employees at their job. Hertzberg understood that the factors causing satisfaction were different from those causing dissatisfaction, the two factors were not the opposites of each other. The basic premise of Herzberg’s theory was that if managers wanted to increase job satisfaction and job performance for an employee, they needed to address those factors that effect one’s job satisfaction (Schermerhorn, 2003).

**McClelland’s Need Theory**

McClelland’s Need Theory explored the idea that there were three main needs that a person would obtain over their lifetime as a result of the experiences in their careers or in their personal life. McClelland believed that in order to understand human behavior and how a person could be motivated, one must first understand their needs and tendencies. McClelland’s theory asserted that human behavior was affected by three different needs: 1) need for power; 2) need for achievement; and 3) need for affiliation. The need for achievement was the desire to do
better, to solve problems, and to master complex tasks. The need for affiliation was the desire for friendly and warm relations with others. People who were motivated by affiliation were frequently passive individuals that tried to avoid conflict generally because they wanted to be liked by others. The need for power was the desire to control and influence the behavior of others. McClelland believed that an individual’s motivation and effectiveness in certain job functions were influenced by those needs (Schermerhorn, 2003).

Selection of Self-Determination Theory

By far, the importance of motivation in the educational domain was really unquestionable. For decades, research in academic settings have stressed, motivation was a constant and important contributor to students’ functioning and performance (Good & Brophy, 2000). However, over the past two decades, research using the theoretical framework of SDT had shown that students vary in the ways that they could be motivated toward an activity. Most importantly, those differences in students’ motivational orientations have widespread influences on their approach to an activity (Deci & Ryan, 2000). This all-inclusive framework held the potential to contribute extensively to our understanding of the issues linked to motivation in education for four general reasons. First, SDT differentiated between the various types of motivation that could have a distinct impact on the maintenance and integration of behavior. Second, it presented very clear hypotheses regarding the conditions that thwarted or facilitated students’ motivation. Third, it delineated different consequences (cognitive, affective, and behavioral) that were connected with the different types of motivation (Vallerand, 1997). Fourth, it dealt with the issue of internalization, the process by which behaviors that were reinforced by external sources (e.g., teachers) became integrated within the individual to shape a lasting part of the individual (Boiche et al., 2008).
Out of many different motivational theories, SDT stood out as the most appropriate choice for conducting educational research. Prior research had already shown that self-determined behaviour involved a higher level of functioning than controlled behaviour, and in the context of teaching such intrinsically motivated behaviour benefits both the teacher and the student (Deci, Kasser, & Ryan, 1997). For this study, the researcher used the SDT for the theoretical framework because it appeared to be the best fit to determine the motivational orientations of register nurses who pursued advanced education. It was the only theory to explain behavior as being based on a choice of one thing or another, but a choice that could be explicitly plotted along the motivation continuum. It proposed a model of motivation that included people making choices between several options.

Application of Self-Determination Theory to Education

The SDT posited that inherent in humans was the proactive tendency to be curious about their surroundings and interested in learning and creating their own knowledge. Essentially, individuals were innately curious, interested beings who possessed a natural love of learning and who desired to internalize the knowledge, customs, and values that included them. These basic tendencies to be curious, interested, and to seek logic in one’s knowledge (Ryan, 1995) would be the necessary resources for educators to guide students’ learning and development. However, all too often teachers introduced external controls, close supervision and monitoring, and evaluations along with rewards or punishments into the learning environments to ensure that learning occurred. Basically, these practices reflected external pressures on educators (Ryan & Brown, 2005) and the beliefs of teachers that motivation was shaped through external contingencies of reinforcement rather than facilitation of students’ innate interests in learning. Under such controlling conditions, feelings of joy, enthusiasm, and interest that come with
learning were often replaced with feelings of anxiety, boredom, or isolation. Now, students were no longer interested in what was taught, and educators must externally control students to ‘make’ learning happen. The uses of these external controls in education, generally, undermined the sense of relatedness between educators and students, and suppressed the innate, volitional processes concerned with learning.

Because SDT was a macro-theory of human motivation, personality development, and well-being that it took interest in things that either facilitated or thwarted the assimilative and growth processes in individuals. Therefore, SDT was important in the educational domain, because students’ natural tendencies to learn represented one of the greatest resources teachers could tap to enhance learning processes. However, education was a domain in which external controls were frequently imposed, with the belief that such contingencies promoted optimal student learning (Niemiec & Ryan, 2009).

Furthermore, SDT maintained that, when students’ psychological needs for competence, autonomy, and relatedness were supported in the classroom setting, they were more likely to internalize their motivation to learn and to be more autonomously (intrinsically) engaged in their studies. Students’ autonomy can be promoted by offering students a voice and choice in their educational tasks in which they were engaged. It was important that feedback focused less on evaluation and more on students’ effectance (competence), thereby providing pertinent information on how to master the varied tasks (Niemiec & Ryan, 2009).

Students’ basic psychological needs for relatedness, competence, and autonomy, which when encouraged were linked to academic engagement and enhanced learning outcomes, but when discouraged were linked to academic disengagement and inferior outcomes. The way in which educators introduced learning activities effects students’ satisfaction of the fundamental
psychological needs for competence and autonomy, thus allowing intrinsic motivation to thrive and deeper learning to occur, or hinder those processes.

Shortage of Nurses

The shortage of nurse educators was not something new for the nursing profession. In 1996-1997, just 50% of all nurse educators teaching in baccalaureate and graduate educational programs were doctorally prepared. Later in 1999-2000, data from AACN (2000b) revealed that only 50.2% of nursing faculty had earned a doctorate degree. The nursing discipline had been short of doctorally prepared educators since the academic standard for all tenured track nurse educators to have a doctorate degree. Due to the graying or aging of current nursing faculty and nurses, the shortage might significantly increase which could limit the number of baccalaureate and master’s prepared nurses entering doctoral programs.

Because the shortage of nursing faculty had a dramatic impact on the nursing discipline and profession, it was essential to examine this issue along with the reasons that registered nurses pursued an advanced nursing degree. Clearly, a decrease in the number of doctorally prepared faculty would narrow the pipeline for the number of students who could be educated with at a critical point when a shortage of nursing was apparent in the discipline and profession. The scientific knowledge base of the nursing profession could be limited in its development, due to the escalation of the shortage (Hinshaw, 2001).

The nursing shortage existed both in the clinical practice setting along with nursing faculty. Both of the shortages have serious consequences that were immediate and long term. The shortage was expected for 2010 through the next ten years due to the increased demand for nurses along with a decrease in the supply of nurses. In a study conducted by Buerhaus et al. (2000) on the aging of registered nurses in the workforce, they predicted that the supply of full
time nurses would reach its peak in 2007 and then declined with a 20% plunge possibly by 2020. These predictions were the results of a retrospective study examining the employment trends and ages of registered nurses between 1973 and 1998. The drop in nursing students’ enrollments was directly affected by the growing shortage of nursing faculty. Therefore, the two shortages were intermingled (Hinshaw, 2001).

There were two main factors influencing both shortages. One factor was a steady, strong, increased demand for nurses in various clinical practice setting. Moreover, a focus on patient satisfaction and a greater emphasis on quality nursing care in health care organizations also increased the demand for nurses in order to achieve these goals. Thus, new career opportunities within the nursing discipline brought about a dramatic increase for more nurses (Hinshaw, 2001).

However, the supply of nurses was another important factor in the nursing shortage equation. The number of individuals seeking a career in nursing was getting lesser because of greater opportunities available for women in other areas. According to Buerhaus (1998), the supply issues related to nursing was merely due to an individual’s attraction to the profession. From an economic viewpoint, fewer individuals were choosing nursing as career because of low salaries, a past history of layoffs, job insecurity, long work hours, stressful working environments, and the high concern over quality care. These conditions influenced others not to consider nursing as a viable and valuable career choice. This situation created a problem because a lower number of young people were available in the labor force and those who were available have several career opportunities today (Hinshaw, 2001).

The other key factor in the nursing and faculty shortages was the aging of the registered nurses’ workforce. Buerhaus et al. (2000) proposed that the “graying” of the nursing workforce would have several severe consequences for the next several decades. They predicted that the
number of registered nurses to drop, the number of new graduates would have to increase significantly to replace those leaving the labor force, and older nurses currently in full time positions would possibly work fewer hours or shifts.

Shortage of Nurse Educators

In a study conducted by The National League for Nursing (NLN) and the Carnegie Foundation (2005-2006) of the nation’s nurse faculty shortage to determine the factors contributing to this problem. Their findings revealed that the two primary reasons for the ongoing shortage of nurse educators were 1) an aging faculty and 2) low salaries compared to nurses in clinical practice and others in different academic disciplines (NLN, 2006).

Additionally, the findings from the NLN/Carnegie investigation revealed that nurse faculty were 55 years old and more, in comparison to just 35% of educators in other academic disciplines being of similar age (NLN, 2010). According to the NLN (2006), nurses usually began their role as faculty later on in their professional career just over the age of 51 and the doctorally-prepared nurse faculty around 53 years old.

Many full-time faculty members indicated in the NLN/Carnegie study that they had both teaching and administrative duties which increased their 40 hours to a 56-hour on average work week. In addition, over 62% of these nurse educators revealed that they worked on another job for an additional 7-10 hours every week. In relations to faculty workload and job satisfactions, the findings showed that 45% of these educators were dissatisfied with their present workload. Most importantly, more than one in four respondents indicated that they would probably quit their faculty position as a result of their workload (NLN, 2010).

For compensation, the NLN (2006-2007) study showed that 34% of nursing schools with baccalaureate nursing programs were unable to offer competitive salaries for hiring new nurse
faculty. The NLN/Carnegie research found that nurse educators’ salaries were only 76% of the salary in relations to educators in other disciplines. Also, colleges and universities reported that the nurse faculty’s salary was less than that of nurses in clinical practice. In general, nurse educators who were master prepared earned 33% less than nurse anesthetists, 17% less than head nurses, and 12% less than clinical nurse specialists with like academic credentials (NLN, 2010).

