Summer 1-1-2008

Nurses' Attitudes Towards Continuing Formal Education: A Comparison by Level of Education and Geography

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NURSES' ATTITUDES TOWARDS CONTINUING FORMAL EDUCATION:

A COMPARISION BY LEVEL OF EDUCATION AND GEOGRAPHY

A Dissertation

Submitted to the School of Nursing

Duquesne University

In partial fulfillment of the requirements for

the degree of Doctor of Philosophy in Nursing

By

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August 2008

FORM #4

DUQUESNE UNIVERSITY PhD PROGRAM
SCHOOL OF NURSING

APPROVAL OF FINAL DEFENSE OF DISSERTATION

STUDENT: Tanya K. Altmann

DATE OF ADMISSION: Summer 2003

DISSERTATION TITLE: Nurses' Attitudes Towards Continuing Formal Education: A Comparison by Level of Education and Geography

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ABSTRACT

NURSES' ATTITUDES TOWARDS CONTINUING FORMAL EDUCATION:

A COMPARISION BY LEVEL OF EDUCATION AND GEOGRAPHY

By

Tanya K. Altmann

August 2008

Dissertation Supervised by Professor Lynn Coletta Simko, RN, PhD, CCRN

Quality healthcare is a priority. Many healthcare organization representatives and mission statements, recent research, and research priorities support the contention that improved quality is related to higher educated nurses providing care. What is needed goes beyond what can be acquired through continuing education courses.

What we know is that few U.S. nurses continue their formal education after licensure and that the majority have an Associate Degree or Diploma in nursing. Thus, it is in the publics' interest to invest more in enticing and enabling nurses to achieve higher educational levels consistent with the trends of other health care professionals.

The purpose of this study was to examine the attitudes of nurses, initially registered with an Associate Degree or Diploma in nursing, toward continuing formal education at the baccalaureate level and/or beyond; whether these attitudes change over

time; and if there are geographical differences between nurses' attitudes within the U.S. The organizing framework was the Theory of Planned Behavior (Ajzen, 1985).

Actively licensed registered nurses on both U.S. coasts were randomly selected to receive mailed questionnaires: a socio-demographic questionnaire and the Attitudes Towards BSN Education Scale. A response rate of 19.4% was received. Analysis determined that the study sample closely resembled the general nurse population in the U.S. which, when coupled with excellent instrument reliability, allows for generalizations.

This study supported the role of professional development and advanced education in overall job satisfaction and a link between salary and advanced education. Few nurses felt social pressure to return to school nor did they receive encouragement to continue their eduction during their initial nursing program. Regarding attitudes toward continuing formal education Associate Degree nurses, and those nurses who had returned to school, held slightly more positive attitudes overall, but they rank barely above neutral. Attitudes do not appear to change over time based on years of practice nor differ by geographical location. The findings suggest that work needs to be done to improve nurses' attitudes toward continuing formal education and research needs to be undertaken to understand what would entice them back to school.

ACKNOWLEDMENTS

I would also like to acknowledge my husband Michael, my parents, and my friends and colleagues for emotional support with a particular thank you to Karen for hours of proof-reading and unwavering interest in the topic. Sincere gratitude also goes to Dr. Lynn Simko, my committee chair, for helping in so many ways, emotionally and technically, I cannot count them. I am grateful to Dr. Gladys Husted and Dr. Robyn Nelson for also supporting me through this process and volunteering their time to be on my committee. Special thanks to the National League for Nursing Foundation and Sacramento State University for financial support and to Dr. Roche for graciously allowing me to use her instrument.

Thank you all for easing the process. Your support was invaluable.

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INTRODUCTION

1.1 Background of the Study

Given today's health care environment, there is a greater need for more baccalaureate and advanced degree nurses than in the past (Brendtro & Hegge, 2000; Coffman, Blick, & Wong, 1998; Fox et al., 1999). The education of nurses has an influence on patient safety and outcomes, the nursing shortage, the faculty shortage, and nurses' attitudes and actions. Personal and professional values and attitudes are often reflected in an individuals' behavior and motives for the action.

The literature is replete with both research and anecdotal support for a relationship between a higher educated nursing workforce and reduced patient morbidity and mortality, medication and treatment errors, and nurse disciplinary actions. Despite this information, the U.S. educational system continues to graduate the majority of nurses with associate degrees or diplomas. These nurses need to be encouraged to continue their formal education beyond that of initial licensure.

Quality in healthcare is a priority. The Agency for Healthcare Research and Quality (AHRQ) (Agency for Healthcare Research and Quality, n.d.) and the Institute of Medicine (IOM) (Institute of Medicine of the National Academies, 2008) both list quality of healthcare as one of their primary missions. The AHRQ supports research which is

directly relevant to providers and practitioners, promotes the delivery of appropriate care, and improves the quality of healthcare. The IOM defines quality as the "degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge" (Institute of Medicine, 2005, ¶ 2). The maintenance of 'current professional knowledge' is linked to a positive attitude toward lifelong learning.

Obsolescence is defined as becoming disused or antiquated (Abate, 1999). Obsolescence in nursing is assumed to happen when a practitioner does not keep up with new knowledge, new skills, and new research findings (DeLeskey & Fetzer, 2007). This is a critical issue given the fast pace of new developments in health care and the acuity of patients today. Continuing professional development (continuing nursing education) is, at least in part, an antidote to professional obsolescence.

There is support that life-long learning goes beyond continuing professional development, entailing a different culture, approach, and attitude (Gopee, 2001). Especially in a dynamic profession such a health care, "there is no such thing as sufficient initial education" (Gopee, p. 610). Life-long learning must become a professional value and attitude. The end of formal or compulsory education should not be viewed as freedom from educational obligation. The literature supports these conclusions; generally speaking, nurses perceive the value of continued learning (Beatty, 2000; Bell & Rix, 1979; Carlson, 1992; Hughes, 2005; Kersaitis, 1997).

Additionally, representatives in many institutions have stated they would prefer to employ nurses who have a baccalaureate degree (BSN) or higher however, statistics show the majority of nurses are educated below the BSN level (Health Resources & Services

Administration, 2006). What is known is that only about 20% of Associate Degree Nurses (ADNs) and 30% of Diploma Nurses continue their formal education to the baccalaureate level or beyond (Health Resources & Services Administration, 2006).

In order to enhance patient safety and meet the future need for nurses it would be beneficial for registered nurses (RNs) educated below the baccalaureate level to return to school for continuing formal education. Therefore, there is a need to understand nurses' attitudes toward continued formal education as this may lead to understanding some of the reasons why nurses do and do not continue formal education. It may also elicit insight and lead to research into ways to encourage nurses to return to school for a BSN or higher education.

1.1.1 *Patient Safety and Outcomes*

In the United States there are three educational routes which lead to being qualified to sit for the national licensure exam. This is a unique situation for a profession. It also supports that "registered nurses are undereducated members of the health care team, when compared with physicians, social workers, physical therapists, pharmacists, and dieticians" (Donley & Flaherty, 2002, Conclusion Section). Partially as a result of different educational levels, nursing is often viewed as a poorly differentiated occupation where nurses are reduced to completing tasks ordered by physicians (Neese, Majka, & Tennant, 2007). Not only is this image incorrect but it perpetuates class, gender, and socioeconomic biases. "It's in the interest of the public and employers to invest more in enabling nurses to achieve a higher level of education consistent with trends for other health professionals" (Hilton, 2004, p. 14) and the needs of society.

To reduce costs, health care institutions are shortening length of stays, downsizing, changing their skills mix by increasing the use of unlicensed caregivers, and shifting the locus of care to outpatient and home care. These changes are occurring concurrent with increased patient acuity in acute care hospitals and more complex patient care needs in the community and home settings. This requires the nurse to have a broader knowledge base and stronger critical thinking abilities; both are hallmarks of the BSN education. Since the majority of nurses are educated below the BSN level they lack the liberal arts education which facilitates the application of knowledge about complex human and social systems (Donley & Flaherty, 2002).

Recent research on patient safety and quality health care outcomes have related higher education levels for nurses to lower rates of patient morbidity and mortality (Aiken, Clarke, Cheung, Sloane, & Silber, 2003b; Aiken, Sochalski, & Lake, 1997; Clarke & Aiken, 2003; Curtin, 2003; Estabrooks, Midodzi, Cummings, Ricker, & Giovannetti, 2005; Needleman, Buerhaus, Mattke, Stewart, & Zelevinsky, 2002; Tourangeau et al., 2007; Tourangeau, Giovannetti, Tu, & Wood, 2002). Although many of these studies have been completed in small geographical regions, they lay the foundation for understanding the effect of education on patient safety and support the need for nurses with BSNs or higher.

The research on patient safety is supported by evaluation of medication and treatment errors. There have been a number of studies conducted in different states which consistently demonstrated significantly higher levels of medication errors and procedural violations were found to be committed by ADNs and Diploma Nurses as compared with the BSNs (American Association of Colleges of Nursing, 2003; Fagin, 2001; Green,

1996). Strangely, units with more BSN prepared nurses also had higher medication error report rates which was thought to be linked to professional values and ethics (Blegen, Vaughn, & Goode, 2001).

A number of other studies have been conducted that assessed disciplinary actions and the educational differences of offenders (Delgado, 2002; Murphy & Connell, 1987; Roach, Nelson, & Macdonald, 1998). Generally speaking, errors and disciplinary actions were more often associated with ADNs.

1.1.2 *Nursing Shortage*

The current worldwide nursing shortage is having an effect on patient care and safety. Without enough nurses to provide care, the burden will fall on those few remaining RNs, less qualified assistive personnel, and families (Fagin, 2001). According to Auerbach, Buerhaus, and Staiger (2007) the U.S. shortage of RNs will increase to 340,000 by the year 2020. Finding solutions to this nursing shortage is being complicated by its effect on practicing RNs and educational institutions' abilities to educate more nurses.

Traditionally, when any profession encounters a shortage of workers, those remaining on the job suffer from increased workload. Nurses are being pushed to capacity and, as a result, many have lobbied for nurse-to-patient staffing ratios. Even with ratios in place, if hospitals have vacant nursing positions either the ratios will not be enforced or bed closures will happen so as to maintain the ratios. Either way, patients will not receive the health care they require and nurse burnout will likely increase. One of the effects of nurse burnout is leaving the profession, further increasing the nursing shortage. Therefore, retention of RNs is part of the solution to the nursing shortage.

In a large study (n = 908) of RNs' commitment and intent to leave the profession, Nogueras (2006) found that education was a key factor in RNs' occupational commitment. Not only did RNs with higher levels of education have greater occupational commitment but they also had lower intentions to leave the profession. Hence, education might be one key to nurse retention and improving supply. In fact, Nogueras suggested that "at the undergraduate level of RN preparation there should be emphasis on encouraging students to view their education as a lifelong pursuit. ... having achieved a MSN was the most predictive of RN occupational commitment" (p. 92). These findings supported the findings from an earlier study (Rambur, McIntosh, Palumbo, & Reinier, 2005) of 878 RNs in Vermont. In the earlier study, BSNs were significantly more satisfied than were ADNs regarding opportunity for autonomy and growth, ($p = 0.01$), job stress and physical demands ($p = 0.0002$), and job and organizational security ($p = 0.0002$).

Presently, the largest obstacle to solving the nursing shortage is an inadequate supply of nursing faculty which is not being solved by nurses enrolling in master's and doctoral education programs. It is a vicious cycle. Not enough nurses adequately educated to teach nursing creates a faculty shortage which subsequently limits any program expansion requisite to solving the nursing shortage (American Association of Colleges of Nursing, 2005c; National League of Nurses, 2002).

Applications for nursing schools are high but schools of nursing are unable to increase enrollment. According to the American Association of Colleges of Nursing (2007), U.S. nursing schools turned away 42,866 qualified applicants from baccalaureate and graduate nursing programs in 2006; 71% of respondents pointed to faculty shortages

as a reason. The statistics are similar for ADN programs. If the faculty shortage continues, or becomes worse, then every member of society will ultimately pay.

1.1.3 *Faculty Shortage*

The problem of the nursing faculty shortage has been growing for many years. In fact, in the early 1990s many Master's in Nursing programs replaced their nursing education tract with a nurse practitioner tract setting the stage for a shortage (De Young, Bliss, & Tracy, 2002; Hinshaw, 2001). At the same time, as the baby boomers started to age, there was increased need for health care services. This need, along with nurses retiring or leaving due to dissatisfaction with work quantity and quality, caused the beginning of the worst nursing shortage seen in decades.

As mentioned, the low numbers of nurses who obtain a BSN also has implications on both the nursing shortage and the faculty shortage. There simply are not enough nurses educationally prepared, or motivated, to teach. Although a number of solutions have been proposed, enticing nurses to return for continuing formal education appears to be ideal; this produces teachers with experience.

According to the literature, the 'graying of faculty' (i.e., aging) and salary discrepancies between academia and practice are two of the major contributing factors in the faculty shortage (American Association of Colleges of Nursing, 2005c; Cleary, Bevill, Lacey, & Nooney, 2007; Holmes & Pryce-Jones, 2006; Kowalski, Dalley, & Weigand, 2006; Tanner, 2006b). Regardless of salary discrepancies, some nurses still choose to teach and teaching may be a viable option for those wanting a change from 'bedside' nursing, provided they are qualified. Unfortunately, the majority of nurses do not have the required education to teach. It is estimated that approximately 67% of nurses

enter the workforce with less than a Bachelor of Science in Nursing (BSN) degree (Health Resources & Services Administration, 2006).

Most associate degree programs require faculty to have a master's degree, but do hire baccalaureate prepared clinical educators. At the baccalaureate level and beyond, a doctorate is the preferred educational background for faculty. No matter what solution is implemented to increase the number of nursing faculty, it is suggested that educator preparation should be a core competency for nursing graduate students regardless of specialty.

1.1.3.1 *Solutions for the Faculty Shortage.*

Many possible solutions to the faculty shortage have been proposed. Each has its merits but it will be shown that encouraging nurses to return to school may be the most appropriate. Some possible solutions for the faculty shortage problem include:

- Using a variety of skill mixes (nursing assistants, licensed vocational nurses, and registered nurses) to provide health care.
- Creating collaborations with health care organizations to have staff nurses supplement as nursing faculty (Mahaffey, 2002).
- Funding faster routes to graduating nurses (Diploma and ADN programs).
- Increasing funding to nursing programs and students at the Master's and Doctoral levels. Special funding for nurse educator preparation.
- Increasing the number and types of nursing programs and enrollment in programs.
- Using non-nurses as nursing faculty or lowering the educational standard for nursing faculty.

The use of different skill mixes to provide patient care is not new to the health care arena. Nursing has vacillated between varying degrees of primary nursing and team nursing for decades. Given the recent research on improvements in patient care quality with increased numbers of nurses at the bedside (Aiken, 2005; Aiken, Clarke, Silber, & Sloane, 2003a; Aiken, Clarke, & Sloane, 2002; Aiken, Clarke, Sloanne, Sochalski, & Silber, 2002; Needleman et al., 2002; Tourangeau et al., 2007), it is questionable as to whether this is an adequate solution. The use of non-licensed assistive personnel to decrease nurse / patient ratios and to contain costs "requires nurses to supervise more non-skilled technicians rather than spending time with the clients ... Since assessment is an ongoing responsibility of the nurses, there is a danger in leaving this skill to untrained workers" (Meyer, 1997, p.1). It seems contradictory to have research supporting staffing ratios and higher educated nurses at the bedside yet be endorsing care provided by fewer RNs and more assistive personnel such as nursing assistants or licensed vocational nurses.

Much literature on the nursing faculty shortage, and many nursing leaders, suggest partnerships between academia and health care and community agencies in order to decrease the faculty shortage (American Association of Colleges of Nursing, 2003b; Mathews, 2003). These types of partnerships are difficult to define as they vary depending on the type of agreement and the type of agency, but all entail some agreement in which the academic program utilizes community agency employees in the education of students in a formal capacity. Partnerships may simply not be realistic when agencies are having their own staffing problems (due to the nursing shortage) or if there are not enough qualified candidates for the positions (less than 35% of practicing nurses have a

BSN which is the minimum education recommended for nursing faculty in an adjunct capacity) (Health Resources & Services Administration, 2006). In addition, no research has been found which has investigated the teaching interest of staff nurses or what would be needed to make a partnership feasible from the nurses' perspective.

Another possible solution to the faculty shortage is to reduce educational requirements or change licensing and accreditation standards for professional nursing practice. Sadly, this has started to happen; there has already been an increase in numbers of Diploma programs on the U.S. east coast. Enrollments are up in ADN programs and many governments are creating funding for these programs to increase enrollment. One of the reasons the ADN programs are receiving funding over the BSN programs is that they are perceived to be a faster route to educating nurses. This is a very shortsighted solution for two reasons: 1) It does not provide enough nurses likely to continue their education and eventually teach, and 2) it risks a decrease in the healthcare standards and quality in the U.S. According to the American Association of Colleges of Nursing (2005c), "increasing enrollment in baccalaureate programs is a key first step to addressing the nation's diminishing supply of nurse educators" (¶ 4).

A statewide survey of nurses with graduate degrees (n = 288) was conducted to suggest methods for increasing the number of qualified nurse educators (Brendtro & Hegge, 2000). The authors found that there was a need to increase access to master's and doctoral education for nurses. Both the National League for Nursing (National League of Nurses, 2002) and the American Association of Colleges of Nursing (2003b) recommend increased opportunities for nurses to be prepared as educators during master's and doctoral study, accessible programs to prepare nurse educators, and commitment to

support the ongoing development of nurse educators in all settings. Increased access includes increased funding of programs and funding for the students. The House and Congress have responded with funding through H.B.2003 ("Legislative Update: Nursing Faculty Fellows Program / Funds", 2006) and a Nursing Faculty Loan Program sponsored under the Nurse Reinvestment Act (American Association of Colleges of Nursing, 2007). However, no matter the funding amount, this solution is ineffective without nurses qualified to enter advance degree programs.

RN-BSN programs have been around for many years but they suffer from low enrollment (Goode et al., 2001) and are not seen as a practical and quick way to get more nursing faculty. Additionally, these programs are not adding to the nursing supply.

Programs which allow RNs to obtain a master's without first obtaining a BSN (RN-MSN programs) are also being offered (Siroky, 2007). Since "the vast majority of nurses never complete additional degrees in nursing beyond entry and those who do rarely complete more than 1 additional degree" (Cleary et al., 2007, p. 126), RN-MSN programs might be a better option than RN-BSN programs. Although this type of program does not add nurses to the supply, it may also create some experienced faculty.

Accelerated BSN programs (ABSNs) and entry level master's programs (ELMs) have been developed to entice students who hold a bachelor's degree in another subject to enter nursing and, hopefully, become nursing faculty (Coffman et al., 1998; Siroky, 2007; Tanner, 2006a). Ideally these programs would enroll students who had just completed their degree. ELMs would increase the pool of younger nurses with master's degrees (Cleary et al., 2007; Neese et al., 2007). There are many concerns with this solution. First, there is debate over whether it is appropriate to have faculty teach nursing who

likely have minimal or no practical experience as a nurse. Secondly, there is no guarantee that these graduates will choose faculty positions over advance nursing practice (e.g., nurse practitioner, nurse midwife, clinical nurse specialist, or nurse anesthetist roles). Finally, hoping for younger students displays age bias and ignores the current demographics on those entering nursing school (Neese et al.). Offering accelerated bachelor's and entry level master's programs in nursing may work better than RN-MSN programs as these programs not only add to the pool of nurses but also add potential faculty.

In many less developed countries, nursing is taught by physicians or other non-nursing educators (Neese et al., 2007). This is an option but not a solution because (a) there is a looming physician shortage and (b) it devalues nursing as its own profession. Having faculty who do not have full understanding of the nursing profession or who are nurses that do not have a proper knowledge of teaching, is also not a solution.

1.1.4 *Requirements for a Faculty Position*

Appropriate preparation for nursing faculty is currently the Master of Science in Nursing (MSN), although the trend in university settings is to require a doctorate (Davis, Dearman, Schwab, & Kitchens, 1992; Dierker, 2005; ONA Staff, 2006). Increases in patient acuity, research findings, and the need for nursing research support the doctoral degree as the desired credential for a nurse educator (American Association of Colleges of Nursing, 2005c). As part-time or adjunct faculty at a college nursing program, one must possess a BSN; at a university the requirement is an MSN. It is recommended that you have a BSN for clinical teaching at either a community college or university.

Health care today is a dynamic and complex environment. No one can doubt educators must have excellent clinical knowledge and skill to prepare the next generation of clinicians. However, "clinically skilled experts do not have the knowledge and skills necessary for higher education and the teaching role" (Krisman-Scott, Kershbaumer, & Thompson, 1998, p. 318).

In a descriptive study of 73 critical care clinical preceptors (staff nurses who agree to mentor, one-on-one, students in one of their final clinical semester), Bizek and Oermann (1990) evaluated what nurses needed to perform their role. It was found that most nurses needed orientation content in assessing learner needs, the teaching/learning process, teaching strategies, methods to evaluate students, how to write anecdotal notes, and how to use effective communication in the learning situation. These findings support a conclusion that, although nurses are expected to provide patient teaching, the teaching of students is not intuitive. Faculty are needed with both the education for teaching and with practical work experience. Encouraging experienced clinical nurses to return to school to become educators would ensure future faculty have an understanding of the nursing profession and are educated on teaching methods.

> Graduate preparation in nursing reflects the profession's responsiveness to societal needs for nurses with specialized knowledge and advanced practice skills. It also reflects the continuing emergence of nursing as an academic discipline in its own right with its own full and important body of knowledge and its own system for educating nurses at the graduate level. (Gaberson & Chappy, 2006, p. 725)

1.1.5 *Current Educational Status of Nurses*

Approximately one third of practicing RNs currently have a baccalaureate degree or higher education and less than 40% of ADNs and Diploma Nurses continue their education post-licensure (Health Resources & Services Administration, 2006). Sixty-five percent of nurses in California providing direct patient care originally graduated from either an ADN or Diploma program, and only 18.7% of ADNs and 22.9% of Diploma Nurses continued their education after registration (Board of Registered Nursing, 2004). For nurses, there are many issues associated with returning to school.

During a nursing shortage, nurses often can obtain a job where they want, working the hours they want. Therefore, as a result of the current job market of high demand and attractive salaries, RNs are not motivated to return to school as additional education is not required to secure or retain employment.

Surveys of nurses demonstrate that, overall, the smallest percentage of nurses who engage in advanced education are those initially licensed with a diploma. “Undereducated nurses often fail to recognize their disadvantage and do not aspire to graduate education” (Neese et al., 2007, p. 160).

With the increase in patient acuity in inpatient settings, the National Advisory Council on Nurse Education and Practice has recommended that by 2010 at least two-thirds of all registered nurses hold baccalaureate or higher degrees ("Strategies for Addressing the Evolving Nursing Crisis", 2003). It is also projected that only 36% of all RNs will have a BSN by 2010 and only 37% by 2020 (American Association of Colleges of Nursing, 2001, "Disturbing Future Trends" section ¶ 3).

With an emphasis on quality healthcare, the American Nurses Credentialing Center (ANCC) has developed a program to recognize Magnet status for hospitals and allow the dissemination of successful nursing practices and strategies. This status is awarded to healthcare organizations that provide nursing excellence. The ANCC has identified 14 Forces of Magnetism thought to be the attributes or outcomes that exemplify excellence in nursing. Professional development is one of the 14 forces required for designation as a Magnet facility. This category/force requires that the healthcare organization value and support "the personal and professional growth and development of staff" (American Nurses Credentialing Center, 2008, ¶ 16). The ANCC further articulates that programs that promote formal education, professional certification, and career development must be evident. The emphasis is to have higher educated nurses (recommended minimum of a BSN) working with the patients and providing care. It supports the understanding of the benefits of a higher educated workforce.

1.1.6 *Differences between Types of Nursing Programs*

It could be argued that the difference between a Diploma Nurse and a BSN is that a Diploma Nurse receives training whereas a BSN receives an education (Bevis & Krulik, 1991). Prior to 1952, nursing education had occurred exclusively in hospitals as diploma programs, controlled administratively by physicians who became the overseers of nursing practice and education (Ruby, 1999). Hospital-based training programs for nurses were initially staffed by physician faculty and much of the resistance to educational reform, and the development of ADN programs, emanated from powerfully networked hospital boards and superintendents trying to preserve their cost-contained labor source (Ruby, 1999, p. 26).

Some historical perspective on the differences between BSNs, ADNs, and Diploma Nurses can be obtained from a meta-analysis by Johnson (1988). One hundred and thirty-nine studies were reviewed and evaluated on 50 variables. Effect size was taken into consideration and each study was weighted in the same manner so that studies that yielded multiple effect sizes did not have greater weight in the analysis. Significant conclusions drawn were that:

1. There are differences between educational programs. Nurses from BSN programs had larger effect sizes (more differences) than did those from either the ADN or Diploma programs.
2. BSN nurses performed better in behaviors identified with professional education and practice: communication, knowledge, problem-solving, professional role, clinical judgment, and teaching.
3. Measures which resulted in a negative effect size for BSN nurses were: bureaucratic role, technical performance, and job satisfaction.
4. The effect size for leadership and autonomy indicated little difference between the abilities of the BSN and ADN and Diploma Nurse.
5. Years of nursing experience influenced the magnitude of the effect size (however, this data came from a small number of studies reporting information on years of service).

Today's diploma programs are still hospital based but taught by nurses. However, the diploma is still "characterized as an introduction to topics and the bachelor's degree is a more indepth study of a field or discipline" (Andersson, 1999, p. 34).

The ADN program originated in response to a nursing shortage, therefore, ADNs were educated to provide quality care in stable situations under the supervision of a professional nurse (Meyer, 1997). When shifting from diploma to academic education, "there must be a corresponding shift from a primarily training mode of instruction to methodologies that foster scholarship, reflection, inquiry, moral and ethical awareness, and caring, creative, self-reliant competence in the provision of nursing care" (Bevis & Krulik, 1991, p. 364). Due to the increase use of ADNs outside their original purpose, "Educators in AD programs often increase the content to prepare the student for more advanced roles, however, this is frequently at the expense of other course content" (Meyer, 1997, p. 1).

Numerous characteristics of ADN programs attract prospective students: easier access, lower tuition rates, geographic locations, completion time, reputation of graduates, dynamic curricula, and quality instruction to a diverse population (more males and minorities) (Mahaffey, 2002). Some of these are perceptions, not reality, and are why the ADN programs are considered to have graduates who have ethnic, cultural, social, economic, and gender diversity (National Organization for Associate Degree Nursing, 1998).

One indicator of the differences between the ADN education and BSN education is the course content in RN-BSN programs. These programs usually "require 24 to 32 hours of liberal arts courses with special attention to ethics and the humanities plus 24 to 30 hours advanced sciences" (Meyer, 1997, p. 1). The liberal arts education fosters analytical and creative capacities which translate into improved resourcefulness and the ability to apply knowledge and scientific reasoning. According to the American

Association of Colleges of Nursings' "Essentials of Baccalaureate Education for Professional Nursing Practice," professional nursing has five components: liberal education; professional values; core competencies; core knowledge; and role development (American Association of Colleges of Nursing, 2005a). These five components are consistent within baccalaureate education but not consistent within ADN and Diploma education. Therefore, professional nursing practice is equated with the BSN education.

To further articulate the differences, a study was conducted of 714 Diploma Nurses and 56 nurse managers to determine what content they thought was needed for post-diploma nursing education (Ellerton & Curran-Smith, 2000). The findings suggested that RNs wanted problem solving and clinical decision making courses.

"The growing demands placed on nursing in the emerging health care system require an expanded skill set that includes critical thinking, management and coordination of people and resources, leadership skills, evidence-based decision making, and technological application" (Bellack & O'Neil, 2000, p. 18). It is generally regarded that BSNs are prepared to meet these needs with more complex decision making abilities using both critical thinking and comprehensive assessment skills, awareness of epidemiological and individual risk factors, and sensitivity to cultural diversity (Bellack & O'Neil; Brooks & Shepherd, 1992; Meyer, 1997). Brooks and Shepherd also found that BSNs showed the highest degree of professionalism. BSNs demonstrate higher levels of skill in communication, delegation, assessment, teaching, counseling, discharge planning, supervision and delegation (Doran, Sidani, Keating, & Doidge, 2002; Price & Capers,

1995). They are more able to adapt to change (American Association of Colleges of Nursing, 2003).

According to the American Association of Colleges of Nursing (American Association of Colleges of Nursing, 2003), BSN programs encompass all of the course work taught in ADN and Diploma programs plus a more in-depth treatment of the physical and social sciences, nursing research, public and community health, nursing management, and the humanities. They provide additional course work designed to enhance professional development, prepare the new graduate for a broader scope of practice, and provide a better understanding of the cultural, political, economic, and social issues affecting healthcare delivery and patients. Critical thinking is identified in the National League for Nursing's accreditation guidelines as an essential component of BSN and higher nursing education.

Seventy-one percent of the chief nursing officers in 44 hospitals reported a difference in practice between BSNs, ADNs, and Diploma Nurses (Goode et al., 2001). The differences cited were that BSNs were better in relation to critical thinking, professional behaviors, and leadership skills. BSNs were also perceived as less task oriented than ADNs or Diploma Nurses.

A Korean study of ADN (n = 137), BSN (n = 102), and RN-BSN (n= 66) students regarding their critical thinking abilities found that BSN students had significantly better ($F = 4.159$, $p = 0.017$) critical thinking skills. (Shin, Jung, Shin, & Kim, 2006). The RN-BSN student had better critical thinking abilities than did the ADNs. Also found to have significant differences were analysis, evaluation, inference, deductive reasoning, and inductive reasoning scores with BSN students scoring the highest on each scale.

A study conducted in the United Kingdom (Clinton, Murrells, & Robinson, 2005) investigated the competencies of new graduates from three-year degree and three-year diploma courses at one, two and three year intervals after RN registration. Nurses were evaluated on 10 competencies which included research and policy awareness. The authors concluded that there was very little difference in the competencies of the two groups. However, it must be noted that both programs were three year programs and may not be equivalent, or even similar, to BSN and ADN programs in the U.S.

It does cost more initially to obtain four years of education. However, professional identification and broader knowledge results in higher levels of job satisfaction, which in itself is a reward and a return on investment for the individual. Investment in education thus contributes not only quantity but also quality to the workforce, which is a societal gain (Rambur et al., 2005). Kramer and Schmalenberg (2002) found that nurses in magnet hospitals consistently reported that the most valid indicator of competence was a BSN or MSN education and national specialty certification.

An interesting finding in the literature was that "in 1996, graduates of AD programs were, on average, aged 33.5 year vs 28.0 years for graduates of basic baccalaureate programs" (Bednash, 2000). The average age at graduation of ADNs is 33.2 whereas, the average age for the BSN is 27.5 and the Diploma Nurse is 30.8 (Mahaffey, 2002). Overall, average ages dropped very slightly between 1996 and 2002. Rambur et al. (2005) also found that the BSNs were younger and predicted this would translate into longer professional careers.

The ADN program is touted as a faster route, as it is typically a two year program, where the BSN is typically a four year program. The unfortunate reality is that students do not complete the ADN program in two years. Students are required to complete at least one year of prerequisites prior to entering the ADN program which means three years in school at a minimum. Many students enter nursing programs having completed more than one year of prerequisites (Nelson, 2002).

