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The Impact of Instructional Delivery Methods on Retention of BSN-C Students

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UNIVERSITY OF MISSOURI-ST. LOUIS

GRADUATE SCHOOL

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Abstract

Education and nursing are changing. Registered Nurses (RNs) who have the greatest impact on the health of consumers are those who have attained a Baccalaureate degree or higher (Aiken, Clark, Cheung, Sloan, & Silber, 2002). Yet nurses remain the least educated of all health care professionals.

RNs who return to school to pursue a bachelor's degree face many challenges including scheduling full-time work and family responsibilities (Jeffreys, 2004). Instructional delivery alternatives may increase the likelihood of graduation with a baccalaureate degree for RNs whose initial nursing education was either the associate or diploma degree (Shelton, 2003).

Retention is integral in the business world as well as academics. It is even more important when the student population is non-traditional and working, juggling multiple roles and returning to the academic world. Technology affords increased opportunities for students who are unable to attend a college classroom. The purpose of this study was to determine if a relationship existed between instructional delivery formats; traditional classroom, Interactive television (ITV), and Web-based—and retention for RNs who are completing baccalaureate education.

Data was collected from RNs who had graduated and those who chose to not complete the BSN between 2003 and 2007 from a Midwestern, state university. Two instruments, the Student Perception Appraisal-2 (SPA-2) and the Student Withdrawal Questionnaire (SWQ) both created by M. R. Jeffreys (2002, 2004, 2005, 2007) were used. Analyses revealed that instructional delivery method did have an affect on retention of students with variables that included class schedule, family support, family responsibilities, and

financial aid. Students like to have options that can fit into their busy lives. While one delivery format did not affect retention more than another, retention rates at the university overall have increased from 83% to 93% during the reporting period which supports the importance of using different delivery methods.

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TABLE OF CONTENTS

List of Tables

CHAPTER I

Introduction

Healthcare in the United States is changing and these changes potentially impact the health of the public, as well as the professionals caring for them. Improved medical and technological advances enable people who have chronic disease to live longer, yet they still need healthcare. The general population is living longer which means they will be consumers of healthcare longer. RNs who have the greatest impact on the health of consumers are those nurses who possess a Baccalaureate degree or higher (Aiken; Clark, Cheung, Sloan, & Silber, 2002; Gosnell, 2002; Nelson, 2002; Shelton, 2003). Research supports the baccalaureate prepared nurse can impact quality of care as evidenced with a decrease in infection rates, decreasing incidence of falls that can result in bone fractures, decrease medication errors, and ultimately decrease in mortality rates (Aiken et al., 2002).

Today's nurse needs to incorporate rapid physical assessment skills and treatment protocols ordered by physicians to move the patient through the system promptly and cost effectively. At the same time the nurse is expected to coordinate and facilitate the interdisciplinary healthcare team, while constantly striving in an environment where timely resource allocation and management skills are expected to flourish (Barter, McFarland, & Lenihan, 2001).

Nursing roles have evolved from a set of technical duties to a profession where nurses need advanced scientific knowledge, must use sophisticated technology, have broad preparation including informatics, and public and community health, and skills in chronic care management. RNs must attain the educational credentials appropriate to safely

practice across a range of settings that include both the hospital and community environment.

Educational Preparation

The educational background required for professional nursing practice is mandated by Boards of Nursing to promote safe and effective practice. In nursing, there are three ways in which students can attain the basic preparation required to become a registered nurse (RN). Diploma programs are usually hospital based, take two to three years to complete and focus on hands-on nursing practice. Associate degree nursing (ADN) programs require two academic years and offer a technical course of study with a balance of theory and practice. BSN programs can be either "generic" for basic students applying for licensure, or completion programs (BSN-C) designed for RNs returning to school. Both offer general liberal arts courses, as well as nursing theory with practice, community and population health, teaching and management concepts with the focus on further development of intellectual and critical thinking skills. Regardless of the nursing program, upon completion all students take the same licensure exam and after passing the exam can practice as RNs.

According to the American Association of Colleges and Nursing (AACN), associate degree programs comprise 55%, diploma programs 6% and baccalaureate nursing programs comprise 39% of nurses currently in practice (AACN, 2006). There are approximately 629 BSN-C programs that build on the education provided in diploma and associate degree programs. The BSN prepares graduates for a broader scope of practice and is the gateway to graduate education (AACN, 2006).

Support for Baccalaureate Education

There is private and public support for BSN prepared nurses. Australia, Great Britain and Canada now require the BSN for new nursing graduates (Barter & McFarland, 2001). In the United States, the National Advisory Council on Nurse Education and Practice (NACNEP) suggests at least two thirds of Registered Nurses earn the BSN or higher by 2010, to provide the complex healthcare the aging population will need. The United States Army, Navy, and Air Force require a nurse to have a BSN to practice in the military. Beginning in 2005, the Veterans Administration required all nurses to have a BSN to practice in their facilities (AACN, 2003). Hospitals are striving to achieve excellence and one criteria required to receive Magnet Status is two thirds of nurses in the organization must have the BSN (AACN, 2003; Joel, 2006). The Magnet Status, awarded by the American Nurses Credentialing Center (ANCC), recognizes the quality of nursing service that is exemplary within the context of the total organization (AACN, 2003). "The goal of the program is to identify excellence in nursing services and to recognize health care facilities that act as a magnet, creating a work environment that attracts and retains professional nurses" (Joel, 2006, p. 540).

"The AACN supports baccalaureate-level preparation for entry into the professional nursing practice as well efforts to increase the education level of the nation's nurse workforce" (AACN, 2005). Efforts to expand the availability of BSN-C programs and increase the number of baccalaureate prepared nurses nationwide are consistent with the association's effort to create more highly educated nurses (AACN, 2005).

An RN's decision to return to school to pursue a baccalaureate degree is multifaceted. Many RNs receive no monetary incentive for earning a bachelor of science in nursing degree, though this is slowly changing. For the most part RNs return to pursue the degree to improve critical thinking skills, to improve practice, to increase professional marketability, to advance into management positions or to fulfill requirements for graduate school (Casey, Cragg, Hugo, & Plotnikoff, 2001; Shelton, 2003). Employers are aware of the advantages the baccalaureate-prepared nurse provides to healthcare institutions and strive to keep their nurses. Many offer tuition reimbursement as a fringe benefit in an effort to retain the experienced RN (Joel, 2006).

Research confirms that BSN education has a direct impact on patient outcomes by decreasing mortality rates, decrease in medication errors, and a decrease in infection rates (Aiken, Clarke, Cheung, Sloan, & Silbert, 2002). RNs who earn a BSN also report improved professional enhancement, increased self direction, and increased responsibility all of which improve employment retention rates (Leonard, 2003).

RNs who return to school to pursue a bachelor's degree face many challenges including scheduling full-time work responsibilities and family (Jeffreys, 2004). Instructional delivery alternatives may increase the likelihood of graduation with a baccalaureate degree for RNs whose initial nursing education was either the associate or diploma degree (Shelton, 2003).

Nursing Shortage

According to the literature, the United States is experiencing an acute nursing shortage (AACN, 2005, 2003; Gosnell, 2002; Martin, 2007; Peterson, 2001; Taft, 2001). The cause is multifaceted with contributing factors including more career options for women,

an aging RN population, and changes within the healthcare system (AACN, 2003; Gosnell, 2002; Joel, 2002; Peterson, 2001). Another factor is the student population is changing from traditional to non-traditional student. The non-traditional student is one who has graduated from high school, is 30 years of age or older, and is beginning a nursing program. The student is employed full-time or part-time and frequently has additional family responsibilities (Cangelosi, 2006). Today's students enter the profession of nursing as mature, working adults. As a result, RNs are older when they enter the workforce which translates to a decreased number of working years prior to retirement. In 2004, Health Resources and Services Administration (HRSA) reported the average age of RNs at graduation from initial nursing programs to be 32.9 years. The report also identified nurses actively employed as full-time nurses to be between the ages of 45 to 49. It is projected by 2010, 40% of working, professional RNs will be older than age 50 (AACN, 2003; HRSA, 2004).

Administrators of nursing support programs that provide students with instructional alternatives to learning that occur outside the traditional classroom or university campus (AACN, 2000). Universities are striving to provide non-traditional students with learning opportunities that will accommodate their hectic lifestyle and support baccalaureate education. However, it is not enough for nursing programs to attract qualified applicants. They also must provide resources to facilitate success so students will continue in the program, graduate, and become educated members of the healthcare profession (Shelton, 2003). Providing instructional delivery options may provide greater opportunities for nurses to complete baccalaureate education.

Nursing shortages are not new; however the current situation differs not only in the number of nurses, but also educational preparation. (Peterson, 2001). Although no one can predict the future of healthcare or nursing, two things are clear. The demand for baccalaureate prepared nurses will continue to grow. Second, the nursing profession must continue to develop education programs that are integrated into the continuum of practice yet flexible enough to evolve along with the changing needs of the profession and the healthcare delivery system (AACN, 2005, 2003).

Instructional Delivery Options

Technological advances, changes in student demographics, and student demands have required institutions of higher education to develop alternative instructional learning environments. An example of an alternative instructional learning environment would be distance education (Joel, 2006; Moore & Kearsely, 1996; Seidman, 2005; Tracy-Mumford, 1994). "Distance education is as old as correspondence courses, but has taken on new meaning with the consumer outcry for easy access to education, the knowledge explosion, and technology which makes it possible to transcend time and distance" (Joel, 2006, p. 231). The primary purpose of distance education has been to try to emulate what occurs in the traditional classroom setting when the students are not seated physically in the same location or room as the instructor and can in fact be many miles away. Carnevale (2003) defines distance education as the "process of teaching and learning separated by space and/or time" (p. 12).

There are potential advantages and disadvantages to distance education for the educational institution, faculty and students. For educational institutions, the advantages include decreasing cost of course delivery and extension of service area (Kreideweis,

2005; Simonson, Smaldino, Albright, & Zvacek, 2006). Faculty and students gain flexibility in the educational experience through flexible course schedules and the ability to access courses from locations that are geographically distant from the traditional campus (Joel, 2006; Simonson et al., 2006). Disadvantages would include faculty preparation to a different style of teaching, lack of student or faculty technological preparation, and limited class size (Jeffries, 2005; Simonson et al., 2006).