According to AACN (2010), the national faculty vacancy rate jumped from 6.6% in 2009 to 6.9% in schools of nursing with baccalaureate and graduate educational programs. The shortage of nurse educators and resource constraints prevented nursing schools from increasing the supply of nurses at the bedside. The shortage of nurse faculty was driven by a shortage of doctorally-prepared faculty and low salaries. This raised the following question, why did registered nurses pursue advanced education?

Motivation Studies

Prior studies have focused on the motivational orientations of nurses who pursued continuing education, non-credit courses. Typically, research on motivational orientations have been aimed at identifying or determining factors in adult education settings, to identify which factors were influencing participation, and to a lesser degree examine related variables. Most studies on motivational orientations did not specifically target or explore formal education on the graduate level (Kersten et al., 1991).

Nursing Studies

The results of a study by Lethbridge (1989) showed that the motivational factors most relevant to nurses’ return to school for a baccalaureate degree in nursing were professional advancement, knowledge, and improvement in social welfare skills. Several of the demographic variables were correlated to the participants’ motivational orientations. Marital status was
significantly related to improvement in social relations as was the distance between home and school. Age was linked to compliance with authority, in addition, to the number of years of past nursing experience. Moreover, part-time versus full-time employment status was connected to improvement in social welfare skills and an aspiration to improve professional competence. Also, a staff versus a leadership job was related to the improvement in social welfare skills and the need to enhance professional competence.

A study undertaken by Iava (1994) revealed that nurses returned to college because of professional achievement that suggested that those nurses wanted to ensure professional advancement, to increase their knowledge in order to enhance their professional practice, and to attain a higher job status. Further examination of the demographic variables and the motivational orientations indicated that respondents between the ages of 31 to 35 years were more likely to pursue graduate education for self-improvement than were those nurses in the other age groups.

Allied Health Studies

Sobral (2004) conducted an investigation to examine the academic motivation of medical students in their undergraduate program. The majority of students self-reported themselves as having both intrinsic and extrinsic motivation. The findings indicated that extrinsic motivation-identification (or autonomous) was endorsed by the highest percentage of the total sample. The next highest amount of the total sample was for intrinsic motivation-to know. The intrinsic motivation-to achieve and intrinsic motivation-to experience stimulus were third and fourth, respectfully. There was a significant interaction observed among gender and the AMS subscales. The female participants showed higher scores on extrinsic motivation-identification and the males had higher scores on external regulation and amotivation.
According to a study with allied health professionals by Ballmann & Mueller (2008), students (upperclassmen and graduate level) revealed both intrinsically and extrinsically motivated factors for attending college. Identified (autonomous) extrinsic motivation and externally regulated (nonautonomous) extrinsic motivation were the most frequently cited motivational orientations portrayed by the students. The second highest number of students self-reported intrinsic motivation-to know as their motivational style. Third, the study participants indicated extrinsic regulation, the smallest amount of self-determined type of extrinsic motivation. In general, identified extrinsic motivation and externally regulated extrinsic motivation were the motivation they believed for their academic pursuits. Additionally, the majority of nurses self-reported themselves as having both extrinsic and intrinsic motivational styles.

Garst & Ried (1999) conducted an investigation of the motivating factors of pharmacists in nontraditional Doctor of Pharmacy (PharmD) and pharmacists in a continuing education conference. They found that competency-related curiosity was the most influential factor reported by both groups of pharmacists. However, the pharmacists in the continuing professional education seminar rated compliance with external influence and community service as second and third respectively. The nontraditional pharmacy students rated community service second and professional advancement as third.

According to a study by Richards & Potgieter (2010) with registered nurses, they found that the reasons nurses engaged in continuing formal education to improve the quality of nursing care to patients. Basically, nurses were prompted to engage in continuing formal education to develop the competency to meet their patients’ expectation, and attain advanced knowledge and skills. The strong motivators for pursuing continuing formal education indicated by the nurses
were 1) financial, 2) promotional, 3) support from management in the work environment, 4) peer support, and 5) good professional role models. Also, the results revealed that the beneficial aspects of continuing formal education as 1) the financial and promotional prospects, 2) increased knowledge base, and 3) the development of leadership skills.

Summary

Although, there were several theories on motivation to review for selection in this study, the SDT was the most appropriate. SDT was the only theory to describe behavior as being based on a choice of one thing or another. In addition, it was a choice that could be plotted along the motivation continuum. Also, a gap was identified in research on motivation and higher education for registered nurses. Previous studies focused generally on the reasons that nurses pursued continuing education rather than formal education. The next chapter described the research design and the statistical techniques used to answer the four research questions. An overview of the research design along with data collection procedures, a description of the sample population, the setting, procedure, and instrument was provided. The next chapter incorporated the instrument, revisions to the instrument, internal consistency, content validity, internal consistency, and the demographic data sheet. Then, the ethical considerations for the study, informed consent, the methods utilized to assure protection of human subjects were included in this chapter.
CHAPTER III:

RESEARCH METHODOLOGY

Purpose of Study

The purpose of this study was to: 1) identify if there were differences in the motivational orientations of registered nurses who pursued a master’s versus a doctoral degree; and 2) determine if there was a relationship between motivational orientations and psychological needs.

The study was based on the following questions:

1. Are there differences between the motivational orientations of registered nurses who seek a master’s versus those who seek a doctorate;

2. Are there differences in demographic characteristics of those nurses pursuing a master’s degree versus a doctoral degree;

3. Are there differences in the three psychological needs between those pursuing a master’s versus a doctoral degree; and

4. Is there a relationship between motivational orientations and psychological needs?

The independent variables examined in the first research question were the two groups of graduate-level-college students: 1) the nurses pursuing a master’s degree; and 2) the nurses pursuing a doctoral degree. The dependent variables were the seven subscales of the AMS: 1) intrinsic motivation-to know; 2) intrinsic motivation-toward accomplishment; 3) intrinsic motivation-to experience stimulation; 4) extrinsic motivation-identified; 5) extrinsic motivation-introjected; 6) extrinsic motivation-external regulation; and 7) amotivation. For the second research question, the independent variables were the two groups of nurses and the dependent
variables were age, income, and years of experience. In the third question, the independent variables were the two groups of nurses and the dependent variables were autonomy, competence, and relatedness. The independent variables studied in the fourth question were the seven subscales of motivation and the dependent variables were autonomy, competence, and relatedness. In addition, the study examined the impact and strength that the seven subscales of motivation had on autonomy, competence, and relatedness.

Research Design

To determine if there were differences in the motivational orientations of nurses who pursued a master’s versus a doctoral degree, a quantitative descriptive study was used to study the differences between the two groups. To analyze the data collected on motivation from the survey, multivariate analysis of variance (MANOVA) was employed to differentiate the motivational differences between the two groups. To assess if there were differences in age, income, and years of nursing experience as a registered nurse, chi-square was used to distinguish the demographic factors between the two groups. To determine if there were differences in autonomy, competence, and relatedness, MANOVA was employed to differentiate the psychological needs between the two groups of nurses. A regression model was utilized to identify if there was a relationship between the motivational orientations and psychological needs. The independent variables were the seven subscales of motivation (intrinsic motivation-to know, intrinsic motivation-toward accomplishment, intrinsic motivation-to experience stimulation, extrinsic motivation-identified, extrinsic motivation-introjected, extrinsic motivation-external regulation, and amotivation). A descriptive survey design was the most appropriate design to answer the four research questions. This design enabled the researcher to collect data by administering an online questionnaire (Polit & Beck, 2008).
Advantages of Online Survey Research

Internet-based survey research offered several benefits to administer questionnaires to a large sample population. The main benefits of web-based surveys were: 1) convenience, 2) low or no administration cost, 3) flexibility in survey design, 4) the ability to collect data from a large sample population, and 5) ease of administration (Couper, Kapteyn, Schonlau, & Winter, 2007; Van Selm & Jankowski, 2006). Other benefits were: 1) decrease in response time, and 2) surveys that were distributed and returned through the Internet were not delayed by the postal mail process (Granello & Wheaton, 2004). According to Van Selm & Jankowski (2006) online surveys could potentially be more advantageous than face-to-face recruitment of prospects who might feel safer disclosing their feelings in private by using the Internet. In this age of technology and the benefits of a web-based survey, the researcher chose to administer the survey online instead of using the postal system.

Sample

A convenience sample of nurses enrolled in either a masters or doctoral education program in the southeastern portion of the United States from various universities were invited to participate in the study. For analytical purposes, the participants were divided into two groups: 1) those nurses seeking a master’s degree; and 2) those nurses pursuing a doctoral degree. The researcher used the e-mail addresses of 1,007 registered nurses to contact them about the study and solicit their approval to be in the study. The calculated sample size for this investigation was 385. In order to compute the sample size required for this study, a sample size calculator was used by setting the margin of error at 5% with a 50% response distribution, a confidence level set at 95%, and an estimated population size roughly 2.6 million nurses. The selection criteria used
in this study was registered nurses who were currently enrolled in an advanced education program.

Setting

The convenience sample was representative of collegiate institutions classified according to The Carnegie Classification of Institutions of Higher Education. These classifications are Doctoral/Research Universities-Intensive; Doctoral/Research Universities-Extensive; Master’s Colleges and Universities I; Master’s Colleges and Universities II; Baccalaureate Colleges-Liberal Arts; Baccalaureate Colleges-General; and those institutions associated with a Medical School (Carnegie Foundation, 2002). The institutions included in this study received the following Carnegie Foundation classifications: Master’s Colleges and Universities I.