1.1.7 *Professional Values and their Relationship with Attitudes*

Nursing education is more than the development of instrumental skills and tacit knowledge. "It contains the promotion of professional attitudes and values as a foundation for nursing care and communication, as well as the integration of theoretical and methodological perspective in a human science based on the contemporary values of society" (Sivberg & Petersson, 1997, p. 407). A key aspect of professional values is lifelong learning. "Science and technology advance at a rate which leaves everyone's knowledge out of date within a few years of its acquisition" (Altschul, 1982, p. 30).

The relationship between values and attitudes is reciprocal. An attitude is described as being an indication of values (Jerdan, 1993; Nelson, 1983; Roche, 1990; Sanders, 1993). Conversely, personal and professional values "can be translated into one's attitude toward, and amount of time spent on, a thing or event in relation to other things or events" (Ochsner, 1996). Values are reflected in an individual's attitudes (Altun, 2002; Ochsner) and behaviors (Altun, 2002; Fetzer, 2003; McNeese-Smith & Crook, 2003; Ochsner, 1996; Schank & Weis, 2000; Sherman, 1992; Weis & Schank, 2000, 2002; Weis, Schank, Eddy, & Elfrink, 1993). The concept of value is interpreted as an attitude toward the ideals, beliefs, customs, or institutions of an individual, group,

and/or society (Aiken, 2002; Altun, 2002; Martin, Yarbrough, & Alfred, 2003; Ochsner, 1996; Sherman, 1992; Sivberg & Petersson, 1997).

Weis and her colleagues have researched and published extensively on professional values (Eddy, Elfrink, Weis, & Schank, 1994; Schank & Weis, 1987, 1998, 2000, 2001; Schank, Weis, & Ancona, 1996; Weis, 1995; Weis & Schank, 1991, 1997, 2000, 2002; Weis et al., 1993). The authors define professional values as "standards for action that are accepted by the practitioner and/or professional group and provide a framework for evaluating beliefs and attitudes that influence behavior" (Weis & Schank, 1997, p. 366). Strong values and attitudes, both positive and negative, motivate one to act.

"Values may be defined as the importance, utility, or worth attached to particular activities and objects, usually as ends but also as means in certain situations" (Aiken, 2002, p. 5). Both attitudes and values are motivators of behavior and are related to other social and personality variables (Aiken). In nursing, professional values are transmitted through the Code of Ethics prescribed by the American Nurses Association (2001). In the Code of Ethics, maintenance of competence and continuing personal and professional growth are stated as part of each nurses' duty. One of the hallmarks of a profession is commitment to continuing professional development which requires, in part, a commitment to continuing education. Therefore, evaluation of the link between professional values and professional development can provide useful information to those interested in nurses' attitudes toward continuing formal education.

1.1.8 *Role of Professional Socialization in Values and Attitude Formation*

Professional socialization is the process by which, consciously and subconsciously, an occupational identity is gained and the values, norms, beliefs, skills, behaviors, and attitudes of a profession are internalized and changed (Clark, 1997; du Toit, 1995; Fetzer, 2003; Sherman, 1992; Sivberg & Petersson, 1997). "The desired outcome of professional socialization is the achievement of professionalism" (Nelson, 1983, p. 23). This process takes time and often starts during formal nursing education (du Toit; Eddy et al., 1994; Fetzer; Martin et al., 2003; Moore, 1991; Ochsner, 1996; Saarmann, Freitas, Rapps, & Riegel, 1992; Sherman; Sivberg & Petersson; Weis et al., 1993) and, as such, opens opportunities for nurse educators to instill a positive attitude toward lifelong learning. However, it is important to understand if poor attitudes and values exist to determine a need for change.

Professional socialization continues while the nurse is practicing (Schank & Weis, 2001) and is enhanced by advanced education (Weis & Schank, 2002). "Professional development with resultant professional socialization needs to be an ongoing process and part of life-long learning" (Weis & Schank, p. 272). This is especially important for the nursing profession as it is struggling to attain professional status and since developments in health care are progressing rapidly. "Lifelong learning through continuing education is a core characteristic of a professional" (DeLeskey & Fetzer, 2007, p. 21).

Within the non-empirical literature, the need for acquisition and internalization of professional values is linked with professional development (Weis & Schank, 1991, 2002) and ethical behavior (Clark, 1997; Weis & Schank, 1991, 2002). The link between values and professional development or ethics also appears in many of the research

articles (Altun, 2002; Fetzer, 2003; McNeese-Smith & Crook, 2003; Moore, 1991; Schank & Weis, 2000, 2001; Sherman, 1992; Weis et al., 1993). The reason for this link is that health care today is highly complex, market-driven, and requires nurses to make value-laden decisions. This challenges nurses daily to have current knowledge and to make ethical decisions. Hence, authors have indicated that professional values are correlated to behavior. Maintaining current knowledge requires continuing education of some sort (e.g., reading professional journals, attending conferences, attending classes).

1.1.9 *Attitudes, Values, and Motivations to Act*

According to the Theory of Reasoned Action (Fishbein & Ajzen, 1975), attitudes and subjective norms are predictive of behavioral intentions which, in turn, are highly predictive of actual behavior. Attitudes are believed to be the most significant predictor of behavioral intentions.

There is no doubt that the concepts of attitudes and values are of interest to many researchers. "The term *attitude* can be found in Western literature as early as the 18th century, but it was not introduced into psychology until the 1860s" (Aiken, 2002, p. 2). A literature search of the Cumulative Index of Nursing and Allied Health (CINAHL) retrieved 41282 results for the term attitude, 27845 results for the term values, and 199 results for professional values. A search of the PsycINFO database found 253573 results for attitude, 60993 for values, and 217 for professional values.

The constructs of attitudes, motives, and values continue to play a central role in health and psychology studies in an attempt to understand human behavior. This is evident by the high volumes of articles, both empirical and non-empirical, found in the

literature which addresses these constructs. Often, however, these terms are used interchangeably, to describe each other, or without clear definitions.

As evidenced by the literature reviewed, it is generally accepted that values guide behavior (Altun, 2002; Fetzer, 2003; McNeese-Smith & Crook, 2003; Ochsner, 1996; Schank & Weis, 2000; Sherman, 1992; Weis & Schank, 2000, 2002; Weis et al., 1993). Values can also be learned (Clark, 1997; Fetzer; Nelson, 1983; Ochsner; Sherman; Sivberg & Petersson, 1997; Weis & Schank, 2002) and, although fairly stable, are dynamic in nature (Altun; Ochsner; Weis & Schank, 1991, 2002).

Examples of the topics for which attitudes have been researched include: computer use, racism, online learning, health behaviors (e.g., smoking, exercise, wearing a helmet, alcohol consumption, contraceptive use, cancer screening), job satisfaction, and politics. What these examples have in common is that they result in evaluating a behavior or behavioral intention.

A number of nursing studies have looked at motivation and nursing education. This demonstrates the importance of motivation in behavior and outcomes. One's opinions and motives are linked to actions; a strong opinion can motivate one to participate (Carlson, 1992; Lethbridge, 1989). Motivation may be a function of individual differences, induced by situational constraints, or both.

1.1.10 *Definitions: Attitudes, Values, Motives*

Dictionaries provide a starting point for defining a construct. The Oxford American Dictionary of Current English (Abate, 1999) provides the following definitions for the terms of interest:

- Attitude: "a settled opinion" and " behavior reflecting this" (p. 44)

- Value: “one’s principles or standards; one’s judgment of what is valuable or important in life” (p. 902)
- Motive: “a factor or circumstance that induces a person to act in a particular way” (p. 516)
- Behavior: “the way one conducts oneself; manners” (p. 65)
- Action: “the fact or process of doing or acting (*put ideas into action*)” (p. 8)

Taber’s Cyclopedic Medical Dictionary (Venes, 2001) provides similar definitions as follows:

- Attitude: “Behavior based on conscious or unconscious mental views developed through cumulative experience” (p. 189)
- Value: “something that is cherished or held dear” (p. 2208)
- Behavior: “the manner in which one acts; the actions or reactions of individuals under specific circumstances” (p. 225)

Some synonyms to the term ‘attitude’ include: orientation, approach, outlook, manner, stance, position, feelings, thoughts, mind-set, way of thinking, and way of behaving. Some related words are opinion, point of view, view, standpoint, line, posture, and pose.

From a review of various dictionary and thesaurus definitions, the three characteristics that seem most obvious and consistent were that ‘attitudes’ are: 1) a mental state – conscious or unconscious; 2) a value, belief, or feeling; and 3) a predisposition to behavior or action. These three characteristics fit into the cognitive, affective, and behavioral domains. The literature supports the findings that an attitude has a cognitive, affective, and behavioral component (Beatty, 2000; Carlson, 1992; Dawson,

1992; Emerson, 1992; Hayes & Darkenwald, 1990; Jerdan, 1993; Melusky, 1998; Nelson, 1983; Roche, 1990; Sanders, 1993; Small, 1995; White-Taylor, 1992).

A definition by Dawson (1992) stated that in social psychology "it [attitude] refers to a disposition towards or against a specified phenomenon, person or thing" (p. 473). This definition provides two other aspects of an attitude which are supported in the literature. Firstly, an attitude is bipolar; it can be positive or negative, favorable or unfavorable (Jerdan, 1993; Nelson, 1983; Ochsner, 1996; Roche, 1990; Small, 1995). Secondly, an attitude is a response to a person, object or situation (Beatty, 2000; Carlson, 1992; Emerson, 1992; Nelson; Ochsner; Sanders, 1993; Small; White-Taylor, 1992).

Other qualities of attitudes include stability over time, resistance to persuasion, and the prediction of behavior. The degree of strength of any particular attitude is thought to be related to "the importance of the issue, extremity of the attitude, its stability, one's certainty in one's position, vested interest, involvement, affective-cognitive consistency, knowledge about the issue, frequency of thinking about it, and latency of conscious, deliberate responses to attitudinal inquiries" (Ajzen, 2001, p. 39). Ambivalence to a particular object is said to reflect the co-existence of positive and negative dispositions.

1.1.11 *Why Study Attitudes*

Attitudes, motives, values, and beliefs are constructs used in multiple disciplines and in multiple situations and are of interest to social and behavioral researchers. These constructs "involve the fundamental psychological process of evaluating the objects and events in one's experience" (Aiken, 2002, p. 2). They represent cognitive, affective, and behavioral responses to, and ways of conceptualizing and dealing with, the environment. They also influence perception and behavior. As such, there is a link between these

constructs and whether a nurse engages in continuing professional education. Attitudes, motives, values, and beliefs may be characteristic of certain individuals, groups of people, or even an entire population depending on context and definition.

Formal education, socialization, and life-long learning play important roles in values development. Values and attitudes have a direct impact on nursing practice. Attitude evaluation is so important in nursing that the National Board for Nursing in Scotland mandated that it be one of the components evaluated during the qualifying examination (Dawson, 1992). For this reason, it is important to evaluate information on nurses' attitudes toward and about education. "Where there is lack of motivation learning will be adversely affected, and may be reflected in students' attitudes towards their education and training" (Morrin, 1992, p. 193). Attitudes have been shown to affect participation in, and the outcomes of, educational programs (McCauley, Jenckes, & McNutt, 2003; Morrin, 1992; Steginga et al., 2005; Yu & Yang, 2006). Attitudes can be positive or negative.

It has been demonstrated that motivation or a positive attitude toward education enhances the learning experience. "When individuals are intrinsically motivated, they engage in an activity because they are interested in and enjoy the activity. When extrinsically motivated, individuals engage in activities for instrumental or other reasons" (Eccles & Wigfield, 2002, p. 112). In 1971, "California became the first state within the U.S. to mandate continuing professional education" (Kersaitis, 1997, p. 135) and the trend has snowballed. Since most states now mandate CE units for license renewal, participant motivation may be very different for RNs who are completing CE units when compared to those returning to school for a BSN.

1.2 Purpose of the Study

The purpose of this exploratory, comparative, descriptive study is to examine the attitudes of nurses initially registered with an associate degree or diploma in nursing toward continuing formal education at the baccalaureate level and/or beyond; whether these attitudes change over time; and if there are geographical differences between nurses' attitudes (east coast versus west coast of the United States). The understanding of attitudes and changes related to years of practice might indicate when best to market continued formal education.

1.3 Research Questions

The research questions for this study are:

1) What are the attitudes of Associate (ADN) and Diploma educated nurses toward continuing formal education?

2) Do the attitudes of ADNs and Diploma Nurses toward continuing formal education change over time as determined by years of nursing practice?

3) How do the attitudes of ADNs and Diploma Nurses who do return to school for a BSN or higher differ from those who have not returned to school or from those planning to return to school?

4) Do the attitudes of ADNs and Diploma Nurses differ according to geographical location (west vs. east coast)?

1.4 Definition of Terms

Diploma in Nursing (Program). In the United States, this type of degree is usually awarded by hospital-based nursing schools. Students awarded a Diploma in Nursing are qualified to sit for the NCLEX-RN (national/state certifying examination) and apply for

licensure as a Registered Nurse (Wikipedia, 2007). Prerequisite courses may be required for entrance into the program.

Diploma Nurse. An individual who has gone through two to three years of training through a hospital-based nursing program then passed the national certifying examination (Peterson's.com, 2007).

Associate Degree in Nursing (Program). Similar degrees, which are included in discussion of ADN programs in the current study, are the Associate of Nursing (AN), the Associate of Applied-Science in Nursing (AASN), and the Associate of Science in Nursing (ASN). "This is an entry-level tertiary education nursing degree. In the United States, this type of degree is usually awarded by community colleges or similar nursing schools. Students awarded this degree are qualified to sit for the NCLEX-RN and apply for licensure as a Registered Nurse" (Wikipedia, 2006).

Associate Degree Nurse (ADN). An individual who has earned a two year nursing degree (an ADN, AN, AASN, or ASN) and passed the state board examination (Peterson's.com, 2007). These nurses have completed at least one year of prerequisite courses prior to their nursing program.

Continuing Formal Nursing Education. Post-secondary education in a university which leads participants to a Bachelors degree, or higher, in nursing. It is differentiated from continuing education which is required in most states for license renewal.

Attitude. A multi-dimensional construct which is "potentially bipolar, varies in its intensity, and mediates evaluative behavior" (Roche, 1990, p. 19). An attitude has a cognitive, affective, and behavioral component, it is bipolar, learned, and is a response to

a stimulus (a person, object, or situation) (Aiken, 2002; Albarracin, Johnson, & Zanna, 2005; Roche, 1990). The empiric referent must measure these together.

Attitude Toward BSN Education. An individual's evaluative tendencies or cognitive, affective, and behavioral responses to the concept of continuing formal nursing education. It is operationally defined as the score received on the Attitudes Towards BSN Education (ATBSNE) semantic differential scale (Roche, 1990).

1.5 Assumptions

The assumptions of this study were as follows:

1. What an individual reports is an accurate representation of his or her feelings and thoughts as consciously known to them.
2. Attitudes, motives, values, and beliefs of subjects can be identified, communicated, and measured.
3. The motives of the subjects for participation in this study are altruistic.

1.6 Limitations

The limitations of this study were as follows:

1. Study methodology. The limitations of a descriptive, comparative design are that no variables are manipulated and control of extraneous variables is not completely possible. Descriptive studies help to identify extraneous variables and variables which can be manipulated in future studies.

   The questionnaires will be distributed through the U.S. Postal Service. Although convenient, response rates to mailed questionnaires tend to be low. "Realistically, researchers can expect return rates from 30 percent to 60 percent for most studies" (Fain, 2004, p. 144). According to Burns and Grove (2003), questionnaires distributed

via the postal system are voluntary and therefore also raise the question as to what makes an individual respond.

2. Use of a self-report instrument: the possibility of respondent bias or the self-awareness of the respondent and, unless there is a 100% response rate, the potential of nonrespondent bias. Respondent bias is the "tendency for some respondents to overstate performance of socially desirable behaviors" (Ajzen & Fishbein, 2004, p. 432). This influences what is seen or heard. "Attitudes, like all psychological constructs, are latent, we cannot observe them directly. So all attitude measurement depends on those attitudes being revealed in overt responses" (Albarracin et al., 2005, p. 22). If the construct is not directly observable, any attempt at measurement will be incomplete and influenced by the desire of the respondent to be truthful and/or accurate.
3. Survey Length. The ATBSNE scale is a 19 item semantic differential scale. Ideally, measurement using a semantic differential scale should involve the administration of a large set of questions (at least 100 questions) to measure a single attitude (Albarracin et al., 2005). Although the ATBSNE has fewer than the recommended questions, reliability and validity were proven acceptable by Roche (1990).
4. Indirect measurement of the concept. One problem with attitude measurement is that the concept of attitude, like many abstract concepts, is a creation – a construct. Many authors argue that an 'attitude' cannot be directly measured; we can only infer information about an attitude based on actions and words (Dawson, 1992; Henerson, Morris, & Fitz-Gibbon, 1987). Therefore, the ATBSNE indirectly measures attitudes.

Many of these limitations will be reduced through the assumptions of, and methodological choices for, the study. Randomized sample selection will be used to control for extraneous variables, eliminate bias, and aid in the attainment of a representative sample. Since it is exploratory, this study is only expected to provide foundational information and determine if there is a need for a larger study.

1.7 Gaps in the Literature

A review of literature about ADNs and Diploma Nurses interest, attitudes, perceptions, influences, motives, and reasons related to decisions regarding returning to school for a bachelor of nursing science degree (BSN) found a number of research gaps which the current study will fill. These are the geographical regions studied, relationship between age and attitude, status of nurses surveyed, type of education studied, and age of research studies.

The research mainly focused on eastern U.S. or another country. No studies were found which had been completed on the west coast. Although nursing schools on the west coast typically do not provide Diploma programs, movement of graduates occurs. The current study will not only include nurses on the west coast but will also provide a comparison of attitudes between coasts.

Age and years practicing as a nurse appear to be dominant features in the profile of RNs in both categories (those returning and those not returning to school). What was not identified was the correlation between age or years of practice and nurses' attitudes toward returning to school. Although it was suggested that recruitment into RN-BSN programs start younger, there was no clear demarcation identified as to when RNs change

their attitudes that they can return to school. The current study will explore attitude changes related to years of practice.

Delaney and Piscopo (2004) reported that "an extensive review of the literature revealed that few studies have examined RNs' thoughts about returning to school to complete their BSN; most studies were conducted after nurses had returned to school" (p. 158). Much of the nursing research is on continuing education or professional development such as that mandated by many nursing licensing boards for maintenance of practice registration. Few studies clearly defined what specific attitudes were related to higher participation in continued formal education. There is a lack of research related to the attitudes of nurses initially prepared below the BSN level, especially those who have not already returned to school. This study increases the knowledge about, and understanding of, this group of nurses. The current study surveyed the attitudes of nurses who have returned, who plan to return, and who do not intend to return to school for continued formal education.

A final limitation of the available research is that the majority of studies are over 10 years old. Health care has changed and become more complex; research should be reflective of this change.

1.8 Significance to Nursing

Research has demonstrated that a more educated workforce improves healthcare quality and patient outcomes and suggests a need for more BSN educated nurses providing direct patient care. It has also been shown that higher educated nurses have less disciplinary action and medication or treatment errors. At the same time, there is a need for appropriately educated nursing faculty to meet the challenges of the current nursing

shortage. Since ADN and Diploma programs will continue to exist, it would be beneficial for registered nurses (RNs) educated below the baccalaureate level to return to school for continuing formal education.

More nurses need to be encouraged and assisted to return to school. Not only would this meet the needs of society for quality healthcare but these nurses could potentially increase the pool of clinically competent nurse educators. In order to encourage ADNs and Diploma Nurses to return to school, there is a need to understand their attitudes toward BSN education and returning to school to obtain the BSN, as well as whether these attitudes change over time (according to years of practice).

This information might lead to research on ways of fostering positive attitudes toward continuing education and lifelong learning among nurses, and when best to market and motivate ADNs and Diploma Nurses to return to school for the BSN or higher degree. It might also be useful in identifying what changes could be made to prepare a workforce ready to meet the challenges and changes occurring in healthcare today, and in the future.

1.9 Summary

Leading healthcare bodies, such as the IOM and the AHRQ, have made quality in healthcare a priority. The evidence suggests that education has a positive impact on the quality of healthcare, the nursing shortage, the need for nursing faculty, and nurses' attitudes and actions.

It has been shown that there are decreases in patient morbidity and mortality rates, and nurse disciplinary actions, when there are higher educated nurses providing care. As the population ages and the delivery of healthcare changes, patient acuity is increasing.

Thus, research and changes in healthcare are supporting the need for increased number of BSN prepared nurses providing direct patient care. Interestingly, it is not only the nursing research which demonstrates this but it has also been reported that "76% of the public thinks nurses should have four years of education or more past high school to perform the duties of their job" (Mattson, 2002, p. 72).

Given the current nursing shortage, it is unlikely we will see diploma nursing and associate degree nursing programs close. A few diploma programs have, in fact, opened during this latest nursing shortage. Both ADN and Diploma programs are seen as more economical and faster routes to increasing the nursing supply. In fact, the ADN program, developed by Mildred Montag for her doctoral dissertation, was an answer to the nursing shortage of the time (Nelson, 2002), thus, it will likely be considered an answer to the present day shortage.

Associate degree and diploma programs are helping to meet the need for nurses and are adequately preparing nurses for basic entry into practice. However, these programs are not meeting the need for nursing faculty and other advanced practice nurses, especially educators. The minimal requirement for a clinical nursing faculty individual is the BSN; a doctorate is preferred to teach at the university.

When there is a nursing shortage and the majority are educated below the BSN level, there are fewer nurses to become educators. Fewer educators means nursing programs have limited abilities to expand and graduate more nurses. A vicious cycle begins.

With currently less than one third of the nursing workforce educated at the BSN level or above (Health Resources & Services Administration, 2006), it will be difficult to

have more BSN educated nurses providing care or teaching the next generation of nurses. Additionally, there are few incentives for nurses obtaining a BSN. Research supports that few nurses initially licensed with an ADN or Diploma return to school for continued formal education.

Nurses need the scope and depth of knowledge, skill, and judgment attained through baccalaureate education in order to teach and/or to provide optimal quality care to complex patients. It has been shown that the BSN education provides a broader education, increased liberal arts knowledge, improved critical thinking skills, higher levels of professionalism, and improved attitudes toward life-long learning. For most of today's nurses, the BSN is a stepping stone to advanced education.

Each nurse enters the profession with their own set of values. However, nursing also has professional values, written in their Code of Ethics; one of which is life-long learning. It is the role of nursing education to instill and foster the professional values and Code of Ethics of Nursing in future nurses. It has been shown that this is accomplished, in part, through a nurses' basic education, professional socialization, and professional development. Professional development and a commitment to life-long learning are professional values that are linked to decreases in burnout and increased occupational commitment.

A positive attitude toward education improves the outcomes of any educational offering. Since ADN and Diploma programs will continue to exist, in order to meet the needs of society, educators in these programs must foster a positive attitude in their graduates toward continuing their nursing education to the BSN or higher. Additionally, more nurses need to be encouraged and assisted to return to school. In order to

accomplish this, there is a need to understand the attitudes of ADNs and Diploma nurses who have returned to school, those who have not returned, and those who are considering returning toward furthering their education to the BSN level and/or beyond.

The purpose of the current research was to examine the attitudes of nurses initially registered with an Associates Degree or Diploma toward continuing formal education, whether these attitudes change over time, and if there are geographical differences between nurses living in different regions of the U.S. It is hoped that the listed assumptions of the study and methodological design reduced the limitations identified.

Research is remiss in providing studies completed on the U.S. west coast, which demonstrate a connection between years of nursing practice and attitude toward continuing nursing education, surveyed nurses at different educational stages, were specifically related to continuing formal education, and were current. It is hoped that the current research will fill these gaps.

In conclusion, there is a greater need for baccalaureate and advanced degree nurses however, the majority of nurses are educated in ADN or Diploma programs. This translates into a need for ADNs and Diploma nurses to continue their formal education (preferably beyond the BSN) and who will choose to teach. It is expected that many RNs who return to school would also remain at the point of care and that some who do leave will go into education. A positive attitude toward, and a commitment to, lifelong learning is requisite for nurses to choose to continue their education. Understanding of attitudes towards continuing formal education is a first step in encouraging nurses to return to school.

CHAPTER 2

REVIEW OF THE LITERATURE

2.1 Introduction

The purpose of this literature review is to provide a foundational understanding of the topics which drive this research and the current status of research on attitudes and continuing education. The primary need for this research, a need for increased numbers of BSN educated nurses, will be discussed in relation to patient safety issues and the nursing and faculty shortages. Other reasons discussed include the need for nurses to develop professional values and to continue professional development.

Once the need for the current research is established, research supporting the study of attitudes will be presented. This will include: laying the foundation for how attitudes relate to values, motives, and behaviors; reviewing research on attitudes and nursing education; and profiling those nurses who choose to return or not to return to school and their perceptions of the reasons, benefits, and barriers of returning to school.

The review of the literature will be accomplished through review, analysis, and synthesis of the literature in nursing, psychology, medicine, sociology, and some other health-related professions. Since much of the research on attitudes is older, it provides limited, yet foundational, information. These older studies will be summarized so that

their findings can be compared with recent research which will provide information on changes over time.

A final section of this literature review will summarize the similarities in research on attitude and nursing education. This is done so as to provide a general overview of the research in existence and to articulate some of the design limitations and not to discuss findings. The current study addresses some of these limitations as discussed in chapter 1, however, this section is provided so that the reader contextualizes the literature review.

Understanding of current values and attitudes, and how these are developed, may lead to ways to improve values and attitudes, thereby enhancing the nursing profession. Furthermore, understanding of nurses' attitudes toward continuing formal education may help identify specific reasons why more nurses do not continue their formal education and lead to further research and to ways in which these attitudes might be changed to advance the profession of nursing.

According to Allport (1935), attitudes are "probably the most distinctive and indispensable concept in contemporary American social psychology" (p. 798). Attitudes are an element of learning which influences learning efficiency, motives, and knowledge application. "The learner's attitude, experience, cognition, and learning style are four important indicators that contribute to learning, with attitude being the most important" (Yu & Yang, 2006, p. 768). A positive attitude toward education has been demonstrated to enhance the effectiveness of any educational program.

2.2 Patient Safety

Research on patient safety can be divided into two types. The first type, which is causing much discussion within the profession, suggests lower patient morbidity and

mortality rates are associated with higher educated nurses providing care. The second less discussed concern focuses on practice issues, specifically higher numbers of disciplinary actions for nurses prepared below the BSN level. This research has helped to demonstrate the need to focus political action and research on graduating more nurses with BSNs and advanced degrees.

2.2.1 *Patient Outcomes*

Four studies were found that evaluated the relationship between nurse education and mortality (Aiken et al., 2003b; Estabrooks et al., 2005; Sasichay-Akkadechanunt, Scalzi, & Jawad, 2003; Tourangeau et al., 2007). Three of these studies concluded that higher proportions of BSNs providing patient care equated to lower mortality rates using large samples. It should be noted however, that each of these studies only used one geographic region.

Landmark research by Dr. Linda Aiken and her colleagues (2003b) demonstrated that an increase in the proportion of nurses with a BSN was associated with a decrease in mortality and failure to rescue. Aiken et al. collected data from the administrative records of 232,342 patients in 168 adult general hospitals in Pennsylvania. Cross-sectional analysis revealed that a 10% increase in BSNs decreased the risk of patient death and failure to rescue by 5% (OR = 0.95, 95% CI = 0.91-0.99). These conclusions, and their implications, sent the nursing community into an uproar, heated the debate on entry-into-practice, and spurred further research.

The same year Aiken's results were published, a study conducted in Thailand (Sasichay-Akkadechanunt et al., 2003) was published contradicting Aiken's findings. The Thai study contained the results from observations of 2531 patients on ten surgical units

in a single hospital. Although the authors of this study found no significant relationship between in-hospital mortality and the percentage of BSN-prepared nurses (partial analysis approach: OR = 1.486, 95% CI = 1.088-2.029; marginal analysis approach: OR = 1.115, 95% CI = 0.854-1.454), results should not be generalized to the U.S. since it was a single hospital, a much smaller sample, and the standards for nursing education may not be comparable.

A Canadian study (Estabrooks et al., 2005), using a similar design to that used by Aiken et al. (2003a), analyzed the medical records of 18,142 patients in 49 acute care hospitals in the province of Alberta. Hospitals with a higher proportion of BSN-prepared nurses were found to be associated with lower rates of adjusted 30-mortality (OR = 0.81, 95% CI = 0.68-0.96). Thirty-day mortality rate included the number of persons who died within 30 days of admission adjusted for the effect of institutional factors.

Tourangeau et al. (2007) evaluated the impact of hospital nursing care on the 30-day mortality of 46,993 acute medical patients in Ontario, Canada. Data was collected from three sources: the Ontario Discharge Abstract Database 2002 to 2003, nurse data from the Ontario Nurse Survey 2003 (n = 5,980), and hospital staffing data from the Ontario Hospital Reporting System 2002 to 2003. Although 55% of the variance remained unexplained, the authors found a 10% increase in the proportion of BSNs was associated with nine fewer deaths for every 1000 discharged patients (p = 0.027).

2.2.2 *Nurse Practice Issues*

Two older studies were found that linked higher rates of disciplinary actions and/or medication/treatment errors to ADNs and Diploma nurses (Green, 1996; Murphy

& Connell, 1987). These studies were conducted in Texas and Arizona and demonstrate that this is not a new concern.

Five more recent studies (Blegen et al., 2001; Carruth & Booth, 1999; Delgado, 2002; Fagin, 2001; Roach et al., 1998) were found in which the findings were consistent with those published in the older studies: nurses prepared at the ADN and Diploma levels made the majority of practice-related violations.

Roach et al. (1998) reviewed the disciplinary hearing materials and offender self-reports of 94 RNs in the state of Colorado. A statistically significant relationship was found between the disciplined nurses' highest education and the degree of disciplinary actions. ADNs received more severe actions against them than nurses with other educational credentials ($r = 0.023$, $p = 0.013$).

According to a study by Carruth and Booth (1999), of the approximately 40,000 RNs licensed in the state of Louisiana between 1992 and 1995, 500 were disciplined for violations of the Nurse Practice Act. Of the data reviewed from a random sample of disciplined nurses ($n = 249$), 41.3% of the disciplined nurses were graduates from ADN programs compared to 25% from BSN programs. Furthermore, the authors concluded that ADNs were disciplined more frequently than Diploma nurses and Diploma nurses were disciplined more frequently than BSNs. These findings confirmed prior studies.

In a study using secondary data analysis of data from a New York State Department of Education survey, Fagin (2001) reviewed disciplinary actions for violations in medication administration. The author concluded that ADNs were more than nine times as likely as those with a BSN to be charged with disciplinary action.

Another study which also used secondary data analysis, Blegen, Vaughn, and Goode (2001) reviewed the data from two previous studies conducted on the inpatient units at 12 hospitals (first study: n = 42 units and second study: n = 39 units). Of the relationships studied, only one of four effect coefficients was significant. Units with more BSNs had higher reported medication error rates. It was suggested that error reporting rates may be correlated with ethical behavior.

The final study, reviewed in this section, analyzed the relationship between education and nurse disciplinary action in Ohio (Delgado, 2002). In total, the disciplinary actions of 43 RNs were evaluated. The author found a higher percentage of ADNs were disciplined than was expected. The Ohio workforce distribution had a very different distribution than the disciplined RNs which was: "27.9% diploma graduates, 62.8% associate degree graduates, and 9.3% baccalaureate degree graduates; no disciplinary actions were invoked against nurses with a master's degree or higher" (2002, p. 160). The author cited the most common cause of disciplinary actions as practice-related issues (37.2%), including competency.