In the past, the traditional classroom has been the primary modality to deliver education. The instructor and students share the same time and space. The instructor is considered the expert and communicates verbally to students sitting attentively in class. In the literature this is referred to as synchronous technology and allows students and faculty to be together in real time (Martin, Klotz, & Alfred, 2007; Simonson et al., 2006). This delivery methodology is usually described as passive and teacher centered. Students are the recipients of learning and the teacher is in charge of providing students what they need to know (Simonson et al., 2006).

Advantages for using the traditional classroom include instructor and students can physically share the same space. This allows both to observe verbal and non-verbal cues. Questions can be asked and answered. Large class sizes can be used. It is also the delivery method students and instructors have experienced during previous learning (Simonson et al., 2006).

Disadvantages for using the traditional classroom include inability of students to commit to a particular time and place to complete course requirements due to family, work, or geographic distance. The timid, quiet student may not be comfortable to verbally express or interact in the traditional classroom environment. Students may not

attend class because of the feeling of ambiguity a large classroom setting fosters. Large class size may prohibit the use of various teaching strategies and may not meet the various individual learning styles students possess (Jeffries, 2005).

For students who can not attend a university campus but desire to physically visualize the professor and fellow students, ITV would be an instructional option to meet their academic needs. This would be another example of synchronous technology where students and faculty are together at the same time but are physically and geographically separated. Synchronous use of audio and video, or interactive video (ITV) provides audio and visual connection between students at remote sites from the teacher. Class is designated to occur at a particular place and time (Fetzer, 2000).

Advantages for using ITV classroom include students having the opportunity to remain close to the geographic area in which they live. Small class sizes with the ability to visualize, interact, and ask questions of students and instructor are promoted. Collaborative relationships among students are more likely to be nurtured in smaller class environments (Fetzer, 2000).

Disadvantages include the potential of technical failure. Students may not be comfortable observing the television. Observing multiple distant sites may be distracting for some learners. Students may experience isolation or feeling disconnected from students and the instructor at distant sites plus compound this with technical problems. Students experience frustration and without adequate support are more likely to leave before completing their education (Fetzer, 2000; Kreideweis, 2005). Attrition rates are higher with lower graduation rates in students who choose ITV classroom (Kreideweis, 2005; Shelton, 2003).

A growing instructional alternative to the traditional or ITV classroom is Web-based instruction. This particular methodology utilizes the computer as the primary mode of the teaching- learning process and is best suited to meet the needs of students who can not physically meet at a designated time or place. Most Web-based courses function on an anytime, anywhere basis. The literature refers to this as asynchronous learning (Reilly, 2004; Schrum, 2002; Simonson, et al., 2006) which allows the scheduling of courses to occur at any place or time.

Computer technology provides several advantages for students who experience scheduling or geography barriers. Currently of the 629 BSN-C programs, 320 offer Web-based instruction as an alternative delivery method (AACN, 2005). Web-based instruction lends itself well to RNs desiring to continue their education because of the accessibility and flexibility it provides (Udod & Care, 2002). RNs can continue to work but still pursue advanced study and graduate with a BSN.

Disadvantages include technical failure and lack of experience being a student in a Web-based classroom. "Teaching with technology to learners who are not physically located in the same site where instruction is taking place requires a different set of skills and competencies than traditional education" (Simonson, et al., 2006, p.115). Faculty are often not prepared to teach in a non-traditional classroom (Nash, 2005). Attrition rates are higher with lower graduation rates in students who choose Web-based instruction (Fraser & Haughey, 1999; Kozlowski, 2004).

Societal demands, technological advances, and the needs of learners have compelled nursing education to implement technology in providing distance education options that may include ITV or Web-based instruction (Care & Udod, 2002). While attending a

college campus may not be physically possible, the advance of technology through distance education provides access to education for working RNs who are not able to attend a designated classroom. "Technology provides significant means to increase access to education for the adult, working student who represents a growing proportion of the undergraduate nursing population" (AACN, 2000, p. 3).

Adult Learning

Adult education provides a theoretical framework for understanding why RNs return to school and factors that may enable them to successfully complete and graduate with a baccalaureate degree. A term associated with adult education is andragogy. It was introduced through the works of Lindeman (1926) and popularized through the research of Malcolm Knowles (1980). Andragogy is defined as "the art and science of helping adults learn" (p. 27). Knowles believed that people learn best when treated as adults and that the ultimate purpose of all education is to help people develop an attitude of life long learning.

Andragogy provides educators of adults with principles that meets the learning needs of self-directed adults and guides educators in their teaching while simultaneously fulfilling the need for improvement and effectiveness in teaching. BSN-C nursing programs serve adult learners where self-direction is valued and students are internally motivated to learn (Finke, 2005). "Andragogy differs from pedagogical teaching-learning principles in that adult learners are more self-directed, more inclined to use past experience as a resource, motivated to learn and make decisions using problem solving principles" (Trent, 1997, p. 277). These attributes are traits the working RN possesses (Finke, 2005; Shelton, 2003).

There has been growing interest among educators in schools of nursing to move beyond traditional structured lecture formats that encourage an environment for passive learning (Biley & Smith, 1999; Gance-Cleveland, 2002) to non-traditional formats that promote active learning. Technology has aided in the development of non-traditional classrooms that utilize ITV or Web-based methodologies (Clark & Ramsey, 2005; Jeffreys, 2004). These instructional delivery methods offer RNs increased educational opportunity, expanded access to resources, and greater flexibility (Murray, 2007). RNs no longer not need to choose between living and learning. Today RNs can have both, by choosing an alternative instructional delivery method that meets their learning needs, time schedule, and desire to attain their educational goals.

The combination of technological advances and changing student populations has resulted in an increase in the demand for, and availability of options, for RNs to complete baccalaureate education. The American Association of Colleges of Nursing has acknowledged the need for greater educational access and recognizes distance education as a viable method for the provision of undergraduate and graduate nursing education (Kreideweis, 2005).

Retention and Persistence

Adult learner retention continues to hold the attention of adult educators in every type of educational program. Course drop out and failure rates have been reported significantly higher among distance learners than those of traditional learners (Carnevale, 2000; Carr, 2000; Pierrakeas, Xenos, Panagiotakopoulos, & Vergidis, 2004). Early research on student retention was conducted by Vincent Tinto (1975). His model of student retention has been widely used to explain factors that influence retention.

However, attrition rates continue to increase. “Although the number of non-traditional students entering higher education programs is increasing, the percentage of those who persist to graduation is estimated to be lower than for traditional students” (Tinto, 1993, p. 28). Carr (2000) reported attrition rates as high as 60-70% with non-traditional students. Pierrakeas et al., (2004) found attrition rates to exceed 40% among students enrolled in distance education courses.

Just as the reasons students leave or quit their education are varied, different strategies must be used to retain students. A “one-size-fits-all” strategy cannot be used for retention. For the beginning traditional student, freshman seminars and early alert programs have been implemented with an increase in retention and graduation numbers (Kerka, 1995; Nash, 2005; Seidman, 2005). However, changing student demographics require a different perspective on retention.

Managing and reducing retention is a priority for higher education. According to Tracy-Mumford:

> Retention is a concern because it translates to both student and program failure. While student retention does not guarantee program completion or graduation for all students, student attrition guarantees non-completion for students. Ultimately, “non-completion converts to loss of productivity, lower self esteem for students, less student impact and a reduction in student retention rates for programs. When student retention is addressed, programs and students prosper. (1994, p. 5)

While research regarding successful strategies to promote traditional students retention and graduation is evident in the literature, research illuminating instructional delivery methods with non-traditional students and does it impact retention is not apparent.

Problem Statement

Research on college success and retention has led to a variety of successful remedies. However, the non-traditional, RN population is frequently over-looked and research needs to focus on methods to improve retention of the non-traditional BSN-C student. Accrediting agencies in nursing emphasize that student retention is a priority (AACN, 2006). Unfortunately, the population typically addressed are freshman students or those beginning nursing education (Jeffreys, 2004; Tinto, 1975). Additional research needs to address methods to improve retention in the non-traditional BSN-C student population.

Purpose of the Study

The purpose of the study is to compare and contrast three instructional modes of delivery to determine if they impact retention of BSN-C students. The three instructional delivery modes are: a) traditional classroom; b) interactive television, ITV; and c) Web-based delivery. The primary research question is: What, if any, is the impact of traditional classroom, ITV, or Web-based instruction on program retention/graduation of BSN-C students? Additional research questions are:

1) Are there differences in delivery format of traditional, ITV, or Web-based instruction on Student Perception Appraisal-2 scores among BSN-C students?

2) What factors are associated with retention/graduation rates?

3) Is there an association between instructional delivery formats and whether students drop out or continue to graduation?

This study is designed to contribute to research in adult education and nursing. The intent is to help provide foundational research to assist in the understanding of

instructional delivery methods and identify if a relationship exists between delivery methods and student retention.

Delimitations

The delimitations for this study include Registered Nurses who are in continuous enrollment taking courses in the traditional classroom, ITV, or Web-based with the goal to complete and graduate with a BSN between years 2003-2007. Registered Nurses who began the BSN-C program but chose to stop the pursuit of education and were taking courses in the traditional classroom setting, ITV, or Web-based environment will also be studied in an effort to develop strategies to enhance completion and graduation rates with a baccalaureate degree in nursing.

Significance of the Study

There is a current nursing shortage that differs from the past. Some of the contributing factors include women having more career options, an aging workforce, and managed care affecting the type and acuity of patients admitted to hospitals (Joel, 2006; Nevidjon & Erickson, 2001). The need for baccalaureate prepared nurses will increase as patients are transferred from acute care, or hospital based facilities, to public and community health departments (Aiken et al., 2002; Zuzelo, 2001). The baccalaureate prepared nurse provides the minimum foundation for healthcare of the future (AACN, 2005, 2003; Aiken et al., 2002).