Procedure

Because 385 completed surveys were needed for this study, the targeted sample size, 1007, was to assure that a sufficient number of completed surveys would be available for analysis. The researcher obtained from the College of Continuing Studies at the University of Alabama a list of e-mail addresses of registered nurses from the southeastern region of the United States who were interested in their school of nursing’s graduate nursing programs and requested information on these programs. The College of Continuing Studies provided the researcher with those e-mail addresses. Permission to conduct the study was obtained from the Institutional Review Board at the University of Alabama (see Appendix A). Once approval was obtained for the study, a group e-mail was sent by Qualtrics with the link to the survey to potential prospects. Qualtrics was a survey software tool for designing, distributing, and analyzing surveys. They were instructed in the e-mail that the study was only for registered nurses who were currently enrolled in a graduate education program. Also, they were informed
that the survey would only take about 15 minutes to complete, depending on the time spent answering each question. Prospects were given one month to complete the survey in the setting of their choice. In addition, prospects were given the opportunity to review the informed consent online and to print a copy for their records. If prospects did not consent to be in the study, they did not take the survey. Without their consent, they were considered ineligible to participate in the study. However, if they did consent to participate in the study, they completed the survey. In order to improve the survey’s response rate, the researcher sent weekly reminders through Qualtrics to those who had not completed the survey (Ritter & Sue, 2007). In regards to data safety and monitoring, the investigator stored all data after collection, during analysis, and afterwards in a secure location.

Instrument

The survey instrument, Academic Motivation Scale (AMS), was developed as a measurement of motivation toward education. Initially, the scale was developed in French and named the Echelle de Motivation en Education (EME). It was based on the principles of self-determination theory. The EME, a self-reported instrument that included 28 items divided into seven subscales of four items each assessing the three types of intrinsic motivation, three types of extrinsic motivation, and amotivation. The seven subscales were: 1) intrinsic motivation-to know; 2) intrinsic motivation-toward accomplishment; 3) intrinsic motivation-to experience stimulation; 4) external motivation-identified; 5) external motivation-introjected; 6) external motivation-external regulation; and 7) amotivation (see Appendix B). An English version of the EME was developed and called the AMS (Vallerand et al., 1992). There was one major change to the scales of motivational orientations as represented by the AMS and the first authors of SDT. The AMS did not assess for integrated regulation. However, on the scale, identified
regulation was the most self-determined type of extrinsic motivation, instead of integrated (Ballmann & Mueller, 2008).

The AMS utilized a seven-point Likert scale that ranges from 1 (does not correspond at all) to 7 (corresponds exactly) to answer each item. The items on the AMS were employed to address the proposed factors that might motivate nurses to seek an advanced education. The items on the scale were asked in regard to the question, “Why do you go to college?” and the items represented possible answers to that question, thus representing the various types of motivation (see Appendix C). The questions did not attempt to determine the reason why students selected a particular type of program (Vallerand et al., 1992).

**Internal Consistency**

The AMS had an internal consistency of .81 and a means test-retest correlation of .79. Additionally, a confirmatory factor analysis (LISREL) was performed to confirm the seven-factor structure of the AMS. Lastly, the variations in gender were attained using this instrument. Overall, these results provided ample support for the factorial validity and reliability of the AMS. It was also used in scholarly research on motivation (Vallerand et al., 1992).

**Instrument Revisions**

Although the AMS was designed for college students pursuing general educational studies, the researcher revised the instrument tool to make it more applicable specifically for graduate nursing students. Essential to the SDT was the concept of basic psychological needs that were innate and common in humans. According to Deci and Ryan (1991), these needs must be continuously satisfied for individuals to maintain optimal performance and well-being. Therefore, six additional items were used to assess for the three psychological needs of the participants: 1) autonomy, 2) competence, and 3) relatedness. For each of the needs, two
additional items were added to the instrument. The first section of the survey contained a total of 34 items with the new addition of the six items. The second part of the questionnaire consisted of twelve demographic questions to provide information on the participants’ background that might help educators understand why they pursued advanced education.

Demographic data was obtained by asking participants to give the following information: gender, age, race, marital status, type of education, current employment status, current job type, annual income, job plans after graduation, number of children, ages of children, and years of experience as a registered nurse (see Appendix D).

The following questions were re-phrased to be applicable to graduate students: 1) in question number one, the word “school” was exchanged for “bachelor”; 2) for question number three the word “college” was substituted with the words “an advanced”; 3) question five, the word “school” was replaced by the words “graduate school”; 4) for question number seven, the words “an advanced” took the place of “my”; and 5) instead of the word “college” for questions 12, 14, 19, and 27, the words “graduate school” was used. Overall, the revisions to the AMS were minor and simple.

Content Validity

Content validity referred to the degree to which an instrument had an appropriate sample of items for the construct being measured and effectively covered the construct domain. An instrument’s content validity was mainly based on judgment. In this study, content validity was assessed by using a panel of three doctorally-prepared educators was solicited to evaluate the additional items as well as the AMS. The panel of educators was asked to determine whether individual items were relevant and appropriate in terms of the construct, and whether the items satisfactorily or adequately measured all dimensions of the construct (Polit & Beck, 2008).
experts established an overall content validity index rating of .83 for the instrument and the additional items. Due to a low rating by the experts on one of the two items added to the AMS for competence, the researcher decided to drop that item from the survey. The item dropped was people I know tell me I am good at what I do. Therefore, only five items related to psychological needs was added to the AMS instead of six. Those five items included two additional items on autonomy, relatedness, and one for competence. The two items added for autonomy were: 1) I feel like I am free to decide for myself how to live my life; and 2) people I interact with on a daily basis tend to take my feelings into consideration. The two items included for relatedness were: 1) I really like the people I interact with; and 2) I get along with people I come into contact with. Only one additional item was used to assess for competence, most days I feel a sense of accomplishment from what I do. The five items integrated into the AMS were obtained from the Basic Psychological Needs Scale (see Appendix E). The final survey had only 33 items on the AMS and 12 items on the demographic data sheet.

Data Collection

An invitation was sent by e-mail to prospects to solicit their participation in the study. Data was collected using the AMS along with a demographic data sheet. The e-mail addresses of the registered nurses were uploaded directly from an excel program spreadsheet into Qualtrics. Data was collected over a four week period in April-May of 2011 using Qualtrics software to compile the information. The data collected by Qualtrics was exported directly to Statistical Package for the Social Sciences (SPSS) for Windows version 18 for analysis.

Data Analysis

Data was analyzed using SPSS computer software version 18.0 for Windows. Descriptive and inferential statistics were calculated for the entire sample. MANOVA was used
to answer the first research question, Are there differences between the motivational orientations (intrinsic motivation-to know, intrinsic motivation-toward accomplishment, intrinsic motivation-to experience stimulation, extrinsic motivation-identified, extrinsic motivation-introjected, extrinsic motivation-external regulation, and amotivation) of registered nurses who seek a masters and doctoral education? MANOVA was also used to answer the third research question, Are there differences in the three psychological needs between those nurses pursuing a master’s versus a doctoral degree? It allowed the researcher to calculate the differences between the two groups of students and the seven subscales of motivation simultaneously. It was comparable to all other design forms of analysis of variance (ANOVA) with the exception that two or more dependent variables could be measured all on one occasion. The investigator could get a better picture of the compound effects of the independent variables on behavior because it allowed for the measurement of more than one dependent variable. MANOVA was employed to eliminate the possibility of committing a Type I error which was common with multiple t-tests (Coolidge, 2006).

Chi-square was used to answer the second research question, Are there differences in demographic characteristics (age, income, and years of registered nursing experience) of nurses who pursue a masters versus a doctoral education? It was used to determine the significance of each demographic characteristic between the two groups of nurses. Basically, chi-square was employed to determine whether distributions of categorical variables differ from one another. It was used to examine differences with nominal (categorical) data in this study (Polit & Beck, 2008). For this question, chi-square was the best fit to answer the question.

Lastly, regression analysis was used to answer the fourth question, Is there a relationship between motivational orientations and psychological needs? Regression analysis was employed
to determine if there was a relationship between motivational orientations and psychological needs. Basically, regression analysis was also used to measure the strength of a relationship between multiple independent variables and a single dependent variable. The researcher wanted to verify the strength and impact of the independent variables in relationship to the dependent variables. Regression analysis was the most appropriate statistical procedure to answer this research question (Coolidge, 2006; Randolph, 2005).

Ethical Considerations

The researcher was responsible for protecting the confidentiality of all data. The principal investigator was the only one with access to the participants’ data. To protect the participants’ confidentiality, no information that could possibly be connected to a student’s responses was collected. The investigator acknowledged the rights of the registered nurses not to participate in the research, and no participant was coerced into completing the questionnaire. Also, the investigator was responsible for ensuring that the identification of participants in this study was safely protected. For this study, the investigator requested a waiver of written documentation of informed consent. Anonymity was ensured by not requiring participants to sign their names on the informed consent form. Therefore, the researcher was not able to distinguish or differentiate the respondents to the information they provided on the survey. Informed consent was implied by participants agreeing to answer the questions on the survey (Coughlan, Cronin, & Ryan, 2009). At no time were participants’ names be associated with their responses to the questionnaire. Confidentiality was maintained by not reporting the research in a manner that could identify the respondents or the educational institution involved. The results were presented only in aggregate form. Results of the study were used for scholarly purposes only (Polit & Beck, 2008). The investigator’s name and the reasons for undertaking the research
were made known to the prospects. The protection of human subjects was accomplished by adhering strictly to the American Psychological Association Ethical Guidelines for research with human subject and prior approval from the University’s Institutional Review Board for the Protection of Human Subjects (APA, 1992).

Informed Consent

Nurses’ consent to participate in the study was implied upon completion of the online survey. For the research, the principal investigator requested a waiver of written documentation of informed consent (see Appendix F). The investigator presented the informed consent online for prospects to view and to print it out for their records. Because the only record linking the subject and the research was the consent document, the principal risk was potential harm resulting from a breach of confidentiality. If prospects for the study were asked to provide written documentation of informed consent, the principal investigator would be in breach of confidentiality.