2.3 Current and Worsening Faculty Shortage

A serious nursing shortage has put pressure on educators to produce more nurses. The problem is not qualified applicants for schools of nursing; in fact, there are more qualified applicants than faculty available to teach them. In addition to the current lack of faculty, many faculty are looking toward retirement in the near future.

A survey of vacant faculty positions, conducted by the AACN and reported on by Fang and Wilsey (2006), found that there were 637 faculty vacancies in the 329 schools which responded. An additional 55 positions were needed, due to increase in student

numbers, yet there were no official vacancy postings. The national vacancy rate was reported to be 7.9%. Most vacant positions required an individual with a doctoral degree.

In 2001, a study to assess the faculty situation in the State of Oregon was conducted on behalf of the Northwest Health Foundation ("Oregon's Nursing Shortage. A Public Health Crisis in the Making", 2001). Data was obtained from: 1) existing statistical data, 2) interview, 3) focus groups, and 4) current literature. From the findings, the authors predicted that by 2010 there would be a 46% vacancy rate in BSN programs and a 33% vacancy rate in ADN programs in the state.

The average age of nursing faculty, the proportion over 50 years of age, and the numbers preparing for retirement within the next decade, are all increasing (American Association of Colleges of Nursing, 2003b, 2005b; Holmes & Pryce-Jones, 2006; Lenburg, 2002; Neese et al., 2007), leading to a decreasing nursing faculty workforce. The salary of nursing faculty is also a deterrent as many faculty with graduate preparation make less than they would as a senior staff nurse (Cleary et al., 2007; Kowalski et al., 2006; Tanner, 2006b). Another issue is increased workloads which is a direct result of increases in enrollment and higher student to faculty ratios (Cleary et al.; Emerson & Records, 2005). The implications of a continuing shortage, for both nursing education and practice, are serious (Cleary et al.; De Young & Bliss, 1995).

Enrollment in advanced practice nursing (APN) programs are flourishing in comparison to enrollment in nursing educator programs (Berlin, Stennet, & Bednash, 2002; Neese et al., 2007). Many nursing education programs were converted in the 1990s to nurse practitioner programs as this program was in higher demand (De Young et al., 2002; Hinshaw, 2001; Walrath & Belcher, 2006); it was also seen as a more autonomous,

more prestigious, and lucrative career by students (American Association of Colleges of Nursing, 2007; Cleary et al., 2007). At that time, it was also thought that clinical graduate education prepared one to teach (Neese et al.). This was proven to be inaccurate. Currently, most APN programs do not have courses in curriculum design or teaching (National League of Nurses, 2002). There is a dire need to promote nursing education as a viable career option.

High enrollment in APN programs which do not prepare nursing faculty is supported by the findings of a North Carolina study (Cleary et al., 2007). "In 1995, 15% of all RNs with master's or doctorates were nursing educators; by 2004, this proportion had dropped to 11%" (Cleary et al., p. 126). The authors calculated that by 2020, the state would have less than half of the faculty needed to prepare new nurses. The root cause of the problem was determined to be a growing shortfall of RNs appropriately educated to take faculty roles. This study was part of a longitudinal educational mobility study of RNs in the state.

Another issue seldom given much publicity in the U.S., although relevant, is that poor basic education is leading to low literacy skills. Much has been written about the decline of the U.S. educational system graduating students from high schools (Hersh & Merrow, 2005). The National Survey of America's College Students (Baer, Cook, & Baldi, 2006) found students enrolled in 2-year colleges in the U.S. had lower literacy levels and professional expectations than those enrolled in 4-year institutions. A global nursing faculty shortage, in addition to lower literacy levels, creates a situation where "there are fewer qualified nurse educators to prepare less-well qualified students to care for greater numbers of sicker patients" (Neese et al., 2007, p. 154).

2.4 Impact of the Faculty Shortage and the Nursing Shortage

The impact of the faculty shortage leads to a vicious circle. Not enough faculty to educate an adequate supply of nurses leads to a nursing shortage. A nursing shortage spurs a push to educate nurses faster (perceived to be through the Diploma or ADN route). Increasing enrollment in ADN and Diploma programs decreases nurse employers' ability to hire BSN graduates. Nurses, once hired, have less incentive to return to school to maintain employment. If nurses are not choosing, or being encouraged to choose, the BSN education, there is a push to graduate Diploma nurses and ADNs, and there are fewer incentives for nurses to return to school, where will the educators come from? The circle is started over with an increasing shortage of faculty.

The current nursing shortage is predicted to reach dire conditions by 2020. There are two major factors that negatively impact increasing the size of the nursing workforce: lack of program funding, and insufficient, decreasing numbers of faculty (American Association of Colleges of Nursing, 2004; Mathews, 2003; Moon, 2004). Without sufficient funding and/or faculty, programs cannot enlarge to educate the needed numbers of nurses. There are sufficient numbers of qualified applicants to nursing programs (American Association of Colleges of Nursing, 2005c; Board of Registered Nursing, 2004; Coffman & Spetz, 1999) but programs are having difficulties expanding to accept more applicants. The consequences of a lack of funding are issues without need for discussion. Nursing programs are expensive to run.

While the number of doctoral programs in nursing has increased over the past 25 years, enrollment and graduation from these programs has remained fairly constant (American Association of Colleges of Nursing, 2005c; Anderson, 2000). The same issue

(consistent enrollment and graduation rates) exists with master's programs and in pre-licensure programs (Diploma Nurses, ADNs, and BSNs). According to the AACN (American Association of Colleges of Nursing, 2007), in the fall of 2005, 3160 nurses were turned away from master's programs and 202 from doctoral programs. Again, this has happened because there is simply not enough faculty available to teach.

It has been clearly demonstrated that there is a faculty shortage. As faculty are asked to increase class size and workload, burnout of the remaining faculty, in addition to their aging, becomes a further threat of decreasing the nursing faculty supply (De Young & Bliss, 1995). If the numbers of nursing faculty are indeed dwindling, as appears to be evident, the implications could include smaller nursing school admissions or a decline in the quality of programs. "In times of shortage, there is always a call to reduce educational requirements and to change licensing and accreditation standards for professional nursing practice" (Donley & Flaherty, 2002, ¶ 2).

A global nursing faculty shortage can be inferred from an absolute lack of practicing nurses. The global nursing faculty shortage is not only impairing alleviation of the nursing shortage but it is also interfering with the development of nursing knowledge. "There are simply too few doctorally prepared nurses available to conduct nursing research and role model nursing as an intellectual enterprise" (Neese et al., 2007, p. 159).

Health care providers are desperately seeking nurses to fill vacancies and are, therefore, not selectively choosing baccalaureate prepared RNs; even with recent research on quality of patient care. This decreases the incentive for students to enroll in BSN programs and for nurses to return to school to advance their education. In an older study investigating the reasons RNs returned to college, Fotos (1987) surveyed 57 RN students

enrolled in upper division nursing classes in a West Virginia university. The author concluded that "most RN students are not pressured to attend class for job-security or job-requirement reasons; however, many are seeking to use their education as a means to advance professionally" (p. 121). The lack of push from employers is probably truer today given the current nursing shortage and the lack of necessity of a BSN to obtain any nursing position.

2.5 Professional Values and Professional Development

Moore (1991) studied the professional values of baccalaureate nursing students (n = 171) in two different types of nursing programs (generic and transfer from ADN programs). In this study, professionalism was operationalized as those values, behaviors, and roles which support nurse autonomy, client advocacy, and personal and professional accountability to the various constituencies to which the nurse must answer during ethical dilemmas. Generic students were found to score higher in those issues involving autonomy whereas the transfer students scored higher in those issues involving accountability. Both groups scored the highest in those issues involving client advocacy. These findings support that different professionalism outcomes result from different types of nursing programs.

In both the empirical and non-empirical articles by Weis and her colleagues (Eddy et al., 1994; Schank & Weis, 1987, 1998, 2000, 2001; Schank et al., 1996; Weis, 1995; Weis & Schank, 1991, 1997, 2000, 2002; Weis et al., 1993)., the authors evaluated and/or discussed professional values related to professional development, continuing education, the role of baccalaureate education, the role of service, and differences in professional values between the United States and England. "A value framework is essential for

developing a sense of professional commitment and social responsibility" (Schank & Weis, 2000, p. 41).

Altun (2002) studied the relationship between nurse burnout and values. A three part questionnaire was sent to all nurses in 2 hospitals in a suburb of Istanbul. A 95% response rate resulted in a sample of 160 RNs. Nurses who reported having a high level of emotional exhaustion and high feelings of personal achievement had altruism as their priority value. One conclusion drawn from the study findings was that values played a significant role in the level of burnout experienced by nurses.

In a different study of RNs' occupational commitment and intent to leave the profession (n = 1326), Nogueras (2006) surmised that professional development and advanced education are considered one of the keys to nurse satisfaction and commitment to stay in the nursing profession. Since this study solicited participants through notices either in Nursing Spectrum magazine or on Nursing Spectrum's Website, this study could have a biased population as they were already seeking information in their professional discipline.

Weis and Schank (2002) provided further support in a discussion of the role of professional values in professional practice. Among their conclusions were that the degree of embodiment of professional values may 1) be key to understanding why only some nurses are professionals in the fullest sense of the word, 2) help distinguish between professional and technical nurses, and 3) may explain why nurses progress at different rates from novice to mastery and why not all nurses become experts in practice. Professional value development was said to be enhanced by advanced education. One goal of nursing is continued growth toward expert practice.

2.6 Motivation for Education

A number of research studies were found which evaluated the motivations of nurses for participation in educational programs (either mandated continuing education, voluntary continuing education, or formal continuing education) (Cavanaugh, 1990; Dolphin, 1983; Emerson, 1992; Fickner, 1992; Lethbridge, 1989; Lewis, 1988; Root, 1991; Urbano, Jahns, & Urbano, 1988). Unfortunately, all of these studies are very old and thus have limited value. The majority of studies concluded that personal motivation was clearly linked to action and a positive outcome. Motivational orientations reflect the nurse's basic human needs, attitude, values, beliefs, expectations, and perceptions.

For example, Emerson (1992) surveyed nurses (n = 107) in two states (one with, and one without, mandated continuing education) to determine nurses' attitudes about, and the influence of, mandatory continuing education. No significant differences were found in the two groups' attitude toward CE (as reported by the nurses) however, the nurses' actions did not support these findings. The non-mandatory CE nurses reported taking significantly more CE courses, and accumulated significantly more CE contact hours, and taking significantly more staff development courses than the mandatory CE nurses. These findings support a link between attitudes/motives and action.

2.7 Attitudes Related to Education

The majority of the research on nurses' attitudes towards education was designed to elicit attitudes about continuing education (CE) or professional development. Discussions on CE often refer to courses completed to fulfill a requirement imposed by nurse licensing bodies on those who hold licenses to practice and not continuing formal education courses. Thus, these studies have limited relevance to the current study.

Attitudes toward continuing formal education (obtaining a nursing degree after registration) were investigated in 13 articles (Allen & Girard, 1992; Beatty, 2000; Emerson, 1992; Hayes & Darkenwald, 1990; Hughes, 2005; Jerdan, 1993; Kersaitis, 1997; Melusky, 1998; Morrin, 1992; Roche, 1990; Sanders, 1993; Small, 1995; Watson & Wells, 1987). Results were not consistent; 10 studies found nurses to have positive attitudes toward continuing education (Allen & Girard; Beatty; Emerson; Hughes; Jerdan; Kersaitis; Melusky; Roche; Small; Watson & Wells) and three found nurses to have negative attitudes toward continuing education (Hayes & Darkenwald; Morrin; Sanders). Interestingly, negative attitudes were not found in any of the more recent studies.

Kersaitis (1997) studied 347 nurses (68% response rate) using a cross-sectional survey design, to: 1) determine the extent of RN participation in continuing professional education (CPE), 2) identify the factors that influenced participation, and 3) determine how RNs viewed CPE. Although findings demonstrated a substantive positive attitude toward continuing professional education, this attitude was not extended to mandatory continuing professional education.

A mixed quantitative/qualitative study was undertaken by Melusky (1998) to provide college officials with information on predictors of RNs' intentions to register for independent study courses so that officials could maximize options for those RNs pursuing a BSN. Results from the survey (n = 249) indicated that a positive attitude and a low level of perceived barriers may result in the intent to register. The focus group interviews (n = 6) elicited more concerns about the type of course versus participation in continuing education.

Beatty (2000) studied nurses in seven Pennsylvania counties to examine their attitudes toward CPE and reasons for participation. Data were collected from 199 usable returned surveys (32% response rate) from RNs who were not retired. The study found that rural nurses had very positive attitudes toward CPE. The primary reason given for participating was a desire to provide quality care for their patient. Also, "there was a statistically significant relationship between type of basic educational program and participation in CPE" (p. iv). Nurses who graduated with a Diploma were less likely to participate in CPE than those who graduated with either an ADN or BSN.

In a study to investigate nurses' perceptions of the value of continuing professional development (CPD), Hughes (2005) sent questionnaires to 200 staff nurses in England. Follow-up interviews were conducted with eight of the 84 nurses who responded to the questionnaire. The majority of respondents (approximately 76%) had positive perceptions of CPD. Nurses reported that they "also use their professional development to not only benefit their practice, but also that of those around them" (p. 44). Their main reason for participation was aimed at completing mandated hours.

In a review of research on motivation, beliefs, values, and goals for engagement in education, Eccles and Wigfield (2002) concluded that "in general, there are significant but moderate relations between interest and text learning. More importantly, interest is more strongly related to indicators of deep-level learning" (p. 115). It is deep learning (e.g., coherence of recall, responding to deeper comprehension questions, representation of meaning) which leads to critical thinking. Therefore, a positive attitude toward education can help foster critical thinking.

2.7.1 *Foundational Study on Attitudes towards BSN Education*

A study by Roche (1990) was the only one found which addressed most of the concepts of the current study and in the same population. The instruments used by Roche will be adapted for the current study.

The purpose of Roche's study (1990), a doctoral dissertation, was to identify any relationships between attitudes toward BSN education, self-esteem, the occurrence of perceived life events (both negative and positive events), and the decision to return or not to return to school to earn a BSN (p. x). Members of the Pennsylvania Nurses' Association (n = 201) completed four questionnaires: a socio-demographics questionnaire, the Attitudes Toward BSN Education (ATBSNE) scale, the Performance Self-Esteem Scale, and the Life Experiences Survey. The ATBSNE Scale was developed for the study, by the author, based on the work of Osgood, Suci, and Tannenbaum (1970) who had developed the semantic differential technique whose "test-retest coefficients ranged from .87 to .93" (Roche, p. 133).

Roche (1990) found that attitudes toward BSN education contributed significantly ($t = 4.93$, $df = 198$, 2-tail $p < .001$) to differences between the RNs who did return to school and those who did not return. Additionally, performance self-esteem levels and the perceived impact of life events that had occurred within one year prior to returning to school or completing the questionnaire, did not significantly explain differences between the two study groups. Other findings were similar to those found in the literature; specifically that RNs who did not return to school tended to be older, diploma graduates, had more children, and had been licensed for a longer period of time.

2.8 Relationship between Attitude and Education Level

Another theme researched was whether a relationship existed between attitude and educational level (Alquraini, Alhashem, Shah, & Chowdhury, 2007; Carlson, 1992; Jerdan, 1993; Little & Brian, 1982; Watson & Wells, 1987). Again, results were mixed and the majority of the research is old. The three oldest studies found no significant relationship between educational level and intent or participation. It should be noted however, that the conclusion by Watson and Wells may not accurately portray the average nurse as this study addressed attitudes towards obtaining a master's degree in nursing. Individuals who are eligible for admission to a master's program already hold a baccalaureate degree; some of whom may have already returned to school once.

In their study of factors influencing nurses' attitudes towards the use of computerized health information systems, Alqurauni et al. (2007) analyzed the responses of 530 nurses (92.3% response rate) working in Kuwaiti hospitals. The majority of respondents (60.1%) held a Diploma in Nursing. Analysis showed a significant difference ($p < .10$) of attitudes for different categories of education with BSNs having a higher positive attitude compared with Diploma Nurses. Learning a new system is an educational process.

In four studies (Beatty, 2000; Hayes & Darkenwald, 1990; Roche, 1990; Sanders, 1993), nurses with lower initial educational levels were found to participate less in CE and have poorer attitudes toward education. Bell and Rix (1979) found that nurses with degree preparation were more committed to education. Along similar lines, nurses with higher education had more positive attitudes toward education and professional orientation (Hillery, 1991; Sanders; Tuella, 1991; White-Taylor, 1992).

2.9 Relationship between Attitude and Behavior

"An essential underlying assumption of most attitude change research is that attitudes do indeed influence behaviors. If attitudes have no relationship whatsoever with behaviors ... then it is almost pointless to attempt to understand attitudes" (Roche, 1990, p. 56). However, "attitudes continue to be regarded as primary determinants of a person's responses to the object" (Fishbein & Ajzen, 1975, p. 343). A meta-analysis by Kraus (1995) evaluated 88 attitude-behavior studies to determine the relationship between attitudes and behavior. Findings supported that "attitudes significantly and substantially predicted future behavior (mean r = .38; combined p << .000000000001)" (p. 58).

2.10 Profile of Those Who Return and Those Who Do Not

Most of the research studies which identify characteristics of those RNs who do and do not return to school are older. These can be summarized then compared to more recent research to identify changes over time.

The most consistent findings in the literature are that the RN who either returns for the BSN, or plans to return, is younger (Carlson, 1992; Delaney & Piscopo, 2004; Ellerton & Curran-Smith, 2000; Lewis, 1988; Martin, 1992; Roche, 1990; Root, 1991), has been employed as a nurse for fewer years (Carlson; Roche; Root), and has a higher income (Delaney & Piscopo; Root). Martin (1992) also found that the RN who was likely to return for the BSN would be a female, ADN graduate; those not returning were more likely to be married. Findings in these studies suggest that it is the younger RN, maybe one still pre-licensure, who needs to be targeted for motivation to continue to obtain the BSN (Root, 1991).

Ellerton and Curran-Smith (2000) used a mailed questionnaire to survey diploma nurses (n = 714; 41% response rate) and nurse managers (n = 56; 60% response rate) in Nova Scotia, Canada to assess what they believe was needed for post diploma nursing education. Almost 50% of respondents said they had either definite plans or were thinking about returning to school for continued formal education; the majority of these were less than 45 years of age. Plans to study decreased with increasing age ($\chi^2 = 113.9$, df = 21, p = .000). Participants wanted clinically focused short courses instead of the generic program.

There is little research on the career and educational goals of practicing RNs. To fill this gap, Delaney and Piscopo (2004) examined barriers and benefits to enrolling in an RN-BSN program, and facilitating factors required by academia and employers. This study was conducted in Connecticut. Only 28.7% of 101 participants planned to return to school. Since the majority of respondents were married with one or two children, working full time, and their mean age was 42.5 it could be concluded that these factors may have contributed to their disinterest in returning to school. Benefits identified included personal and professional growth; competing priorities were identified as the main barriers. Participants wanted a simplified process and rewards from academia and employers. This study confirmed results of previous research (Turner, 1991) and supports the American Association of Colleges of Nursings' (AACN) statement of the need to remove impediments to continuing nursing education (American Association of Colleges of Nursing, 2003b).

A longitudinal study of nurses in North Carolina was conducted to evaluate nursing faculty supply and demand (Cleary et al., 2007). In this study, two cohorts of

nurses (n = 379) were followed and evaluated in relation to their maintenance of registration and as to whether they obtained further formal education. An interesting finding in this study was that younger nurses, male nurses, and nurses of color were more likely to further their education. Also, "the likelihood of eventually attaining a master's or doctoral degree is unquestionably linked to entry-level starting points. Nurses entering the profession through a BSN program require only 1 additional degree to reach the master's level" (p. 128).

2.11 Perceptions/Reasons to Return to School

The literature is replete with reasons RNs return to school for the BSN however, many of the studies are old. Many of these reasons appear to be related to internal or intrinsic factors (Carlson, 1992; Fotos, 1987; Root, 1991) such as personal achievement or satisfaction (Cavanaugh, 1990; Davey & Robinson, 2002; Delaney & Piscopo, 2004; Fotos; Lewis, 1988; Martin, 1992; Reilley, 2003; Turner, 1991), attitude regarding BSN education (Carlson; Lethbridge, 1989; Roche, 1990), improved self-esteem (Martin; Root), and future career plans (Reilley). Lack of confidence was cited by Carlson as a reason why RNs do not return to school. In fact, Waddell (1993) conducted a 22 study meta-analysis of CE participation research and concluded that motivational orientations explained 46% of the variation in participation of RN in CE.

2.11.1 *Intrinsic Factors*

Davey and Robinson (2002) reported the results of the sixth questionnaire in a longitudinal English study. The purpose of the study was to identify the proportion of RNs who had, or were taking, a degree, employer support, and perceived effects of the degree on their work. All RNs had practiced nursing for eight years. Of the 620 RNs

surveyed, 46% did not plan to take a degree; 22% either had a degree or were obtaining one. Significantly more men had or were interested in obtaining a degree ($\chi^2 = 4.588$, df = 1, $p \leq 0.05$) however, men only accounted for 6% of the sample. The main constraint identified was the difficulty of combining paid work with studying (72%). The perceived effects included increased self-confidence (80%, n = 52), autonomy (69%, n = 45), enhancement of clinical judgment (62%, n = 40), and better career prospects (65%, n = 42).

In a study of the motivation, barriers, and persistence of RNs enrolled in BSN studies, Reilley (2003) surveyed 215 RN-BSN students in Pennsylvania, New Jersey, and Delaware. A significant correlation ($r = 0.128$, $p < 0.05$) was found between perceived barriers and emotional support. The median age of the group was between 35 and 40 years. The majority (56.7%) were married and lived with their spouses and children. The primary motivating factor to return to school for the BSN degree was identified as personal satisfaction (78.9%). Of those motivated by personal satisfaction, 32.1% identified personal achievement specifically. Strangely, there was no discernible relation between the type of RN entry level program and the students' individual motivating factors.

In the qualitative study by Delaney and Piscopo (2004) described earlier, the major theme which emerged regarding reasons for returning to school was 'raising potentials.' The responses focused on personal and professional growth. Examples of personal growth included personal satisfaction, improved self-image, feelings of achievement and success, and an expanded knowledge base.

2.11.2 *Quality of Patient Care*

More recent research studying nurses' reasons for participating in continuing education identified one of the main reasons given for participation was to improve the quality of patient care (Beatty, 2000; Hughes, 2005). The methodologies for both studies have been described earlier.

In a study of rural nurses in Pennsylvania (Beatty, 2000), a desire to provide quality nursing care for their patients, specifically to "develop new professional knowledge and skills" was reported as subjects' primary reason for CPE. Interestingly, personal benefit was not a significant motivator however, nurses who believed that CPE would benefit them personally or help them obtain job security were more likely to participate in CPE ($r = 0.156$, $p = 0.034$).

In England, Hughes (2005) found the majority of nurses identified professional development as having a positive influence on their nursing practice. Approximately 80% identified 'improved skills' and approximately 75% identified 'practical skills' as reasons for undertaking continuing professional development.

2.11.3 *Professional Reasons*

Professional reasons were also cited in the literature. These reasons include pressure from employers and the profession (Lewis, 1988), career advancement (Delaney & Piscopo, 2004; Dowswell, Hewison, & Hinds, 1998; Lethbridge, 1989; Martin, 1992; Reilley, 2003; Root, 1991), the need for the BSN at some point in their career (Carlson, 1992; Lethbridge, 1989), and the need to increase knowledge (Fotos, 1987; Hughes, 2005; Lethbridge, 1989; Lewis, 1988). Methodologies in the three most recent studies have already been described so will not be repeated.

Dowswell et al. (1998) conducted a qualitative study of nurses, midwives, and allied professional staffs' (n = 29) motives for participating in post-registration degree courses. This study was part of a larger study of continuing education and training of health care workers in England. Professional motives were identified as either those which 'pushed' or 'pulled' participation. Direct pressure from the immediate work environment and general changes in nursing education (upgrading qualifications) 'pushed' participation whereas, aspirations about their future work role (promotion or new work area), increasing knowledge, and increasing qualifications 'pulled' participation.

Although not the primary reason for returning to school in the study by Reilley (2003), many subjects noted societal pressure for professional growth as an additional motivating factor. They did not articulate whether the pressure came from employers, peers, nursing organizations, or other entities.

Included in the theme 'raising potentials,' identified earlier in the discussion of the study by Delaney and Piscopo (2004), was professional growth. Examples of professional growth included higher professionalism, career advancement and mobility, higher salary potential, and more job opportunities.

Hughes 2005 also identified 'career prospects' as a reason to undertake CPD. In fact, it was selected as the third top reason, accounting for approximately 50% of responses. Nurses responded that CPD not only benefited their practice, but also benefited that of those around them.

2.12 Barriers and Benefits

An individual's perspective, or attitude, can determine whether a situation, object, or event is a barrier or benefit to an action. Conversely, perceptions of barriers and benefits can influence attitudes. Much of the research related to continuing professional education addresses barriers and benefits. The recent studies in this area (Delaney & Piscopo, 2004; Ellerton & Curran-Smith, 2000; Hughes, 2005; Reilley, 2003) have been previously described so only findings pertaining to barriers and benefits to returning to school will be discussed.

Many of the benefits listed in the literature were previously identified as perceptions/reasons. These include: personal and professional development, career advancement, improved self-esteem, and increased knowledge. Other benefits listed in the literature are: future degree considerations (Reilley, 2003), career mobility (Cavanaugh, 1990), job options (Lewis, 1988), improved social welfare skills (Lethbridge, 1989), recognition and job security (Lewis, 1988), and to earn a degree (Fotos, 1987).

The purpose of an article by Malcolm and Reuther (1988) was to list 12 common barriers for the RN returning to school and to address the misconceptions. This list was developed from a review of the literature. The 12 barriers or misconceptions are:

1. If I go back to school, I'll have to take everything over again.
2. I'm too old to go back to school now. I never was a good student, I've always hated school.
3. My ADN (or Diploma) program was very difficult, so won't the BSN be even more difficult?

4. I intend to stay in hospital nursing giving bedside care. There will always be sick people and hospital jobs. I don't need a BSN to stay in this position.
5. A BSN is only necessary for those who have management career plans.
6. I won't earn any more money by getting a BSN degree.
7. When I hear the BSN called the professional and the ADN called the technical nurse, it is as though I am being told I am a second-rate nurse. I know I give good care.
8. Whatever extra training I need I can get from CE or in-service programs.
9. If the BSN becomes the level of entry to practice, I'll be "grandfathered" in anyway, so I don't need to go back to school to get the degree.
10. If pressure continues for all RNs to achieve a BSN, they will have to make it easier to get; credit from previous learning and experience, shorter programs, and fewer prerequisites.
11. Maybe I should seek a business degree or a health administration degree rather than nursing. That might give me more career flexibility.
12. There is no one supporting my efforts to go back to school. In fact, I hear a lot of discouraging things about the process.

These 12 barriers are discussed, by the authors, to show that there is more than one way to look at each and that many can, in fact, be a benefit. Barriers can be categorized into three broad classifications: personal, professional/employer, and academic.

Some of the personal barriers identified were concerns regarding time away from their family (Carlson, 1992; Ellerton & Curran-Smith, 2000; Hughes, 2005; Lewis, 1988; Reilley, 2003), having multiple roles or other responsibilities (Delaney & Piscopo, 2004;

Martin, 1992), and lack of study skills or confidence (Carlson, 1992; Lewis, 1988). Carlson also concluded that having a negative attitude about BSN education, believing there was no need for it, and therefore, placing it as a low personal priority was a barrier to enrolling in BSN education. Family constraints and multiple role requirements continue to be listed as barriers to returning to school.

In a Canadian study of what was perceived as needed for post-diploma education (Ellerton & Curran-Smith, 2000) respondents ranked the following issues relevant to a decision to continue their education: 1) financial considerations, 2) family obligations, 3) work schedules, and 4) level of employer support. For RNs committed, or intending, to return to school, accessibility was also a relevant factor. These issues were ranked in this order by more than half of the RNs.

Reilley (2003) found that "a large percentage of the population of this study indicated a combination of family constraints, coupled with work or institutional issues as a barrier to their education" (p. 75). Surprisingly, parenting was a greater barrier for ADN graduates and the spousal role was a greater barrier for Diploma graduates.

One barrier, cost, was listed in seven of the reports (Carlson, 1992; Delaney & Piscopo, 2004; Ellerton & Curran-Smith, 2000; Lewis, 1988; Martin, 1992; Root, 1991; Turner, 1991). Cost can be viewed as both a personal barrier and a professional barrier. Two authors related the cost of returning to school to employment, stating that the BSN afforded no extra earning power (Carlson), and that it had few economic benefits (Turner). In contrast to concerns about the cost of obtaining the BSN, Roche (1990) found 76% of participants received some reimbursement for expenses. Since more recent studies also mentioned cost, it appears that this concern has not changed over time.

Professional or employer related barriers included lack of support or recognition (Ellerton & Curran-Smith, 2000; Hughes, 2005), which included lack of support for implementing new learning and change. Another barrier noted was work schedules/conflicts/constraints (Ellerton & Curran-Smith, 2000; Hughes, 2005; Lewis, 1988; Martin, 1992; Reilley, 2003; Turner, 1991). Other work issues mentioned related to shift work. Hughes reported finding that shift work caused increased tiredness and decreased motivation thereby influencing the RNs' decision to return to school for the BSN.

Regarding barriers to completing a BSN, Delaney and Piscopo (2004) identified a theme of 'competing priorities.' This theme included multiple role demands (time, work, family) and limited resources (money). "A few nurses identified advancing age as a barrier, echoing national trends of an aging nursing workforce" (p. 159).

Academic barriers mainly fell into the category of curricular issues. These issues included insufficient credit for pre-licensure coursework and experience (Carlson, 1992; Lewis, 1988), unnecessary classes (Lewis), travel distance to a university (Lewis), inconvenient class schedules (Lewis), and length of time to complete the program (Martin, 1992; Root, 1991). Cavanaugh's (1990) findings were different in that curricular issues were not found to be significant in identifying group differences between those RNs who returned to school, planned to return, or did not intend to return to school for the BSN. With increased use of distance learning, it is hoped that the identified barriers are now significantly less reported.

2.13 Limitations in the Research on Attitudes and Nursing Education due to Design

Research on attitudes as related to nursing and nursing education is helpful in forming a basis for research about nurses' attitudes toward continuing formal education. However, there are a number of things which limit the usefulness of research findings. Consideration of limitations places information in context; findings from the research have already been discussed.

Sample size varied from a small size of 7 respondents to as many as 714 respondents. Although these samples range dramatically, when compared to the estimated number of ADN or diploma nursing practicing in the U.S., sample sizes should be considered as very small.

Most of the studies were completed in smaller geographical locations: ranging from one hospital or university to three U.S. states and within England. Two studies were conducted in Canada and another in England. Of those studies conducted in the U.S., all were conducted in the eastern U.S. (Connecticut, Delaware, Pennsylvania, New Jersey, Virginia, West Virginia, Oklahoma, and Colorado). Nurses in Pennsylvania were included in three of the studies.

The most common data collection instrument was the questionnaire. In all but one of the studies, data collected through the survey method were analyzed statistically. One study (Delaney & Piscopo, 2004) used the questionnaire to collect qualitative data. In two studies (Hughes, 2005; Root, 1991), follow-up interviews were conducted with a small sample of those who had completed the questionnaire, to validate findings. This type of a study is non-experimental and leads to descriptive, and sometimes correlational, findings.