The National League for Nursing Accrediting Commission (NLNAC) has established retention guidelines for baccalaureate programs with the standard of 80% as a desirable retention rate (NLNAC, 1996).

> Currently, nursing programs are devoting considerable time and resources to the recruitment of students. However, it is not enough to attract qualified applicants. They also must provide resources to facilitate success so students will continue in the program, graduate, and become competent, caring members of the nursing profession. (Shelton, 2003, p. 69)

Technology has changed the face of nursing education. Nursing faculty can deliver large quantities of material and this can be facilitated by using technology. Three hour lectures in a structured classroom will not prepare students for diverse, high quality, patient care. Technology can be used to enhance the teaching/learning environment while preparing an educated nurse who can impact healthcare outcomes (Aiken et al, 2002; Clark & Ramsey, 2005).

Universities are challenged to become more competitive in attracting and graduating students. Providing alternative instructional delivery options is an innovative and cost effective opportunity for non-traditional RNs to complete baccalaureate education.

Regardless of the institution and students served, the educational institution has responsibilities to provide opportunities for student success regardless if a student is considered traditional or non-traditional. Institutions also have the ongoing responsibility to evaluate technology and learning outcomes that promote retention and ultimate graduation of students. Research that addresses the impact of delivery method on RN retention and graduation rates will potentially affect other disciplines. The identification of successful, prescriptive strategies will promote retention and graduation and will also provide opportunities for students to alter aspects of their lives to accommodate to the requirements of their educational pursuits. The research findings from this study will be

useful to administrators, educators, and ultimately students through the development of prescriptive strategies that will promote RN's graduating with a baccalaureate degree in nursing.

Definition of Terms

For the purpose of this study the following terms will be defined as:

Adult Learner/Student-One who assumes responsibility for learning and the use of resources to attain personal growth (Billings & Halstead, 2005).

Adult Education-An educational philosophy that identifies adults as self-directed, motivated to learn information that can be readily adapted and bring accumulated life experiences to the learning environment (Knowles, 1984).

Andragogy-"The art and science of helping adults learn" (Knowles, 1984, p.22).

Asynchronous-Communication in which interaction between parties does not occur simultaneously.

Attrition-Refers to students dropping out of a nursing program.

BSN-C-A Registered Nurse returning to school to complete course requirements for a Bachelor of Science Degree in Nursing.

Connections-A set of skills the educator utilizes to keep the learners engaged in the learning process (Simonson et al., 2006).

Continuous program retention-Continuous enrollment in a nursing program, by taking the required courses sequentially until meeting the program's graduation requirements.

Distance education-Providing educational instruction when faculty and students are separated by a geographical distance and communication requires special techniques of

course design, technology, as well as special organizational and administrative arrangements (Moore & Kearsley, 1996).

Graduation rates-Percentage of students who complete program requirements and graduate with a Bachelor's Degree.

Instructional delivery methods-The instructional design used to engage and promote learning using traditional classroom, face-to-face, ITV, or Web-based format.

Interactive television (ITV)-Video-based system providing didactic interchange with audio and visual abilities shared between the learner and faculty (Simonson et al., 2006).

Non-traditional nursing student-A practicing RN, juggling multiple roles of work, family and school (Jeffreys, 2004).

Persistence-A student's continued education that leads to graduation (Tinto, 1975).

Retention-Percentage of students in a program of study who complete program requirements and graduate with a Bachelor's Degree.

RN-Registered Nurse who has completed an associate degree or diploma program and has successfully passed the state licensure exam.

Synchronous- Communication in which interaction is simultaneous. Communication occurs at a designated time and place (Simonson et al., 2006).

Traditional classroom-Learner and faculty are physically located at the same site and the same time.

Traditional Learner/Student-High School graduate between 18-22 years of age.

Web-based instruction-Computer-based technology that provides synchronous and/or asynchronous interchange between student and instructor.

Summary

The need for baccalaureate nurses is increasing and necessary to positively affect future healthcare (Aiken et al., 2002). RNs are the least educated members in the healthcare profession (Delaney & Piscopo, 2004; Reilly, 2004). "Under-educated members of the healthcare team rarely sit at policy tables or are invited to participate as members of governing boards" (Donley & Flaherty, 2002, p. 12). Consequently, there is little opportunity for the majority of RNs to create change or needed healthcare policy initiatives that will impact the future of healthcare. To be active participants of change, RNs need to complete baccalaureate education to be proactive in healthcare while balancing work and family responsibilities.

There is an increase in non-traditional students returning to schools (Carr, 2000; Pierrakeas et al., 2004). Why they return, continue and/or quit varies. Promoting and understanding effective retention strategies for non-traditional students in nursing is essential in light of the nation's need for educated nurses. Additional research is needed to learn if instructional delivery methodology affects retention and graduation rates in BSN-C students. In this study, the impact of instructional delivery method on graduation rates will be addressed. Prescriptive strategies used in other disciplines will be addressed which may provide a foundation to develop additional retention strategies and ultimately, promote graduation of RNs who are completing the BSN degree.

Organization of the Study

This study will be presented in five chapters. The first chapter includes an introduction, purpose of the study, research questions, definition of terms used in the study, and the significance of the study. Chapter two will include the review of the

literature on the history of nursing and nursing education. Chapter two will also present literature on adult education, retention, and persistence to discover the impact non-traditional students and delivery options have on program completion, graduation, and baccalaureate education. The Nursing Undergraduate Retention and Success (NURS) conceptual model will be the organizing framework to assist in gaining understanding and strategies that may affect retention (Jeffreys, 2005).

Chapter three will address the methodology used in collecting and analyzing the data. The description and selection of subjects, instruments, data collection, and data analysis will determine if delivery method does impact retention for BSN-C students. The findings of the study are presented and analyzed in Chapter four. The conclusions, implications, and recommendations for practice and further research are presented in Chapter five.

CHAPTER II

Review of the Literature

To promote awareness of changes that have affected the profession of nursing, chapter two will highlight the history of nursing, nursing education, and the impact the shortage of baccalaureate prepared nurses will have on future healthcare. AACN (2003) has reported an increase of RN students returning to the classroom to complete the BSN education. Advances in technology are providing new opportunities for non-traditional students that make the decision to return to school easier. Instructional delivery options that maximize technology and provide alternative learning environments will be discussed with research that supports advantages and disadvantages for students and institutions. Institutions of higher education have supported a variety of instructional delivery options that can make the decision to return to school more attainable to students with busy schedules. The instructional delivery options addressed in this study will include traditional, ITV, and Web-based classroom.

Retention and persistence theory, as well as adult education literature will be discussed. Research specific to the non-traditional nursing student and instructional delivery methods will provide the reader with increased understanding of the process and outcomes that will promote retention and ultimately graduation with a baccalaureate degree in nursing. RNs are adult learners returning to the classroom while juggling multiple roles. As a result retention and graduation rates are affected as RNs struggle to balance work, home, and school. Barriers affecting retention will be addressed as well as potential strategies that may be implemented to improve retention and graduation rates.

Application of the Nursing Undergraduate Retention and Success (NURS) conceptual model will assist in gaining insight with the goal of developing prescriptive strategies that can be applied and may impact retention (Jeffreys, 2005). The NURS model will be applied to RNs who are returning to school to complete baccalaureate education.

Nursing Education

Knowledge of the past can help in understanding how nursing evolved to the profession it is today. History can help us understand why the profession is the way it is and suggest what can be done to promote an educated, articulate, and professional nurse.

During the late 1800s and early 1900s there were few opportunities for women who desired a profession outside the home. Women were oppressed and dominated by men (Barritt, 1973). Despite societal and educational barriers a powerful woman emerged. Her contributions had a greater influence on the care of the sick and nursing education than any other individual. This woman was Florence Nightingale, the founder of modern nursing (Barritt, 1973).

> Nightingale was a strong-willed, intelligent woman who used her considerable knowledge of statistics, sanitation, logistics, administration, nutrition, and public health not only to develop a new system of nursing education and health, but also to improve the social welfare systems of the time. (Joel, 2006, p. 12)

In 1860, Nightingale founded the first school of nursing at St. Thomas Hospital in London. The school combined theory and practice. Nightingale was adamant that a nurse should be in charge of nursing, and not physicians (Joel, 2006). She emphasized that nurses need to acquire an understanding of the science and art of the human body. Her philosophy continued to permeate undergraduate education from its original, hospital-

based training programs to its current degree-granting educational programs (Billings & Halstead, 2005).

The education of early nurses occurred in hospitals. These programs were considered diploma programs and after three years students graduated and were awarded a diploma. Admission into the program required students to be female, white, single, hard-working, and plain looking (Garey & Hott, 1988).

The first American school to provide education to women who desired to become a nurse began in 1872, at the New England Hospital for Women and Children. In 1873, three schools were established with the overall purpose to improve conditions in hospitals (Joel, 2006). By 1880, there were 15; by 1900, 432; by 1909 there were 1,105 hospital-based diploma programs available for students desiring to be nurses (Joel, 2006). Hospitals with as few as 20 beds opened schools and nursing students provided free labor. Students were under the control of the hospital and worked 12 to 15 hours a day providing complete patient care 24 hours a day (Joel, 2006). Long days and terrible working conditions resulted in attrition rates as high as 75% (Barritt, 1973). Most schools were under the control of hospitals, and the needs of the hospital took priority over those of the school (Barritt, 1973; Joel, 2006).

The population in the United States continued to grow as did those who were sick and in need of healthcare. To protect the health and safety of the public, the International Council of Nurses was formed in 1901. The Council was integral in establishing credentialing requirements through state board licensure exam (Joel, 2006). The purpose of the licensure exam was to ensure the health and safety of the public. The exam was to be given after students completed course and clinical requirements. A resolution was

passed that emphasized “it is the duty of the nursing profession for suitable legislative enactment regulating the education of nurses to protect the interest of the public, by securing state examinations” (Joel, 2006, p. 39). Sadly, considerable opposition to nurse licensure exams came from untrained nurses, managers, proprietors of poor nurse training programs, as well as physicians. At this time all nurse licensure laws were permissive, not mandatory. That is, only the registered nurse title was protected. Untrained nurses could continue to practice as long as they did not call themselves RNs (Joel, 2006).