Summary

The methodology for this study was based on a quantitative design created through a survey. This study was undertaken to determine the factors that motivate nurses to engage in an advanced education program and to describe the demographic characteristics of these nurses. A sample population of convenience was utilized for this study. A panel of three experts was employed to establish content validity for the instrument to be used in this study. The data was collected by Qualtrics and exported to SPSS version 18 for analysis.
CHAPTER IV:

RESULTS

This chapter provided the findings of the data collected along with a description of the sample and a student profile. Results of the multivariate analysis of variance and chi-square analysis were presented to identify the differences between the two groups of nurses. A regression analysis model was utilized to illustrate the relationship between the seven subscales of motivation and the three psychological needs. The minimum conventional level of significance used in this study was $p=0.05$. To specifically address the questions in this study, the results were presented in response to each research question.

Demographic Characteristics

A total of 1,007 RNs from the southeastern region of the United States were invited to participate in the study. The final sample included 93 participants who completed the survey for a response rate of 9%. There were nine others who started the survey but they did not complete the survey, therefore, they were not used for data analysis. Of the study participants, 82 (88%) were females and 11 (12%) were males. The majority of participants were Caucasian ($n=67, 73\%$), followed by African Americans ($n=20, 22\%$), Hispanic ($n=2, 2\%$), Native American ($n=1, 1\%$), and others ($n=2, 2\%$). Approximately 70\% of the respondents were married ($n=64$), 13\% ($n=12$) single, 13\% ($n=12$) divorced, and 3\% ($n=3$) widowed. Most of the respondents were aged 45-54 ($n=41, 44\%$), followed by age group, 35-44, ($n=25, 27\%$), age group 55-65, ($n=15, 16\%$), and age group 24-34, ($n=12, 13\%$). Of the 93 registered nurses who participated in the study, 52 (57\%) had one or no children in their household, 24 (26\%), one or two children, 13
(14%) three or four children, and 2 (2%) five or more children. About 33 (35%) of the nurses had 11-20 years of nursing experience, 29 (31%) 21-30 years, 19 (20%) 1-10 years, 10 (11%) 10 years, and 1 (1%) 41-50 years. Twenty-three (25%) of the participants self-reported a total household income before taxes of $50,000-75,000, 22 (24%) $126,000-150,000, 16 (18%) $101,000-125,000, 14 (15%) $76,000-100,000, 11 (12%) greater than $150,000, 3 (4%) less than $50,000, and 1 (2%) declined to answer. Sixty-three (68%) of the respondents were pursuing a doctoral degree and 29 (32%) a masters degree. Roughly, (n=26, 29%) of the nurses indicated that their current place of employment was 1) home health agencies, 2) insurance companies, 3) rehabilitation centers, and 4) public school systems. Approximately 14 (16%) of the participants were employed at a four-year-college or university. Most of the respondents self-reported their place of employment as 1) hospitals, 2) insurance companies, 3) universities, 4) federal government, and 5) doctor’s office. About 32 (34%) planned to work at a four-year-college or university after graduation and 20 (22%) self-reported that they intended to stay with their current employer.

Student Profile

A majority (88%) of the survey respondents self-reported that was females and 73% of the sample was Caucasian. Forty-four percent of the respondents self-reported that their age ranged from 45 to 54. Over one-third, 35% of the respondents had 11-20 years of nursing experience as a registered nurse. Roughly, 70% of the nurses self-reported that they were married and only 13% were single. Most of the respondents, 84%, indicated that they were employed full-time. The total family income for 25% of the sample was between $50,000-$75,000 followed by a close percentage, 24%, between $126,000 and $150,000. Approximately one-third of the nurses self-reported that they planned to work after graduation at a four-year-
college or university. In addition, 57% of the respondents self-reported that they had one or no children.

Reliability

In this study, the AMS was comprised of seven subscales of motivation, each with four items, and a psychological needs scale with five items. The Cronbach alpha coefficient for each scale in the AMS was presented in Table 1.

Table 1
Cronbach Alpha Reliability Coefficients for AMS

<table>
<thead>
<tr>
<th>Motivation</th>
<th>N</th>
<th>Cronbach Alpha</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>IM-to know</td>
<td>96</td>
<td>.748</td>
<td>4</td>
</tr>
<tr>
<td>IM-toward accomplishment</td>
<td>96</td>
<td>.883</td>
<td>4</td>
</tr>
<tr>
<td>IM-to experience stimulation</td>
<td>96</td>
<td>.876</td>
<td>4</td>
</tr>
<tr>
<td>EM-identified</td>
<td>96</td>
<td>.665</td>
<td>4</td>
</tr>
<tr>
<td>EM-introjected</td>
<td>96</td>
<td>.817</td>
<td>4</td>
</tr>
<tr>
<td>EM-external regulation</td>
<td>96</td>
<td>.799</td>
<td>4</td>
</tr>
<tr>
<td>Amotivation</td>
<td>96</td>
<td>.807</td>
<td>4</td>
</tr>
<tr>
<td>Psychological needs</td>
<td>96</td>
<td>.772</td>
<td>5</td>
</tr>
</tbody>
</table>

Research Questions

Research Question One:

Are there differences between the motivational orientations of registered nurses who seek a master’s versus those who seek a doctorate?

To assess if registered nurses seeking a master’s versus a doctorate reported significant differences in their motivational orientations. MANOVA was used to determine if there were significant differences in the motivational orientations of registered nurses pursuing a master’s degree or doctoral degree. Results indicated that there were no significant differences between
those seeking a master’s versus those seeking a doctorate with regard to their motivational orientations. Table 2 presented the results of MANOVA on the total sample.

Table 2

MANOVA of the Seven Subscales of Motivation

<table>
<thead>
<tr>
<th>Source Dependent Variable</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Significance</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>IM-to know</td>
<td>.936</td>
<td>1</td>
<td>.936</td>
<td>.048</td>
<td>.827</td>
<td>.001</td>
</tr>
<tr>
<td>IM-accomplishment</td>
<td>1.012</td>
<td>1</td>
<td>1.012</td>
<td>.026</td>
<td>.872</td>
<td>.000</td>
</tr>
<tr>
<td>IM-experience stimulation</td>
<td>29.408</td>
<td>1</td>
<td>29.408</td>
<td>.658</td>
<td>.419</td>
<td>.007</td>
</tr>
<tr>
<td>EM-identified</td>
<td>1.869</td>
<td>1</td>
<td>1.869</td>
<td>.096</td>
<td>.758</td>
<td>.001</td>
</tr>
<tr>
<td>EM-introjected</td>
<td>.627</td>
<td>1</td>
<td>.627</td>
<td>.015</td>
<td>.904</td>
<td>.000</td>
</tr>
<tr>
<td>EM-external regulation</td>
<td>3.717</td>
<td>1</td>
<td>3.717</td>
<td>.094</td>
<td>.760</td>
<td>.001</td>
</tr>
<tr>
<td>Amotivation</td>
<td>1.810</td>
<td>1</td>
<td>1.810</td>
<td>.118</td>
<td>.732</td>
<td>.001</td>
</tr>
</tbody>
</table>

The mean scores from the AMS-C were calculated for the seven subscales of motivation. These seven subscales explained motivation on a continuum ranging from three types of intrinsic motivation, three types of extrinsic motivation, and amotivation. Nurses ranked items according to how closely the items represented their beliefs (reasons) and actions for pursuing a graduate degree. Group mean scores were calculated the master’s group, doctoral group, and the total sample. Of the seven different types of motivation measured by the AMS, the highest mean score, (23.16), of the total sample was for intrinsic motivation-to know. This was followed by extrinsic motivation-identified (mean, 21.72), intrinsic motivation-toward accomplishment (mean, 20.91), extrinsic motivation-introjected (mean, 17.60), extrinsic motivation-external regulation (mean, 16.81), and intrinsic motivation-experience stimulation (mean, 16.39). Lastly, amotivation had a mean score of 5.83 for the total sample. The highest mean score self-reported
by the sample was intrinsic motivation-to know, a self-determined motivational style. The next highest mean identified by the sample was extrinsic motivation-identified, a self-determined motivational style too. Table 3 illustrated the sample’s motivational style, degree, mean, standard deviation, and number of the sample.

Table 3
Motivation, Degree, Mean, Standard Deviation, and Number

<table>
<thead>
<tr>
<th>Motivation</th>
<th>Degree</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>IM-to know</td>
<td>Doctoral</td>
<td>23.0938</td>
<td>4.43549</td>
<td>64</td>
</tr>
<tr>
<td></td>
<td>Master</td>
<td>23.3103</td>
<td>4.36793</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>23.1613</td>
<td>4.39192</td>
<td>93</td>
</tr>
<tr>
<td>IM-accomplishment</td>
<td>Doctoral</td>
<td>20.8438</td>
<td>6.05325</td>
<td>64</td>
</tr>
<tr>
<td></td>
<td>Master</td>
<td>21.0690</td>
<td>6.64364</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>20.9140</td>
<td>6.20774</td>
<td>93</td>
</tr>
<tr>
<td>IM-experience stimulation</td>
<td>Doctoral</td>
<td>16.7656</td>
<td>6.87933</td>
<td>64</td>
</tr>
<tr>
<td></td>
<td>Master</td>
<td>15.5517</td>
<td>6.22544</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>16.3871</td>
<td>6.67251</td>
<td>93</td>
</tr>
<tr>
<td>EM-identified</td>
<td>Doctoral</td>
<td>21.6250</td>
<td>4.07275</td>
<td>64</td>
</tr>
<tr>
<td></td>
<td>Master</td>
<td>21.9310</td>
<td>5.11253</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>21.7204</td>
<td>4.39705</td>
<td>93</td>
</tr>
<tr>
<td>EM-introjected</td>
<td>Doctoral</td>
<td>17.5469</td>
<td>6.34192</td>
<td>64</td>
</tr>
<tr>
<td></td>
<td>Master</td>
<td>17.7241</td>
<td>7.05538</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>17.6022</td>
<td>6.53442</td>
<td>93</td>
</tr>
<tr>
<td>EM-external regulation</td>
<td>Doctoral</td>
<td>16.6719</td>
<td>6.03707</td>
<td>64</td>
</tr>
<tr>
<td></td>
<td>Master</td>
<td>17.1034</td>
<td>6.86786</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>16.8065</td>
<td>6.27323</td>
<td>93</td>
</tr>
<tr>
<td>Amotivation</td>
<td>Doctoral</td>
<td>5.9219</td>
<td>4.10306</td>
<td>64</td>
</tr>
<tr>
<td></td>
<td>Master</td>
<td>5.6207</td>
<td>3.48890</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>5.8280</td>
<td>3.90547</td>
<td>93</td>
</tr>
</tbody>
</table>
Research Question Two

Are there differences in the demographic characteristics of those nurses pursuing a master’s degree versus a doctoral degree?