The questionnaire has several advantages: it is cost efficient, convenient, and can be used with large sample sizes. Since it is self-administered it often can be completed at the participants preference. The main problems are that questionnaires tend to have "low response rates, high rates of missing data, inability to rectify respondents' misunderstandings, inability to adapt questions ... inability to probe complex issues in depth, and, for mailed questionnaires, inability to control the conditions of administration" (Waltz, Strickland, & Lenz, 2005, p. 264). In addition, most questionnaires are mainly comprised of forced-choice or closed-ended questions. Most of the studies reviewed used mailed questionnaires which contained few open-ended questions and reported response rates ranging from 32% to 91.4% (mean 55%, SD 20.7%).

The most frequently used instrument found in the literature was the Education Participation Scale (EPS), or a modification of it (Carlson, 1990; Dia, Smith, Cohen-Callow, & Bliss, 2005; Fickner, 1992; Fotos, 1987; Iava, 1994; Lethbridge, 1989; Root, 1991; Urbano et al., 1988). The next most consistently used tool was the Adult Attitudes towards Continuing Education Scale (Beatty, 2000; Carlson, 1992; Emerson, 1992; Hayes & Darkenwald, 1990; Sanders, 1993). Many of the studies reviewed in this section used a researcher developed questionnaire to measure attitudes. The final decision as to which measurement tool to utilize must be decided in context of the situation for which it is needed, not its popularity.

Similarly to the studies of professional values, the methodological common thread was the use of a Likert-type scale to measure attitudes. Sixteen studies indicated their method for responding to questionnaire items used a Likert-type scale. The most

frequently used range was 5 points (Beatty, 2000; Carlson, 1992; Emerson, 1992; Hayes & Darkenwald, 1990; Hillery, 1991; Kersaitis, 1997; Melusky, 1998; Nelson, 1983; Sanders, 1993; Small, 1995; Tuella, 1991; Watson & Wells, 1987). A 7 point scale was used in three studies (Allen & Girard, 1992; Jerdan, 1993; Roche, 1990). Two studies (Hughes, 2005; Little & Brian, 1982) did not indicate how their questionnaire was scored.

2.13.1 *Types of Education/Samples Studied*

In the literature reviewed, RNs were surveyed about continuing their education. In many cases, information was specifically asked about returning for the BSN. In some studies however, continuing education (CE) was not clearly defined. Education was referred to as returning for the BSN, RN-BSN, CE, or simply professional development. The majority of the studies were greater than 10 years old.

Six studies compared a sample of ADNs and diploma nurses not enrolled in BSN programs with a sample who were enrolled (Carlson, 1992; Cavanaugh, 1990; Lewis, 1988; Martin, 1992; Roche, 1990; Root, 1991). All of these studies compared the two groups on a number of variables such as motives, perceived barriers and benefits, and personal characteristics. Four of the studies (Carlson; Lewis; Roche; Root) chose a random selection of RNs, two studies (Cavanaugh; Martin) selected their sample to ensure they would obtain data from both ADN and diploma RNs who have returned to school and those who have not.

Associate degree and diploma nurses who were enrolled in RN-BSN programs were surveyed in only three studies (Fotos, 1987; Lethbridge, 1989; Reilley, 2003). The intention of all three of these studies was, primarily, to identify the reasons why these

students had returned to school to obtain the BSN. Intrinsic reasons did not change over time but professional reasons were mentioned more in latter studies.

Delaney and Piscopo (2004) explored the perceptions held by ADNs and diploma nurses regarding the benefits and barriers to enrolling in a BSN program and what factors they believed would facilitate degree completion. This study was conducted using 101 practicing RNs in Connecticut. It was not clear as to whether any of the RNs studied were actually enrolled in a BSN program.

2.14 Conclusion

The general population believes nurses need more education, and the research demonstrates that decreased morbidity and mortality are associated with a more educated workforce. Additionally, it has been shown that ADNs and Diploma nurses are subject to more practice related disciplinary actions. If discussion of patient safety issues did not provide sufficient support for the need for nurses to return to school, the current and worsening faculty shortage increases this support. Currently the world is facing a nursing shortage predicted to get worse. The nursing shortage is due in part to a nursing faculty shortage and the vicious circle these shortages were shown to create. Nursing faculty are required to educate the next generation and are required to have an education most nurses do not possess. As a result of the current job market, RNs are not motivated to return to school to secure or retain employment. Associate degree programs are helping to meet the need for nurses and are adequately preparing nurses for basic entry into practice however, increasing enrollment in these programs was shown to be shortsighted.

"The ongoing evolution of nursing as a profession is highly dependent upon the acknowledgement of nursing as an academic discipline, imparting that body of

knowledge through education and advancing it through scholarship" (Emerson & Records, 2005, p. 9). Providing education and scholarship are roles most often filled by nurses with master's or doctoral degrees. With the majority of nurses educated below the BSN level and few nurses obtaining advanced degrees, especially in education, it is beginning to look like the nursing profession might be in peril; there are not enough faculty to teach the next generation or conduct the research and scholarship necessary to maintain an autonomous profession. There was demonstrated a need to increase BSN graduates to provide quality nursing care and teach the next generation.

Thus far, all the literature supports the importance of continuing professional education for developing the profession, increasing nursing competence, and increasing quality patient care (Doyle, 2006). Nursing faculty are needed who hold the requisite education and experience.

Gaining an understanding of the attitudes and values of ADNs and Diploma nurses toward returning to school is the first step in being able to entice this group to return to school. It was demonstrated that increased professional values leads to more positive attitudes toward education, less work burnout, and higher occupational commitment. These can be translated into a longer nursing career.

Attitudes, motives, values, and beliefs are constructs often found in the research literature. These constructs are often used interchangeably. Attitudes are common to the psychology, education, and health literature as they are believed to be linked to behavior. Most researchers assumed a link between values, motives, or attitudes and behavior; the stronger the values, motive, or attitude, the more likely behavior will occur. It was shown

that when the values, motive, or attitude is positive, the outcome of the behavior is also more positive.

It has been shown that a positive attitude toward education enhances participation and the learning experience. Although the majority of studies found nurses to hold a positive attitude toward continuing education, it was not clear if this translated to a positive attitude toward continuing formal education. Few studies were found which specifically addressed continuing formal education. However, studies did show a positive correlation between education level and attitude toward life-long learning. This seems consistent with statistics proving that fewer ADNs and Diploma nurses return to school for advanced degrees.

Registered nurses who did return to school were found to be younger, with shorter nursing careers, and higher incomes. Competing personal and professional priorities, the academic program, cost, and lack of compensation or reward from employers were frequently cited as barriers to returning to school. The rewards cited were also both personal and professional, exemplifying how an individual's perception can translate a barrier into a benefit and vice versa.

From the literature, it is apparent that neither internal nor external factors alone will cause an individual to return to school. Intrinsic and extrinsic factors act simultaneously, each influencing the individual differently. What some find as a benefit or barrier, another may not. Attitudes and perceptions can themselves be viewed as benefits or barriers.

Available research used small sample sizes, restricted geographical regions, questionnaires, and Likert-type scales. These studies often focused on either continuing

education (which did not necessarily include continuing formal education) or nurses who had already returned for advanced education. Another limitation of the available research is that the majority are over 10 years old. Healthcare has changed significantly in the interim. Advancement in medical technology and pharmaceuticals are happening at an extremely fast pace. Our population is aging and living longer with more detectable, chronic, and treatable diseases and conditions. Research must keep pace with changes in society.

Two research studies reviewed (Delaney & Piscopo, 2004; Hughes, 2005) support the need for further research into ADN and diploma nurses attitudes toward RN-BSN education. Both of these studies investigated RNs' perceptions of the barriers and benefits and what would facilitate success. Hughes found that "the literature fails to indicate the reasons why nurses undertake study despite the barriers that have been identified" (p. 43) and conducted a study of nurses in England. Findings cannot be generalized to the U.S. since England has a post-registration education and practice standard stipulated for nurses along with differences in nursing education curriculum and standards. In the other study, Delaney and Piscopo found "an extensive review of the literature revealed that few studies have examined RNs' thoughts about returning to school to complete their BSN; most studies were conducted after nurses had returned to school" (p. 158). Unfortunately, their study was a small study; 101 RNs from one state.

There is a need to understand what ADN and diploma nurses think about, and their attitude toward, furthering their education to the BSN level or beyond. This information might lead research on ways to foster an attitude of lifelong learning among nurses, motivate more ADN and diploma nurses to return to school for the BSN or higher

degree, and prepare a workforce ready to meet the challenges and changes occurring in nursing and healthcare today.

Nurse educators play an important role in helping students to identify their operating biases. Understanding of attitudes toward continuing formal education could lead to developing experimental exercises and conducting class discussions conducive to identifying and consequently modifying negative attitudes toward continuing formal education.

ORGANIZING FRAMEWORK

A conceptual model "broadly explains a phenomena of interest, expresses assumptions, and reflects a philosophical stance" (Burns & Grove, 1997, p. 138). Conceptual models are similar to, and sometimes referred to as, theories. A framework should provide a brief explanation of a theory or those portions of a theory to be tested in a study.

Searches for conceptual frameworks, theories, or models related to attitudes produce many possibilities but few have proven reliability or are applicable to research on why nurses engage in continuing formal education. According to views "in philosophy of science, the meaning of a concept is defined in terms of its relations to other constructs in a theoretical network" (Fishbein & Ajzen, 1975, p. 5). Models considered included learning theories, the expectancy-value model, and behavioral theories.

Most learning theories are interested in methods of assessing learning or the acquisition of beliefs and attitudes rather than how attitudes affect intention and subsequent behavior. The expectancy-value model is useful "for research on attitude formation and organization" (Ajzen, 2001, p. 47). Therefore, it was concluded that the

Theory of Planned Behavior (TPB) (Ajzen, 1985), an elaboration on the Theory of Reasoned Action (TRA), is best suited to research on nurses' attitudes toward continuing formal education.

2.15 Theory of Reasoned Action (TRA)

According to the Oxford American Dictionary of Current English (Abate, 1999), a reason is defined as "a motive, cause, or justification," and "the intellectual faculty by which conclusions are drawn from premises" (p. 664). The TRA "began with the premise that attitudes toward behaviors are derived from beliefs concerning the effects of those behaviors, and consequently that specific behavior can be predicted from specific measures of attitudes toward the behavior" (Aiken, 2002, p. 14). The TRA was designed to explain *volitional* behaviors, or behaviors over which the individual has a good deal of control (Ajzen & Fishbein, 1980).

The TRA is a general theory. Its foundation is provided by a distinction between beliefs, attitudes, intentions, and behaviors. Beliefs form attitudes and subjective norms; attitudes and subjective norms form intentions; intentions influence behavior. Studies using this theory not only demonstrate its usefulness in health care education research but also support the overwhelming influence of attitudes on intentions.

Three studies were review in which the TRA provided the framework for understanding intentions regarding educational participation (Becker & Gibson, 1998; Jerdan, 1993; Pryor, 1990). In all three studies, the TRA not only explained 38.6% to 46% of the variance but attitude was found to be the consistent predictor; virtually controlling intention. Furthermore, subjective norms were not found to be an influencing factor. However, a large portion of intent to participate remained unexplained using this

theory.

The TRA has been used in studies similar to the current one. It has also however, received criticisms for not fully explaining intentions. Thus, it was elaborated on and renamed the Theory of Planned Behavior (TPB).

2.16 Theory of Planned Behavior (TPB)

The original concepts in the TRA are *attitude toward behavior* and *subjective norms*. Both of these concepts are formed by beliefs and develop into behavioral intentions which lead to behavior. The Theory of Planned Behavior (TPB) (Ajzen, 1985) adds one concept (perceived behavioral control) to the TRA in order to address three main criticisms. These criticisms are that the TRA:

1) only deals with situations which are under direct control by the individual (volition) thus they ignore behaviors that require skills, abilities, opportunities, or the cooperation of other people (Sheppard, Hartwick, & Warshaw, 1988; Sutton, 1987),

2) "ignores the role of current and past behavior in understanding current intentions and future behaviors" (Sutton, 1987, p. 366), and

3) focuses on the determinants and performance of a single behavior, ignoring situations where choosing among alternative behaviors might be done (Sheppard et al., 1988).

As with the TRA, a central factor in the TPB is the individual's intention to perform a given behavior. "According to the theory of planned behavior, people act in accordance with their intentions and perceptions of control over the behavior, while intentions in turn are influenced by attitudes toward the behavior, subjective norms, and

perceptions of behavioral control" (Ajzen, 2001, p. 43). Attitudes, subjective norms, and perceived behavioral control (PBC) are formed by beliefs.

Beliefs are considered to be the fundamental building blocks in that it is through "direct observation or information received from outside sources or by way of various inference processes, a person learns or forms a number of beliefs about an object" (Fishbein & Ajzen, 1975, p. 14). As an individual forms beliefs about an object, he/she automatically and simultaneously acquires an attitude toward that object.

Salient beliefs are the five to nine beliefs to which an individual can focus on regarding an object and therefore, serve as determinants of attitude at any given moment (Fishbein & Ajzen, 1975). An individual may hold a large number of beliefs about any given object but is unable to attend to all at once. Salient beliefs combine to produce an attitude toward the object (Ajzen, 1993). Behavioral beliefs influence attitudes whereas normative beliefs influence the individual's subjective norms (Madden, Ellen, & Ajzen, 1992). Both *attitude toward behavior* and *subjective norms* are determined, or formed, by salient underlying beliefs.

Attitudes and subjective norms are believed to form intentions which, in turn, are key predictors of behavioral performance. Attitudes are determined by evaluating the importance of each item in a list of possible outcomes; some type of cognitive process occurs (a fact not considered in the TRA). This assumes a degree of rationality on the part of the individual which might not be realistic but, nonetheless, cannot be ruled out. An attitude toward an object is related to the set of his/her beliefs rather than to any specific belief. Attitude strength is the intensity of feelings or commitment to a position, its importance, its accessibility in memory, and the amount of information a person has

about the attitude object (Petkova, Ajzen, & Driver, 1995).

A second influence on intentions has to do with the perceived normative expectations of relevant referent groups or individuals. These considerations lead to the formation of a *subjective norm* – the perceived social pressure to perform or not to perform the behavior. In short, attitude toward a behavior is the degree to which the person has a favorable or unfavorable evaluation whereas subjective norm is the perceived social pressure to perform or not perform the behavior (Ajzen, 1993). "Behavioral intentions are determined by attitudes (overall positive/negative evaluations of behavior) and the perceived social pressure from significant others, *subjective norms*" (Armitage & Christian, 2003, p. 190). Variables 'external' to, or not specified by, the model can influence intentions but they do so by influencing attitudes and/or subjective norms (Fife-Schaw, Sheeran, & Norman, 2007; Sutton, 1987).

The Theory of Planned Behavior (Ajzen, 1985) extends the boundary condition of pure volitional control specified by the TRA (Madden et al., 1992). This is accomplished by including beliefs regarding one's possession of requisite resources and opportunities for performing a given behavior. In other words, the TPB includes people's appraisals of their ability to perform a behavior; other authors have termed this self-efficacy. Ajzen called this *perceived behavioral control* (PBC) and defined it as the perceived ease or difficulty of performing the behavior. Perceived behavioral control is assumed to reflect past experience, modeling, and self-knowledge, as well as anticipated impediments and obstacles (Ajzen, 1993). "People take into account anticipated consequences of their actions, as well as factors that may help or interfere with goal attainment, and they evaluate progress in light of feedback from their behavior" (Ajzen, 1998, p. 736).

Perceived behavioral control addresses both internal control (e.g., a person's skills and abilities) and external constraints (e.g., opportunities and facilities) needed to perform a behavior. "A person can act on his or her intentions only if he or she has control over the behavior of concern. Perceived control varies with the individual's perception of the difficulty of performing the behavior in questions" (Aiken, 2002, p. 16). It follows however, that since this construct is *perceived* control, rather than actual behavioral control, in some situations it may not be realistic. Perceived behavioral control (PBC) has both a direct and an indirect effect on behavior through intentions. "The indirect effect is based on the assumption that perceived behavioral control has motivational implications for behavioral intentions" (Madden et al., 1992, p. 4). "Intentions are assumed to capture the motivational factors that influence a behavior; they are indications of how hard people are willing to try, of how much of an effort they are planning to exert, in order to perform the behavior" (Ajzen & Driver, 1992, p. 208).

As a general rule, the more positive the attitude and subjective norm with respect to a behavior, and the greater the perceived behavioral control, the stronger should be an individual's intention to perform the behavior under consideration (Fife-Schaw et al., 2007, p. 44). "The relative importance of attitudes, subjective norms, and perceptions of behavioral control for the prediction of intentions is expected to vary from behavior to behavior and population to population" (Ajzen & Fishbein, 2004, p. 431). The frequency with which a behavior has been performed in the past tends to correlate will with later actions.

"Measures of intention typically account for 20 – 40% of the variance in social and health behaviors" (Sheeran, Trafimow, Finlay, & Norman, 2002, p. 253). Attitude is

often more important than subjective norm in the determination of intention, but this differs across populations and behaviors. “Reviews indicate that attitudes and subjective norms typically account for 40-50% of the variance in behavioral intentions” (Sheeran et al., 2002, p. 254). The addition of PBC accounts for much of the unexplained variance. In a meta-analytic review of the TPB, Armitage and Conner (2001) concluded that attitude, subjective norm and PBC typically account for 30-50% of the variance in intentions, and that intentions and PBC account for 20-30% of the variance in behavior.

As in the TRA, salient behavioral beliefs in combination with outcome evaluations are hypothesized to lead to attitude (French et al., 2005). However, within the TPB, attitudes are further described as having two components - an affective and an instrumental or cognitive. Both should be measured for true evaluation of a person’s attitude. The affective component refers to emotions and drives and is measured using terms such as pleasant/unpleasant, nice/nasty, enjoyable/unenjoyable, and gratifying/revolting. The instrumental/cognitive component refers to the extent to which performing a behavior would be advantageous; evaluative terms include harmful/beneficial, wise/foolish, and safe/unsafe (French et al., 2005; Rhodes, Blanchard, & Matheson, 2006). In a series of studies, the measures of affective attitude were more predictive and were related more strongly to intention than were measures of instrumental attitude (French et al., 2005).

The TPB was used in a longitudinal study of 146 undergraduate college students to predict leisure intentions and behavior (Ajzen & Driver, 1991, 1992). It was concluded that attitudes consisted of affective and instrumental components and that attitude,

subjective norm, and PBC predicted 50-86% of leisure intentions and 48% of leisure behavior.

The TPB remains a general theory of which the central determinant of behavior is the individual's *intention* to perform the behavior in question. In addition, according to Ajzen (1998), the constructs in the theory of planned behavior are content-free.

> Content-free models are clearly more parsimonious in that they stipulate a small set of constructs that can be applied across behavioral domains. In contrast to the content-specific models, they suggest that the types of considerations that motivate behavior in one domain also motivate behavior in other domains. (Ajzen, 1998, p. 738)

In a content-free model, the content is provided in the process of applying the theory to explain or influence a given behavior or course of action. "Other factors appear to make an important contribution only in selective contexts, such as situations in which moral considerations become important. These factors can be added when the need arises" (Ajzen, 1998, p. 737).

Figure 1 depicts one way in which the antecedents of intentions and behavior can be represented. It demonstrates that:

1. intentions are the immediate antecedent of actual behavior,
2. intention is determined by attitude toward the behavior, subjective norm, and perceived behavioral control, and
3. these determinants are themselves a function, respectively of underlying behavioral, normative, and control beliefs (salient beliefs).

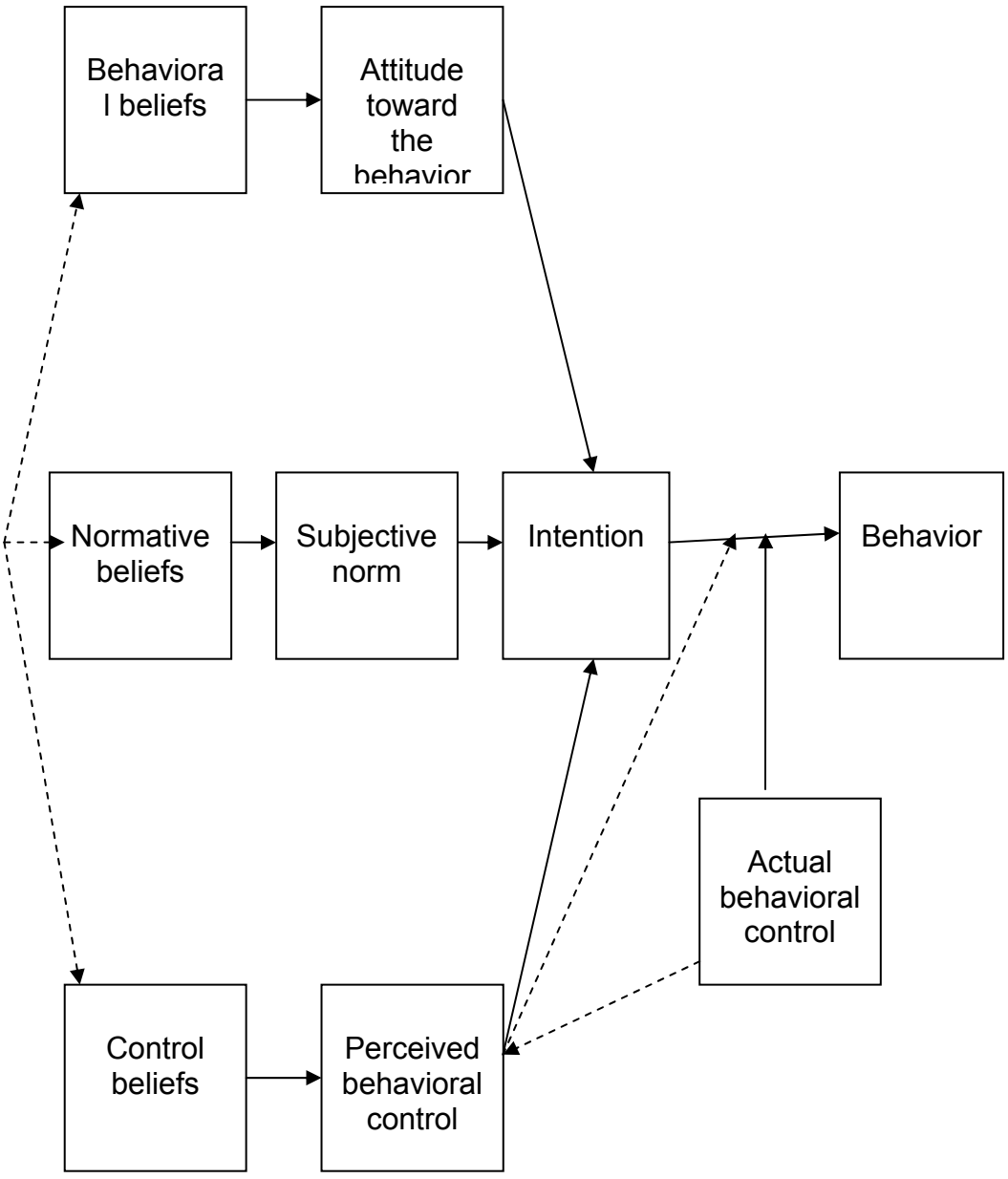

Figure 1. The Theory of Planned Behavior: Relationships of attitude, subjective norms, and perceived behavioral control on intention and behavior.

What is not represented in Figure 1 is that behavioral, normative, and control beliefs are a function of a wide range of background factors and possible feedback effects of behavior on the antecedent variables. Background factors may include: individual factors

(personality, mood, emotion, intelligence, values, stereotypes, general attitudes, and experience), social factors (education, age, gender, income, religion, race, ethnicity, and culture), and information factors (knowledge and media) (Albarracin et al., 2005).

2.17 Framework as Applied to the Current Study

In the TPB, attitudes are defined as having cognitive, affective, and conative components. This is similar to the definition used for this study since Ajzen (1993) defines 'conative' as an expression of intentions or a motor response. In other words, an attitude includes something behavioral. A complete description of attitude requires that all three of these components be assessed. "The repeated finding of a low relation between attitude and behavior was explained by arguing that most measures of attitude merely assess the affective component" (Fishbein & Ajzen, 1975, p.341).

In a study evaluating the concept of perceived behavioral control in 232 undergraduate students, affective attitudes were identified as substantial predictors of intentions (Kraft, Rise, Sutton, & Roysamb, 2005). It was also concluded that, as predictors of intention, PBC was overestimated and affective attitudes were underestimated.

Rhodes, Blanchard, and Matheson (2006) studied exercise intention and behavior, using 240 student participants, to investigate the measurement and predictive structure of the components of the TPB. Although the discriminant validity of all components was supported, the authors concluded that "an additional 28% of average item variability was explained by modeling affective and instrumental attitude constructs in comparison to modeling a single attitude construct" (p. 131). The authors also evaluated the effect size

and determined that affective attitude had a large effect of intention and a medium total effect on behavior.

The focus of the current study is on determining the attitudes of nurses toward continuing formal education. As such, it addresses one of the three concepts (attitudes, subjective norm, and perceived behavioral control) which lead to a behavior as described by Ajzen & Fishbein (1980). There is support in the literature for only studying the attitude concept within the TPB (Armitage & Conner, 2001). "Attitude is the least controversial construct in the TPB (...) benefiting from years of measurement and operational study beyond the confines of the theory" (Rhodes et al., 2006, p. 120). Research efforts over the past two decades have "reconfirmed the importance of attitude as the prime theoretical construct in social psychology and they have verified the relevance of attitude measurement as an indispensable tool for our understanding of social behavior" (Ajzen, 1993, p. 53). It is understood that, since the relative importance of the components of the TPB vary, "in some applications it may be found that only attitudes have a significant impact on intentions, in others that attitudes and perceived behavioral control are sufficient to account for intentions, and in still others that all three predictors make independent contributions" (Ajzen & Driver, 1992, p. 210).

Although there is support for studying only the attitude concept, some researchers did not find attitudes to be the key predictor of behavior. For example, in a study of 112 patients with congenital heart disease, Prapavessis et al. (2005) found that subjective norm and PBC were the key determinants of exercise intention. This is consistent with Ajzens' (1985) description of the situational aspect of the theory. Continued study is warranted to determine the effect of attitudes on behavior.

One of the most cited concerns with the TPB is in the scaling of instruments used. "When variables in a multiplicative model are not measured on a ratio scale, as in the TPB, a change in the zero point can have marked effects on the magnitude of the correlation between the expectancy-value construct and another variable" (Gagne & Godin, 2000). Since the current study evaluated only one variable within the TPB, this issue did not affect the findings but should be considered in future evaluations.

The TPB was created from the TRA to consider behaviors not under volitional control. It could be argued that returning to school is under volitional control since it is the individual who must register, attend, and pass the courses. However, in nursing, many countries and some states have either passed or proposed legislation which requires nurses to return to school. Furthermore, an individual may perceive some life situations such as finances, work schedule, family responsibilities, etc. as influencing their decision to return to school but not completely under their control. Hence, the TPB is a better framework for research on nurses' attitudes about continuing formal education. Interestingly, in a study which compared the TRA and the TPB for 10 behaviors ranging with respect to control, the TPB "explained, on the average, more variation in behavioral intentions than the theory of reasoned action regardless of the level of control" (Madden et al., 1992, p. 9).

"In terms of the attitude-behavior relationship, attitude strength is regarded as a key moderator variable: stronger attitudes are likely to be more predictive of people's behavior than are weak attitudes" (Armitage & Christian, 2003, p. 188). This provides further support for determining nurses' attitudes toward continuing formal education. "A global attitude toward a global object is unlikely to precisely predict a very specific kind

of behavior" (Upmeyer, 1989, p. 10). Fishbein and Ajzen (Fishbein & Ajzen, 1975) suggest that to predict a particular behavior (such as returning to school) the specificity level of this behavior must match the specificity of the attitude. Hence, the level of behavior is proposed to evaluate specific attitudes of nurses. Attitudes are the concept which is most easily targeted for change by nurse educators. The other concepts (subjective norms and perceived behavioral control) are more difficult for educators to change.

In a study in which statistical simulations were used to estimate the impact of changing scores of TPB predictors (attitudes, subjective norm, and PBC) on strength of behavioral intention and subsequent behavior, Fife-Schaw, Sheeran, and Norman (2007) concluded that the predictors combined synergistically rather than additively (as suggested in the TPB). Also, in contrast to the TPB which suggests efforts to change behavior need to target behavioral, normative and control beliefs, Fife-Schaw et al. found that there was significant potential for direct effects of attitude on behavior in interventions designed to promote behavior change. Their hypothesis that "maximizing attitude scores would have greater impact on behavioral intention when subjective norm favoured [*sic*] performance of the behavior" was also supported (p. 62).

The positive effect of education on improving attitudes was demonstrated in a study about pediatric nurses' knowledge and attitudes toward childhood fever management (Edwards et al., 2007). The TPB provided the conceptual framework for this quasi-experimental study conducted in Australia. The authors conclude that educational programs designed to target practice change needed to be theoretically based and target knowledge, attitudes, and barriers to change.

If nurse educators teaching in associate and diploma programs are instilling, fostering, or supporting negative attitudes toward continuing formal education (whether consciously or not) this will have a devastating impact on the future of the profession. "Whether cognitive or affective in nature, it is well known that negative information tends to have a greater impact on overall evaluations than comparably extreme positive information" (Ajzen, 2001, p. 35).

A study of the effect of drug and alcohol education on high school students' attitudes further supports the need to understand attitudes so as to plan to change them (Lignell & Davidhizar, 1991). Although the TPB was used, only the attitude component was evaluated. The authors evaluated the effect of an education course and concluded that indeed, positive change did occur. It was also suggested however, that in order to create major long-term change, frequent education would be needed using a variety of media.

2.18 Summary of the Organizing Framework

A thorough review of the literature was conducted to determine which conceptual framework had the best match with the proposed research. Learning theories and expectancy-value models evaluated the determinants, or antecedents, of attitudes, not attitudes or their effect.

Two of the most pervasive authors on the subject of attitudes are Martin Fishbein and Icek Ajzen and their frameworks, the Theory of Reasoned Action (TRA) and the Theory of Planned Behavior (TPB). These frameworks were abundant in the literature, including nursing literature, and shown to be useful across many disciplines. Empirical research has provided considerable support for both the TRA and the TPB (Ajzen, 1993;

Rhodes et al., 2006). “Perhaps the strongest support for the validity of the TRA and TPB comes from evidence for the effectiveness of theory-based behavior change interventions” (Ajzen & Fishbein, 2004, p. 432). These models are generally more applicable to the prediction of behavior intent or action but include the concept of attitude.

The TRA predicts behavioral intentions and behavior quite well and is useful for identifying where and how to target strategies for changing behavior (Sheppard et al., 1988). It has also been used in many studies about intention or behavior related to continuing education (Becker & Gibson, 1998; Hainsworth, 1996; Pryor, 1990; Small, 1995; Sword, Reutter, Meagher-Stewart, & Rideout, 2004). However, the TRA was designed for behaviors under volitional control.