The need for educated nurses continued to gain acceptance. The first baccalaureate nursing program was established in 1909, at the University of Minnesota, Minneapolis (Joel, 2006). Since then, programs have become an increasingly important part of nursing education and have grown steadily. In 1924, the Yale School of Nursing was opened as the first autonomous collegiate program in nursing. The school was funded by the Rockefeller Foundation and was a five-year program that correlated nursing theory with practical experience while emphasizing preventive health care (Lambert & Lambert, 2005). In the early 1920s the number of college-based nursing programs slowly began to grow in prestigious universities that included Case Western Reserve University, The University of Chicago, and Vanderbilt University (Lambert & Lambert, 2005).

Nursing education continued to progress, though opposition for nurses with an earned college degree was strong. Physicians argued that nurses in collegiate programs were being over-trained and education too costly (Joel, 2005). “They felt that intelligence and sound knowledge of theory were unnecessary for the student nurse and might handicap her as a prospective practicing nurse” (Lambert & Lambert, 2005, p. 32). Unfortunately, many nurses supported some of these beliefs by indicating that the “old-fashioned”

training of nurses had been simple, rigorous, and sufficient to provide basic care (Lambert & Lambert, 2005).

Changes in Nursing Education

Through the years nursing education has prevailed while experiencing vast changes. In the years after World War II, the quality of nursing education in diploma schools was criticized. Inadequately prepared teachers, major dependence on students to provide patient care, and attrition rates were affecting enrollment (Lambert & Lambert, 2005). Ultimately, the lack of nurses meant a nursing shortage which affected the healthcare of society (Joel, 2006).

In an effort to temporarily fix the nursing shortage, the Associate Degree (ADN) program was developed and began admitting students, in 1952. Associate Degree programs flourished due to availability of new types of students (Joel, 2006). The older, non-traditional student who had limited economic resources could complete the program in two years. The graduate had to pass the state licensure exam to begin practicing as an RN. The ADN nurse was to provide bedside nursing care and was not to have administrative responsibilities (Joel, 2006). Fifty six years later, ADN programs prepare more nurses for RN licensure than any other educational program. Approximately 55% of RNs have earned an ADN (AACN, 2005; Gosnell, 2002; Joel, 2006).

Entry options.

Multiple entry options have led to confusion within the public and healthcare regarding, “What is a nurse?” Regardless of the educational level, all graduates are required to successfully pass the same state licensure exam and begin earning the same salary. There have been several attempts to require the minimum education for

professional nursing to be at the baccalaureate level. Nurses who have earned an ADN or Diploma would be considered technical providing the majority of bedside care (Nelson, 2002). The BSN graduate would have management and leadership responsibilities and could choose employment opportunities in alternative healthcare settings.

For nursing, entry into practice has been debated with little progress towards resolution. In 1965, the American Nurses Association (ANA) published a position statement regarding entry into practice. The position emphasized education for those who work in nursing should take place in institutions of higher learning and these nurses would be identified as professional nurses. Technical or bedside nurses, would include nurses educated at the AD level, and nurse assistants, would be educated in vocational settings (Gosnell, 2002).

This statement has aroused debate and controversy without resolution among RNs, physicians, hospitals, and general public. Donley and Flaherty (2002) identify parallel circumstances of 1965 to those of today that include workplace issues, nursing shortage, and lack of professional autonomy. "Overall, entry into practice has been one of the most contentious issues in all of nursing" (Gosnell, 2002, p. 2). Today's nurses are the least educated of all health professionals (Delaney & Piscopo, 2004; Reilly, 2004). In contrast, other health professionals such as physical therapists, pharmacists, social workers, and speech therapists require entry into practice at the graduate level (Gosnell, 2002). Under-educated RNs rarely sit at policy tables or are invited to participate as members of governing boards (Donley & Flaherty, 2002). Nursings lack of physical presence during policy development which has a dramatic affect on healthcare and public health due to the vital component of under represented patient advocate. The demand for nurses

educated with a BSN is important to provide quality healthcare, create healthcare policy change, and serve as a role models to other healthcare providers.

BSN Nurses

The constantly changing health care system creates a demand for Registered Nurses (RN) who possesses leadership, management, and critical thinking skills. To broaden their scope of practice and employment opportunities, a large number of Registered Nurses (RN) are returning to school to complete the Bachelor of Science in Nursing (BSN). From 2002 to 2003, enrollment in RN to BSN programs increased 8.1% (Joel, 2006). According to The American Association of Colleges of Nursing (AACN) there are currently 629 RN-to BSN programs that build on the education provided in diploma and associate degree programs. Currently, 61% of RNs have an earned associate degree or diploma while BSN prepared nurses comprise 39% of nurses currently in practice (AACN, 2006).

Nurse leaders agree that higher levels of education are needed for nurses to be on the forefront of the rapidly changing healthcare system (Delaney & Piscopo, 2004). Recent research supports that hospitals with higher proportions of nurses educated at least at the BSN level have lower surgical mortality, decrease infection rates and fewer medication errors (Aiken, Clarke, Cheung, Sloan, & Siber, 2002). Research further supports that nurses who have higher education tend to report higher job satisfaction rates with the reciprocal effect of increased retention rates at the institutions the RNs practice (Spratley, Johnson, Sochaliski, Fritz, & Spencer, 2000). The National Council on Nurse Education and Practice (2001), an advisory board to the federal Division of Nursing, has

recommended by 2010 at least two thirds of all registered nurses should possess a baccalaureate or higher degree.

RNs are recognizing the expanded opportunities and are returning to school in increasing numbers to earn the BSN (AACN, 2005, 2003; Joel, 2002). For healthcare institutions, support of the need for more baccalaureate prepared nurses is twofold. One, more BSN prepared nurses will improve healthcare outcomes of patients and second, retention of seasoned, qualified nurses are more likely to remain at their respective healthcare institutions.

The history of nursing and the challenges the profession has endured are prolific. Changes in the delivery of healthcare, education of nurses, and the practice of nursing have a long term effect on the health and future of the nation. The challenge is providing educational opportunities that support RNs who have an earned ADN or Diploma to continue their educational journey. Advances in technology provide alternative learning options that can assist RNs obtain their goal of earning the BSN, while working and balancing family responsibilities. These instructional learning options provide education at a distance for non-traditional students who would not have the opportunity to attend a traditional college campus.

Distance Education

Distance education is essentially educational instruction when faculty and students are separated by geographical distance and communication requires specialized technology (Moore & Kearsley, 1996). Distance education is as old as correspondence courses, but has taken on new meaning with the consumer outcry for easy access to education and expanding technological advances (Moore & Kearsley, 1996). Distance

education involves both synchronous and asynchronous technology. Synchronous infers students and instructor to be together at the same time. An example would be interactive television. Asynchronous allows scheduling of course responsibilities to occur at the time and convenience of the student (Simonson et al., 2006). An example of asynchronous technology would be Web-based instruction. Many colleges of nursing offer complete degree programs using combination of distance techniques and modalities. Examples of distance education used in this research include ITV and Web-based instruction.

Initially, the distance experience may be awkward and strange for students. However, there are several advantages to distance education and those include smaller, more specialized courses and convenience. No difference has been found in student achievement when compared with traditional classroom experience (AACN, 2000; Joel, 2006).

Instructional Delivery Methods

The aging student population and increase support for nurses to attain the BSN has prompted academic institutions to develop distance education programs using technology to increase access to education. A variety of delivery methods that emphasize convenience and flexibility for the working adult are gaining popularity (Shelton, 2003; Simonson et al., 2005). The instructional delivery methods available for RNs to attain their educational goals are varied. Some may choose a traditional classroom, while others may choose Interactive Video (ITV) or Web-based instruction. For the purpose of this paper the focus of instructional delivery methods will include traditional, Interactive Video (ITV), and Web-based classroom.

Traditional Classroom

The traditional classroom exists inside a physical structure where desks or tables are used and learners are the recipients of the teaching learning environment. The instructor and learner(s) are face-to-face during the learning process. Class meets at regularly scheduled times and typically the teacher is the expert sharing his/her knowledge. Large class sizes can be easily accommodated in lecture halls. Exams, particularly in associate degree nursing programs are administered to evaluate acquisition of content/knowledge (Simonson et al., 2005).

Teaching method. A variety of methods may be used to facilitate the teaching-learning process in a traditional classroom environment. The lecture method is common when cognitive recall or knowledge is the objective (Farrah, 2004). A lecture is a carefully prepared oral presentation on a particular subject by a highly qualified person (Bergevin, Morris, & Smith, 1963). The lecture is considered economical in time and energy and can be delivered to large groups of people (Farrah, 2004). Face-to-face contact between students and instructor and the opportunity to observe verbal/ non-verbal cues are considered advantages of the lecture method (Farrah, 2004). Synchronous learning is used and students may ask questions as the content is being presented. A disadvantage to the lecture method is decreased student involvement in learning. Content is given to students while processing or critical thinking is not encouraged (Brigham & Rowles, 2005). The literature refers to this type of learning as passive, when students use their senses to take in information for recall at a later time (Billings & Halstead, 2005; Simonson et al., 2006). With passive learning, students report less anxiety and feel secure

in their belief that listening to a lecture and taking notes will provide them with most of the information they need to be successful in the course (Billings & Halstead, 2005).

Another frequently used teaching method implemented in the traditional classroom is discussion. Brookfield (1986) describes this method as both inclusive and participatory. He further describes this method as "suited toward achieving particular cognitive and affective ends, particularly those of problem solving, concept exploration, and attitude change" (p. 210). A second reason frequently cited for using discussion is that it encourages active, participatory learning and is more likely to achieve higher cognitive processes such as critical thinking (Bevis, 1989; Brookfield, 1986). Active learning engages students in learning which also promotes retention (Bevis, 1989). The overarching purpose of discussion is to help learners to think and evolve into critical thinkers.