To assess if there were differences in the demographic characteristics between the two groups of registered nurses, a chi-square analysis was computed separately for age, income, and years of nursing experience. The results revealed that there were no significant differences in age, income, and years of experience between the two categories of nurses. The differences in age self-reported by the two groups of nurses were not statistically significant, \( p = .76 \) (see Table 4). Also, the differences in income self-reported by those nurses seeking a masters versus a doctorate were not considered significant, \( p = .91 \) (see Table 5). For years of experience, the differences self-reported were not significant, \( p = .70 \), (see Table 6).

Table 4

Chi-Square Test on Age (n=93)

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>1.176</td>
<td>3</td>
<td>.759</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>1.243</td>
<td>3</td>
<td>.743</td>
</tr>
<tr>
<td>Linear-by-Linear Assoc</td>
<td>.704</td>
<td>1</td>
<td>.401</td>
</tr>
</tbody>
</table>
Table 5

Chi-Square Test on Income (n=91)

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>.981</td>
<td>4</td>
<td>.913</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>.967</td>
<td>4</td>
<td>.915</td>
</tr>
<tr>
<td>Linear-by-Linear Assoc</td>
<td>.195</td>
<td>1</td>
<td>.658</td>
</tr>
</tbody>
</table>

Table 6

Chi-Square Test on Years of Nursing Experience (n=93)

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>2.982</td>
<td>5</td>
<td>.703</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>3.636</td>
<td>5</td>
<td>.603</td>
</tr>
<tr>
<td>Linear-by-Linear Assoc</td>
<td>1.079</td>
<td>1</td>
<td>.299</td>
</tr>
</tbody>
</table>

Research Question Three

Are there differences in the three psychological needs between those nurses pursuing a master’s versus a doctoral degree?

MANOVA was used to assess if there were differences in the three psychological needs of nurses pursuing a master’s versus a doctoral degree. In Table 7, results of MANOVA test on the three psychological needs were provided. Results revealed that there were no statistically significant differences in the psychological needs among the two categories of nurses. In Table 8, results represented the need, degree, mean scores, standard deviation, and number of the sample. The 29 nurses seeking a master’s degree self-reported a mean score of 9.97 and a standard deviation of 2.98 for relatedness. The 64 nurses pursuing a doctoral degree self-
reported a mean score of 9.63 with a standard deviation of 3.00 for relatedness. For both groups of nurses, a combined mean score of 9.73 along with a standard deviation of 2.98 was reported. This difference was not considered statistically significant, p=.61 (see Table 8). For autonomy, the nurses in a master’s program self-reported a mean score of 8.72 with a standard deviation of 3.23. The nurses in a doctoral program self-reported a mean score of 9.33 along with a standard deviation of 2.77. The two categories of nurses self-reported a combined mean score of 9.14 and a standard deviation of 2.92. The differences between the two groups of nurses were not significant, p=.36 (see Table 8). The competence factor was self-reported by the nurses’ seeking a master a mean score of 5.86 and a standard deviation of 1.19. The doctoral students self-reported a mean score of 5.83 along with a standard deviation of 1.09 for competence. The two groups of nurses self-reported a combined mean score of mean score of 5.84 with a standard deviation of 1.12 for competence. This difference between the nurses was not significant, p=.89 (see Table 8).

Table 7

MANOVA of Psychological Needs

<table>
<thead>
<tr>
<th>Source Dependent Variable</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Significance</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autonomy</td>
<td>7.280</td>
<td>1</td>
<td>7.280</td>
<td>.854</td>
<td>.358</td>
<td>.009</td>
</tr>
<tr>
<td>Relatedness</td>
<td>2.314</td>
<td>1</td>
<td>2.314</td>
<td>.258</td>
<td>.613</td>
<td>.003</td>
</tr>
<tr>
<td>Competence</td>
<td>.023</td>
<td>1</td>
<td>.023</td>
<td>.018</td>
<td>.893</td>
<td>.000</td>
</tr>
</tbody>
</table>
Table 8

Need, Degree, Mean, Standard Deviation and Number

<table>
<thead>
<tr>
<th>Need</th>
<th>Degree</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autonomy</td>
<td>Doctoral</td>
<td>9.3281</td>
<td>2.77205</td>
<td>64</td>
</tr>
<tr>
<td></td>
<td>Master</td>
<td>8.7241</td>
<td>3.22819</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>9.1398</td>
<td>2.91768</td>
<td>93</td>
</tr>
<tr>
<td>Relatedness</td>
<td>Doctoral</td>
<td>9.6250</td>
<td>3.00000</td>
<td>64</td>
</tr>
<tr>
<td></td>
<td>Master</td>
<td>9.9655</td>
<td>2.98188</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>9.7312</td>
<td>2.98234</td>
<td>93</td>
</tr>
<tr>
<td>Competence</td>
<td>Doctoral</td>
<td>5.8281</td>
<td>1.09188</td>
<td>64</td>
</tr>
<tr>
<td></td>
<td>Master</td>
<td>5.8621</td>
<td>1.18696</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>5.8387</td>
<td>1.11599</td>
<td>93</td>
</tr>
</tbody>
</table>

Research Question Four:

Is there a relationship between motivational orientations and psychological needs?

Regression analyses were performed to determine if motivational styles predicted psychological needs. These analyses enabled the researcher to determine if a relationship existed between the independent variables and the dependent variables. Regression analyses were computed with the seven subscales of motivation as the independent variables and using the three psychological needs as the dependent variables separately. Results in Table 9 revealed that there was a significant correlation ($p=.009$ and $p=.005$, respectively) between extrinsic motivation-introjected, intrinsic motivation-experience stimulation, and autonomy. In other words, extrinsic motivation-introjected and intrinsic motivation-experience stimulation was related to autonomy. Statistical correlation was measured by the coefficient of correlation ($r$). Results of $r$, $r$ square, adjusted $r$ square and the standard error of the estimate for autonomy were reported in Table 9.1. The standard error of the estimate was 2.19. The adjusted $r$ squared, 46%, explained the variance. In table 9.1, $r = 0.709$ or $r > 0$, indicated a positive relationship.
positive correlation coefficient indicated that as the value of one variable increases, the value of the other variable increases. Thus, they covary together. In Table 9.2, the F value was 12.736 and significance of .000 (p = .000) for autonomy.

Table 9

Regression Analysis on Autonomy

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>(Constant)</td>
<td>-.384</td>
<td>1.628</td>
</tr>
<tr>
<td>Amotivation</td>
<td>.013</td>
<td>.064</td>
</tr>
<tr>
<td>EM-external regulation</td>
<td>.025</td>
<td>.053</td>
</tr>
<tr>
<td>EM-introjected</td>
<td>.141</td>
<td>.052</td>
</tr>
<tr>
<td>EM-identified</td>
<td>.105</td>
<td>.070</td>
</tr>
<tr>
<td>IM-experience stimulation</td>
<td>.148</td>
<td>.051</td>
</tr>
<tr>
<td>IM-toward accomplishment</td>
<td>-.027</td>
<td>.083</td>
</tr>
<tr>
<td>IM-to know</td>
<td>.103</td>
<td>.085</td>
</tr>
</tbody>
</table>

Table 9.1

Adjusted R Square for Autonomy

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.709</td>
<td>.503</td>
<td>.464</td>
<td>2.19255</td>
</tr>
</tbody>
</table>
Table 9.2

F Value and Significance for Autonomy

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>428.585</td>
<td>7</td>
<td>61.226</td>
<td>12.736</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>423.040</td>
<td>88</td>
<td>4.807</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>851.625</td>
<td>95</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Results in Table 10 showed that there was a significant correlation, (p=.017), between intrinsic motivation-to know and competence. Table 10.1 presented the results of r, r square, adjusted r square, and standard error of the estimate for competence. The standard of error of the estimate was 1.06. The adjusted r square, 23%, explained the variance. The r value of 0.537 or r > 0 indicated a positive relationship. The variables were related in the sense that changes in one would be accompanied by changes in the other variable. Essentially, they covary together. In table 10.2, the F value was 5.105 and significance of .000 (p = .000) for competence.
Table 10

Regression Analysis on Competence

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>(Constant)</td>
<td>2.728</td>
<td>.784</td>
</tr>
<tr>
<td>Amotivation</td>
<td>-.041</td>
<td>.031</td>
</tr>
<tr>
<td>EM-external regulation</td>
<td>.013</td>
<td>.026</td>
</tr>
<tr>
<td>EM-introjected</td>
<td>.012</td>
<td>.025</td>
</tr>
<tr>
<td>EM-identified</td>
<td>.042</td>
<td>.034</td>
</tr>
<tr>
<td>IM-experience stimulation</td>
<td>.026</td>
<td>.024</td>
</tr>
<tr>
<td>IM-toward accomplishment</td>
<td>-.035</td>
<td>.040</td>
</tr>
<tr>
<td>IM-to know</td>
<td>.099</td>
<td>.041</td>
</tr>
</tbody>
</table>

Table 10.1

Adjusted R Square for Competence

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.537</td>
<td>.289</td>
<td>.232</td>
<td>1.05542</td>
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</table>

Table 10.2

F Value and Significance for Competence

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>39.809</td>
<td>7</td>
<td>5.687</td>
<td>5.105</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>98.025</td>
<td>88</td>
<td>1.114</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>137.833</td>
<td>95</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Results in Table 11 indicated that there was a significant correlation (p=.006 and p=.000, respectively) between extrinsic motivation-introjected, intrinsic motivation-experience stimulation, and relatedness. Results in Table 11.1 presented the values of r, r square, adjusted r square, and standard of error of the estimate. The standard of the estimate was 2.13. The adjusted r square, 52%, explained the variance. The r value of 0.744 or r > 0 indicated a positive relationship. The variables were related in the sense that changes in one variable would be accompanied by change in the other variable. Therefore, they covary together. Table 11.2 presented an F value of 15.105 and significance of .000 (p = .000).