The TPB was developed from the TRA to address issues of control over actions. The TRA and the TPB are “identical when the subjective probability of success and the degree of control of internal and external factors reach their maximum values ... When subjective probabilities of success and actual control are less than perfect, however, we enter the domain of Planned Behavior” (Ajzen, 1985, p. 36). Both theories assume that behavior is the result of conscious decisions to act in a certain manner. Therefore, when an individual must choose between two or more behaviors, “a person engages in deliberative processing of information pertaining to those behaviors. The attributes of the object or situation, the relevant attitudes, and the costs and benefits of specific behaviors are all considered before acting” (Aiken, 2002, p. 17). The TPB is more applicable in situations where behavioral control is an issue and it has been demonstrated to have improved reliability and validity. The perception of whether or not enrollment in

continuing formal education is under volitional control depends on the individual and timing. Regardless of the individual's perception however, it has been shown that the TPB explains more variation in behavioral intentions than the TRA.

The purpose of the current study is to determine the attitudes of Associate Degree and Diploma educated nurses toward continuing formal education so as to determine if it is necessary to bring about change in these attitudes and possible develop ideas on how to instigate any necessary change. Understanding the underlying beliefs that enhance or thwart participation will allow educators to conduct a needs assessment and either clarify misconceptions about programs, alter programming decisions to address consumer needs, or act to change beliefs (Becker & Gibson, 1998; Pryor, 1990).

CHAPTER 3

METHODOLOGY

3.1 Introduction

The purpose of this study was to examine the attitudes of nurses initially registered with an associate degree or diploma in nursing toward continuing formal education at the baccalaureate level and/or beyond; whether these attitudes change over time; and if there are geographical differences between nurses' attitudes (east coast versus west coast of the United States). The study used a mailed questionnaire to survey nurses whose initial educational preparation in nursing is below the baccalaureate level. The instruments used in this study were a questionnaire entitled Attitudes Toward BSN Education (ATBSNE), designed by Roche in 1990 (Appendix A) and a socio-demographic questionnaire (Appendix B), adapted from the one used by Roche.

3.2 Design of the Study

The methodology used in this study was an exploratory, comparative, and descriptive. A random sample of RNs in three U.S. states (one on the west coast and two on the east coast) were sent, via U.S. postal service, the aforementioned two questionnaires.

Exploratory research is conducted on phenomena that are relatively unknown. As demonstrated in the review of the literature, research on nurses' attitudes, in general,

toward continuing formal education is sparse. Hence, the use of an exploratory design is warranted.

A comparative study is a "descriptive research design that compared two or more groups who differ on the presence, absence, or value of the variable under study and are similar to one another in most other characteristics" (Doordan, 1998, p. 43). The research may be conducted at multiple times or at one time. This study was conducted at one time.

Descriptive research is a non-experimental type of research study "conducted to describe phenomena or to study relationships been variables without an attempt to experiment or manipulate variables" (Doordan, 1998, p. 53). It provides a realistic portrayal of the characteristics of an individual, group, or situation as they naturally happen. According to Burns and Grove (2003), a descriptive design may be used to "develop theories, identify problems with current practice, justify current practice, make judgments, or determine what others in similar situations are doing" (p. 200-201). Protection against researcher bias is achieved through (1) linkages between operational and conceptual definitions, (2) adequate sample size and selection, (3) the use of valid and reliable instruments, and (4) data collection procedures which attempt some environmental control (Burns & Grove, 2003).

A mailed survey method was used as it allowed the investigator to obtain data from a large number of subjects in two large and geographically diverse regions. This method also provided convenience and a degree of cost-containment. Surveys are non-experimental and lead to descriptive, and sometimes correlational, findings.

3.3 Scope of the Study

The study was conducted to determine several factors related to the attitudes of ADNs and Diploma nurses towards continuing formal nursing education. Specifically, this study determined the attitudes of ADNs and Diploma nurses towards continuing formal education, if attitudes differ between these groups or between geographical regions of selected populations, and if they change over time as determined by years of practice. Since there is little empirical literature to determine the relationship of attitudes towards continuing formal education in these groups and locations, the use of an exploratory research study was appropriate (Doordan, 1998).

A random selection of ADNs and Diploma nurses from three U.S. states (two on the east coast and one on the west coast) was used. This method of sampling reduced sampling error by providing equal opportunity for each nurse to be selected. It also increased the generalizability of the findings.

The purpose of surveying nurses in two east coast states was to balance the registered nurse (RN) population between coasts (the western states generally have larger RN populations). The east coast states used were selected based on the presence of diploma nursing programs so as to ensure inclusion of Diploma graduates in the study. The study included west coast RNs as this group has not previously been captured in any studies

The ADNs and Diploma nurses were surveyed using a 19 item semantic differential scale (Appendix A) and a 31 item socio-demographic questionnaire (Appendix B). The mailed questionnaires were used to collect data for descriptive and comparative analysis.

The Attitudes Towards BSN Education Scale (ATBSNE), the semantic differential scale, was used to obtain the data from the chosen sample to determine each subjects' attitude toward continuing formal education. This questionnaire was selected because it was the only tool found which directly related to the topic and has proven reliability and validity. The socio-demographic questionnaire helped place the findings in context and answer the research questions.

3.4 Sample

The sample of this study was comprised of actively licensed RNs initially educated for licensure as an RN below the baccalaureate level. Actively licensed RNs are the individuals more likely to consider continuing their formal nursing education. Individuals who do not meet this criterion, yet received the survey, were asked to indicate their initial licensure status and return the blank survey to the researcher. Those not interested in participating in the study were asked to return the surveys blank.

3.5 Sample Size Determination

Sample size was determined by power analysis, consideration of an expected response rate, and prediction of the number ineligible based on being initially licensed with a BSN or equivalent. In order to achieve 80% power at alpha = .05 with a medium-to-large effect size, using ANOVA and MANOVA with dichotomous independent variables (i.e., trained vs. untrained groups), approximately 30 subjects per group were needed (Cohen, 1988).

Therefore, according to the power analysis, 180 subjects were needed. After factoring in the expected response (20%) and ineligibility rates (33%), 1350 RNs per coast were selected. For the east coast, the 1350 surveys were distributed proportionally

to the number of RNs in the chosen states (482 to New Jersey RNs and 868 to Pennsylvania RNs).

3.6 Subject Selection

Registered nurses on each U.S. coast were surveyed. Two methods were employed in order to determine which states were to be used; determination of types of nursing programs in specific states and size of RN population.

It is known that there are no diploma nursing programs still in existence on the west coast whereas many still exist in some east coast states. Since part of the purpose of this study was to include Diploma Nurses, it was deemed important to choose east coast states which still graduate Diploma Nurses. To this end, the licensing boards in all east coast states were searched to determine if they continue to approve Diploma programs. The percentage of Diploma programs to ADN programs were then ranked in order from highest to lowest. Preliminary findings suggested approximate ratios (Diploma:ADN) of 24:29 programs in Pennsylvania, 11:16 in New Jersey, 7:26 in Virginia, and 3:19 in Ohio. In order to include a large number of Diploma graduates, it was decided to use the east coast states with the highest proportion(s) of Diploma nurses to ADNs.

California was chosen as it has the largest RN population on the west coast. To select states with similar representation (approximate equal number of actively licensed RNs) on the east coast, the states were selected from the *National Sample Survey of Registered Nurses March 2004* (Health Resources & Services Administration, 2006). California is listed as having had 255,968 actively licensed RNs. In order to balance this number, two east coast states with Diploma programs were used: Pennsylvania which is listed as having 164,433 and New Jersey with 92,425 actively licensed RNs.

Interestingly, this equated to a relatively small difference of 890 more nurses in the east coast states.

A complete list of RNs was purchased from the Board of Nursing in California and New Jersey. Pennsylvania was treated slightly differently as the cost of obtaining a list from that states' Board was cost prohibitive. Therefore, in Pennsylvania two counties were randomly selected and a list of the RNs in these counties was purchased. As no Boards sell randomized lists, each lists was entered into MatLab 6.5 release 13© which generated a randomized list of survey recipients.

3.7 Procedure for Protection of Human Subjects

There were several methods employed to ensure protection of human subjects. These included approval from the Duquesne University Institutional Review Board (IRB), inclusion of information in documents sent to the subject to ensure informed consent, and careful methods of receiving, recording, and storing data to ensure confidentiality of subjects.

As no health information was requested from subjects, the Health Insurance Portability and Accountability Act was not addressed. There were no anticipated risks to the subjects for participating in the study.

After completion of the first three chapters of the study, review and approval of the chapters by a dissertation committee, and defense of the dissertation proposal, an application for IRB approval was sent to Duquesne University. Data collection began once IRB permission was received.

Return of the completed survey indicated implied consents. To ensure that the subjects gave informed consent, the cover letter (Appendix C) defined what was meant by implied consent.

To ensure that the subjects knew participation was voluntary, the cover letter also include a brief set of directions for the subjects regarding what to do with the questionnaires regardless of whether recipients wanted to participate. These directions included when to return the completed questionnaires, how to give consent, voluntary withdrawal, and what was to be done if recipients did not want to participate or did not match the inclusion criteria (initial educational preparation below the BSN level). This was done in a single paragraph, in accordance with Dillman (2000), to make a necessary connection between aspects of voluntary participation and what to do if the respondent did not wish to respond. This also requests a 'positive action' from non-participants which makes "it possible to remove their names from the follow-up mailing list" (Dillman, 2000, p. 164). An offer to answer any questions both during the study period and after the studies' conclusion was included to convey the idea of accessibility of the investigator and again stress the importance of the study.

A subject code was devised using the two letters which abbreviate the state concatenated with a three digit number which coincides with the order in which the subjects name appears on the list obtained from the board of nursing. The return envelopes were marked prior to distribution, in the upper left corner, with the subject code. This code was used as an identifier for each subject so as to omit the use of names on surveys and to increase confidentiality. The code allowed for tracking of responses and facilitated determining the necessity to send a second questionnaire packet.

The investigator used a research assistant to log returns and enter data. The assistant signed a "Statement of Confidentiality" (see Appendix D).

Subjects' names did not appear on the surveys or materials used in this study, individuals were not singled out, nor were names mentioned in the write up of the study. Response(s) only appear in statistical data summaries. All written materials and computer discs will be stored in a locked file in the researcher's home. All materials will be kept for five years from the completion of the research and then destroyed.

3.8 Procedure for Data Collection

The questionnaires were distributed through the U.S. Postal Service using bulk mail service. Each mailing contained a cover letter, a one page semantic differential ATBSNE scale, a four page socio-demographic questionnaire, and a preaddressed stamped envelope for easy return of the questionnaire. Second mailings were complete based on the need.

In November 2007 each potential subject (n = 2700), selected by the sampling method previously described, received a questionnaire packet. The mailing date occurred after receipt of the Duquesne University Institutional Review Board approval.

The materials in the packet included a cover letter (Appendix C), an ATBSNE scale (Appendix A), a Socio-Demographic questionnaire (Appendix B), and a preaddressed stamped return envelope. Packets were assembled using a z-fold method, as prescribed by Dillman (2000), so that all three enclosures come out at the same time. This ensured that the purpose of each element was immediately visible.

The cover letter included the purpose of the study, who was requested to participate (those initially educated below the BSN level), directions for completing the

ATBSNE scale and Socio-Demographic questionnaire, a date to return the packet, procedures to be used, approximate time to complete the two questionnaires, the purpose of the codes on the envelopes, and how data will be reported. Subjects were also given information on how to request a copy of the study findings. It was also stressed in the cover letter that participation was voluntary and that subjects could withdraw at any time. Subjects were also advised that they could complete as much of the survey as they felt comfortable in doing and could contact the researcher to ask questions at any time. The preaddressed stamped envelop was provided as a means for subjects to return the packet at no cost to themselves.

As materials were returned, the research assistant separated the questionnaires from the envelopes and recorded the subject code on a log sheet (the two-letter/three-digit code devised during sampling). The envelope was then shredded to ensure that the subject code, and its link to subject names, could not be associated with the responses. The research assistant then coded the questionnaires with a four-digit number ranging from the first envelope received (0001) to the last envelope received plus a letter representing the coast it was received from, in the upper right corner. This sequential numbering allowed the investigator and assistant to survey the number of questionnaires returned as the data collection period progressed.

A recording log was set-up on a spreadsheet with all the subject codes listed down the left side. The first column included the serial code assigned as each questionnaire packet was received. In the next column, in line with its corresponding subject code, the date each packet was received was entered. The next two columns were checked to indicate whether the questionnaire packed was completed or blank. The final column was

checked if a follow-up packet was sent. The purpose of this methodical recording was to assist in minimizing second packet mailings.

It was initially planned that five weeks after the questionnaire packet was mailed, a second packet with a follow-up letter (Appendix E) would be mailed to those who had not yet returned the questionnaire packet. The five week timeframe had been suggested as a method to increase response rates (Dillman, 2000). Due to the December holiday season however, it was decided that this timeframe would be disruptive to potential participants and be detrimental to response rates. Hence, it was decided to mail the second packets in late December.

Although the overall response rate to the first mailing was good (23.4%), there was a higher than predicted rate of ineligible and unwilling subjects. A second mailing (n = 1600) was completed. The follow-up cover letter contained the same information as the initial cover letter and included a section "devoted to a restatement of each recipient's importance to the study" (Dillman, 2000, p. 181).

3.9 Data Collection Instruments

Two instruments were used in this study: the Attitudes toward BSN Education (ATBSNE) Scale (Roche, 1990) and a Socio-Demographic Questionnaire (modified from Roche). Both of these questionnaires were delivered via the postal service and were self-administered by the subjects. Completion of the surveys should have taken subjects approximately 15 minutes.

Since attitudes are measured indirectly, choosing or designing an instrument can be a difficult task. "Primarily, scales provide measure of complex concepts or attitudes

which cannot be accessed easily or measured using one single question because they have several different aspects to them" (Adams, 1998, p. 53).

According to Fishbein and Ajzen (1975), their "definition of attitude requires a measurement procedure whereby a person assigns some concept to a position on a bipolar evaluative dimension" (p. 56). Single-response measures ask the person to locate a concept along some bipolar dimension. The problem with single-response measures is that they do not measure affect under all circumstances however, self-ratings of bipolar adjectives such as like-dislike, favorable-unfavorable, approved-disapprove, and good-bad work under most circumstances.

The best way to overcome issues of reliability and validity is to select the instrument carefully, administer it consistently, and provide clear and concise instructions for completion of the instrument. Discussion of the types of scales often used to meet these requirements, and discussion of the tool used for this study, demonstrates that the choice of instrument was made with forethought and careful consideration.

3.9.1 *Choosing an Instrument to Measure Attitudes*

There are two major approaches to measurement: norm-referenced and criterion-referenced. The best measurement approach for a particular concept is determined by the nature of the research questions and the guiding framework of the study. A norm-referenced tool "measures a specific characteristic in such a way that it maximally discriminates among subjects possessing differing amounts of that characteristic" (Waltz et al., 2005, p. 6). A criterion-referenced measure is used to determine whether an individual has achieved a desired effect; comparison with the performance of others is irrelevant. It seems unlikely, given the nature of attitudes, that there can be a determined

level which would consistently prompt participation in an educational program. Hence, it can be concluded that these concept will most often be measured using a norm-referenced measure. The ATBSNE scale is norm-referenced.

3.9.2 *Semantic Differential Scales*

The semantic differential scale technique was developed in 1957 specifically to measure attitude, beliefs, or both (Becker & Gibson, 1998; Fain, 2004). It is "an attitude scale that asks respondents to select a point that corresponds to their attitude on a seven-point rating scale. The points are anchored by two descriptive words or phrases representing bipolar attitudes about a concept" (Doordan, 1998, p. 113). Examples of bipolar adjectives include: good/bad, strong/weak, effective/ineffective, important/unimportant (Polit & Beck, 2006). As one of the critical attributes of an 'attitude' is that it is bipolar, the use of a semantic differential scale appears appropriate.

When using the scale, a line is drawn that extends from one extreme of the dimension to the other. Subjects are asked to place a check at the appropriate point on the line. For scoring, a seven-point rating scale is place as a header to the line with the numbers place equidistance apart. The scale is then scored by summing the numbers selected by subjects for each pair across scales to yield a total score.

Use of a semantic differential scale is consistent with the TRA and TPB. Attitude "should be measured by a procedure which located the subject on a bipolar affective or evaluative dimension vis-à-vis a given object" (Fishbein & Ajzen, 1975, p. 11). The ATBSNE scale meets all the criteria set forth by Ajzen and Fishbein (1985) for measurement instruments consistent with the Theory of Planned Behavior.

3.9.3 *The Attitudes towards BSN Education (ATBSNE) Scale*

As previously described, the most frequently used instrument found in the literature was the Education Participation Scale (EPS), or a modification of it. Although a useful tool with proven reliability and validity, the EPS is best used once individuals have begun an educational program and, unless modified, is not specific to nursing. It did not meet the needs of this study.

Considerations when choosing an attitude scale include the age of the scale, the context within which the scale was designed, and cultural differences (Adams, 1998). Although the ATBSNE scale (see Appendix A) was designed almost two decades ago, nursing in the U.S. has not changed in that there are still three levels of entry into the profession and no settlement of what should be the educational entry-into-practice. The scale was developed for eliciting opinions from nurses about continuing formal education within the U.S. culture which is consistent with this study.

The ATBSNE Scale was developed by Eileen M. Roche in 1990 as part of her doctoral dissertation. Initial contact with Dr. Roche was established and permission to use the ATBSNE Scale, and include it in any reports of this study, was obtained (Appendix F).

The ATBSNE Scale (Roche, 1990) was the only instrument found which was designed to measure attitudes regardless of whether the subjects had decided, or taken action, to return to school. In addition, it was the only instrument which was specifically related to continuing formal nursing education at the baccalaureate level. The multi-item format improved both the reliability and the validity of information collected. Its' focus

on different aspects of an attitude enhanced content validity. The ATBSNE uses a semantic differential scale.

The scale was scored on a 7-point continuum with unfavorable poles assigned a one and favorable poles assigned a seven. A total score was calculated for each subject by adding the individual item score for a possible score raging from 20 to 140. Therefore, the more positive attitudes received a higher score.

The original ATBSNE scale contained 20 bipolar adjectives of the evaluative dimension. The 20 bipolar adjectives were derived from a preliminary list which contained 33 bipolar adjectives. According to Roche (1990), the 33 bipolar adjectives were collected from several lists of acceptable adjectives presented in various research books, through literature review, and anecdotal references from RN/BSN students for their appropriateness to the concept of BSN education. A thesaurus was used to find an appropriate bipolar adjective. The adjective pairs were arranged using random polarity so as to prevent response bias.

Content validity was established using a panel of experts in two phases. The preliminary list of 33 adjectives was sent to six judges experienced as nursing educators teaching nursing courses in which RN/BSN students were enrolled. Bipolar adjectives met the criteria for acceptance if they were rated 3 (“quite relevant”) or 4 (“very relevant”) on a 4-point scale by at lease five of the six judges. In the first judging, only eight pairs met the criteria for acceptance. Telephone follow-ups with three judges determined that the directions for rating the bipolar adjectives were unclear.

In the second phase, after recommended changes were completed, a second list of 33 adjective pairs was sent to the original six judges. This second list contained 22

bipolar adjectives rated 3 or 4 by at least 50% of the judges in the first phase. In addition, it contained 11 new bipolar adjectives. Telephone follow-ups were completed to ensure the judges understood the new directions. Once again, bipolar adjectives met the criteria for acceptance if they were rated 3 ("quite relevant") or 4 ("very relevant") on a 4-point scale by at lease five of the six judges. The final ATBSNE scale contained 20 bipolar adjectives.

A pilot study (n = 24) was conducted using the final version of the ATBSNE scale and the Socio-Demographic Questionnaire. The pilot study demonstrated a need to change the wording of several questions on the Socio-Demographic Questionnaire to provide greater clarity. Test-retest reliability for the ATBSNE was calculated two weeks after the pilot study using Pearson's correlation ($r = .78$, $p \leq .001$) with $N = 19$.

The internal consistency of the ATBSNE was evaluated using the Cronbach's alpha method and by establishing the relationship between the individual items and the items as a set. The coefficient alpha for the ATBSNE was .92 (N = 24) for the pilot study and .94 (N = 194) for the full study. For the pilot study all items contributed positively to the overall internal consistency of the tool. Corrected item total correlations ranged from .22 to .80 for the study itself; 19 of the 20 items contributed positively to the overall internal consistency of the ATBSNE with corrected item total correlations ranging from .31 to .82. The item which did not contribute to internal consistency was dropped, as suggested by Roche (1990), for this study. Hence, the range of total scores will be between 19 and 133.

Construct validity of the ATBSNE scale was determined by factor analysis. "Three factors were extracted from the principal-components analysis. The first factor

accounted for 52% of the variance with 18 of the 20 items having factor loadings that ranged from .50 to .85" (Roche, 1990, p. 137). Overall, factor analysis derived one primary factor measuring one construct and no significant subscales.

3.9.4 *The Socio-Demographic Questionnaire*

The Socio-Demographic Questionnaire was a modification of that used by Roche. The original questionnaire content was derived from the literature and contained 27 questions (Roche, 1990). A pilot test was used in the development of this instrument and resulted in the changing of the wording of several questions so as to provide greater clarity.

The modified version contains forced/multiple choice (n = 18), dichotomous (n = 9), and open-ended questions (n = 7). Forced/multiple choice questions consist of a questions stem and a list of suggested responses from which subjects are requested to select the one correct, or best, alternative (Linn & Gronlund, 2000). Forced/multiple choice questions are easy to analyze and, generally, are more efficient. In order that forced/multiple choice response sets include every possible category, many include an "other" category, and request subjects to include a written response to what they meant by "other". Open-ended questions request responses in the words of the individual completing the survey. They allow for a richer and fuller perspective on the topic of interest. Both open-ended and forced choice questions have certain strengths, therefore combinations of both types are highly recommended to offset the strengths and weaknesses of each (Polit-O'Hara & Hungler, 2000).

3.10 Procedure for Data Analysis

"Survey research is better suited to extensive rather than intensive analysis" (Polit & Beck, 2006, p. 241). As survey materials were received, data were entered into Statistical Package for the Social Sciences (SPSS) version 15.0 for Windows on the personal computer of the researcher. Initial analysis was completed using simple descriptive statistical tests. Descriptive statistics included frequency and percentages for nominal (categorical/dichotomous) data and means/standard deviations for continuous (interval/ratio) data. Scores on the ATBSNE scale were evaluated as both adjective pairs and composite scores. Composite scores were calculated by summing all items in each subscale on the ATBSNE and dividing by the total number of items.

If it is not possible to directly measure an attitude, it may be more appropriate to correlate the findings from measurement of different combinations of the critical attributes. This method may more accurately support the inferences made regarding an attitude. If an attitude is inferred through measurement of its attributes, the intent of research is understanding.

To examine the first research question (What are the attitudes of ADN and Diploma educated nurses toward continuing formal education?), a multivariate analysis of variance (MANOVA) and 19 analyses of variances (ANOVAs) on the adjective pairs by degree (ADN vs. Diploma Nurse) were conducted. The assumptions of normality and homogeneity of variance were assessed. Box's Test of Equality of Covariance Matrices was significant, indicating violation of the assumption of homogeneity of covariance. Levene's Test of Equality of Error Variances was significant for only question 17, indicating violation of the assumption of homogeneity of variances for that question.

However, *MANOVA* is robust to violations of homogeneity of variance/covariance matrices if groups are of nearly equal size.

To examine the second research questions (Do the attitudes of ADNs and Diploma nurses toward continuing formal education change over time as determined by years of nursing practice) an ANOVA on the composite ATBSNE scores (the dependent variable) by years in nursing (grouped) was conducted. The assumptions of normality and homogeneity of variance was assessed. The assumption of normality was met. Levene's Test of Equality of Error Variances was not significant, indicating that the assumption of homogeneity of variance was met.

To examine the third research question (How do the attitudes of ADNs and Diploma nurses who do return to school to continue their formal education differ from those who have not returned to school or from those planning to return to school?), an ANOVA on composite ATBSNE scores (the dependent variable) by return to school group (those that return vs. do not return vs. are planning to return) was conducted. The assumptions of normality and homogeneity of variance was assessed. The assumption of normality was met. Levene's Test of Equality of Error Variances was not significant, indicating that the assumption of homogeneity of variance was met.

To examine the final research question (Do the attitudes of ADNs and Diploma nurses differ according to geographical location?), an ANOVA on composite ATBSNE scores (the dependent variable) by area group (West vs. East) was conducted. The assumptions of normality and homogeneity of variance was assessed. The assumption of normality was met. Levene's Test of Equality of Error Variances was not significant, indicating that the assumption of homogeneity of variance was met.

Analysis of variance allows the means of more than two groups to be compared (ADNs verse Diploma Nurses, east coast versus west coast, different age groups) simultaneously while maintaining control of the probability of type 1 error. Multivariate analysis of variance is used to test simultaneously the means of two or more groups (listed above) on two or more dependent variables (attitude attributes).

Since one question from the original ATBSNE scale was not included, Cronbach's alpha was conducted to verify reliability and internal consistency of the tool for the study. The Cronbach's alpha coefficient for the subscale ATBSNE Questionnaire was 0.96 (considered excellent) on the composite of the 19 items used.

3.11 Summary

The study used an exploratory, comparative, descriptive method to evaluate the attitudes of ADNs and Diploma nurses toward continuing formal nursing education. Nurses on both coasts of the U.S were randomly selected, proportional to the number of actively licensed nurses in the state, to receive a mailed survey. One thousand three hundred and fifty nurses in California and 1350 nurses in Pennsylvania and New Jersey combined were selected and surveyed. The initial survey packets were sent on November 2, 2007. Subsequent mailings, determined by response rate, were sent December 28, 2007 through January 10, 2008 as they were compiled.

Two instruments were used in this study. The first instrument, the ATBSNE (Roche, 1990), contained a 19-item semantic differential scale to determine subjects attitudes towards continuing formal education. The ATBSNE Scale has proven reliability and validity. The second instrument, a Socio-Demographic questionnaire, contained forced/multiple choice, dichotomous, and open-ended questions.

The protection of human subjects was ensured using multiple methods. Prior to any contact with potential subjects, approval was sought from the Duquesne University Institutional Review Board. All documents sent to subjects provided information about participant rights and research purpose information. Participation was voluntary. Additionally, the methods for receiving, recording, storing, and reporting data ensured the confidentiality of subjects.

Data was entered into SPSS and analyzed using ANOVA and MANOVA statistical methods. The assumptions of normality and homogeneity of variance was assessed accordingly. In addition, the reliability of the ATBSNE scale for this study was also evaluated.

CHAPTER 4

DATA ANALYSIS AND DISCUSSIONS

4.1 Introduction

There is a greater need today than ever for baccalaureate and advanced degree nurses however, the majority of nurses are educated in ADN or Diploma programs. The evidence suggests that education has a positive impact on the quality of healthcare, the nursing shortage, the need for nursing faculty, and nurses' attitudes and actions. It has been shown that the BSN education provides a broader education, increased liberal arts knowledge, improved critical thinking skills, higher levels of professionalism, and improved attitudes toward life-long learning. Nurses need the scope and depth of knowledge, skill, and judgment attained through baccalaureate education in order to teach and/or to provide optimal quality care to the complex patients of today.

A positive attitude toward education improves participation in, and the outcomes of, any educational offering. In order to meet the needs of society, educators in ADN and Diploma programs must foster a positive attitude in their graduates toward continuing their nursing education to the BSN or higher. Additionally, more nurses need to be encouraged and assisted to return to school. In order to accomplish this, there is a need to understand the attitudes of ADNs and Diploma nurses who have returned to school, those

who have not returned, and those who are considering returning toward furthering their education to the BSN level and/or beyond.

To this end, the purpose of this study was to examine the attitudes of nurses initially registered with an associate degree or diploma in nursing toward continuing formal education at the baccalaureate level and/or beyond; whether these attitudes changed over time; and if there were geographical differences between nurses' attitudes (east coast versus west coast of the United States).

4.2 Response Rate

Two thousand and seven hundred (2700) RNs randomly selected from the lists of RNs purchased from three state Boards of Nursing received questionnaires. The RNs were equally distributed between California on the west coast and New Jersey and Pennsylvania on the east coast. Nine hundred and fourteen (914) questionnaires were returned for a response rate of 33.9%.

From the 914 questionnaires returned it was determined that 535 were appropriate to use for data analysis. Therefore, the useable response rate was 19.8%. Three hundred and seventy-nine (379) questionnaires were not included in data analysis for the following reasons: 1) 81 were returned blank indicating that the RN chose not to participate; 2) 297 were returned indicating that the RN was initially registered with a BSN or equivalent, therefore were not eligible for the study; and 3) one indicated that it was a repeat survey completed as a result of the second mailing. Although the useable response rate is considered good for a mailed questionnaire (Dillman, 2000), self-selection bias of participants and non-respondent bias are important limitation of the findings.

Of the 535 deemed appropriate for data analysis, not all had both surveys completed. Since there were questions relevant to answering the research questions in the sociodemographic questionnaire, the 51 sociodemographic questionnaires which were returned without the accompanying ATBSNE were included for data analysis. In addition, 50 partially completed ATBSNE questionnaires were included in the analysis; 26 were missing only one rating of the 19 bipolar adjectives, 6 were missing two ratings, one was missing three ratings, three were missing four ratings, and 14 were missing greater than four ratings. A total of 434 completed 100% of both questionnaires.

4.3 Evaluation of Surveys for Data Entry

Data on the 535 questionnaires deemed appropriate for analysis were perused for erroneous or problematic information in order to reduce the number of data entry errors and increase consistency in recording certain data. From the list of erroneous or problematic data described by Burns and Grove (2003) the following problems were resolved prior to data entry: 1) missing data; 2) items in which the subject provided two or more responses when only one or two were requested; and 3) items that asked the subject to write in some information.

When data were missing, a code indicating that a response was missing was entered into SPSS. The code was selected to determine: 1) the information was missing because the subject chose not to give the information; or 2) the information was not needed due to the response from a previous question such as intent to return to school indicated it was not necessary to state why not interested in returning to school. The effect of missing data on the study as a whole, and on individual analyses, was evaluated prior to evaluating the research questions.

If respondents included more responses than requested, responses were evaluated for similarities and, when found, only one of the similarities were recorded. If no similarities were found or more than requested were found, all responses were recorded in the "other" category. For example, in question 12 of the sociodemographic questionnaire, subjects were asked to indicate their #1 and #2 reasons for not returning to school. If a subject selected more than three reasons and two of these were "I don't need a BSN to stay in hospital nursing" and "I don't need a BSN to give good care," only the first of these was recorded along with the three dissimilar reason indicated by the subject.

Several questions on the sociodemographic questionnaire asked subjects to write in information, or indicate an "other" if none of the selections applied. A written response was indicated in numeric form, and the actual written response was recorded as a string variable.

Evaluation of the ATBSNE survey was conducted to assess the effect of missing data and to determine the criteria for statistical significance. It was determined that missing data on the ATBSNE would not affect statistical significance given that appropriate power was achieved and both individual and composite scores were evaluated. Statistical significance was considered at $p < .05$ and borderline statistical significant was considered at $p < .10$. When statistical significance was borderline, findings were evaluated based on the evidence against the null hypothesis.

4.4 Description of the Subjects

There were 535 participants in the study. However, as previously stated, not every question was answered by every participant.

Four-hundred eighty-nine participants (93.3%) were female and 35 participants (6.7%) were male. The clear majority of participants (n = 443, 85.2%) were Caucasians. The frequencies and percents related to ethnicity are presented in Table 1. The "Other" category for ethnicity included: Chinese, Filipino, Portuguese, East Indian, Jewish, and Latina.