Advantages and disadvantages. The primary advantage to the traditional learning environment is the instructor and student physically share the same classroom environment. Questions can be easily addressed. It is considered cost effective, because large groups of students can be in the same class. A variety of teaching methods can be utilized to promote learning. The traditional classroom is the delivery model the majority of students have had experience with prior learning experiences (Billings & Halstead, 2006).

Non-traditional, Adult students may not be geographically connected to a university campus. Due to adult responsibilities students may not be able to commit to a specific time and place on a weekly basis. Large class size may intimidate or decrease interaction in class discussion. In a large classroom, students may feel disconnected, abandoned, or

lost. Passive learning versus active learning may be the expectation (Simonson et al., 2006). Individual learning styles can not be accommodated in the larger class room.

The traditional classroom is one instructional delivery option available to RNs who have returned to school to complete baccalaureate education. This instructional delivery option is designed for the student who can attend a university campus, at a scheduled time and place to complete course requirements or chooses this delivery method to learn.

ITV Classroom

Adult students may not be able to commit to the traditional classroom at a university. Thus, another instructional delivery option available for them is ITV. In 1934, Iowa State University implemented the first broad use of television as a means of providing audio-visual courses or the first ITV classroom (Moore & Kearsley, 1996). The ITV classroom closely resembles the traditional classroom in that learning occurs synchronously at a scheduled place and time. The first ITV classrooms provided audio without any visual connection. Though this method did provide another instructional learning option for students, the major disadvantage was with those who had questions not covered during class (Simonson et al., 2006). Students attending class at the distant site were left without any realistic means of obtaining answers to questions (Moore & Kearsley, 1996).

Today with technological advances a modern synchronous classroom includes support for streaming video and audio. Through two-way video and two-way audio technology the instructor and learner see and hear each other in real time. There is physical separation of the learner and instructor; however groups of students, or cohorts, can share the same physical space (Fetzer, 2000). Students may ask questions as the content is presented or at the end of class. ITV requires a classroom that is equipped with the

technology needed for recording and displaying video and listening to sound from a distant site (Simonson et al., 2006). Video classrooms need recording equipment that includes video cameras that show the instructor and another camera at the distant site that displays students. Audio may be handled with push-to-talk microphones carefully placed throughout the classroom (Simonson et al., 2006).

The ITV classroom provides a high degree of socialization, cohort development, and closely resembles the traditional classroom. Both instructor and students can receive feedback in the form of body language, facial expressions, and questions (Witte & Witte, 2004). Questions can be asked and answered in a public forum. As in any educational setting, making connection between instructor and student is paramount in the ITV classroom. The instructor needs to create an atmosphere of respect and connection between students that will foster student involvement (Fetzer, 2000).

A crucial point is to not become so captivated by technology that the connection to the student is lost (Simonson et al., 2006). The instructor may need to create learning activities that promote students connecting to each other at distant sites. A phenomenological study conducted by MacIntosh (2001) further supports the significance of connecting with students at all sites. The focus of the study was to gain understanding of the influences ITV has on learning experiences of working RNs. This study identified several factors that influenced students' learning through ITV. The themes that evolved included how students connect with each other, faculty and technology. Another theme was the importance for specific and concise directions for written assignments. The importance of technology to be fully functioning to allow the best use of student time was another recurring theme. Faculty and students may not be

familiar with ITV technology. Direction on speaking slowly, enunciating consonants, speaking directly into the microphone or muting the microphone can be valuable information that should be openly shared during the initial class meeting and will affect the success or failure of the learning environment (MacIntosh, 2001).

For RNs participating in an ITV classroom the learning environment may be different. Prior nursing education in both ADN and diploma programs focused on content, memorization, and testing. Instructors were considered experts and were in charge of the classroom (MacIntosh, 2001). Examinations were administered that covered massive amounts of reading and lecture materials. Demonstration of particular skills occurred in a structured laboratory setting. The physical, hands-on care with real living people, or patients, occurred in hospital settings where the instructor questioned and followed every student completing physical assessments, procedures, or medication administration. For professional RNs who have passed the licensure exam and are typically working, completing baccalaureate education is a new and different learning experience.

Students do not learn from technology. "They learn from the instructor, each other, and from the experience of preparation and participation" (Witte & Witte, 2004, p. 260). Learning is a shared experience and technology alone is unable to ensure a meaningful learning experience. Both students and instructors share responsibility for the teaching/learning process.

Teaching method. Preparing for ITV instruction is different from the traditional classroom. The ITV instructor requires a greater degree of advanced preparation and integration (Fetzer, 2000; MacIntosh, 2001). Engaging students is essential and requires

an instructor to create different learning experiences. The lecture method may be used, however, utilizing a variety of methods may be more affective. For example, class discussions or cooperative learning will promote higher levels of learning (Billings & Halstead, 2005; Fetzer, 2000). Cooperative learning occurs when students work in groups on a particular assignment and the group assumes responsibility for group learning outcomes. Advantages to this teaching method are that it promotes active learning, encourages teamwork, provides opportunity for students to become accountable for their own and others' work and fosters group dynamics (Billings & Halstead, 2005). Disadvantages include the possibility that all students may not equally participate, particularly if students are not accustomed to group work. Discussion of potential consequences for not participating need to be addressed by the instructor during the initial class meeting (Billings & Halstead, 2005).

Advantages and disadvantages. There are advantages to the ITV classroom. Students living in rural or isolated areas that do not have access to a university campus or would be required to travel long distances have the chance to complete their education. RNs have the opportunity to complete the BSN and develop new collegial relationships. A smaller class size is conducive in establishing collaborative relationships that can be facilitated between students at distance sites (Kreideweis, 2005).The cohort group can serve as a support system providing individual encouragement to complete specific assignments and ultimately the program. Questions can be asked and visually interpreted in the form of body language or facial expressions (Simonson et al., 2006).

There are also disadvantages to the ITV classroom. Costs for ITV technology is expensive (Moore & Kearsley, 1996; Simonson et al., 2006). Technical staff are

necessary at each site to support the technology piece of the class. This means if there are three sites, three additional staff will be needed in addition to the instructor. In an effort for the instructor to connect with students it is recommended the instructor rotate to every distant site at least once during the semester (Fetzer, 2000).

When working with technology there is always the possibility of technical failure. The instructor needs to have a contingency plan in case of technical failures. Contingency plans need to be discussed with students during the first class meeting to avoid confusion and anxiety (Chandler & Hanrahan, 2000). Fetzer (2000) encourages that the first class meeting to focus on orientation to the equipment. Ensuring students have telephone or computer access to the instructor during and after class is critical in decreasing student anxiety (MacIntosh, 2001).

Some students may not be comfortable being on camera or communicating through a microphone (Simonson et al., 2006). This is supported in the research of Hansen and Irvin (1996) who reported students in their ITV class complained of feeling disconnected from faculty and intimidated by the technology. Something as simple as learning student names and addressing them by name can have profound effects on the learning environment while fostering student connection to distant sites (Chandler & Hanrahan, 2000; Fetzer, 2000; Witte & Witte, 2004).

ITV provides an alternative for working adult students who can commit to a specific time and place, but are unable to travel to a university campus. This instructional delivery method makes it possible to complete coursework that is convenient to work and family schedule. Access to ITV technology may afford the student an opportunity to complete baccalaureate education.

Web-based Classroom

Using the Internet or Web-based courses may be another instructional delivery method used to provide nursing courses at a distance. Armstrong and Frueh (2003) contend that the computer has become a major influence in distance education by providing an interactive technology that allows learners to participate at any time or from any place. Ninety percent of public universities offer Web-based courses and about half offer degree programs through the Internet (Whitis, 2001). About 85% of public universities believe Web-based programs are critical to their long-term academic strategies, while 50% of private universities have the same belief (Simonson, et al., 2006). AACN reports that of the 629 BSN-C programs, 320 provide Web-based instruction as an option for the RN to complete baccalaureate education (2005).

The Web-based classroom provides an alternative delivery methodology for students desiring flexibility and convenience. From an andragogical perspective, Web-based instruction promotes students' control over the pace of their instruction through asynchronous learning (Armstrong & Frueh, 2003). For example, students can arrange their course work around their life responsibilities. In addition, students that reside in multiple time zones are equally advantaged. Flexibility with asynchronous learning has been identified as the key advantage to the student who does not have the ability to access ITV or attend a traditional classroom. The RN can access the course any time and anywhere from any computer (Reiners, 2005). The meeting space is virtual, not physical, which allows students to access, complete, and submit coursework anytime from any place.

Teaching Method. A variety of teaching methods can be used effectively in the Web-based classroom. The challenge faced by the instructor is designing, developing, implementing, and managing learning experiences that can be applied to the technology of Web-based instruction. Regardless of the teaching method implemented, collaborative learning, responsibilities for learning, and learning opportunities need to be incorporated into the course design (White & Bridwell, 2004).

Small group project collaboration is an effective teaching method and should be considered in a Web-based classroom. This method encourages learner-to-learner interaction. While interaction with other learners happens naturally in traditional and ITV environments it must be facilitated when learners are separated by time, distance, or both (White & Bridwell, 2004). Advantages using this method include active student learning, peer sharing, dialogue and teamwork between group members and the larger class. Active learning promotes application and synthesis of material presented (Billings & Halstead, 2005; Udod & Care, 2002). A disadvantage to small group projects is for students who have not worked in groups or have had negative experiences. They may choose to not participate equally. This would result in fewer students contributing and completing the group project assignment (Billings & Halstead, 2005).

Using case studies may be another teaching method that can be integrated into a Web-based course. Case studies simulate the real world and may be fictitious or real live situations (Marsick, 2004). An advantage to using case studies is they can stimulate critical thinking, retention and recall while applying practical and theoretical concepts. Problem solving, peer interaction, support for prior experience and validation of thinking are beneficial to experienced RNs who bring years of work experience to the classroom

(Billings & Halstead, 2005). This teaching method can facilitate student connectedness by encouraging them to share professional, real-life experiences.

A disadvantage for using case study as a teaching method is developing or finding cases that focus on specific course objectives can be time consuming. The instructor must use appropriate questioning skills that promote higher levels of learning. Students who desire content be given to them versus taking an active role in their learning may resist the case study method and choose to not fully participate (Billings & Halstead, 2005).