Table 11

Regression Analysis on Relatedness

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>(Constant)</td>
<td>.909</td>
<td>1.579</td>
</tr>
<tr>
<td>Amotivation</td>
<td>-.065</td>
<td>.062</td>
</tr>
<tr>
<td>EM-external regulation</td>
<td>.019</td>
<td>.052</td>
</tr>
<tr>
<td>EM-introjected</td>
<td>.143</td>
<td>.051</td>
</tr>
<tr>
<td>EM-identified</td>
<td>.096</td>
<td>.068</td>
</tr>
<tr>
<td>IM-experience stimulation</td>
<td>.202</td>
<td>.049</td>
</tr>
<tr>
<td>IM-toward accomplishment</td>
<td>-.057</td>
<td>.081</td>
</tr>
<tr>
<td>IM-to know</td>
<td>.093</td>
<td>.082</td>
</tr>
</tbody>
</table>

Table 11.1

Adjusted R Square of Relatedness

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.744</td>
<td>.553</td>
<td>.517</td>
<td>2.12655</td>
</tr>
<tr>
<td>Model</td>
<td>Sum of Squares</td>
<td>df</td>
<td>Mean Square</td>
<td>F</td>
</tr>
<tr>
<td>------------</td>
<td>----------------</td>
<td>----</td>
<td>-------------</td>
<td>-----</td>
</tr>
<tr>
<td>Regression</td>
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<td>7</td>
<td>70.286</td>
<td>15.105</td>
</tr>
<tr>
<td>Residual</td>
<td>397.955</td>
<td>88</td>
<td>4.522</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>889.958</td>
<td>95</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Summary

There were no significant differences between the motivational orientations of registered nurses who seek a master versus a doctoral education. However, the style of motivation with the highest mean score was intrinsic motivation-to know. Also, there were no statistically significant differences in age, income, and years of nursing experience between the two groups of nurses. In regards to psychological needs, there were no significant differences between the two groups of nurses. However, there was a significant correlation between both extrinsic motivation-introjected and intrinsic motivation-experience stimulation and autonomy. In addition, there was a significant correlation between both extrinsic motivation-introjected and intrinsic motivation-experience stimulation and relatedness. Lastly, there was a significant correlation between intrinsic motivation-to know and competence. The next chapter included a discussion of the results, nursing implications, recommendations for future studies, and conclusion.
CHAPTER V:

DISCUSSION

This study was based on the premise that people have different motivational orientations when pursuing an advanced education. The SDT posited that individual behavior could be intrinsically motivated, extrinsically motivated, and amotivated. Data analysis of the sample revealed that they were both intrinsically motivated, extrinsically motivated, and amotivated in their academic pursuits. The total mean scores for extrinsic motivation-introjected, (17.60), extrinsic motivation-external regulation, (16.81), and amotivation (5.83), indicated non-self-determined forms of motivation. The presence of non-self-determined forms of motivation in this sample could mean that the nurses in this study did not perceive themselves to be autonomous, competent, or related socially to others. However, the largest total mean scores corresponded to intrinsic motivation-to know, (23.16), extrinsic motivation-identified, (21.72), and intrinsic motivation-toward accomplishment, (20.91), which means that the sample endorsed self-determined forms of motivation. The existence of self-determined forms of motivation in this sample could mean that the nurses in this study self-reported themselves to be autonomous, competent, and linked socially to others. In accordance with the SDT, if these psychological needs were being met within the academic setting, the nurses’ motivation would be expected to be more self-determined than non-self-determined.

Conclusions

The results of first research question did determine that there were no differences between the motivational orientations of those nurses seeking a master’s versus those seeking a
doctorate. First, the motivational orientations of the nurses for pursuing an advanced education were identified. The top three motivational styles self-reported by the participants were intrinsic motivation-to know, extrinsic motivation-identified, and intrinsic motivation-toward accomplishment. Therefore, nurses were more likely to pursue higher education for the pleasure of learning something new, the importance (benefits) of getting an advanced education, and the satisfaction of accomplishing something new. According to the SDT, people with their inherent psychological needs pursued challenges in an effort to improve their environments. This was consistent with prior research regarding nurses who desired to pursue graduate education because they wanted professional advancement, advanced knowledge and skills (Lethbridge, 1989; Richards & Potgieter, 2010; Sobral 2004; Ballmann & Mueller, 2008). Results revealed also that nurses were intrinsically and extrinsically motivated to pursue higher education. Nurses may be driven or motivated by the following intrinsic and extrinsic factors for advanced education: 1) better job opportunities, 2) increased pay, 3) job security, 4) improved benefits, (5) a desire to be more proficient, 6) professional regulations, and 7) acquisition of credentials. In addition, the lowest mean score that was self-reported by the nurses were amotivation. A possible explanation for those nurses who self-reported amotivation might be due to forces out of their control to pursue an advanced education.

However, there were no significant differences in motivational orientations between the two groups of nurses. A possible explanation for this finding between the groups of nurses might be due to the mere fact that the motives or reasons behind why nurses engaged in advanced education were similar. Also, the non-significant differences in motivational orientations could possibly be that the sample size was too small to identify a significant difference between the two groups of nurses.
The findings of the research second question did determine that there were no statistically significant differences between those nurses seeking a master’s versus those seeking a doctorate in age, income, and years of experience. One possible explanation for these findings might be that the sample size was too small to identify any significant differences. Perhaps, the age, household income, and years of nursing experience for this sample was similar with only a little difference between them. In general, nurses were encouraged to attain several years of nursing experience before pursuing an advanced education. In addition, nurses who have children were more likely to pursue their graduate education after their children completed high school and/or college. By this time, they would be older with several years of nursing experience and a higher household income.

The results of the third research question did indicate that there were no statistically significant differences in the psychological needs between those seeking a master’s degree versus those seeking a doctoral degree. The non-significant differences in psychological needs between the two groups of nurses might be due to the fact that the sample size was too small to identify any significant differences. Another possible reason for these finding might be that this sample have little differences between them.

The results of the fourth research question did determine that there were relationships between the motivational orientations and psychological needs. There was a significant correlation between extrinsic motivation-introjected, intrinsic motivation-experience stimulation, and autonomy. This relationship might be due to nurses who scored high on intrinsic motivation-experience stimulation and extrinsic motivation-introjected as well scored high on autonomy. In addition, intrinsic motivation-to know was related to competence. One possible explanation for this relationship might be that nurses who scored high on intrinsic motivation-to
know also scored high on competence. Lastly, there was a significant correlation between extrinsic motivation-introjected, intrinsic motivation-experience stimulation, and relatedness. The significant relationship might also be due to nurses who scored high on extrinsic motivation-introjected and intrinsic motivation-experience stimulation as well scored high on relatedness.

Implications for Recruitment

Results from this study offered some options for recruiters and educators to consider when recruiting nurses for advanced education programs. The results indicated that there are little motivational and psychological differences between the two groups of nurses. Both groups of nurses self-reported intrinsic and extrinsic motivators (factors) for their academic pursuit. This finding proposed that recruiters should develop general marketing strategies with regard to the intrinsic and extrinsic motivators associated with an advanced education. Generally, recruitment programs should be designed with emphasis on the following benefits of an advanced education: 1) pay increase, 2) opportunities for professional growth, 3) recognition of accomplishments, 4) career advancement, 5) opportunity to create knowledge through research, 6) working close with other professionals, and 7) input into professional growth. Based on the results of this study, these benefits represented both intrinsic and extrinsic factors to be used as a recruitment strategy for higher education. Once the motivational orientations of nurses were determined, this recruitment strategy could be utilized to guide potential candidates into higher education, thereby, increasing the applicant pool for nursing schools and the supply of nurses with an advanced education.

Study Limitations

There were several important limitations to consider when reviewing the results of the study. One important limitation to consider was the low response rate or smaller sample size
(Coughlan, Cronin, & Ryan, 2009). Perhaps the low response rate was due to the timing of the survey administration toward the end of the term, rather than the beginning. Typically, students were busy the most toward the end of a term rather than at the beginning. The sample size might have impacted the finding of significant differences for three of the research questions. Another possible explanation for the response rate was that people were just tired of filling out surveys. In addition, there was no incentive offered to participants after they completed the survey (Ritter & Sue, 2007). Also, individuals who were solicited through e-mail have the option to press the delete button immediately, thus not completing the survey. Previous research indicated that response rates were higher for mailed surveys along with web-based surveys. In general, e-mail surveys were more likely to have a lower response rates in comparison to mailed surveys (Cho & LaRose, 1999; Coughlan, Cronin, & Ryan, 2009). Moreover, in self-reported surveys, students were more likely to answer the items as they think that the researcher would expect them to do. In responding to the survey items this way, the responses might not accurately depict the students’ true evaluation of how the items actually influenced them.

Another limitation to the study was that there were no statistically significant differences between the nurses pursuing a master’s degree versus a doctoral degree. Due to the groupings of household income and age on the demographic data sheet, the amount of variance was reduced for the two groups of nurses. Perhaps a stronger effect was needed to find significant differences with a smaller sample size. Since there were only a few previous studies found on motivation with regard to nursing education, there was no other similar research that could support or contradict the results of this study. Lastly, a consideration to take into account was that the study only surveyed nurses from the southeastern portion of the United States. The results of this study cannot be applied to other nurses in different regions of the country.
Basically, results were restricted to this sample. These limitations were considered when reviewing the results of this study before recommending nursing implications and further research. However, results from this study indicated that further research could enhance the current body of literature on motivation and the academic pursuits of registered nurses.