Table 1

Ranked Frequencies and Percents Related to Ethnicity (n = 521)

Ethnicity	Frequency (n)	Percent (%)
Caucasian	443	85
Asian American/Pacific Islander	30	5.8
Black or African American	15	2.9
Hispanic	14	2.7
Mixed Race	8	1.5
Other	7	1.3
Native American	4	.8

A majority of participants were also over 50 years of age (n = 289, 54.3%); with almost one fifth (n = 100, 18.8%) over 60 years of age. In contrast, few participants were under 40 years of age (n = 78, 14.6%). A summary of the number of participants by age group is presented in Table 2.

The minimum number of years participants stated that they were licensed as an RN was 0.5 and the maximum number of years licensed as an RN was 62 (M = 24.81, SD = 13.55). The means and standard deviations on Age and Years Licensed as an RN are presented in Table 3. The "Years Licensed as an RN" for the total sample is represented in Figure 2.

Table 2

Summary of Participants' Responses Related to Age (n = 513)

Participants Age in Years	Frequency (n)	Percent (%)
21 – 25 years	9	1.8
26 - 30 years	15	2.9
31 – 35 years	19	3.7
36 – 40 years	35	6.8
41 – 45 years	66	12.9
46 – 50 years	80	15.6
51 – 55 years	99	19.3
56 – 60 years	90	17.5
61 – 65 years	53	10.3
66 – 70 years	33	6.4
71 – 75 years	7	1.4
76 – 80 years	3	0.6
81 – 86 years	4	0.8

Table 3

Means and Standard Deviations Related to Age and Years Licensed as an RN

Variable	*N*	*Min.*	*Max.*	*M*	*SD*
Age	513	21.0	86	51.50	11.14
Years Licensed as an RN	532	0.5	62	24.81	13.55

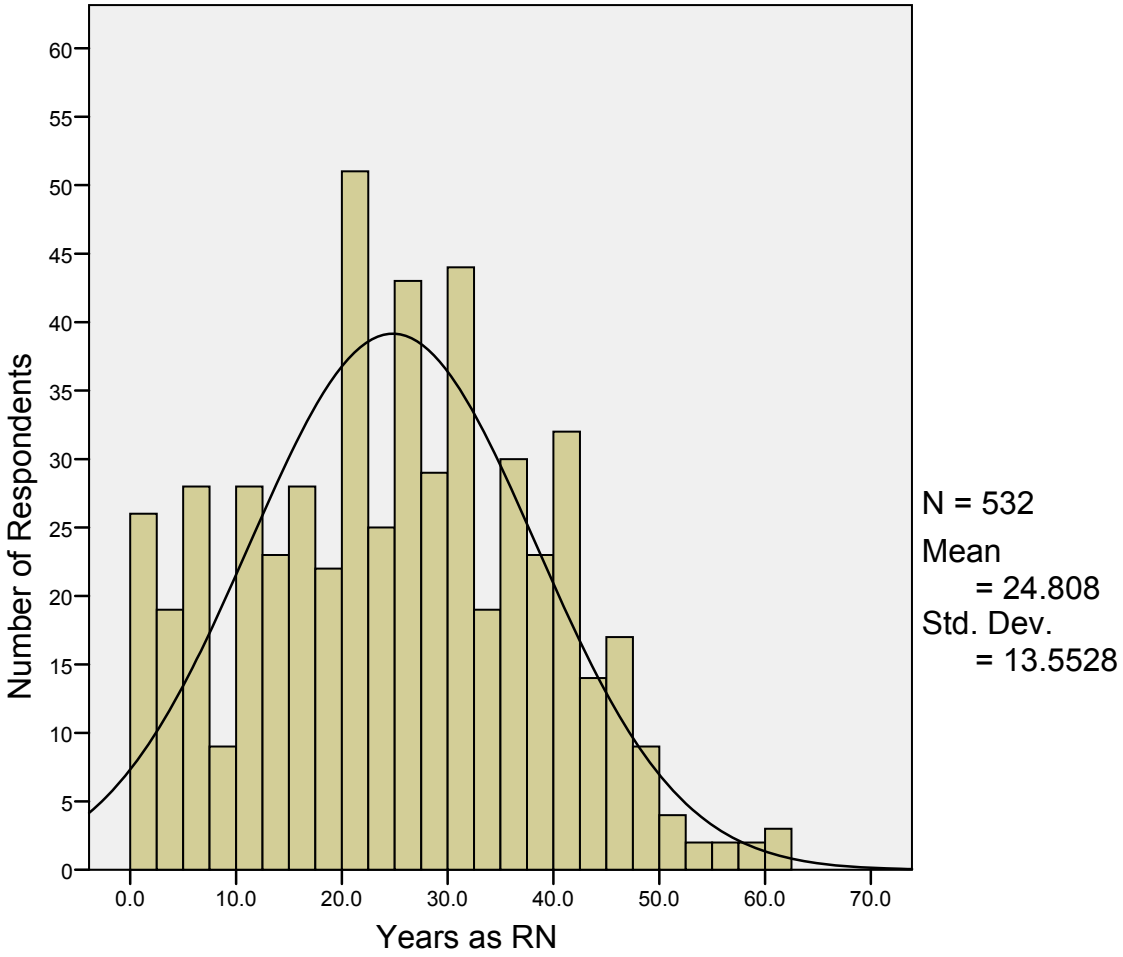

Figure 2. Summary of participants' responses to number of years licensed as an RN with normal curve superimposed (n = 532)

Of the participants, 237 (44.3%) resided in California, 215 (40.2%) resided in Pennsylvania, and 83 (15.5%) resided in New Jersey. Therefore, 298 participants (55.7%) lived on the East coast, and 237 participants (44.3%) lived on the West coast.

Three-hundred two participants (56.6%) were employed full-time in nursing, 114 participants (21.3%) were employed part-time in nursing, and two participants (0.4%) were looking for work in nursing. Of the 36 participants (6.6%) who selected "Other" for employment status, many were in nursing or health care related positions such as per

diem (n = 6), full time weekend program (n = 2), casual (n = 2), managed care (n = 1), occupational health (n = 1), part time nursing and full time education (n = 1), and full time hospital education (n = 1). Of the participants who were not working in nursing, 59 (11.1%) were not currently employed, 14 (2.6%) were employed full-time not in nursing, and eight (1.5%) were employed part-time. Some participants, not employed in nursing, who selected either "Other" or "Not currently employed" gave the following reasons: retired (n = 40), on disability (n = 6), funeral director (n = 1), consulting (n = 1), and on a one year leave of absence (n = 1). The distribution of employment status is presented in Figure 3. However, of the participants who were not employed in nursing, 78 (75.7%) did not plan to return to nursing while only 25 participants (24.3%) planned to return to nursing.

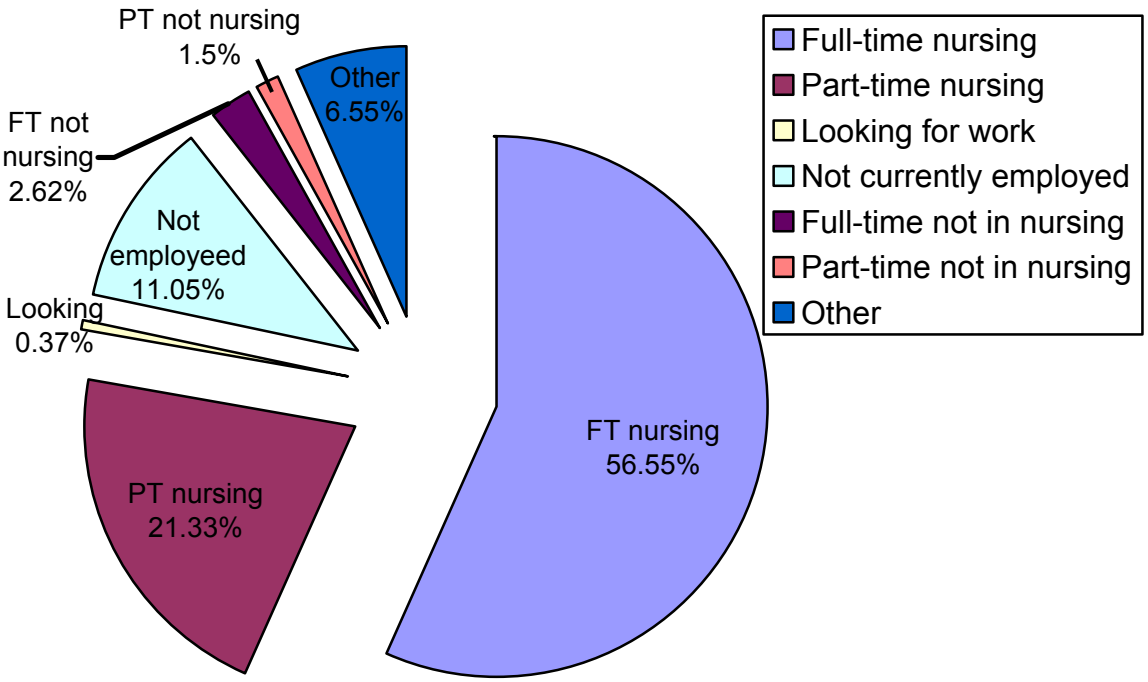

Figure 3. Summary of participants' responses related to employment status (n = 534)

Three-hundred seventy-two participants (71.1%) were married, 74 participants (14.1%) were divorced, 50 participants (9.6%) were never married, 23 participants (4.4%) were widowed, and four participants (0.8%) were separated. One-hundred eighty-seven participants (36%) lived with a partner, 183 participants (35.3%) were living with their partner and children, 77 participants (14.8%) were living alone, 45 participants (8.7%) were living with children, 11 participants (2.1%) had a living together arrangement, and three (0.6%) were living with parents. Thirteen participants (2.5%) had a living arrangement of another kind such as: taking care of a parent (n = 4), taking care of a grandparent (n = 1), sister (n = 4), partner and grandchild (n = 1), and roommates (n = 3).

Table 4

Summary of Participants' Responses Regarding Children and Financial Responsibility

	Frequency (n)	Percent (%)
Number of Children (n = 519)		
2	170	32.8
3	125	24.1
0	83	16
1	82	15.8
4	44	8.5
5	8	1.5
6	7	1.3
Number of Children Living at Home (n = 487)		
0	250	51.3
1	103	21.1
2	88	18.1
3	37	7.6
4	7	1.4
5	1	0.2
6	1	0.2
Ages of Children Living at Home (n = 432[a])		
< 6 years of age	55	12.8
6 -18 years of age	256	59.4
> 18 years of age	120	27.8
Number of Adult Children for Whom you have Some Financial Responsibility (n = 382)		
0	220	57.6
1	98	25.7
2	51	13.4
3	12	3.1
4	1	0.3

[a] Some participants entered more children's ages than number of children living at home. Data were entered as provided by participants.

Most participants had one or two children (32.8% and 24.1% respectively) however, similar to responses regarding living arrangements, the majority no longer lived

with their children nor bore financial responsibility for adult children. The largest age group for children living at home was from ages 15.5-20 years (n = 115, 26.6%); ages 10.5-15 years was a close second (n = 112, 25.9%). The frequencies and percents related to number of children, number of children at home, ages of children living at home, and financial responsibility for adult children are presented in Table 4.

4.5 Data Related to Education

Two-hundred eighty-four of the total participants (53.3%) originally graduated from a diploma program and 249 of the participants (46.7%) graduated from an Associate Degree (ADN or ASN) program. The distribution by coast is: west coast equals 69.6% ADNs (n = 174) and 21.8% Diploma nurses (n = 62); east coast equals 30.4% ADNs (n = 76) and 78.2% Diploma nurses (n = 223). Three-hundred five participants (57.7%) had not returned to school for further nursing education, 224 participants (42.3%) had returned to school for further nursing education. The frequencies and types of advanced nursing education of participants are presented in Table 5.

Two-hundred thirteen participants (54.3%) had no intention of ever returning to school to obtain their BSN, 103 participants (26.3%) were interested in returning to school to obtain their BSN (online: n = 76, 19.4%; on-campus: n = 27, 6.9%), 30 participants (7.7%) never gave it any thought, and one participant (0.3%) may return to school. Forty-five participants (11.5%) will return to school for a degree not in nursing.

Table 5

Participants' Responses Related to Type and Level of Continuing Formal Nursing Education Achieved at Time of Survey (n = 224)

Type of Advanced Education	Frequency (n)	Percent (%)
BSN	91	40.6
MSN	65	29
Nurse Practitioner (NP)	27	12
Part BSN	20	8.9
School Nurse Credential	10	4.5
Certified Registered Nurse Anesthetist (CRNA)	6	2.7
Bachelors in Hospital Admissions/Administration	5	2.2
Certification	5	2.2
PhD	4	1.8
Nurse Midwife	3	1.3
Bachelors in Health Services/Sciences	3	1.3
Clinical Nurse Specialist (CNS)	2	0.9
Bachelors in Education	1	0.5
Bachelors in Public Health	1	0.5
Statistics	1	0.5

Note. Total equals > 100% as some participants' listed more than one terminal degree.

When asked for their primary reason for not being interesting in returning to school, 84 participants (26.6%) listed being "too old to go back to school," followed by "Other" (n = 78, 24.7%), "I won't earn any more money" (n = 45, 14.2%), and "don't need a BSN to stay in hospital nursing" (n = 39, 12.3%). The top three primary "Other" reasons given by participants included: retired or close to retirement (n = 14), want career

change (n = 7), and cost (n = 6) or have another degree (n = 6). All "Other" reasons were only cited once by participants.

When asked to name their secondary reason for not being interested in returning to school, 39 participants (14%) responded that they "won't earn any more money", followed by "Other" (n = 33, 16.5%), "I don't need a BSN to give good care" (n = 28, 14%), and "too old to go back to school" (n = 23, 11.5%). The top three secondary "Other" reasons included: retired or close to retirement (n = 11), no interest (n = 5) or cost (n = 5), and no time (n = 3) or doesn't make a difference/no value (n = 3). All "Other" reasons were only cited once by participants. The overall frequencies and percents related to decisions for not returning to school to obtain a BSN are presented in Table 6.

Table 6

Ranked Overall Frequencies and Percents Related to Decisions for Not Returning to School to Obtain BSN (Primary and Secondary Reasons)

Reasons	Frequency (n)	Percent (%)
Other (specified: #1 = retirement, #2 = cost, #3 = no interest, #4 = want career change, #5 = makes no difference/no value)	111	22.8
I'm too old to go back to school now	107	22
I don't need a BSN to stay in hospital nursing	57	11.7
I don't need a BSN to give good care	55	11.3
I won't earn any more money by getting a BSN degree	54	11.1
If I go back to school, I'll have to take everything over again	37	7.6
Whatever extra training I need I can get from CEs or in-services	23	4.7
A BSN is only for those who have management career plans	16	3.3
There is no one supporting my efforts to go back to school	11	2.3
If the BSN becomes necessary, I'll be "grandfathered" without the BSN	10	2.1
I never was a good student	5	1

Three-hundred forty-eight participants (66.8%) had not attended school for something other than nursing. For those who attended school before nursing school (n = 103, 19.8%), the primary majors/degrees were: business/management (n = 20), health care such as medical/surgical tech, small animal science, dental, social work, medical assisting, etc. (n = 19), biology (n = 11), teaching/education (n = 11), and liberal arts (n = 8). For participants who continued their education after nursing school but not in nursing

(n = 70, 13.4%), the primary majors/degrees were business (including Masters in Business Administration, public administration, hospital administration, health care administration, and human services) (n = 27) followed by education (n = 13) then psychology (n = 6) and counseling (n = 3).

When asked about receiving encouragement to continue their formal education during their initial nursing program, 274 participants (52.4%) stated that they were encouraged to continue their formal education while 249 participants (47.6%) were not encouraged to continue their formal education in their initial nursing program. The majority of participants (n = 352, 79.6%) do not feel social pressure to return to school to obtain a BSN; only 90 participants (20.4%) are feeling social pressure to return to school to obtain a BSN. Frequencies and percents related to persons from whom the pressure to return to school is coming are presented in Table 7. The primary "Other" pressure to return to school was to increase job potential (n = 4).

Table 7

Frequencies and Percents Related to Person from Whom Pressure is Coming to Obtain Continuing Formal Education

Source of Pressure	Frequency (n)	Percent (%)
Employer	38	40.4
Colleagues at Work	19	20.7
Recent Research	12	13
Personal Desire	55	59.1
State Legislature	11	12
Nursing Organizations	23	25
Family	16	17.8
Other	10	1.9

When asked if they had access to enough information about available educational programs that would meet their needs as an RN interested in returning to school for a BSN, 342 participants (68.3%) had access to enough information, 68 (13.6%) did not have access to enough information, and 40 participants (8%) didn't notice if they had access to enough information. Access to enough information about available educational programs was not applicable to 51 participants (10.2%). The response frequencies and percents related to how the participants receive/received this information are presented in Table 8. Sources of information listed as "Other" included: online/internet (n = 32), own research (n = 15), initial RN program (n = 12), employer (n = 10), information fairs (n = 2), college catalogues (n = 2), nursing education associations (n = 1), and e-mails from schools (n = 1).

Table 8

Frequencies and Percents Related to How Information Regarding Continuing Formal Education was Received

Source of Information	Frequency (n)	Percent (%)
Unsolicited Mailings to my Home (n = 364)	200	54.9
Word of Mouth From Other RNs Returning to School (n = 362)	237	65.5
Informational Pamphlets/Flyers at my Place of Employment (n = 361)	133	36.8
Advertisements in Professional Journals (n = 362)	177	48.9
Advertisements in Local Newspapers (n = 359)	32	8.9
Community Interest Messages on TV or Radio (n = 356)	24	6.7
Not Applicable (n = 360)	34	9.4
Other (n = 360[a])	74	20.6

[a] One participant listed 2 "Other" sources of information

Four-hundred forty-seven participants (88.5%) had access to continuing formal educational programs and 58 participants (11.5%) did not have access to any continuing formal educational programs.

The largest percentage of participants (n = 121, 23.5%) could receive Partial (≤ $4,000/Year) reimbursement from their employer for returning to school to obtain their BSN while 112 participants (21.8%) would receive no reimbursement from their employer. Amounts or types of tuition reimbursement listed by participants in the "Other" category included: reimbursement amount based on grade (n = 6), 80% of tuition (n = 2), 85% of tuition (n = 1), 50% of tuition (n = 1), educational leave only (n = 1),

$4,000 total (n = 1), $1,000 (n = 1), $2,500 (n = 1), $1,500 / year (n = 1), and $250 / year (n = 1).

Table 9

Participants' Responses Regarding Tuition Reimbursement from Employer for Returning to School to Obtain a BSN: Ranked

	Frequency (n)	Percent (%)
Amount of Tuition Reimbursement Received (n = 571[a])		
Partial (≤ $4,000/year)	121	23.5
None	112	21.8
Unknown	92	18
Not Applicable	82	16
Partial (≥ 4,000/year)	57	11.1
Full	34	6.6
Other	16	3.1
Need to be Working Full-time to Receive Tuition Reimbursement (n = 455)		
Yes	211	46.4
No	113	24.8
No tuition reimbursement available	72	15.8
Not employed in Nursing	59	13
Amount of Tuition Reimbursement is Based Upon the Amount of Hours Worked (n = 413)		
Yes	176	42.5
No	105	25.4
No tuition reimbursement available	72	17.4
Not employed in Nursing	60	14.5

[a] Total number of participants is not equal as a participant may have selected > 1 response and/or answered only what they knew about tuition reimbursement.

In order to receive tuition reimbursement, almost half of the participants (n = 211, 46.4%) stated they needed to be working fulltime and that the amount of reimbursement was based upon the amount of hours worked (n = 176, 42.5%). Frequencies and percents related to tuition reimbursement information are presented in Table 9.

4.6 General Findings

When asked about their work setting, almost one third of participants (n = 155, 30.3%) worked in an urban city, with a population greater than 300,000; the next largest setting was in rural areas (n = 129, 25.2%). Frequencies and percents related to work area are presented in Figure 4.

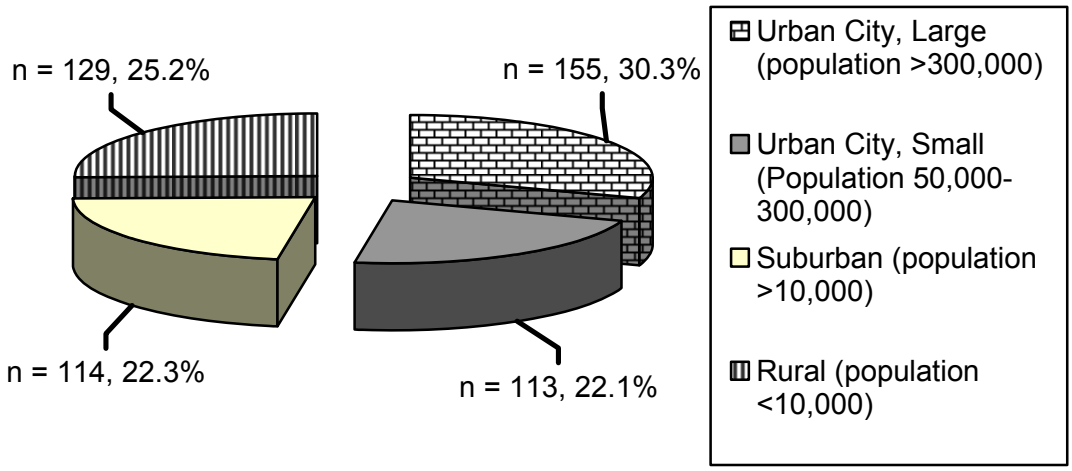

Figure 4. Frequencies and percents related to work area

Nearly half of the participants (n = 227, 43.2%) worked as a staff nurse. The next largest category selected by participants (n = 137, 26.1%) was "Other." The "Other" category included a large number of job descriptions for which only one participant was classified. However, job titles such as case management (n = 21), school nurse (n = 14), nursing instruction (n = 10), Director (n = 10), supervisor (n = 9), home care (n = 6),

Certified Registered Nurse Anesthetist (n = 6), and occupational health nurse (n = 5) were the most common in the "Other" category. The frequencies and percents related to job description are presented in Table 10.

Table 10

Ranked Frequencies and Percents Related to Job Description (n = 525)

Rankings	Frequency (n)	Percent (%)
Staff Nurse	227	43.2
Other	137	26.1
Not employed in nursing	78	14.9
Head Nurse	26	5.0
Nurse practitioner	26	5.0
Clinical coordinator	13	2.5
Physicians office nurse	10	1.9
Assistant head nurse	8	1.5

The majority of participants (n = 290, 54.9%) were very satisfied with their choice of nursing as a career. Thirteen of the participants (2.5%) who were not employed in nursing did not rate their satisfaction with nursing. The frequencies and percents related to satisfaction with the choice of nursing as a career are presented in Figure 5.

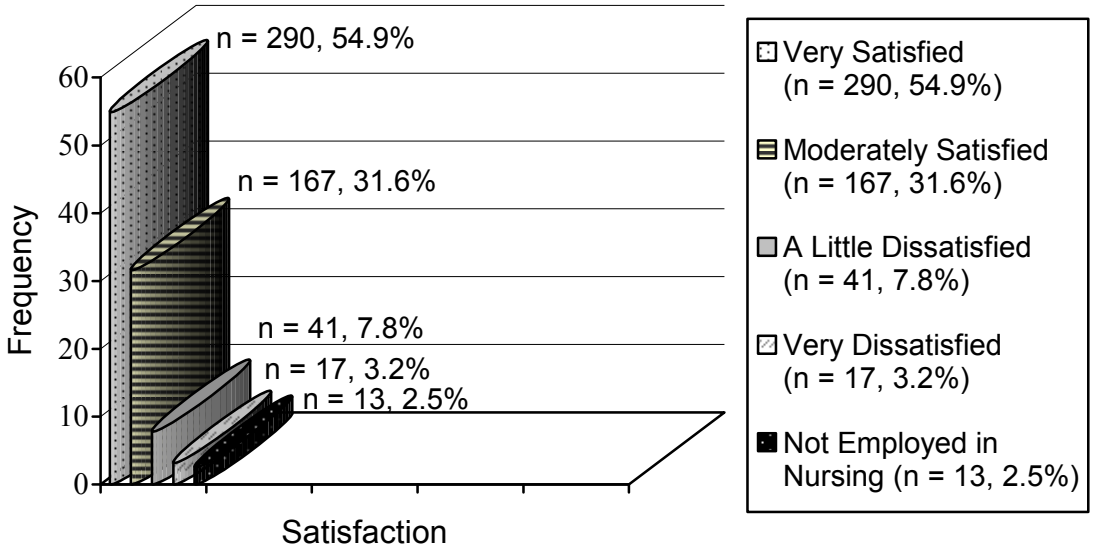

Figure 5. Participants' responses related to satisfaction with nursing as a career (n = 528)

Approximately one third of participants (n = 171, 38.3%) had a net family income over $100,000 while almost one third of participants (n = 131, 29.3%) reported a net family income less than $70,000. Twelve participants did not answer this question and an additional 76 selected "choose not to answer." Frequencies and percents related to net family income are presented in Table 11.

Table 11

Ranked Frequencies and Percents Related to Annual Net Family Income (n = 523)

Annual Net Income	Frequency (n)	Percent (%)
Over $100,000	171	38.26
$90,000 to 99,999	48	10.74
$70,000 to 89,999	97	21.70
$50,000 to 69,999	78	17.45
$30,000 to 49,999	42	9.40
Under $30,000	11	2.46

Close to equal numbers of participants stated their main source of income for living expenses was either combined (self & spouse/partner) income (n = 221, 42.3%) or self (n = 213, 40.8%). Other listed sources included: spouse (n = 49, 9.4%), "Other" (n = 19, 3.6%), partner (n = 18, 3.4%), ex-spouse (n = 1, 0.2%), and a relative (n = 1, 0.2%). In the "Other" category participants wrote the following sources: Social Security (n = 11), retirement pension (n = 10), disability (n = 4), children (n = 1), rental income (n = 1), and trust (n = 1). Some participants named more than one other source.

4.7 Reliability of the ATBSNE Questionnaire

Cronbach's alpha test of internal reliability was conducted on the subscale ATBSNE Questionnaire. The test measured the ability of the composite variable to measure consistently the same thing. George and Mallery (2003) suggested the following rules of thumb for evaluating alpha coefficients, > 0.9 – Excellent, > 0.8 – Good, > 0.7 – Acceptable, > 0.6 – Questionable, > 0.5 – Poor, < 0.5 – Unacceptable. The Cronbach's

alpha coefficient for the subscale ATBSNE Questionnaire was 0.96 on the composite of the 19 items. According to George and Mallery this is an excellent value.

4.8 Research Question 1

What are the attitudes of Associate (ADN) and Diploma educated nurses toward continuing formal education? To answer research question 1, a multivariate analysis of variance (*MANOVA*) was conducted on the 19 Attitude items comprising the ATBSNE Questionnaire by group (ADN vs. Diploma). The results are summarized in Table 12.

The model was significant, indicating the presence of a main effect on questions 1 - 19 (the linear combination of questions 1 - 19) by group (ADN vs. Diploma), Pillai's Trace = .08, F (19, 412) = 1.82, p = .02, and Partial η^2 = .08, Power = .97. There was a significant difference on question 15 "appropriate to inappropriate", F (1, 430) = 5.61, p = .02, Partial η^2 = .01, Power = .66, such that those responding ADNs (M = 5.32, SD = 1.29) scored significantly higher on question 15 "inappropriate to appropriate" than those responding Diploma nurses (M = 5.01, SD = 1.43). There was also a significant difference on question 17 "successful to unsuccessful" by group (ADN vs. Diploma), F (1, 430) = 5.24, p = .02, Partial η^2 = .01, Power = .63, such that those responding ADNs (M = 5.30, SD = 1.30) again scored significantly higher on question 17 "successful to unsuccessful" than those responding Diploma nurses (M = 4.99, SD = 1.49). The means and standard deviations are presented in Table 13.

Table 12

MANOVA on Questions 1 – 19 by Group (ADN vs. Diploma)

Criterion	*F*	Sig.	Partial η^2	Power
Worthless to Valuable	.00	.99	.00	.05
Error	(2.09)			
Rigid to Flexible	.44	.51	.00	.10
Error	(2.11)			
Useful to Useless	.06	.81	.00	.06
Error	(2.74)			
Stimulating to Boring	1.32	.25	.00	.21
Error	(2.36)			
Familiar to Unfamiliar	.11	.74	.00	.06
Error	(1.92)			
Meaningless to Meaningful	2.84	.09	.01	.39
Error	(2.08)			
Pleasant to Unpleasant	.00	.97	.00	.05
Error	(1.97)			
Negative to Positive	3.06	.08	.01	.42
Error	(1.96)			
Unfair to Fair	2.92	.09	.01	.40
Error	(1.97)			
Creative to Unimaginative	1.65	.20	.00	.25
Error	(1.97)			
Purposeless to Purposeful	3.26	.07	.01	.44
Error	(2.30)			
Informative to Uninformative	1.73	.19	.00	.26
Error	(2.04)			
Relevant to Irrelevant	1.90	.17	.00	.28
Error	(2.38)			
Impersonal to Personal	.00	1.00	.00	.05
Error	(1.88)			
Inappropriate to Appropriate	**5.61**	**.02**	**.01**	**.66**
Error	**(1.85)**			
Impractical to Practical	3.33	.07	.01	.44
Error	(2.40)			
Successful to Unsuccessful	**5.24**	**.02**	**.01**	**.63**
Error	**(1.96)**			
Desirable to Undesirable	1.37	.24	.00	.22
Error	(2.55)			
Reasonable to Unreasonable	2.16	.14	.01	.31
Error	(2.14)			

Note. df = (1, 430). Number in parentheses represents mean square error.

Table 13

Means and Standard Deviations on Questions 1 – 19

	ADN		Diploma	
Question	*M*	*SD*	*M*	*SD*
Worthless to Valuable	5.29	1.51	5.29	1.39
Rigid to Flexible	4.55	1.42	4.46	1.48
Useful to Useless	5.03	1.64	5.00	1.68
Stimulating to Boring	4.81	1.54	4.64	1.54
Familiar to Unfamiliar	4.64	1.36	4.60	1.41
Meaningless to Meaningful	5.33	1.40	5.09	1.48
Pleasant to Unpleasant	4.51	1.42	4.50	1.39
Negative to Positive	5.36	1.31	5.12	1.48
Unfair to Fair	5.11	1.33	4.88	1.47
Creative to Unimaginative	4.46	1.45	4.63	1.36
Purposeless to Purposeful	5.21	1.52	4.95	1.52
Informative to Uninformative	5.34	1.39	5.16	1.47
Relevant to Irrelevant	5.11	1.50	4.91	1.58
Impersonal to Personal	4.60	1.30	4.60	1.44
Inappropriate to Appropriate	5.32	1.29	5.01	1.43
Impractical to Practical	4.95	1.50	4.68	1.60
Successful to Unsuccessful	5.30	1.30	4.99	1.49
Desirable to Undesirable	5.16	1.55	4.98	1.64
Reasonable to Unreasonable	5.00	1.40	4.79	1.52

4.9 Research Question 2

Do the attitudes of ADNs and Diploma nurses toward continuing formal education change over time as determined by years of nursing practice? To answer research question 2, responses to question one on the sociodemographic questionnaire and the ATBSNE were analyzed. An analysis of variance (*ANOVA*) was conducted on BSN scores by group (Less Than 9 vs. 10 – 18 vs. 19 – 24 vs. 25 – 30 vs. 31 – 39 vs. More Than 40). The results are presented in Table 14.