Advantages and disadvantages. Flexibility and convenience have been identified as key advantages to Web-based instruction for both instructor and students. The ability to access courses from locations that are geographically distant, in different time zones, or continents provide advantages and increase the likelihood RNs will complete baccalaureate education (Kreideweis, 2005). Exchanging and sharing evidence-based protocols used in Asia, South Africa, or Iraq creates active learning and dialogue that would not have occurred in a traditional classroom environment. Educational institutions benefit by decreasing the cost of course delivery, increasing student access, and extending educational offerings beyond boundaries of the university campus (Speziale-Streubert, & Jacobson, 2005).

Lack of access to required technology or technological failure is considered a disadvantage of Web-based instruction. Students may not have mastered proficient computer skills that place them at a disadvantage. Lack of timely faculty response has been identified as a major student disadvantage (Fraser, 1999; Kearns, Shoaf, & Summey, 2004; Leasure, Davis, & Thievon, 2000). For institutions and students using distance education there is the higher drop out rate when compared to the traditional

classroom (Billings & Halstead, 2005; Frankola, 2001; Jeffreys, 2007; Kreideweis, 2005; Shelton, 2003).

Armstrong and Frueh (2003) assert that the computer has become a major influence in distance education by providing interactive technology that allows learners to participate at any time from any place. Web-based instruction provides innovative and interactive means to bridge time and place while providing RNs opportunities to complete baccalaureate education. Working RNs have another delivery option to meet their learning needs while juggling multiple responsibilities.

Research on student achievement using ITV or Web-based instruction has not been found to negatively affect student achievement when compared with the traditional classroom (Chandler & Hanrahan, 2000; Joel, 2006). Russell (1998) collected data from 248 studies that utilized some form of distance education and found there was no significant difference in learning outcomes of students taught in the traditional classroom environment versus distance educational methods.

Technology provides many opportunities for students. RNs need to consider traditional classroom, ITV, and Web-based instruction to determine which delivery option meets their academic, professional, work, and family responsibilities. Each delivery option has advantages and disadvantages that need to be considered prior to enrolling in a BSN-C program. ITV and Web-based instruction do have higher attrition or dropout rates and are more suited for disciplined, motivated, and self-directed students (Frankola, 2001; Jeffreys, 2007; Kreideweis, 2005).

Attrition

Attrition is a term frequently linked with retention and is the "diminution in numbers of students resulting from lower student retention" (NCES, p. 6). Attrition, or the incidence for students to drop out of a course, is a concern for educators, students and administrators because it translates to both student and program failure (Boyd, 2004; Tracy-Mumford, 1994). In a study conducted with 15 graduate business courses at Texas A & M University, it was found that while more students enrolled in distant education courses, those courses lost more students to attrition. Researchers concluded that while distant education courses have "great promise for the delivery of education to previously untapped student groups, the attrition problem was a concern" (Boyd, 2004, p. 31). Academic institutions may be able to decrease attrition if they had insight on factors that promote success and ultimate graduation.

Boyd (2004) cited four factors that need to be considered when evaluating distance education:

> First, there are the technical factors, which pertain to the students' access to the technology. Second, there are the environmental factors, which have to do with the student's personal learning environment. Third, there are personal factors, which have to with the character traits of students themselves. Finally, there are various learning characteristics, which successful students tend to exhibit and possess. (p. 33)

In an attempt to ensure student completion, some schools have adopted a self-assessment tool for students to complete prior to registering for any distant education course (Boyd, 2004; Henke & Russum, 2000).

The combination of technology and an increase in non-traditional students has resulted in the demand for alternative delivery methods. Traditional, ITV, and Web-based instruction are options available to RNs who desire to pursue the BSN. Despite the interest and support for alternative delivery methods there is a higher dropout rate for RNs enrolled in ITV and Web-based programs than traditional nursing students enrolled in the traditional classroom (Kreideweis, 2005).

Frankola (2001) postulates that adult learners drop out of distant education courses due to lack of time, lack of management, oversight, lack of motivation, problems with technology, lack of student support, individual learning preferences, poorly designed course, and inexperienced faculty. The learner needs to be independently motivated to complete the required assignments and course objectives. Distant education courses are not for every learner, not for every faculty, and may not be the best academic option for every student. Engaging students who are self-disciplined and motivated, possess technological skills, as well as institutional support, and faculty who engage students in their learning are more likely to persist and graduate (Jeffreys, 2005).

Creating Student Connections

One way faculty can affect attrition rates while encouraging learners to continue through graduation is to develop strategies that create learner connections both in and outside of the classroom environment. Connecting with students is integral to student satisfaction, success, and course completion (Simonson et al, 2006). Meaningful interactions between learners and faculty are essential for positive learning experiences (Kuh, Kinzie, Schuh, & Whitt, 2005). Some examples of types of contact may include discussing ideas from readings outside of the classroom environment, providing prompt

feedback from faculty on academic performance or answering questions using technology that is available, inviting students to become members on college advisory boards or other college related committees (Kuhn et al., 2005). Whether the contact occurred within the structured classroom or outside of class, the importance of contact between faculty and learner is significant. Tutoring or study sessions may be used to enhance the connection between faculty and learner. Brainstorming sessions with faculty who are passionate about alternative instructional delivery methods may need to be encouraged for learners enrolled in distance education programs.

The value of creating connections is supported in the literature. Palloff & Pratt (1999) identified six elements that are key to promoting interaction which will create connection. These elements include honesty, responsiveness, respect, openness, and empowerment.

Cangelosi (2006) conducted a hermeneutic phenomenological inquiry concerning the connecting relationship between faculty and students in a BSN-C program. The findings from her study demonstrated how vital RN-to-BSN faculty were in creating an educational context that guided their students toward accomplishments and possibilities the students had never imagined possible. Perhaps if faculty focused on the context, as well as the content, of learning, more RNs would be enticed to return to school and continue through graduation. Cangelosi (2006) advocated for faculty to incorporate innovative and caring teaching strategies and develop curricula that are not boring or repetitious. Magolda (2002) described the caring context best when she stated "that to be effective teachers and mentors teachers must be good company to their students. By guiding, and not micro-managing, students in more complex intellectual pursuits while supporting them as they experience deeper learning" (p. 17).

Students expect and find it important to have interaction and feedback with the course instructor (Berge & Huang, 2004; Carr, 2000; Herbert, 2006; Kerka, 1989; Parker, 2000). Prompt and frequent feedback is important. As with any course, immediacy and feedback are critical to student success. The importance of prompt faculty feedback has been substantiated in research in Web-based courses as impacting student satisfaction particularly when separated by time and space (Berge & Huang, 2004; Carr, 2000; Herbert, 2006; Kerka, 1989; Parker, 2000). A satisfied student is more likely to continue with the program of study and graduate. The research supports that designing teaching methods that promote student connections with fellow students and the instructor will increase student satisfaction and ultimately course completion.

Web-based courses are a new instructional delivery method that students may have not experienced in their previous learning. Technology does not provide the same non-verbal cues students have experienced in the traditional classroom. Research has supported a correlation between instructional or verbal immediacy with student satisfaction and learning in Web-based courses (Herbert, 2006; Kemp, 2002; Kerka, 1989; Parker 2000). Gorham (1988) describes verbal immediacy to include verbal interaction that increased psychological closeness between faculty and students. Examples may include humor, frequent use of student name, encouragement of discussion and following up on student initiated comments and sharing personal examples. Nonverbal immediacy includes smiling, eye-to-eye contact, vocal expressiveness and body language (Gorham, 1988). Web-based courses do not provide the opportunity for students to visualize instructor or students facial expressions or body language. Therefore, instructors need to be able to express themselves using words or

expressions to promote expressive connection to students (Kreideweis, 2005). Students who are taking Web-based courses need to feel comfortable communicating and expressing themselves through the computer.

Regardless of the instructional delivery method used, connecting and effectively communicating with learners are integral to the success of a course and program. Instructors need to be actively involved in the process of designing instructional methods that promote and foster connections between students and faculty. This will improve the learning experiences for all those involved in the teaching-learning process which will ultimately impact satisfaction, promote graduation, and create adult learners with the desire for lifelong learning.

Today, learners have choices to the instructional delivery method that will best meet their unique academic needs and busy personal lifestyle. The current review of the literature was unable to identify any research that compared the three instructional delivery methods to determine if one delivery methodology versus another has an impact on retention. Additional research needs to be done to determine if a relationship exists between instructional delivery method and impact on retention in RNs who are completing baccalaureate education.

Retention

Retention is one of the most common ways students, parents, and community partners evaluate the effectiveness of colleges. A positive reputation increases a university's ability to attract the best students and faculty. When a student withdraws or drops out of a program of study the university looses invested institutional resources and

additional resources are needed to recruit new students to the university (Texas Guaranteed Student Loan Corporation, 1999).

For the purpose of this study, retention is defined as the percentage of students who complete program requirements and graduate with a Bachelor's Degree. Jeffreys (2004) defines retention as continuous enrollment without withdrawal and eventual graduation. This is the objective of educational institutions, for students to complete the course of study and graduate.

The retention research also identifies the economic effect that non-completion has on society. Individuals who do not graduate with college degree are less likely to enter professional occupations (Tinto, 1993). From an economic point of view, higher education attainment leads to a decrease in poverty rates, higher personal per capita income, a higher state tax base, all of which yields a stronger economy (McMahon, 2000; Tinto, 1993).

Tinto (1975) defines "retention rates are related to the interaction between the students attending the college and the characteristics of the college" (p. 171). Tinto's research supports that retention rates are highest among traditional age, full-time students who live in residential housing on campus (1975, 1993). Bean's (1990) research reported similar findings. However, thirty years later, the student population has changed with adults representing 50% of higher education enrollments with many of these students choosing to complete coursework through distant education programs (Nash, 2005; NCES, 2005)

Over the last few decades, interest in retention has grown. Two recurring themes addressed in student retention literature are: 1) the importance of supporting students and

2) the ability of programs to facilitate student success (Bean, 1990; Jeffreys, 2005; Tinto, 1975; Tracy-Mumford, 1994). Retention rates have been examined to develop tools to promote retention with the ultimate objective of completing program requirements and graduation. Applying retention strategies can affect retention rates. Positive results occur when programs emphasized dropout prevention, seek early intervention and apply effective strategies (Tracy-Mumford, 1994).