Recommendations for Further Study

While the current study was the first to examine the differences in motivational orientations and psychological needs among nurses pursuing an advanced education more research should be undertaken. First, the present study should be repeated at the same level to determine if findings would be similar to the present findings. Since the present sample was small, one suggestion would be to conduct future studies examining the differences in motivational orientations among registered nurses who pursue a master’s versus a doctorate but with a larger sample. Data could be collected at the beginning of the fall semester or when the nurses start the program.

Another suggestion would be to conduct a longitudinal study examining the motivational orientations among registered nurses in advanced education program. A survey could be used to collect data regarding their motivational orientations, demographics, and psychological needs. The survey could be mailed to some of the prospects for the study and the others could be administered the survey online. The first data could be collected from nurses when they first enter the program and again, just before they graduate.

One final area for further study would be to use a qualitative research design instead of a quantitative design. A qualitative design would allow nurses to more openly explain the situations and circumstances that motivated them to pursue higher education. This research design should be performed to determine the specific motivational factors that have an influence
on their educational pursuits. It would also allow the researcher a more in-depth or long-term perspective on why nurses pursue an advanced education.

Summary

The purpose of the study was to determine if there were differences reported in the motivational orientations of registered nurses who pursued an advanced education. Also, the study was conducted to determine if there were differences in the psychological needs and three selected demographic characteristics of those nurses seeking higher education. Lastly, the other purpose of the study was to determine if a relationship existed between motivational orientations and psychological needs. Using SDT as the theoretical framework, this study investigated the motivational orientations of registered nurses who pursued a master’s degree versus a doctoral degree. The study collected data online from nurses in the southeastern region of the United States using the AMS-C, which was based on the SDT.

The AMS-C was a 28-item questionnaire designed to determine the students’ underlying reasons for pursuing an advanced education. Students rated items on a 7-point scale, which corresponded closely to what they believed their motive or reason for pursuing an advanced education. The questionnaire included seven subscales of motivation with four items each to assess for the three types of intrinsic motivation, three types of extrinsic motivation, and amotivation.

The following research questions formed the basis of the study:

1. Are there differences between the motivational orientations of registered nurses who seek a master’s versus those who seek a doctorate;

2. Are there differences in demographic characteristics of those nurses pursuing a master’s degree versus a doctoral degree;
3. Are there differences in the three psychological needs between those pursuing a master’s versus a doctoral degree; and

4. Is there a relationship between motivational orientations and psychological needs?

Results of this study identified seven different motivational orientations of registered nurses who pursued advanced education. These findings were consistent with the theoretical framework, SDT, which proposed that adult learners have different motivational orientations for pursuing advanced education. One of the other findings in this study was the gap in the nursing, education, and psychology literature that was discovered with respect to motivation and graduate nursing education. There were no studies found in the nursing and education psychology literature that examined motivation in nurses for higher education. It was hoped that this study would inspire further research in relations to motivation and advanced nursing education.
REFERENCES


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January 31, 2011

Rosemary Richardson
2004 Belvedere Cove
Birmingham, AL 35242

Re: IRB # 11-OR-030 “Motivational Orientations of Registered Nurses Who Pursue an Advanced Education”

Dear Ms. Richardson:

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. You have also been granted the requested waiver of documentation of informed consent. 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 January 30, 2012. If your research will continue beyond this date, complete the relevant portions of Continuing Review and Closure Form. If you wish to modify the application, complete the Modification of an Approved Protocol Form. When the study closes, complete the appropriate portions of FORM C: Continuing Review and Closure.

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

Good luck with your research.

Sincerely,

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

Seven Subscales of Motivation

<table>
<thead>
<tr>
<th>Item #</th>
<th>Intrinsic Motivation-To Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Because I experience pleasure and satisfaction while learning new things.</td>
</tr>
<tr>
<td>11</td>
<td>For the pleasure I experience when I discover new things never seen before.</td>
</tr>
<tr>
<td>20</td>
<td>For the pleasure that I experience in broadening my knowledge about subjects which appeal to me.</td>
</tr>
<tr>
<td>27</td>
<td>Because my studies allow me to continue to learn about many things that interest me.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item #</th>
<th>Intrinsic Motivation-Toward Accomplishment</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>For the pleasure I experience while surpassing myself in my studies.</td>
</tr>
<tr>
<td>16</td>
<td>For the pleasure that I experience while I am surpassing myself in one of my personal accomplishments.</td>
</tr>
<tr>
<td>24</td>
<td>For the satisfaction I feel when I am in the process of accomplishing difficult academic activities.</td>
</tr>
<tr>
<td>32</td>
<td>Because graduate school allows me to experience a personal satisfaction in my quest for excellence in my studies.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item #</th>
<th>Intrinsic Motivation-To Experience Stimulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>For the intense feelings I experience when I am communicating my own ideas to others.</td>
</tr>
<tr>
<td>14</td>
<td>For the pleasure that I experience when I read interesting authors.</td>
</tr>
<tr>
<td>22</td>
<td>For the pleasure that I experience when I feel completely absorbed by what certain authors have written.</td>
</tr>
<tr>
<td>30</td>
<td>For the “high” feeling that I experience while reading about various interesting subjects.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item #</th>
<th>Extrinsic Motivation-Identified</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Because I think that an advanced education will help me better prepare for the career I have chosen.</td>
</tr>
<tr>
<td>13</td>
<td>Because eventually it will enable me to enter the job market in a field that I like.</td>
</tr>
<tr>
<td>21</td>
<td>Because this will help me make a better choice regarding my career orientation.</td>
</tr>
<tr>
<td>29</td>
<td>Because I believe that a few additional years of education will improve my competence as a worker.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item #</th>
<th>Extrinsic Motivation-Introjected</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>To prove to myself that I am capable of completing an advanced degree.</td>
</tr>
<tr>
<td>17</td>
<td>Because of the fact that when I succeed in graduate school I feel important.</td>
</tr>
<tr>
<td>25</td>
<td>To show myself that I am an intelligent person.</td>
</tr>
<tr>
<td>33</td>
<td>Because I want to show myself that I can succeed in my studies.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item #</th>
<th>Extrinsic Motivation-External Regulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Because with only a bachelor degree I would not find a high-paying job later on.</td>
</tr>
<tr>
<td>10</td>
<td>In order to obtain a more prestigious job later on.</td>
</tr>
<tr>
<td>19</td>
<td>Because I want to have “the good life” later on.</td>
</tr>
<tr>
<td>26</td>
<td>In order to have a better salary later on.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item #</th>
<th>Amotivation</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Honestly, I don’t know; I really feel that I am wasting my time in graduate school.</td>
</tr>
<tr>
<td>15</td>
<td>I once had good reasons for going to graduate school; however, now I wonder whether I should continue.</td>
</tr>
<tr>
<td>23</td>
<td>I can’t see why I go to graduate school and frankly, I couldn’t care less.</td>
</tr>
<tr>
<td>31</td>
<td>I don’t know; I can’t understand what I am doing in school.</td>
</tr>
</tbody>
</table>
**WHY DO YOU GO TO COLLEGE?**

*Using the scale below, indicate to what extent each of the following items presently corresponds to one of the reasons why you go to college.*

<table>
<thead>
<tr>
<th>Item</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Because with only a bachelor degree I would not find a high-paying job later on.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>2. Because I experience pleasure and satisfaction while learning new things.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>3. Most days I feel a sense of accomplishment from what I do.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>4. Because I think that an advanced education will help me better prepare for the career I have chosen.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>5. For the intense feelings I experience when I am communicating my own ideas to others.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>6. Honestly, I don't know; I really feel that I am wasting my time in graduate school.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>7. For the pleasure I experience while surpassing myself in my studies.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>8. People I interact with on a daily basis tend to take my feelings into consideration.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
</tbody>
</table>
9. To prove to myself that I am capable of completing an advanced degree. 1 2 3 4 5 6 7
10. In order to obtain a more prestigious job later on. 1 2 3 4 5 6 7
11. For the pleasure I experience when I discover new things never seen before. 1 2 3 4 5 6 7
12. I feel like I am free to decide for myself how to live my life. 1 2 3 4 5 6 7
13. Because eventually it will enable me to enter the job market in a field that I like. 1 2 3 4 5 6 7
14. For the pleasure that I experience when I read interesting authors. 1 2 3 4 5 6 7
15. I once had good reasons for going to graduate school; however, now I wonder whether I should continue. 1 2 3 4 5 6 7
16. For the pleasure that I experience while I am surpassing myself in one of my personal accomplishments. 1 2 3 4 5 6 7
17. Because of the fact that when I succeed in graduate school I feel important. 1 2 3 4 5 6 7
18. I really like the people I interact with. 1 2 3 4 5 6 7
19. Because I want to have "the good life" later on. 1 2 3 4 5 6 7
20. For the pleasure that I experience in broadening my knowledge about subjects which appeal to me. 1 2 3 4 5 6 7
21. Because this will help me make a better choice regarding my career orientation. 1 2 3 4 5 6 7
22. For the pleasure that I experience when I feel completely absorbed by what certain authors have written. 1 2 3 4 5 6 7
23. I get along with people I come into contact with. 1 2 3 4 5 6 7
24. I can't see why I go to graduate school and frankly, I couldn't care less. 1 2 3 4 5 6 7
25. For the satisfaction I feel when I am in the process of accomplishing difficult academic activities. 1 2 3 4 5 6 7
26. To show myself that I am an intelligent person. 1 2 3 4 5 6 7
27. In order to have a better salary later on. 1 2 3 4 5 6 7
28. Because my studies allow me to continue to learn about many things that interest me.