Table 14

ANOVA on ATBSNE Scores by Years as RN

Variable	*df*	*F*	Sig.	Partial η^2	Power
Years as RN	5	2.11	.06	.02	.70
Error	426	(1.18)			

The *ANOVA* was borderline significant, F (5, 426) = 2.11, p = .06, Partial η^2 = .02, Power = .70. Strictly speaking, no significant differences ($p > .05$) exist on ATBSNE scores by group (Less Than 9 vs. 10 – 18 vs. 19 – 24 vs. 25 – 30 vs. 31 – 39 vs. More Than 40). The means and standard deviations are presented in Table 15.

Table 15

Means and Standard Deviations on ATBSNE Scores by Years as RN

Years as RN	*N*	*M*	*SD*
Less Than 9	64	4.87	1.00
10 - 18 Years	79	4.73	1.08
19 - 24 Years	74	4.77	1.23
25 - 30 Years	78	5.10	1.00
31 - 39 Years	76	4.98	1.10
More than 40 Years	61	5.21	1.09

4.10 Research Question 3

How do the attitudes of ADNs and Diploma nurses who do return to school for a BSN or higher differ from those who have not returned to school or from those planning to return to school? To answer research question 3, responses to question nine and 11 on the sociodemographic questionnaire and the ATBSNE were planned to be analyzed. An *ANOVA* was conducted on ATBSNE scores by group (Have Returned vs. Have Not Returned); question nine on the questionnaire. Analysis on those planning to return to school was not conducted as a) the number of respondents was very small and thus likely to violate assumptions, and b) it was felt that RNs currently enrolled in continuing formal education may, or may not have answered question 11 or known which category to select, thus skewing the data.

An *ANOVA* was conducted on ATBSNE scores by group (Have Returned vs. Have Not Returned). The *ANOVA* was significant, F (1, 429) = 17.17, $p < .001$, Partial η^2 = .04, Power = .99. The results are presented in Table 16.

Table 16

ANOVA on ATBSNE Scores by School Status

Variable	*df*	*F*	Sig.	Partial η^2	Power
Status	1	17.17	.001	.04	.99
Error	429	(1.17)			

There were significant differences between those who had returned to school and those who had not returned to school, such that those who had returned to school (M = 5.17, SD = 1.13) scored significantly higher on the ATBSNE subscale than those who had not returned to school (M = 4.74, SD = 1.04). The means and standard deviations are presented in Table 17.

Table 17

Means and Standard Deviations on ATBSNE Scores by Group

School Status	*N*	*M*	*SD*
Have Returned	191	5.17	1.13
Have Not Returned	240	4.74	1.04

4.11 Research Question 4

Do the attitudes of ADNs and Diploma nurses differ according to geographical location (west vs. east coast)? To answer research question 4, responses to question three on the sociodemographic questionnaire and the ATBSNE were analyzed. An *ANOVA* was conducted on ATBSNE scores by group (East vs. West). The *ANOVA* was not significant, F (1, 432) = 3.07, p = .08, Partial η^2 = .01, Power = .42. The results are presented in Table 18.

Table 18

ANOVA on ATBSNE Scores by Coast

Variable	*df*	*F*	Sig.	Partial η^2	Power
Coast	1	3.07	.08	.01	.42
Error	432	(1.20)			

There was not a significant difference on ATBSNE scores between those on the East coast and those on the West coast. The means and standard deviations are presented in Table 19.

Table 19

Means and Standard Deviations on ATBSNE Scores by Coast

Coast	*N*	*M*	*SD*
East	242	4.85	1.14
West	192	5.03	1.03

4.12 Discussion of Findings

4.12.1 *Discussion of Sample*

The sample in the current study was selected in hopes of receiving equal numbers of responses from the east and west coast of the U.S. and a proportion of ADN to Diploma Nurse participants similar to the general population of nurses. The final ratio of east to west was 1 to 0.8 which is sufficient to allow for comparisons. For statistical comparisons, groups of approximately equal size usually mean within one and one-half times when the overall sample is large. The sample size in this study slightly exceeded

that determined by power analysis to be requisite. Unfortunately, the proportion of ADNs to Diploma nurses does not represent the general population because, as reported earlier, a larger number of participants were initially licensed with a Diploma. Since the current survey asked participants initially licensed with a BSN or equivalent to return the survey blank, it can be estimated that the response distribution in the current study was: 35.8% BSNs or equivalent, 30% ADNs, and 34.2% Diploma Nurses. According to the most recent national sample, in 2004 the distribution of RNs by class of initial license was: 31% BSNs or equivalent, 42.2% ADNs, and 25.2% Diploma nurses (Health Resources & Services Administration, 2006). It is not surprising that a slightly larger number of BSNs responded since this required little time or effort; participants simply needed to check one response and mail back the survey. Also, those who already had a BSN were not likely offended by the topic of research and should have more understanding of the research process. The large proportion of Diploma nurse participants may have been a direct result of choosing to survey the two east coast states with the highest proportion of Diploma to ADN programs or a result of the recent resurgence of Diploma programs on the east coast intended to lessen the nursing shortage.

The participants in the current study closely resembled the RN population within the United States when using the most recent national sample of Registered Nurses (Health Resources & Service Administration, 2006) for comparisons. The study had 1% more male participants, almost equivalent percentage of Caucasians (smaller by 3.4%), and was slightly more diverse (see Table 1) than the national sample. The percentage of Black or African Americans in the study was 1.5 times lower, the percentage of Asian American / Pacific Islanders was 1.5 times higher, and the percentage of Hispanics was

1.75 times higher than in the national sample. The higher numbers of Asian American / Pacific Islander and Hispanic participants could have been a result of choosing California as one study location as this state is known to have, on average, higher proportions of these ethnic groups.

A trend noted in the national sample was that of a decrease in the percent of RNs under the age of 40 years and an increase in the percent of RNs over 54 years of age (Health Resources & Services Administration). When comparing ages of RNs as groups (see Table 2), there is little doubt that the present study drew a slightly older population however, an increase in the number of older nurses is consistent with the national trend. In the national sample, 26.6% of the RNs were under the age of 40 years and 25.5% of the RNs were over 54 years of age. While the current sample had different percentages of RNs at either end of the age range, there was only a 1.7% difference in the percentage of nurses between 40 and 54 years of age in the two studies. The low number of participants in the younger age group could be because the younger population may not be as likely to participate in mailed surveys (possibly they would have responded better to an internet survey) or fewer young people are entering the nursing profession. The national sample found that although graduates from initial education programs tended to be generally younger in more recent years than in the past, graduates from ADN and Diploma programs tend to be older (Health Resources & Services Administration, 2006). This supports the finding of fewer young participants in this study.

Even though the average age of participants in the study sample (see Table 3) was higher than the national sample (reported at 46.8 years of age) (Health Resources & Services Administration, 2006), the real difference was much less if passage of time and

trends are considered. The national sample survey was conducted in March 2004 and the current research was conducted in late 2007 and early 2008; almost 4 years difference. According to the national sample, between 1996 and 2004 there was an overall increase of 4.5 years in the average age of an RN (Health Resources & Services Administration) which equates to an approximate increase of 0.5625 years of age for every calendar year. Using this information, the average age of a nurse in 2008 might be 2.25 years older than that reported in the national sample (i.e., 49 years of age); much closer to that found in the current study.

Consistent with an older group of participants, yet not reported in the national sample for comparison, was the high number of participants ($n \approx 49$, 9.6%) who were retired yet who kept their nursing license active (as indicated by being listed as an active RN in the database of their states' board of nursing). Also reported in this study was that a number of nurses were planning to retire (reported as a reason not to return to school) and that the majority of those who were not currently practicing nursing did not plan to return to nursing. This is significant if one of the proposed solutions for the current nursing shortage is to entice nurses not currently practicing back into the workforce. The true number of retired nurses in the study is difficult to know as the number was derived from written responses to questions regarding employment status and job description on the socio-demographic survey and was not an answer option in either of these questions.

Regarding family status, once again, the study participants were very similar to those reported in the national sample. As reported earlier, the majority of the ADNs and Diploma nurses were married, 43.9% were living with their children, and 5.2% were living with other adults. In the national sample, 0.6 % fewer RNs were married and 5.4%

more RNs had children and/or other adults at home. Consistent with the ages of the participants in the current study, the participants also had fewer young children living at home (see Table 4) than in the national sample. The national sample reported that 28.5% of RNs have children younger than six years of age, 65.2% have children between the ages of six and 18, and 30.6% have children over 18 years of age still living at home (Health Resources & Services Administration, 2006). The percentage of participants with children over the age of 18 still living at home was slightly larger than the number of adult children for whom participants reported having some financial responsibility (see Table 4). This could be the result of children staying at home while attending college or university.

Of the participants in the current study who reported their net family income (see Table 11) almost half (49%) stated their net family income was greater than $89,999. Eighty-eight (88) percent of participants had a net family income greater than $50,000. According to a U.S. Census Bureau press release ("Household Income Rises, Poverty Rate Declines, Number of Uninsured Up", 2007), the median household income in the U.S reached $48,200 in 2006 with New Jersey being one of three states with the highest median household income and California showing a rise in real median household income. Having included New Jersey and California in the study may have positively skewed the data. The number of participants who had returned to school beyond the BSN level may have slightly increased the reported net family income as advanced practice nurses (APNs) tend to have higher salaries. Comparison between net annual income reported in this study and information from the U.S Census Bureau suggests that a large majority of nurses (88.15%) have a net annual income above the U.S median.

Unfortunately, the information reported in this study does not allow for comparisons or conclusions directly related to nurses' income since 40.8% of participants reported that their net income was solely earned and 42.3% of the income was earned in combination with their spouse/partner.

Regarding employment, the RNs in the current study were extremely similar to the national sample. The current study found 82.76% of the participants were either employed in nursing or looking for work in nursing (see Figure 3) while the national sample found 83.2% employed in nursing (58.3% full-time and 24.8% part-time) and 16.8% not employed in nursing (Health Resources & Services Administration, 2006). The largest percentage of nurses worked in large urban areas while the lowest percentage worked in small urban cities (see Figure 4). Using the classifications and job titles outlined in the national sample to re-categorize the information given by participants (see Table 10 and description of "other" category), the participants were similar to the national sample with regards to job description. Hospital settings employed the majority of participants (approximately 60%) compared to 56.2% in the national sample; community and public health settings employed approximately 11% of the participants compared to 14.9% in the national sample; ambulatory care settings employed 10.5% of the participants (11.5% in the national sample); and nursing education employed approximately 2.8% compared to 2.6% in the national study. Since a number of participants wrote in a unique job description, the numbers for the current study are estimated based on an educated guess as to which category a job title belonged. It is not surprising that more nurses from the current study were employed in hospitals and less in either ambulatory care or community settings since traditionally these areas have required

nurses to have their BSN for employment. Since many participants in this study had returned to school, and the nursing shortage may be forcing employers to hire less qualified applicants, the distribution of employment settings is not unexpected.

4.12.2 *Discussion of Findings Related to Continuing Formal Education*

In the U.S., "the trend from 1980 to 2004 indicates that an increasing number of RNs receive baccalaureate and master's degree, even if their initial preparation for nursing was an associate's degree or diploma" (Health Resources & Services Administration, 2006, p. 3). In 2004, 23.1% of RNs had completed academic nursing or nursing-related preparation beyond their initial licensure (Health Resources & Services Administration). Results of the national sample also indicated a decreasing trend "in the numbers of RNs whose highest degree was a diploma" (Health Resources & Services Administration, p. 4). Following the trend, and despite the current study having a disproportionately large number of Diploma nurse participants, a large percent of participants (42.3%) had returned to school for further nursing education. This increase is not likely to be fully explained by these identified trends in nursing. In addition, it was expected that the topic of this research may have been unsettling or objectionable to RNs who have not returned to school for continuing formal education. Thus, those who had returned to school were more likely to participant in the current research.

Nogueras (2006), in a study of RNs' occupational commitment, concluded that professional development and advanced education are considered one of the keys to nurse satisfaction and commitment to stay in the nursing profession. This conclusion was supported by the current study which found a high percentage of participants (61.12%) had either returned to school for further nursing education (n = 224) or were considering

returning to school (n = 103) and that a large number reported being very satisfied with nursing as a career. The national sample found 27% of RNs were extremely satisfied with nursing as a career, 50.5% were moderately satisfied, 10.9% were moderately dissatisfied, and 2.9% were extremely dissatisfied (Health Resources & Services Administration, 2006) compared to participants in the current study (see Figure 5). Slightly more participants were overall satisfied with their choice of nursing as a career than in the national sample which is consistent with having a slightly larger number who had either returned to school or who were planning on returning to school. A slightly larger percent of participants were also very/extremely dissatisfied with nursing. This may be accounted for by either a lack of occupational commitment, increases in the stress and workload in the current nursing environment, or the fact that those who had no desire to return to school, or who were unhappy with their careers, may have used this study as a method of having their voice heard.

The current study found more Diploma nurses (54.46%) returned to school for continuing formal education than did ADNs (45.54%). This finding contradicts previous research which found that nurses who graduated with a Diploma were less likely to participate in continuing education (Beatty, 2000; Hayes & Darkenwald, 1990; Martin, 1992; Roche, 1990; Sanders, 1993). The finding is supported, however, by a trend found in the national sample that more Diploma nurses (30.2%) than ADNs (20.7%) obtain post-RN or nursing-related degrees (Health Resources & Services Administration, 2006). This suggests that despite a resurgence of Diploma programs, either Diploma nurses feel the need for advanced study or these programs may not provide sufficient education for nursing practice in today's complex health care environment.

Those participants who had returned to school for continuing formal education did so in a variety of programs (see Table 5). As expected, because there currently are no Diploma programs in California, fewer Diploma nurse participants lived on the west coast, and there is a resurgence of these programs on the east coast. The majority of Diploma nurses who returned to school resided on the east coast. More Diploma nurses (n = 30) returned for credential, certifications, or part of a BSN than did ADNs (n = 10). The numbers who attended BSN and MSN programs were almost identical between the two groups which is to be expected since the time for completion of theses programs is identical for the two groups. Although the numbers were too small to draw valid conclusions, of the four participants who had continued their education to obtain a PhD, three were initially licensed with an ADN. Clearly, Bevill, Lacey, and Nooney (2007), in a longitudinal study of RNs in North Carolina, concluded that "the likelihood of eventually attaining a master's or doctoral degree is unquestionably linked to entry-level starting points" (p. 128).

Only a small majority of participants in the current study had been encouraged to continue their formal nursing education while they were in their initial licensing program. This suggests that faculty in these programs may either not support the benefit of the BSN education or not believe it is their responsibility to promote continuing formal education. Either way, they are not consistently modeling a positive attitude toward continuing formal education, and a commitment to life-long learning. Historically, much of the resistance to making the BSN entry-into-practice comes from the community college faculty and their associations which ties directly to faculty attitudes and the encouragement they do or do not give their students.

A clear majority of participants stated that they felt no social pressure to return to school. This was not a surprising finding given today's job market and the nursing shortage. The main pressure to return to school was from "personal desire" (see Table 7) which is consistent with recent literature (Davey & Robinson, 2002; Delaney & Piscopo, 2004; Reilley, 2003) and older research (Cavanaugh, 1990; Fotos, 1987; Lewis, 1988; Martin, 1992; Turner, 1991), but not consistent with Beatty (2000). This fluctuation may have a direct relation to the supply of nurses at the time of the research since in 2000 the current nursing shortage had not fully been recognized. Given the lack of increased financial rewards for returning to school (as cited by many participants) it is important that personal desire can override society's weighted value on money. The second main source of pressure was employers, however, this pressure would carry more weight (lead to behaviors) if it were accompanied by action, such as tuition reimbursement and flexible schedules. The third source of pressure cited was nursing organizations, probably the very ones who have argued the entry-into-practice issue for decades. This might suggest shifting support for the BSN as the future entry-into-practice level.

Professional growth and career prospects together were another source of pressure to return to school cited in past research (Delaney & Piscopo, 2004; Dowswell et al., 1998; Fotos, 1987; Hughes, 2005). Both Dowswell et al., and Reilley (2003) found that RNs felt pressure to return to school from their immediate work environment and society, however, none of the authors elaborated as to whether these were employers, peers, nursing organizations, or something else. It was predicted that the current research would find little pressure exerted from employers in light of the current nursing shortage and the lack of necessity of a BSN to obtain any nursing position. This pressure from employers,

as noted by the participants, must come more from the employers' understanding of the benefits of BSN education than for job procurement, maintenance, and advancement; less than 0.4% of the participants listed 'increased job potential' as a source of pressure to return to school. Considering the recent research regarding improved patient safety and outcomes with higher educated nurses providing care, it is an encouraging finding that some employers are still wanting nurses with BSNs. At the same time it is disappointing, yet not surprising, that the nurses rarely cite research findings as a pressure to return to school. This may be because, according to the American Association of Colleges of Nursing (2003), one of the subjects taught more in-depth in the BSN program is nursing research therefore, Diploma nurses and ADNs either do not fully understand research or utilize it on a regular basis.

According to the national sample (Health Resources & Services Administration, 2006), APNs account for 8.3% of the total RN population with the largest group being Nurse Practitioners (NPs). The current study had double the percentage of APNs (16.9%) in the sample; the largest group of which is NPs (see Table 5). The large numbers of APNs may be related to the fact that, until recently, many states only required certification in order to be a NP, whereas most now require a MSN in addition to certification. Additionally, enrollment in APN programs are flourishing in comparison to enrollment in nursing programs preparing educators (Berlin et al., 2002; Neese et al., 2007).

Advanced Practice Nursing programs often do not prepare individuals for the educator role (Cleary et al., 2007). Of those in the current study who had obtained a master's degree, only one stated it was in nursing education, however, cross-referencing

MSN degrees with job descriptions found 12 nursing educators. Three of those who obtained a PhD were nursing educators. In all, this equates to approximately 2.81% of the current study sample. According to the national sample (Health Resources & Services Administration, 2006), an estimated 48,666 RNs (1.67%) held nursing faculty positions in 2004. It is not surprising that the number of nurse educators in the current study is slightly higher than in the general RN population given the topic of the study.

As previously mentioned, the current study had an unusually large number of participants who had already returned to school compared to the numbers found in the literature and the national sample. The study found that the number of participants who were interested in returning to school (26.3%) was consistent to what was found in the literature. A study conducted in England by Davey and Robinson (2002), found that 22% of RNs either had a degree or were obtaining a degree. Delaney and Piscope (2004) studied ADNs and Diploma nurses to examine the barriers and benefits to enrolling in an RN-BSN program. They found only 28.7% of participants planned to return to school. The national sample study indicated an increasing trend in the number of nurses who return to school for continuing formal education. In contrast, Davey and Robinson (2002) found 46% of their participants did not plan to get a degree. In the current study, of those who had not returned to school, as expected, the majority (54.3%) have no plans of returning to school. The finding that 42% of the participants had returned and another 19.5% are interested in returning to school suggests that either nurses' attitudes toward continuing formal education are improving, they are feeling more pressure to return to school, returning is being made easier, or the data is skewed by study methodology

limitations inherent in a mailed survey method. Improved attitudes and increased pressure are not supported by the findings in this study.

The overall primary reason identified for not returning to school was that participants were feeling "too old" (see Table 6). This sentiment was supported with "retirement" being the main "other" reason given for not returning to school. However, in reviewing the literature, age was not a reason often given to explain lack of participation in formal continuing education. Since almost 20% of the participants in this study were over 60 years of age, and the overall mean age of nurses is increasing in general, it is not surprising that factors related to age are becoming strong influences in RN's decisions regarding participation in continuing formal education.

Results also suggest that BSN education provides no job security and is either not valued or decreasing in value. Overall secondary reasons to not return to school were "I don't need a BSN to stay in hospital nursing," "I don't need a BSN to give good care," and "I won't earn any more money" (see Table 6). Participants in a study by Carlson (1992) also identified these opinions as reasons for not returning to school. Surprisingly, it contradicts findings in other research which listed 'improving quality of care' as a primary reason for returning to school (Beatty, 2000; Davey & Robinson, 2002; Hughes, 2005). The findings of the current study may have been influenced by the nursing shortage which is providing job security and job opportunities to those without a BSN that never would have been available in the past as opposed to RNs understanding the benefits, to themselves and patient care, provided from a BSN education.

A surprising omission in the findings is that participants, for the most part, did not mention family, or combining work and school as reasons for not returning to school.

Much of the previous research listed 'time from family' (Carlson; Ellerton & Curran-Smith, 2000; Hughes; Lewis, 1988; Reilley, 2003) and 'combining work and school' (Davey & Robinson; Delaney & Piscopo, 2004; Ellerton & Curran-Smith; Hughes; Lewis; Martin, 1992; Reilley; Turner, 1991) as reasons for not returning to school. Perhaps if family or combining work and school had been an option in the survey, it would have been ranked higher since almost one third of participants reported having children under the age of 18 years old.

Previous research also identified 'cost' as a reason for not returning to school (Carlson, 1992; Delaney & Piscopo, 2004; Ellerton & Curran-Smith, 2000; Lewis, 1988; Martin, 1992; Root, 1991; Turner, 1991). Cost was given as the second most frequent reason for not returning to school in the "other" category. It is somewhat tied to earning power of the BSN which was a main reason; the fact that a large majority of nurses in this study have a net income above the U.S median may have influenced their decisions. Additionally, support from employers in the form of tuition reimbursement or time away from work may have also influenced participants' reasons.

Tuition reimbursement, availability and amount offered by employers is reported in Table 9. Given the cost of tuition, books, and supplies, $4,000 per year seems somewhat inadequate especially if the RN is required to either take one or more leaves of absence or use vacation time in order to attend classes. For the majority of the participants who receive some tuition reimbursement, either they needed to be working fulltime or reimbursement was based upon the amount of hours worked. Both of these situations have a financial impact on the nurses' ability to return to school. However, these statistics are somewhat inaccurate in light of the fact that 18% of participants did

not know if their employer provided tuition reimbursement. It is not clear from the research findings whether participants did not know about possible tuition reimbursement because employers did not advertise this clearly or because they had not actively sought this information.

Given the increased accessibility of information today, especially with widespread use of the internet, it was not surprising that most participants felt that they had both adequate access to information regarding continuing formal education and to continuing formal education programs. In addition to the sources of information listed in Table 8, a number of participants (n = 36) listed the internet as an "other" source of information regarding nursing programs. Almost 75% of the participants, who were interested in returning to school, were interested in an on-line program. These findings support the increased use of technology by nurses and also suggest that nursing program administrators have addressed prior identified academic barriers such as travel distance to a university (Lewis, 1988), inconvenient class schedules (Lewis), and length of time to complete the program (Martin, 1992; Root, 1991).

4.12.3 *Discussion of Findings Related to the Research Questions*

Evaluation of each of the research questions in this study required analysis using the ATBSNE scale. Therefore, in order to answer the research questions, it was first necessary to determine the reliability of the ATBSNE survey. Not only was the instrument different from previous studies, as one item had been dropped, but psychometrics should be run with every study. Reliability is the proportion of true variance to total variance; the consistency and dependability of an instrument to measure a variable. Cronbach's alpha is a "commonly used indicator of internal consistency

reliability or homogeneity of a measure in which each item within the scale is correlated with other items simultaneously" (Doordan, 1998, p. 50). In this study, Cronbach's alpha was excellent at the 0.96 level which means that the finding should be repeatable, replicable, and generalizable.

4.12.3.1 *Research Question 1.*

What are the attitudes of ADN and Diploma educated nurses toward continuing formal education? Analysis of this question was done using MANOVA. Although there were violations of assumptions, MANOVA was robust to these violations because the two groups (ADNs and Diploma Nurses) were of nearly equal size (i.e., within one and a half times).

The model was significant ($F = 1.82$, $p = .02$, $\eta^2 = .08$, Power = .97) indicating that there was an overall difference between the two groups. The ATBSNE scale was scored such that a positive attitude was attributed to a higher score; each item was scored from one to seven. The average mean score for ADNs was 4.02 (SD = 1.43) and the average mean score for Diploma nurses was 3.99 (SD = 1.49) which suggests that both groups had somewhat positive attitudes toward continuing formal education. A review of the literature found that, with few exceptions, nurses generally have a positive attitude toward continuing education (Allen & Girard, 1992; Beatty, 2000; Emerson, 1992; Hughes, 2005; Jerdan, 1993; Kersaitis, 1997; Melusky, 1998; Roche, 1990; Small, 1995). The finding that ADNs had a more positive attitude than Diploma nurses is consistent with a study by Alquraini, Alhashem, Shah, and Chowdhury (2007) who found a significant difference of attitudes for different categories of education and concluded that nurses with higher education levels have more positive attitudes. Previous research had

strongly suggested that nurses with lower initial educational levels were less likely to participate in continuing education and had poorer attitudes toward education (Beatty; Hayes & Darkenwald, 1990; Hillery, 1991; Roche; Sanders, 1993; Tuella, 1991; White-Taylor, 1992).

Further analysis in the current study indicated that the significant differences were for items 15 "inappropriate to appropriate" and 17 "unsuccessful to successful" (see Table 12). Review of group means for each of these items (see Table 13) was used to demonstrate the direction of the difference. For both items, the group means indicated that ADNs had a more positive attitude than did Diploma Nurses. Thirteen percent of the variance was attributed to item 15 ($r^2 = .013$) and 12% ($r^2 = .012$) was attributed to item 17. Therefore, the two items which were statistically significant at $p = .02$ together accounted for 25% of the variance in the model.

If one were to consider a significance level of $p = .10$, five more items on the ATBSNE scale would be statistically significant and would account for an additional 37% of the variance within the model. These would be items 6 "meaningless to meaningful," 8 "negative to positive," 9 "unfair to fair," 11 "purposeless to purposeful," and 16 "impractical to practical" (see Table 12 for individual item MANOVA results). When comparing the group means for each of these items (see Table 13), ADNs demonstrated a more positive attitude than Diploma nurses on each item. This also supports the conclusion that ADNs had an overall more positive attitude than Diploma nurses towards BSN education.

Regardless of which group has the better attitudes towards BSN education, the numbers are still somewhat disappointing in that the mean scores for both groups are only

slightly positive; highest item average recorded was 5.36. Since the ATBSNE scale was scored from one to seven, a score of 4 would indicate a neutral attitude on that item. This is also surprising given the high percentage of participants who had returned to school for continuing formal education. This appears to be suggesting that RNs return to school for reasons other than the value of the BSN education. With the high number who had returned, still more wanting to return, and only moderately strong positive attitudes toward BSN education, something else must be enticing RNs to return to school. This is consistent with the Theory of Planned Behavior (TPB), the organizing framework for this study, which states that attitudes, subjective norms, and perceived behavioral control (PBC) together typically account for 30-50% of the variance in intentions, and intentions and PBC account for 20-30% of the variance in behavior (Armitage & Conner, 2001).

4.12.3.2 *Research Question 2.*

Do the attitudes of ADNs and Diploma nurses toward continuing formal education change over time as determined by years of nursing practice? The current survey found a large range in the number of years participants were licensed as an RN (see Table 3). In order to use this data for analysis, multiple age groupings were tested. The final grouping (Less Than 9 vs. 10 – 18 vs. 19 – 24 vs. 25 – 30 vs. 31 – 39 vs. More Than 40) was chosen as the groups were relatively equal in size and the results were meaningful.

There were no significant differences ($p > .05$) found on ATBSNE scores by age group (see Table 14). The power was acceptable but still allowed for a 30% chance of a Type II error. Findings in this research suggest that encouragement for RNs to continue their formal education could occur at any time during their career as attitudes remained

relatively constant. However, if one were to consider the significance level of p = .06 and power = .70 as adequate, it would appear as if significant differences occurred with participants having over 40 years of nursing practice exhibiting the most positive attitudes followed by those who practiced somewhere between 25-30 years (see Table 15). This reasonably suggests that attitudes improve with increasing years of nursing practice and experience even though increasing age was shown to be a barrier to returning to school. This is an important point; experience shows what youth cannot see.

The findings in this study were surprising and inconsistent with the literature regardless of whether the slightly less stringent significance level and power was considered. Ellerton and Curran-Smith (2000) surveyed diploma nurses and nurse managers and found that plans to return to school for continuing formal education decreased with increasing age. This was supported by other research which found that younger RNs (Carlson, 1992; Cleary et al., 2007; Delaney & Piscopo, 2004; Lewis, 1988; Martin, 1992; Roche, 1990; Root, 1991) and those who had been licensed for a shorter period of time (Carlson; Roche; Root) were more likely to return to school.

Although the results of this study indicated no significant differences between age groups, this information must be evaluated cautiously. The percentage of participants in this study who had already returned to school was much higher, by almost 50%, than in the national sample (Health Resources & Services Administration, 2006). In addition to the large number of participants who had returned to school, 19.25% of the total sample planned to return to school. Also, since almost 20% of the participants had attended school for another degree, or in another major, before nursing, they may have been older when entering nursing school or had already established a positive attitude toward

continuing formal education. The high percentages of participants who had either returned to school or planned to return may be a result of the topic of the study; those who had negative attitudes toward continuing formal education may not have chosen to participate. The high percentages may also be a result of the fact that the average age of participants in this study was higher than the national sample average.

4.12.3.3 *Research Question 3.*

How do the attitudes of ADNs and Diploma nurses who do return to school to continue their formal education differ from those who have not returned to school or from those planning to return to school? The number of participants who were planning to return to school was too small in comparison to the numbers in the other groups (groups should be within one and a half times each other) for a meaningful comparison to be conducted. Therefore it was dropped from analysis.

The ANOVA was significant (see Table 16). As expected, those who had returned to school scored significantly higher on the ATBSNE scale than those who had not returned (see Table 17). A higher score equals a more positive attitude because of the way the ATBSNE is scored. This finding is consistent with the only other study found which evaluated the attitudes of these two groups. Roche (1990) found that attitudes toward BSN education contributed significantly ($t = 4.93$, $df = 198$, 2-tail $p < .001$) to differences between the RNs who did return to school and those who did not return. It would have been interesting to have seen if those who were planning on returning to school had attitude scores somewhere between the other two groups or if it was closer to the mean score of the group who had already returned to school.

4.12.3.4 *Research Question 4.*

Do the attitudes of ADNs and Diploma nurses differ according to geographical location? Data analysis indicated there were no significant differences (see Table 18) on ATBSNE scores between those on the east coast and those on the west coast.

The finding of no significance, at $p > .05$, was unanticipated. Since there are no known Diploma programs in the west coast state that was surveyed and there are Diploma programs in the east coast states surveyed, a difference in attitudes was expected. Especially since there has been a slight resurgence of Diploma programs on the east coast with some new programs opening as a solution to the nursing shortage currently being experienced.

The findings may be partly explained as a result of economics and/or increased mobility of the population in general accounting for nurses moving between states. However, this is not likely to be a main factor since only 22.1% of the Diploma nurse participants resided on the west coast. More than likely, it reflects a true attitude in California as, interestingly, California also has very few BSN programs (n = 33 + 4 Entry Level Master's only programs) in the state when compared to the number of ADN programs (n = 84) (Department of Consumers Affairs: Board of Registered Nursing, 2007). In fact, California may not be as progressive a state as people think.