Vincent Tinto was an academic pioneer who began researching potential reasons for traditional students' attrition rates. Tinto (1975) developed a model on student retention and withdrawal. His Integration Model focused on traditional college students attending a four-year institution. This model suggested that student retention is related to the student's ability to become involved in the institution. The model suggested that students who withdraw or drop out of college for whatever reasons have failed to successfully integrate either academically or socially into the college environment. A match or connection needs to take place between the student and the institution. He proposed that students who are more integrated into both academic and social systems are the more likely to persist and continue the educational journey making them more likely to graduate (Tinto, 1975).

As Tinto (1975) continued to study attrition and retention rates he recognized a relationship between student attributes and family background. "Many who leave college do not see themselves as failures but rather, see their time in post-secondary education as a positive process of self discovery that has resulted in individual social and intellectual maturation" (Tinto, 1975, p. 3). Tinto supported the impact these variables have on students' commitment to goals as well as their commitment to the educational institution.

Thus the development and implementation of programs such as freshman orientation or mentor programs are examples of institutional efforts to promote retention for the traditional student attending a university residential campus (Tinto, 1975; Trent, 1997).

Tinto (1993) later included another variable that would support student persistence and that was the frequency of contact with faculty. Essentially, the more contact the student has with the instructor the more likely the student will persist.

Subsequent research has supported Tinto's theory in explaining the behavior of traditional, college-age students attending a residential university campus (Tracy-Mumford, 1994). While other academic fields have questioned the validity of Tinto's model when applied to non-traditional learners (Bean, 1990; Bean & Metzner, 1985; Kemper, 1989). For example, the non-traditional student may not have the need to socially assimilate to the college environment. Other external factors such as ethnicity and race, language, professional integration and socialization may impact retention rates in the non-traditional student population. Typically non-traditional students are older, attend school part-time, and juggle a full-time job along with family responsibilities (Bean & Metzner, 1985; Kember, 1989; Rovai, 2003). This population has different academic and personal needs that potentially affects retention and graduation, therefore, additional research is needed.

The nursing literature has also reviewed student retention, though the major focus has been on students beginning nursing education (Jeffreys, 2002; 2004; 2005; Kelly, 1997; Shelton, 2003). The returning RN who returns to school to pursue a BSN faces many challenges including scheduling, family, work, financial concerns, and school responsibilities. The prescriptive retention strategies used to promote retention in the

traditional population does not meet the needs of the working, professional nurse. Additional research is needed to learn what, if any, prescriptive strategies may impact the non-traditional student with the measurable outcome of increasing retention and graduation rates.

The nursing profession must be ready to embrace the changing student population. Increasingly, the non-traditional student is replacing the traditional student (Jeffreys, 2004; Shelton, 2003). This is seen in RNs who are returning to school to complete the BSN. Unfortunately, the retention rates of non-traditional students ranges between 40-60%. (Nash, 2005). RNs are adult learners who balance multiple responsibilities which makes this population more likely to jump in and out of a nursing program as life challenges emerge (Jeffreys, 2007; Shelton, 2003).

Shelton (2003) addresses RNs multiple challenges for retention and her research focused on the importance faculty possess to support and increase student retention rates. The feeling that faculty cared and wanted students to succeed created an atmosphere more conducive to academic success and encouraged students to continue through graduation. Her research identifies the integral role nurse educators have to influence retention positively. "As active partners in the complex process of nursing student retention, nurse educators can design theoretically and empirically supported retention strategies targeting specific student population" (Jeffreys, 2004, p. 4).

Nurses are the least educated providers of healthcare. This reality must change. Developing innovative prescriptive strategies that are specific to RNs returning to school to complete baccalaureate education is integral for the future of healthcare. The RN population is more likely to jump in and out of courses while striving to maintain balance

in both professional and family environments. Providing RNs with various delivery opportunities does provide flexibility and convenience which may increase the likelihood of graduation. The optimum goal is for the RN to complete baccalaureate education, consider graduate education, and ultimately be a lifelong learner.

Nurse educators of today are challenged to look beyond daily teaching responsibilities, beyond tomorrow, and toward the future. Nursing student retention must be valued by nurse educators, nurse researchers, nurses in clinical agencies, undergraduate and graduate nursing students, college administrators, members of tenure and promotion committees, and legislatures because it impacts the future of healthcare (Jeffreys, 2004). As Jeffreys (2004) has stated:

> "As active partners in the complex process of nursing student retention, nurse educators can continually seek to understand the dynamic and multidimensional process of nursing student retention, develop empirically and conceptually supported retention strategies, and make a difference" (p. 280).

Persistence

Are persistence and retention synonymous terms? They are often used interchangeably but their meanings are different. The National Center for Education Statistics (NCES) defines these words differently. "Retention is an institutional measure and persistence as a student measure" (NCES, 2003, p. 6). As educators it is important to discern the relationship of individual factors and acknowledge these factors may interact with each other to increase or decrease persistence. All of which impacts retention.

Tinto (1975) defines persistence as a students continued education that leads to graduation. The word persistence implies the student has continued his/her education

while experiencing obstacles. For example, financial or personal issues may be viewed as obstacles the student has had to persist through to accomplish the goal of graduation. In fact, Tinto (1987) added that students who do not persist may not view themselves as failures but rather, see their time in college as a positive process of self-discovery that has resulted in individual social and intellectual maturation.

Bean and Metzner (1985) were the first to examine persistence in relation to the non-traditional student who attends school part-time and commuted to campus for class. Persistence is defined as student's continued education that leads to attainment of educational goals (Bean & Metzner, 1985). The goal may or may not be graduation. Their research added the variable of self-efficacy, or confidence in one's ability and the impact on persistence. Their model proposes three variables that influence student decisions about persistence. The first includes background and defining student characteristics on entering college. Characteristics would include student age, number credit hours enrolled, educational goals, high school performance, ethnicity and gender. High school performance and education goals were found to be the most influential (Bean & Metzner, 1985).

The second category investigated was academic performance. Students with good academic performance are predicted to remain in the program as compared to students with poor academic performance. Academic performance is defined by the cumulative grade point average and was found to correlate to high school performance. Additional variables that increased program retention include adequate study time, good study skills, good advising, high school attendance, and course availability (Bean & Metzner, 1985).

The third category believed to impact retention includes environmental variables. Environmental variables include finances, hours of employment, outside encouragement, family responsibilities and opportunity to transfer to another program. It was predicted that environmental variables have a direct effect on the decision to drop out or persist in academe. Their prediction was based on two assumptions related to the non-traditional student. Student interaction with the college environment is focused on academic programs. The second assumption focused on student's interaction to the external environment rather than the academic environment (Bean & Metzner, 1985).

Background, student characteristics, academic and environment interaction will result in a range of academic and psychological outcomes that can positively or negatively impact retention. Bean and Metzner's (1985) study identified that the three variables interact and influence each other. For example, environmental variables and academic support influence one another while environmental support is believed to compensate for weak academic support; the converse is not held true: academic support is not thought to compensate for weak environmental support.

Bean's (1990) interest in student persistence continued and he developed a model that supports Tinto's initial findings which acknowledges that students who dropout might have achieved their learning goals or objectives during their limited college experience. Bean further postulates when evaluating student retention one should consider student educational goals. It is only when students leave college before achieving their goals that they should be labeled a dropout. Based upon these findings, a dropout may return to academe anytime as a full-time or part-time student, to the same or different institution, remain in the same major or switch to another (Bean, 1990).

Additional research identified the relationship exists between students and their parents' educational accomplishments. It was acknowledged that familial attributes and parental educational achievement had greater influence on student persistence than faculty or peer interactions (Bean & Metzner, 1985). For example, students whose families had attended college were identified to be more likely to persist.

Student Personal Characteristic

Student success and personal characteristics may affect their ability to persist through graduation. Powell et al., (1990) explored the predictive capability of students' predisposing characteristics in regard to their chances of successfully completing their first distant education course. The first consists of characteristics students bring to the educational process at the time they begin their secondary education. These are described as educational preparation, socioeconomic and demographic status, and motivational and perseverance attributes. These characteristics are either "fixed or slowly changing throughout the duration of a student's involvement with a distance education institution and, as such, exert a relatively constant influence on students' chances of success" (Powell et al., 1990, p. 3).

The second category consists of changes in life circumstances that disrupt or may alter the goals, expectations, and commitment with which students begin their distance education studies. Examples may include personal illness, family problems, unplanned pregnancy, relocation, employment changes or any life circumstance that can occur unexpectedly (Powell et al., 1990).

The third category studied by Powell et al., (1990) addresses institutional or educational issues that may occur while the student is enrolled in a particular course.

These would include quality and difficulty of instructional materials, access to and quality of tutorial support, administrative and other support services provided by the institution. These may be difficult to ascertain for students who do not have access to a university campus. Powell et al., (1990) research supported that multiple factors need to be considered when analyzing success and persistence in distance education programs.

Student Satisfaction and Retention

Student satisfaction and course evaluations are another measure that may affect retention rates. Swan (2001) examined the impact instructional factors have on student satisfaction and perceived learning for students enrolled in Web-based courses. She found design clarity, interaction with instructor, and active discussion with peers significantly influenced student satisfaction and perceived learning of the course material. Her research focused on three types of presence. "Cognitive Presence" occurs through frequent interaction with the material. "Teaching Presence" happens through frequent and effective interaction with the teacher, while "Social Presence" occurs through frequent and effective interaction with other students (Swan, 2001). Swan found:

> cognitive presence positively correlated with student satisfaction and (perceived) learning when classes were kept small (11-20), student contact with instructor and/or other students was required on a consistent basis, content was easy to access and consistent design features were used among lessons. (p. 35)

Perhaps the most compelling result was how students' perception of increased interaction with the instructor occurred, regardless if they had direct contact with the instructor (Swan, 2001).