29. Because I believe that a few additional years of education will improve my competence as a worker.

30. For the "high" feeling that I experience while reading about various interesting subjects.

31. I don't know; I can't understand what I am doing in school.

32. Because graduate school allows me to experience a personal satisfaction in my quest for excellence in my studies.

33. Because I want to show myself that I can succeed in my studies.

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APPENDIX D

DEMOGRAPHIC DATA SHEET

Please select the appropriate answers for each question. This information will only be used for the purpose of comparison to others in this study.

1. What is your gender?  1. Female  2. Male

2. What is your age?
   1. 24 – 34  3. 45 – 54  5. Specify other:
   2. 35 – 44  4. 55 – 65

3. Which of the following best describes your racial or ethnic background?
   1. White  4. Alaskan/Native American
   2. Black/African American  5. Asian
   3. Hispanic  6. Specify other:

4. What is your marital status?
   1. Single  3. Divorced
   2. Married  4. Widowed

5. How many children are living in your household?
   1. 0 –1  3. 3 – 4
   2. 1 – 2  4. 5 or more

6. What are the ages of the children living in your household?
   1. 0-5  3. 12-17  5. Specify other:
   2. 6-11  4. 18-23

7. What is your current employment status?
   1. Full-time  3. Retired  5. Graduate student
   2. Part-time  4. Not employed
8. How many years of nursing experiences do you as a registered nurse?

1. 1 – 10    4. 31– 40
2. 11 – 20  5. 41 – 50
3. 21 – 30  6. Specify other:

9. Which of the following categories best describes your total household income before taxes?

1. $50,000 – 75,000  4. $126,000 – 150,000
2. $76,000 – 100,000  5. Specify other:
3. $101,000 –125,000

10. Which terminal degree are you currently pursuing?

1. Doctoral
2. Masters

11. What is your current place of employment?

1. Regional Hospital
2. Teaching Hospital
3. Rural Hospital
4. Medical Center
5. Research and Teaching Hospital
6. Clinic
7. Four-Year-College or University
8. Two-Year-College or Technical College
9. Specify other:

12. After graduation, where do you plan to work?

1. Regional Hospital
2. Teaching Hospital
3. Rural Hospital
4. Medical Center
5. Research and Teaching Hospital
6. Clinic
7. Four-Year-College or University
8. Two-Year-College or Technical College
9. Specify other:
Basic Psychological Needs Scale

Scale Description

Central to self-determination theory is the concept of basic psychological needs that are assumed to the innate and universal. According to the theory, these needs—the needs for competence, autonomy, and relatedness—must be ongoingly satisfied for people to develop and function in healthy or optimal ways (Deci & Ryan, 2000). The original scale had 21 items concerning the three needs for competence, autonomy, and relatedness.

The Scale

Basic Need Satisfaction in General

Feelings I Have

Please read each of the following items carefully, thinking about how it relates to your life, and then indicate how true it is for you. Use the following scale to respond:

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>not at all true</td>
<td>somewhat true</td>
<td>very true</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. I feel like I am free to decide for myself how to live my life.
2. I really like the people I interact with.
3. Often, I do not feel very competent.
4. I feel pressured in my life.
5. People I know tell me I am good at what I do.
6. I get along with people I come into contact with.
7. I pretty much keep to myself and don't have a lot of social contacts.
8. I generally feel free to express my ideas and opinions.
9. I consider the people I regularly interact with to be my friends.
10. I have been able to learn interesting new skills recently.
11. In my daily life, I frequently have to do what I am told.
12. People in my life care about me.
13. Most days I feel a sense of accomplishment from what I do.
14. People I interact with on a daily basis tend to take my feelings into consideration.
15. In my life I do not get much of a chance to show how capable I am.
16. There are not many people that I am close to.
17. I feel like I can pretty much be myself in my daily situations.
18. The people I interact with regularly do not seem to like me much.
19. I often do not feel very capable.
20. There is not much opportunity for me to decide for myself how to do things in my daily life.
21. People are generally pretty friendly towards me.

**Scoring information.** Form three subscale scores, one for the degree to which the person experiences satisfaction of each of the three needs. To do that, you must first reverse score all items that are worded in a negative way (i.e., the items shown below with (R) following the items number). To reverse score an item, simply subtract the item response from 8. Thus, for example, a 2 would be converted to a 6. Once you have reverse scored the items, simply average the items on the relevant subscale. They are:

- **Autonomy:** 1, 4(R), 8, 11(R), 14, 17, 20(R)
- **Competence:** 3(R), 5, 10, 13, 15(R), 19(R)
- **Relatedness:** 2, 6, 7(R), 9, 12, 16(R), 18(R), 21
APPENDIX F

Informed Consent

You are being asked to be in a research study. This study is called “Motivational Orientations of Registered Nurses Who Pursue An Advanced Education”. This study is being done by Rosemary Richardson. She is a graduate student in the College of Education at the University of Alabama.

What is this study about?
Currently, the United States is facing an unprecedented nursing shortage that the Health Resources and Service Administration ([HRSA], 2004) predicts it will only get worse. By 2020, HRSA estimates that there will be one million job vacancies for registered nurses to fill. Concurrently, there is a shortage of nursing faculty occurring along with the shortage of nurses. Most importantly, the shortage of nurses is directly linked to the shortages of nurse educators. As the nursing profession attempts to find solutions during this shortage and recruit additional people into the profession, in addition to retaining others, it is important to understand why registered nurses choose to pursue advanced education in nursing. This study is seeking to learn the reasons why registered nurses pursue higher education. You will be asked about your personal and family characteristics such as age, income, gender, race, education you are seeking, number of children, ages of children, current place of employment, future plans for employment, marital status, employment status, and years of nursing experience.

Why is this study important-What good will the results do?
To better understand how to recruit students into higher education, research-based information is needed about students’ motivation for seeking an advanced education program. The findings will help nurse educators to understand what motivates registered nurses, thus, they will be able to appropriately target their recruitment efforts. This study will add to the body of knowledge on motivation and provide the basis for future research.

Why have I been asked to take part in this study?
You showed interest in graduate nursing education programs at the University of Alabama. You requested information on these programs be sent to you. Because of your interest in higher education and my proposed study, I decided to seek your help to conduct this study.

How many other people will be in this study?
The investigator hopes to get at least 385 people in the United States to participate in the study.

What will I be asked to do in this study?
If you agree to be in this study, you will be asked to complete an online survey about why you are going back to college. If you do not agree to be in this study, you are not required to take the survey and you will not be participant in the study.

How much time will I spend being in this study?
The online survey should last about 15 minutes, depending on how much time you spend answering each item.
Will being in this study cost me anything?
The only cost to you from this study is your time.

Will I be compensated for being in this study?
In appreciation of your time, all the participants will be thanked.

What are the risks (problems or dangers) from being in this study?
Participation in this study does not propose any foreseeable risks to you. If you feel uncomfortable with a question, you can withdraw from the study. If you decide to stop at any time before you have finished the questionnaire, your answers will not be recorded.

What are the benefits of being in this study?
There are no direct benefits to you for participating but you will be contributing to the researcher’s knowledge on the motivational orientations of registered nurses who pursue advanced education. However, I would like to thank you for your participation in this study.

How will my privacy be protected?
You are free to decide when and where you will take the online survey. You may take the survey in the privacy of your home or in another place that is convenient for you.

How will my confidentiality be protected?
Your responses will be kept completely confidential. The results of your participation will be confidential and will not be released in an individually identifiable form. Only a code number will identify your questionnaire responses. At no time will your name be associated with your responses to the questionnaire. Results will be presented in aggregate form only. Results of the study will be used for scholarly purposes only. The results from the study will be presented in academic settings and might be published in a professional journal in the field of nursing, education, and/or psychology. People in this study will only be identified as “participants.” No one will be able to identify who you are in this study.

What are the alternatives to being in this study?
The only alternative is not to participate.

What are my rights as a participant?
Being in this study is totally voluntary. It is your free choice. You may choose not to be in it at all. If you start the study, you can stop at any time. Not participating or stopping participation will have no effect on your relationships with the University of Alabama.

The University of Alabama Institutional Review Board is a committee that looks out for the ethical treatment of people in research studies. They may review the study records if they wish. This is to be sure that people in research studies are being treated fairly and that the study is being carried out as planned.

Who do I call if I have questions or problems?
If you have questions about your rights as a research participant you may contact Ms. Tanta Myles, The University of Alabama Research Compliance Officer, at 205-348-8461 or toll free at 1-877-820-3066.

You may also ask questions, make a suggestion, or file complaints and concerns through the IRB Outreach Website at [http://osp.ua.edu/site/PRCO_Welcome.html](http://osp.ua.edu/site/PRCO_Welcome.html). After you participate, you are encouraged to complete the survey for research participants that is online there, or you may ask Rosemary Richardson for a copy of it and mail it to the University Office for Research Compliance, Box 870104, 152 Rose Administration Building, Tuscaloosa, AL 35487-0104. You may also e-mail us at participantoutreach@bama.ua.edu.

I have read this consent form. I have had a chance to ask questions. I agree to take part in it. Proceeding to the attached survey constitutes your consent to participate and certifies that you are 19 years of age or older. Please print a copy of this informed consent form to retain for your records.
BIOGRAPHICAL SKETCH

Rosemary Richardson was born August 12, 1959 in Pensacola, Florida. She attended Booker T. Washington High School and graduated with her diploma. She graduated from Florida State University in 1981 with a Bachelor of Science Degree in Nursing. Rosemary obtained her nursing state licensure as a registered nurse in Florida. She worked in several civilian hospitals as a medical-surgical nurse before she began her military career in the Air Force. While in the military, she worked in the following areas: medical-surgical units, operating rooms, Health and Wellness Center, and referral management services. In May 1995, she received a Master of Public Administration from Auburn University at Montgomery, Alabama. After completing her military career, she pursued a Master in Rural Case Management and a Doctor of Education in Instructional Leadership at The University of Alabama.