4.12.4 Relationship of Findings to Organizing Framework

The Theory of Planned Behavior (TPB) has three components (attitude, subjective norms, and perceived behavioral control). Attitude strength is the intensity of feelings or commitment to a position, its importance, its accessibility in memory, and the amount of information a person has about the attitude object (Petkova et al., 1995). Within the TPB,

attitudes are further described as having two components; an affective component and an instrumental or cognitive component. Both should be measured for true evaluation of a person's attitude. The ATBSNE scale included both the affective and instrumental/cognitive components (as described in Chapter 2) and was determined to have excellent reliability. Together this suggests that the findings in this study are true representations of the attitudes of the participants.

A second influence on intentions is *subjective norms* – the perceived social pressure to perform or not to perform the behavior. The findings in this study suggest a very weak social pressure to return to school. Although just over half of participants had received encouragement to continue their formal education during their initial nursing program, this support usually ends at graduation. The majority of social pressure is believed to come from (in decreasing amounts) personal desire, employers, nursing organizations, and colleagues at work. Sadly, the lack of monetary rewards (the third most frequently cited reason not to return to school) may be counteracting, through contradiction, any social pressure because in today's society a high value is placed on monetary rewards.

Perceived behavioral control (PBC) includes beliefs regarding one's possession of requisite resources and opportunities for performing a given behavior. Possession of resources includes people's appraisals of their ability to perform a behavior and access to information. Less than one percent of the participants listed 'not being a good student' as either their primary or secondary reason not to return to school; it was listed as a reason in other research (Carlson, 1992; Lewis, 1988). Also, 83.4% felt they had access to enough information about available educational programs. Regarding opportunities for

performing a given behavior, 88.5% stated that they had access to actual programs. Thus, PBC is the one aspect of the TPB that might account, at least for the most part, for the high number of participants who had, or who were planning to, return to school.

CHAPTER 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

5.1 Introduction

The role of a baccalaureate education in nursing has been a divisive topic within the profession for many years. Research has demonstrated that a more educated workforce improves healthcare quality and patient outcomes (e.g. decreases in morbidity and mortality) and suggests a need for more Bachelor of Science in Nursing (BSN) educated nurses providing direct patient care. It has also been shown that higher educated nurses have less disciplinary action and medication or treatment errors. In addition, there is a need for appropriately educated nursing faculty to meet the challenges of the current nursing shortage. Since Associate Degree in Nursing (ADN) programs and Diploma in Nursing programs will continue to exist, it would be beneficial for registered nurses (RNs) educated below the baccalaureate level to return to school for continuing formal education.

The current research was conducted to fill the gaps in the literature identified and add further understanding of nurses' attitudes towards continuing formal education in nursing. Specifically, to examine the attitudes of nurses initially registered with an associate degree or diploma in nursing toward continuing formal education at the

baccalaureate level and/or beyond; whether these attitudes change over time; and if there are geographical differences between nurses' attitudes (east coast versus west coast of the United States). A positive attitude toward, and a commitment to, lifelong learning is requisite for nurses to choose to continue their education. Understanding of attitudes towards continuing formal education is a first step in encouraging nurses to return to school.

5.2 Summary

Previous research was remiss in providing studies that: 1) were current; 2) specifically addressed attitudes toward continuing formal education; 3) surveyed nurses at different educational stages; 4) evaluated a possible connection between years of nursing practice and attitude toward continuing nursing education; and 5) were completed on the U.S. west coast. The current study attempted to fill these gaps by surveying nurses initially licensed after completing an ADN or Diploma nursing program, regardless of whether they had returned to school or not, asking questions directly aimed at understanding attitudes towards continuing formal education. It evaluated a possible connection between years of nursing practice and a change in attitude, and compared participants on both the east and west coasts of the U.S.

Although the current study had a larger number of Diploma nurse participants and more participants' who had returned to school, the demographics of the participants in the current study were very similar to that of the most recent national sample of RNs in the U.S (Health Resources & Services Administration, 2006). This coupled with the fact that the number of participants was relatively evenly distributed between the east coast and

west coast may allow for generalization of findings to the global nursing population in the U.S.

A large majority of the ADNs and Diploma nurses surveyed were married White females which is consistent with the national sample. Generally, the participants were older, had been in nursing for some time, and were employed full-time in nursing. Although the participants were generally older than what was anticipated from comparisons with the national sample survey, findings for the group followed all the trends identified in the national sample survey. The slight increase in diversity in the participants, when compared to the national sample, can be explained by the diversity seen in the states surveyed.

Of the participants not employed in nursing, 75% did not plan to return to nursing. This is probably directly correlated with the number of nurses who reported that they were retired or near retirement, yet held active nursing licenses. This finding suggests that enticing non-practicing nurses back into nursing is not likely to work or be an answer to the current nursing shortage.

A small majority of participants graduated from Diploma programs. Of the total number of participants who responded, as expected, most had not returned to school for further nursing education nor did they plan to return. The number of participants who planned to return to school was consistent with the literature. The higher number of Diploma nurses who had returned to school contradicts previous research but is consistent with a trend identified in the national sample. Of those who had returned for further nursing education, the highest level achieved by most was the BSN. For those who continued beyond the BSN level, consistent with the literature, the most popular

APN role was the NP. Business related degrees were the most common further education obtained by participants who returned to school for something other than nursing.

In times of nursing shortages there is usually a reduction in career satisfaction as nurses are stretched to work more than usual, but there is also a resurgence of interest in nursing related to perceived job security. The current research was conducted in a time of a nationwide nursing shortage. The literature also provides evidence of a link between career satisfaction and advanced education. Not only did the current research find a higher than expected number of ADNs and Diploma nurses who had returned to school, but it also found higher levels of career satisfaction than found in the national sample.

The primary reason cited for not returning to school was "too old" followed by not necessary to either "stay in hospital nursing" or to "give good care." This is consistent with what would be expected from an older population and/or events during a nursing shortage (i.e., not required for job security or career advancement). However it is inconsistent with previous research which identified "improve quality of care" as a reason to return to school and "family and work conflicts," and "cost' as deterrents to returning to school.

Just over half of the participants received encouragement during their initial nursing education to continue their formal nursing education. However, the majority do not currently feel pressure to return to school. These findings are consistent with the stand on BSN education taken by many ADN organizations and the economics caused by today's nursing shortage. For those who are feeling pressure to return to school, most of the pressure is from personal desires, followed by employers, then nursing organizations.

Professional growth or increased career prospects were not cited as pressures to return to school as they had been in past research.

Most participants felt that not only did they have access to enough information regarding continuing formal education, but they also had access to the necessary programs. Increased accessibility to information and programs demonstrates that the issues and academic barriers to returning to school identified in previous research are not noteworthy today.

Regarding tuition for continuing formal education, although 44% would receive some form of reimbursement, 22% would receive no reimbursement, and 18% didn't know about tuition reimbursement. However, usually reimbursement was either contingent on working full time or based on the amount of hours worked. The amount of tuition offered, especially if it would be reduced if the RN took time off work to return to school, appears to be insufficient to cover the basic costs of education and, when applicable, the loss of income.

Work setting was relatively evenly distributed between rural and urban areas (both small and large) with large urban cities having the largest number of participants. Almost half of the participants worked as staff nurses although there was a large array of job descriptions specified. Although there were slightly more participants working in the hospital setting than found in the national sample, this is consistent with past hiring practice in the other areas which often require a BSN for employment.

Although most participants had two or three children, the majority of children were no longer living at home and participants bore no financial responsibility for them. Approximately one-third of participants reported a net family income over $100,000

which was earned either alone or in combination with their spouse or partner. The majority of participants reported a net family income higher than the U.S. median. This might also explain why the cost of continuing formal education was not mentioned as a disincentive to returning to school.

Regarding nurses' attitudes toward continuing formal education, overall all attitudes were positive, as expected given the high number of participants who had returned to school. This finding was supported by the literature which suggested that nurses generally hold positive attitudes toward continuing formal education. There was a statistically significant difference found between ADNs and Diploma nurses and between those who had and who had not returned to school for continuing formal nursing education. Associate degree nurses and those who had returned to school, as expected and consistent with the literature, held more positive attitudes toward BSN education.

Even though the overall attitude of participants was generally positive, it was still disappointingly low. The highest mean score of the ATBSNE scale was 5.36 where a neutral score equaled 4.00 and a perfectly positive score equaled 7.00. This suggests there is a lot of work to be done to foster more positive attitudes toward continuing formal education within this population.

There were no significant differences in attitudes found according to years of nursing practice unless the significance level were relaxed, slightly, to $p = .06$. In this case, there would be a significant difference in attitudes according to years of practice, but the direction of difference would not be as expected or consistent with the literature. The literature suggests that it is the younger nurse who is more likely to return to school. At $p = .06$, the current research would suggest that it was the nurse who had practiced

more years who would have a more positive attitude. This finding could be associated with the high number of participants in this study who had already returned to school. In addition, the data in the current study suggested that advancing age and nearing retirement were impediments to the action of returning to school.

The data also suggests that there are no differences in RNs' attitudes toward continuing formal education between the east and west coasts of the U.S. Although some might expect the west coast to have more progressive attitudes given the lack of Diploma programs on this coast, they also have significantly fewer BSN programs than one would expect for a progressive region.

This research supported the role of the three components of the TPB (attitudes, subjective norms, and perceived behavioral controls). It demonstrated that, in the absence of strong positive attitudes, actions can still be taken; nurses will still continue their formal education. Although nurses do have positive attitudes toward BSN education (ADNs scored higher than Diploma Nurses), they are not strongly positive and therefore, continue to be something in need of addressing. This needs to be done at all stages of education and career. Given that the attitudes toward continuing formal education were only slightly positive, efforts should still be made at improving attitudes. Since many participants returned to school even with less than stellar attitudes, efforts should also be placed on improving subjective norms and PBC.

Subjective norms or perceived social pressure to return to school appears to be very low. The main source of what little pressure nurses felt came from their own personal desires. Employers are not pressuring or supporting continuing education and ADN and Diploma nurse educators are not always encouraging continuing formal

eduction or doing a good job at modeling positive attitudes towards continuing formal education.

Perceived behavioral controls appear to be sufficient. Participants noted few academic barriers to returning to school, they stated they had access to enough information about programs, and they had access to academic programs. However, this should not suggest that academic administrators do not need to continue to work on improving continuing formal educational programs and access to these programs.

5.3 Conclusions

Generalizations may be made to the overall population of nurses in the United States based on the instrument used and the demographics of the sample. This must be done with caution however, due to self-selection and non-respondent bias. The ATBSNE scale measures the attitude concept in a manner consistent with the organizing framework and it was determined to have excellent reliability. Additionally, the sample of RNs obtained in the current study is similar enough to the national sample (Health Resources & Services Administration, 2006) that direct comparisons can be made between the two. Overall, the slight differences were that the current sample was older, contained more males, more Diploma Nurses, and was more ethnically diverse than the national sample. Participants also had more children in the younger age group (less than six years of age) and higher net family incomes.

The role of professional development and advanced education in overall job satisfaction was supported. The study had a high percentage of participants who had returned to school and an extremely high percentage of participants (double that found in the national sample) who were very satisfied with nursing as a career. With the current

nursing shortage and push for safe staffing ratios to moderate the workload of nurses, it was anticipated that more nurses would rate themselves as a little dissatisfied with nursing as a career or, at least, only satisfied.

There is a link between salary and advanced education. Although one of the main reasons cited by participants for not returning to school was that they would not earn more money, this study found the majority of participants had a higher than average net family income. Some of this is a result of improved nursing salaries in the last few years but some of it is likely directly related to the number of participants who had, in fact, returned to school. It is well documented that APN salaries are significantly above that of the average staff nurses' salary. A BSN education is the first step toward APN education.

Social pressure (subjective norms) to return to school are felt by a very small percent of RNs; not surprising in given the fact that the nursing shortage is improving job opportunities and job security. Nurses continue to have personal reasons to return to school, but employers, nursing organizations, and colleagues need to also exert pressure. Educators in ADN and Diploma programs are not always identifying the benefits of a BSN education for students by encouraging students to continue their formal education and modeling a positive attitude toward continuing formal education.

Although employers are continuing to apply some pressure to RNs to return to school, they have not improved their actions of support for employees. The amount of tuition reimbursement for RNs who return to school remains low and is often tied to the amount of hours they work. What this means for the average nurse is that if they take time off to return to school (at a loss of salary), they get less reimbursement.

Nursing program administrators have improved what is offered to RNs making programs more accessible and attractive. Few participants in the study cited academic barriers as reasons for not returning to school and most participants stated that not only did they have access to enough information about programs, but more importantly, they had access to programs.

There is room for improvement in the overall attitudes of all nurses toward BSN education. There is a difference in attitudes between Diploma nurses and ADNs; ADNs have slightly more positive attitudes overall, but they barely rank above neutral. Faculty in ADN and Diploma programs are not always encouraging their students which may be seen by students as displaying a negative attitude toward continuing formal education. Without change, it appears that attitudes may continue to be a barrier to continuing formal education.

Attitudes do appear to change over time when evaluated based on years of nursing practice. There were significant differences found in attitudes based on years of practice in that the older nurses had more positive attitudes. However, age was cited as the overall primary reason for not returning to school. Therefore, there may be a point where chronological age influences behavior separate from attitude. This suggests that efforts to entice nurses to return to school by changing their attitudes can be geared to all nurses instead of a particular group, however these efforts might be wasted on the older nurse.

Nurses who have returned to school have more positive attitudes about BSN education than those who have not returned to school. Many of the participants cited not needing a BSN education to give good care. People don't know what they don't know and through returning to school they learn the differences between ADN or Diploma

nurse education and the BSN. It would be interesting to note whether attitudes become more positive while engaged in continuing formal education.

California is not as progressive as touted and the resurgence of Diploma programs on the east coast is not indicative of a less positive attitude toward BSN education. There are no geographical differences in the attitudes of nurses between the east and west coast. This is not accounted for by relocation of the workforce.

5.4 Recommendations

There needs to be more research on how and when to best improve the attitudes of nurses toward BSN education. Attitudes about BSN education remain poor among nurses. It is suggested that a next step to understanding attitudes should be in the form of a qualitative study followed by a longitudinal (prospective) mixed modal (quantitative and qualitative) study. In the qualitative study, participants (ADNs and Diploma nurses) could be asked "What would entice you to continue your formal education?" Since qualitative research is not overtly generalizable, this first study would lay the foundation for the next step; the mixed modal study. This type of study could follow a group of new graduates and delve into what their attitudes are at graduation and if and how their attitudes are changed as their careers progress. Results from this type of study would also address the inconsistencies in the literature as to when best to entice nurses to return to school.

One proposed method to entice nurses to return to school might be to engage the understanding and experience of older, more experienced nurses. It was shown that the older RNs tended to have more positive attitudes toward BSN education but, at the same time, they felt age was an impediment to returning to school. If years of practice teach

what youth cannot see, maybe enticing season nurses to share these lessons would help entice younger RNs to return to school. The older nurses need to be afforded the opportunities and mechanisms to share.

In accordance with the TPB, methods to entice nurses to return to school should not only be focused on changing attitudes, but should also be directed toward increasing subjective norms. Employers, nurse educators, nursing organization spokespersons, and legislators should take a more active role in promoting and supporting continuing formal education for nurses. Since only 52% of participants were encouraged to continue their formal education during their initial program, nursing faculty should be surveyed regarding how they feel about continuing formal education in an attempt to understand what attitudes concerning education they are instilling/modeling in those they teach. "It's in the interest of the public and employers to invest more in enabling nurses to achieve a higher level of education consistent with trends for other health professionals" (Hilton, 2004, p. 14) and the needs of society.

Since professional development and advanced education are linked to job satisfaction, employers should increase their support for continuing formal education. This support should not only be in the form of verbal pressures and superficial actions. Employers need to improve how employees learn about reimbursement, increase the amount of tuition reimbursement offered, provide flexible schedules to nurses, and provide monetary rewards for those that complete advanced education. The use of career ladders, with the attainment of a BSN as a step, would provide encouragement and rewards.

Nursing students should receive more encouragement and information about advancing their nursing education during their initial programs. Although some ADN and Diploma nurse faculty are encouraging continuing formal education, negative attitudes are being modeled by those faculty who do not encourage students. Increasing the numbers of articulated programs, and students' knowledge of these programs, could facilitate movement between programs and increase the numbers of BSN graduates. Articulation programs would help advance the BSN as entry-into-practice yet validate the worth of, and need for, ADN and Diploma nurse faculty.

Since the current research suggested that there was a link between advanced education and improved salaries, it should be investigated as to whether there is a monetary reward for obtaining a BSN or not. If in fact employers are offering improved salaries or education bonuses, this needs to be known so that the pervasive attitude that there is no financial benefit to the BSN education can be addressed.

Finally, current research on the benefits of a BSN education need to be better disseminated and repeated for validation. It appears that many nurses continue to not value the BSN education. Dissemination of this research needs to be done in a positive manner so as not to devalue the necessary contribution of the ADN and Diploma nurse graduate. It also needs to be geared toward the ADN and Diploma nurse who did not have experience in how to interpret nursing research in their initial education program.

Quality in healthcare is a priority. Nurses today need the scope and depth of knowledge, skill, and judgment attained through baccalaureate education in order to teach and/or to provide optimal quality care to complex patients. Professional development and

a commitment to life-long learning are professional values and a hallmark of any profession.

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Appendix 1

ATBSNE Scale by Roche 1990

How do you feel about BSN education? Please place an X in a space between each pair of adjectives that most clearly expresses your *impression* of BSN EDUCATION. Please do not write your name on the survey.

Example: CHOCOLATE

SWEET			X					SOUR

Not all chocolate is sweet but since most chocolate that we eat has added sweeteners our impression of chocolate is usually sweet.

BSN EDUCATION

WORTHLESS								VALUABLE
RIGID								FLEXIBLE
USEFUL								USELESS
STIMULATING								BORING
FAMILIAR								UNFAMILIAR
MEANINGLESS								MEANINGFUL
PLEASANT								UNPLEASANT
NEGATIVE								POSITIVE
UNFAIR								FAIR
CREATIVE								UNIMAGINATIVE
PURPOSELESS								PURPOSEFUL
INFORMATIVE								UNINFORMATIVE
RELEVANT								IRRELEVANT
IMPERSONAL								PERSONAL
INAPPROPRIATE								APPROPRIATE
IMPRACTICAL								PRACTICAL
SUCCESSFUL								UNSUCCESSFUL
DESIRABLE								UNDESIRABLE
REASONABLE								UNREASONABLE

Appendix 2

Socio-Demographic Questionnaire

Please check or fill-in the correct response to each question. Please <u>do not</u> write your name on the survey.

I am not eligible for this study. I was initially licensed with a baccalaureate degree or equivalent_____ (if selected, please return the blank survey)

1. Number of years licensed as an RN (in years): _____

2. What type of educational nursing program did you originally graduate from?

_____ Associate degree (ADN or ASN) _____ Diploma

3. My state: _____

4. Employment status:

_____ Full time in nursing (≥40 hr/wk) _____ Part-time in nursing
_____ Looking for work in nursing _____ Not currently employed
_____ Full time not in nursing _____ Part-time not in nursing
_____ Other (please specify)_____

5. The area in which you work is classified as:

_____ Urban city, large (population >300,000)
_____ Urban city, small (population 50,000-300,000)
_____ Suburban (population >10,000)
_____ Rural (population <10,000)

6. Job description: _____ Staff nurse _____ Assistant head nurse
_____ Head nurse _____ Clinical coordinator
_____ Physician's office nurse _____ Nurse practitioner
_____ Other in nursing (please specify)_____
_____ Not employed in nursing

7. How satisfied are you with your choice of nursing as a career?

_____ Very satisfied
_____ Moderately satisfied
_____ A little dissatisfied
_____ Very dissatisfied
_____ Not employed in nursing

8. If you are NOT currently employed as a nurse, do you have any plans to return to nursing?

_____ Yes _____ No

9. a) Have you returned to school for further nursing education?

_____ Yes _____ No

b) If yes, what is/was your major/degree? _____

10. a) Have you attended school for an education in something other than nursing?

_____ Yes, before nursing school _____ Yes, after nursing school
_____ No

b) If yes, what was your major/degree? _____

11. Are you interested in returning to school to obtain your BSN?

_____ Yes, on campus program
_____ Yes, on-line delivery
_____ Never gave it any thought
_____ Have no intention of ever returning to school
_____ Will return for a degree not in nursing

12. If you are not interested in returning to school to obtain your BSN, please indicate your #1 and #2 reasons for this decision.

_____ If I go back to school, I'll have to take everything over again
_____ I'm too old to go back to school now
_____ I never was a good student
_____ I don't need a BSN to stay in hospital nursing
_____ A BSN is only for those who have management career plans
_____ I won't earn any more money by getting a BSN degree
_____ I don't need a BSN to give good care
_____ Whatever extra training I need I can get from CEs or in-services
_____ If the BSN becomes necessary, I'll be "grandfathered" without the BSN
_____ There is no one supporting my efforts to go back to school
_____ Other (please specify) _____

13. Did anyone in your initial nursing program encourage you to continue your formal education?

_____ Yes _____ No

14. a) Are you feeling social pressure to return to school to obtain your BSN?

_____ Yes _____ No

b) If yes, who is the pressure from (select all that apply)

_____ Employer _____ Ccolleagues at work
_____ Recent research _____ Personal desire
_____ State legislature _____ Nursing organizations
_____ Family
_____ Other (please specify)_____

15. Do you (or did you) have access to enough information about available educational programs that would meet your needs as an RN interested in returning to school for a BSN?

_____ Yes _____ No
_____ Didn't notice _____ Does not apply

16. If you do (or did) have access to enough available information concerning available programs, how do (or did) you receive this information? (check all that apply)

_____ Unsolicited mailings to my home
_____ Word of mouth from other RNs returning to school
_____ Informational pamphlets/flyers at my place of employment
_____ Advertisements in professional journals
_____ Advertisements in local newspapers
_____ Community interest messages on TV or radio
_____ Not applicable
_____ Other (please specify) _____

17. Do you have access to any continuing formal educational programs?

_____ Yes _____ No

18. What is the amount of reimbursement received from your employer for returning to school to obtain your BSN?

_____ None _____ Full
_____ Partial (≥ $4,000/year) _____ Partial, (< $4,000/year)
_____ Unknown _____ Not applicable
_____ Other (please specify) _____

19. To receive tuition reimbursement from your employer must you be working full-time?

_____ Yes
_____ No
_____ No tuition reimbursement available
_____ Not employed in nursing

20. Is the amount of tuition reimbursement you receive based upon the amount of hours you work?

_____ Yes
_____ No
_____ No tuition reimbursement available
_____ Not employed in nursing

21. Your age in years: _____

22. Sex: _____ Male _____ Female

23. Race:
_____ Black or African-American _____ Caucasian
_____ Asian-American/Pacific Islander _____ Hispanic
_____ Native American _____ Mixed race
_____ Other (please specify)_____

24. Marital status:
_____ Married _____ Never married
_____ Divorced _____ Widowed
_____ Separated

25. Living arrangements:
_____ Living alone _____ Living with partner
_____ Living with children _____ Living with parents
_____ Living together arrangement
_____ Living with partner & children
_____ Other (please specify)_____

26. Number of children: _____

27. Number of children currently living at home: _____

28. Ages of children, currently living at home, in years (please fill in all that apply):

Child #1 _____ Child #2 _____ Child #3 _____
Child #4 _____ Child #5 _____ Child #6 _____

29. Number of adult children (at home or not) for which you have some financial responsibility:

_____

30. Annual net family income: (from all sources)

_____ Under $30,000
_____ $30,000 to 49,9999
_____ $50,000 to 69999
_____ $70,000 to 89,999
_____ $90,000 to 99,999
_____ Over $100,000
_____ Choose not to answer

31. What is your main source of income for living expenses?

_____ Self
_____ Partner
_____ Friend(s)
_____ Spouse
_____ Ex-spouse
_____ Relatives(s)
_____ Combined income (self & spouse/partner)
_____ Other (please specify)_____

Thank you for your time in completing this questionnaire.

Appendix 3

Cover Letter

DUQUESNE UNIVERSITY

600 FORBES AVENUE ♦ PITTSBURGH, PA 15282

Tanya K. Altmann,
104 Doubletree Ct.,
Folsom, CA 95630
altmannt@duq.edu

October 28, 2007

Dear Nurse Colleague,

You have been randomly selected to participate in my research study entitled, "Nurses' Attitudes Towards Continuing Formal Education: A Comparison by Level of Education and Geography." Participation involves completion of a one page survey which asks you to rate your impression of baccalaureate nursing education and a five page socio-demographic survey. This research is in partial fulfillment of the requirements of the Doctor of Philosophy in Nursing program at Duquesne University in Pittsburgh, PA.

The purpose of the study is to understand nurses' attitudes toward continuing formal nursing education. Specifically, to examine the attitudes, concerns, and feelings of nurses initially registered with an associate degree or diploma in nursing toward continuing formal education at the baccalaureate level; whether this changes over time; and if there are differences between nurses' attitudes on the east coast and west coast of the United States.

Your participation in this research would be very much appreciated inasmuch as it would help to better understand and improve when and how to instill a positive attitude toward lifelong learning and contribute to the body of nursing knowledge. Continuing professional development is considered a hallmark of a profession.

By completing the surveys you are granting implied informed consent. You are under no obligation to participate in this study. If you choose not to complete the surveys, there will be no consequence to you. There are no known risks to you by participating in this study and the potential benefits of this data outweigh the potential risks. You may withdraw from the study at any time or complete as many of the questions as you desire.

Duquesne University
Institutional Review Board
Approval Date: October 24, 2007
Expiration Date: October 24, 2008

You will not be paid for participating in this study, nor will it cost you anything to participate. If for any reason you prefer not to answer the surveys, please let me know by returning the blank surveys in the enclosed preaddressed stamped envelope.

If you agree to participate, please read the directions, complete the enclosed two surveys (the Attitudes toward BSN Education Scale and a Socio-demographic survey), and return them no later than November 19, 2007. The surveys take approximately 15 minutes to complete. Criteria for completing these surveys are that you were initially licensed as a Registered Nurse with either a diploma or associate degree in nursing. If you do not meet this criteria, please indicate this at the top of the socio-demographic survey and return the rest of the materials incomplete. Please do not write your name on any of the materials.

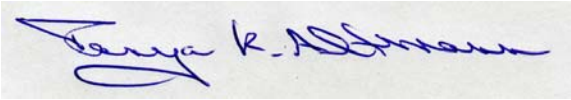
Your name will not appear on the survey or materials used in this study, nor will your name be mentioned when I write about the study. The code number on the enclosed preaddressed stamped envelope is to assist in tracking the return of the surveys only.

While results of this study may be made public, individual data will remain confidential. All information provided will be reported as group data as statistical data summaries. All written materials, and computer discs with data, will be stored in a locked file in the researcher's home. All materials will be kept for five years from the completion of the research and then destroyed.

If you have any questions, or would like a copy of an abstract briefly describing the study and findings, please do not hesitate to contact me at either my postal or e-mail address or at (916) 278-6816. You may also contact my faculty advisor, Dr. Lynn Simko at (412) 396-5069 and / or Dr. Paul Richer, Chair of the Duquesne University Institutional Review Board (412-396-6326). This study was approved by the Institutional Review Board at Duquesne University.

Thank you for taking the time to review this request. I look forward to hearing from you.

Sincerely,



Tanya K. Altmann, RN, MSN

Duquesne University
Institutional Review Board
Approval Date: October 24, 2007
Expiration Date: October 24, 2008

Appendix 4

Research Assistant Confidentiality Agreement

DUQUESNE UNIVERSITY
600 FORBES AVENUE ♦ PITTSBURGH, PA 15282

Statement of Confidentiality

I Michael W. Altmann understand that I will have access to information provided by individuals in the research study: "Nurses' Attitudes Towards Continuing Formal Education: A Comparison by Level of Education and Geography." While no names will ever be visible to me, I will have information as to the subject codes used to log returns. I recognize that I have an obligation to protect the confidentiality of this information and that I may disclose information only to the principal investigator of this study.

My signature below indicates my acceptance of the obligation and restriction on disclosure set forth above and that I realize that failure on my part to fulfill this obligation can lead to appropriate disciplinary action.

Name: Michael W. Altmann

Title: Research assistant

Date: 11/02/2007

Duquesne University
Institutional Review Board
Approval Date: October 24, 2007
Expiration Date: October 24, 2008

Appendix 5

Follow-up Letter

DUQUESNE UNIVERSITY

600 FORBES AVENUE ♦ PITTSBURGH, PA 15282

Tanya K. Altmann,
104 Doubletree Ct.,
Folsom, CA 95630
altmannt@duq.edu

December 30, 2007

Dear Nurse Colleague,

Two months ago I sent you two surveys related to nurses' attitudes towards continuing formal education: a one page survey which asks you to rate your impression of baccalaureate nursing education and a five page socio-demographic survey. I have not heard from you. This research is in partial fulfillment of the requirements for the Doctor of Philosophy in Nursing at Duquesne University in Pittsburgh, Pennsylvania.

I am writing to you again because of the importance each survey has to the study and to me. In order for the results of this study to be representative of the sample of nurses selected, it is necessary for each registered nurse in the sample to return a completed survey regardless of whether or not they are interested in returning, or have returned, to school for advanced education. This is your opportunity to voice your opinion whether positive or negative.

Your participation in this research would be very much appreciated inasmuch as it would help to better understand and improve, if necessary, when and how to instill a positive attitude toward lifelong learning and contribute to the body of nursing knowledge. This gives nursing the voice of the future. Through education and understanding we can improve nursing knowledge and, ultimately, patient care.

I hope that you will fill out and return the surveys soon, but if for any reasons you prefer not to answer, please let me know by returning the blank surveys in the enclosed preaddressed stamped envelope. Please try to return the completed questionnaire by January 30, 2008 if possible.

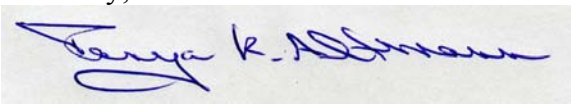
By completing the surveys you are granting implied informed consent. You are under no obligation to participate in this study. If you choose not to complete the surveys, there will be no consequence to you. There are no known risks to you by participating in this study and the potential benefits of this data outweigh the potential risks. You may withdraw from the study at any time or complete as many of the questions as you desire.

Duquesne University
Institutional Review Board
Approval Date: October 24, 2007
Expiration Date: October 24, 2008

Information contained within the surveys will be reported as group / aggregate data to ensure each individuals' confidentiality.

If you have any questions, or would like a copy of an abstract briefly describing the study and findings, please do not hesitate to contact me at either my postal or e-mail address or at (916) 278-6816. You may also contact my faculty advisor, Dr. Lynn Simko at (412) 396-5069 and / or Dr. Paul Richer, Chair of the Duquesne University Institutional Review Board (412-396-6326). This study was approved by the Institutional Review Board at Duquesne University.

Sincerely,



Tanya K. Altmann, RN, MSN

Appendix 6

Permission to Use the ATBSNE Scale

Subject:	RN attitudes tool
From:	doctoreileen@comcast.net
Date:	Tue, April 17, 2007 8:43
To:	altmannt@duq.edu
Priority:	Normal
Options:	View Full Header | View Printable Version | Add to Addressbook

Dear Tanya:

I apologize for the delay in responding. I was in China and I am just now getting to your request letter. You did not identify the instrument in your letter so I am assuming it is the RN attitudes towards BSN education tool that you are requesting.

Please feel free to use the tool and I hope you find it useful for your data collection. Good luck in your doctoral studies and feel free to contact me if you have further need of any information I can offer you.

Regards:

Eileen M. Roche, RN, DNSc