Herbert (2006) developed a tool to address the variables significant for retention specifically in Web-based courses. The tool was sent to every student enrolled in a Web-based course at a Midwestern state university. In total, 25.1% were returned. Students were asked if they had successfully completed a Web-based course during the fall of 2005. Ninety-one students (74.6%) reported that they had successfully completed a Web-based course. Thirty-one students (25.4%) reported they did not complete a Web-based course. The institutional survey questions related to the importance and satisfaction levels of the following variables:

- Faculty responsiveness to student needs
- Quality of online instruction
- Faculty feedback to students in a timely manner
- Institutional response to questions in a timely manner
- The frequency of student and instructor interaction
- The availability of adequate financial aid
- The importance of student-to-student collaborations. (Herbert, 2006, p. 4)

Based upon Herbert's (2006) research, the most important institutional variable selected by students was faculty being responsive to student needs with a mean score of 6.62 on a scale of 0 (not important at all) to 7 (very important). The least important institutional variable was the importance of student-to-student collaborations with a mean value of 4.92.

At the conclusion of the survey, the final question asked whether the online course experience had met the student's expectations. The mean value reported by the completers was 4.64 as opposed to 4.06 for those who did not complete the online course

(Herbert, 2006). "A *t* test run on this variable showed a statistically significant difference in mean scores between the completers and non-completers. Those students who did not complete their online course had a significantly lower level of expectations met by their course experience. With a decrease in meeting course expectations comes a corresponding decrease in engagement and motivation necessary to complete an online course" (Herbert, 2006, p. 4). This research supports the value of student expectations when developing and implementing any distant education program.

Many BSN programs offer distance education programs and administration and faculty need to be aware of the specific constraints students may experience. Being aware and providing students with the mechanisms to achieve success will benefit administration and faculty, but most of all RN student graduation outcomes.

Predictors of Student Retention

The existing research and literature support that there are predictors that can be applied to student retention (Berge & Huag, 2004; Hutchings, 2003; Knowlton, 2000; Rovai, 2003; Swan, 2001). The predictors, or variables, cited as being important to student retention include: student characteristics, gender, academic performance, environment, integration into college, educational goals, and contact with faculty (Bean & Metzner, 1985; Herbert, 2006; Knowlton, 2000; Swan, 2001; Tinto, 1975, 1987). Each variable can affect students' ability to achieve success, complete program requirements, and graduate.

Barriers Affecting Retention

Potential barriers may exist that prohibit RNs from graduating and completing baccalaureate education. By acknowledging potential barriers to learning, university

administration and faculty can develop strategies that will assist the learner to achieve academic success and graduation with a baccalaureate degree. For example, the student who is independent, motivated, and self-directed is more likely to complete and succeed in a distant education program. The student's age, prior education, time management skills, and stressors may affect their ability to complete program requirements and graduate.

Age

The chronological age of the student can affect retention. A greater number of students over the age of 25 are entering higher education (Jeffreys, 2004; Joel, 2006; Mancuso, 2001). Nursing students over 25 have increased over the last decade with projected increases to continue in the future (Jeffreys, 2003, 2004). Working RNs are typically over 30 years of age with growing family responsibilities (Clark, 2004). A study conducted by Rekkedal (1983) found students over the age of 50 appear to have higher course completion rates. Bean and Metzner (1985) supported that the older student is more likely to graduate than the younger, traditional age student. This makes sense in that older students may have greater coping and time management skills.

Findings concerning age as a variable in determining persistence and retention have been inconsistent (Allen, Higgs, & Holloway, 1988; Cooper, 1990; Kemper, 1989; Murtaugh, Burns, & Schuster, 1999). Some studies suggest that age is a significant predictor of academic achievement with older students persisting longer than traditional age students (Cooper, 1990; Kemper, 1989). Other researchers have reported the converse is true, younger students persist and are more likely to graduate (Allen, Higgs, & Holloway, 1988; Murtaugh, Burns, & Schuster, 1999).

The older student typically has additional role responsibilities that may challenge persistence and retention which may attribute to higher attrition rates. Jeffreys (2004) believes this to be due to a common misconception that "older students are homogeneous and can be viewed as one discrete group" (p. 16). There is great diversity and multiple challenges identified in the older student so the interaction of other student profile characteristics must be considered. Nurse educators must strive to avoid labeling all younger and older students as homogeneous. Instead, each population is different, with varying responsibilities and learning needs.

Prior Education

Another variable that has been examined and believed to affect graduation rates of students enrolled in distance courses is the prior educational level and prior experiences. Boyd (2004) reported students who had completed some college level courses were more likely to persist. The assumption is that these students have an edge over new students because they have acquired the necessary study skills to be successful in an academic setting.

It is important to be aware of the educational and professional experiences the returning RN brings to the classroom. BSN-C programs that capitalize on the professional RNs experiences also need to be sensitive to work and family responsibilities. Providing alternative instructional delivery methods and choices to RNs may increase their persistence and ultimate graduation. The needs of working RNs are diverse. Typically, this population is employed full time and has personal commitments that compound their efforts in completing the hours required for graduation (Galusha, 1997).

Time Management

The literature supports that time management or the inability to effectively mange time has been found to be a major barrier affecting retention and graduation rates (Galusha, 1997; Jeffreys, 2004, 2007; Joel, 2006; Ostman & Wagner, 1987). Ostman and Wagner (1987) found the "lack of time" to be the single most cited rationale given for dropping out by distance learners. These varied learning environments require students to be highly self-motivated and self-disciplined. Greater responsibility is placed on the learner, learners must know how to pace themselves, complete assignments on time, and follow through with all the requirements of the course (Simonson et al, 2006).

Other researchers have found that student characteristics such as computer literacy, confidence, reading ability and time management skills play a role in successful course completion with eventual graduation (Miller, Rainer, & Corely, 2003; Powell, Conway, & Ross, 1990). Students need to be aware of potential scheduling conflicts and time issues required to complete the requirements of any course.

Stress

Stress is experienced by all students (Bean & Eaton, 2000; Burris, 2001; Daily, 1994). Stress and strain are synonymous with nursing, stress being external factors and strain being the internal feelings of frustration and tension (Joel, 2006). Some students have the ability to tolerate stressful conditions. For example, divorce or the birth of a child or the death of a loved one all result in stress, however, perspective and support systems can enable one to handle life stressors effectively or ineffectively (Joel, 2006).

When studying returning RN students, Daily (1994) identified stress as a predominant theme. Stress has been supported in nursing research as a potential variable

that needs to be considered when evaluating the reason an RN may drop out or quit pursuing a baccalaureate degree (Ritchie, MacNeil, Evans, & Micsinszki, 2005). A qualitative study involving a group of RNs returning to complete a baccalaureate degree supported the research that returning to school impacts family home life and financial stress which can lead to role strain (Daily, 1994; Dowswell, Hewison, & Hinds, 1998). "Surviving" the educational experience was the overarching theme that emerged. Webster Dictionary (1999) defines survive as to "continue to exist; outlast something" (p. 157). "The participants reported to experience tremendous challenges in their struggle to survive the program that put stresses and strains on all aspects of their lives" (Ritchie et al., 2005, p. 9). The stresses this group encountered highlighted the importance of support from family, friends, peers and faculty.

After examining barriers affecting retention, it has been identified that adult students who choose distance education are diverse, employed full time and have personal commitments that compound their efforts in completing the hours required for graduation (Galusha, 1997). RNs fall into this category. They juggle multiple roles and therefore, may be less likely to persist and graduate with a BSN. This population is more likely to drop in and out of courses or programs, as they are balancing multiple roles concurrently (Nash, 2004). It is integral to recognize and accept the returning RN does not fit the mold of traditional, freshman student attending a residential university. Administrators and educators who are aware of the multiple challenges students experience may be able to implement prescriptive strategies that will encourage students to continue their academic journey. Institutions that provide alternative instructional delivery methods do

increase the flexibility and convenience working adults desire. RNs can choose to live and learn while completing their journey to attain baccalaureate education.

Adult Education

Adult education is helping to shape nursing education. Nursing education has been influenced through adult education and the works of Malcolm Knowles with his description of adult learners (Knowles, 1980). Andragogy as defined by Knowles, (1980) "is the art and science of helping adults learn" (p. 43). As a result, nurse educators have increasingly begun to perceive the adult student as different from traditional nursing students (Rachal, Pierce, Leonard, & DeCoux, 1992).

Malcolm Knowles spent his life studying and observing adults and how adults learn. Knowles (1984) recognized that adults learn different than children. He developed the Andragogical Model based on the following assumptions of the adult learner:

- The need to know
- The learners' self concept
- The role of the learners' experience
- Readiness to learn
- Orientation to learning
- Motivation

The role of the teacher also changes from complete "responsibility for making decisions about what will be learned, how it will be learned, and if it has been learned" (1984, p. 52). The role of the teacher changes from expert to facilitator. Knowles viewed learning as an internal process, with the focus of learning on the learner with outside helpers, such as teachers (Billings & Halstead, 2005).

Jarvis (1986) supports that the nursing profession establishes a need to have an andragogical approach to nursing education. The profession of nursing demands nurses who can not only perform skills, but must be able to critically think, be self-directed, and problem solve often in crises situations. "If nursing requires independent, self-directing practitioners, then it demands a form of education that encourages the development of such persons" (Jarvis, 1986, p. 468). It could be argued that this form of education is an andragogical approach. This form of education is not only essential to educate in a way that promotes the development that nurses need, but necessary due to the increasing number of adult students in nursing programs. Raudonis (1987) believes andragogy and adult education is a good fit for nursing programs because nursing students are adult learners.

As adult learners, RNs bring various levels of experience and skill to the teaching environment. Their readiness to learn is framed both by their past experiences and by their awareness of the need to be lifelong learners which allows them to survive in the academic world and in professional environment

As educators of adults, faculty need to be aware of the principles of how adults learn. These principles can be applied to every learning environment regardless of the instructional delivery method utilized. Educators can apply these learning principles to engage the learner in the learning process. The principles include: (a) give students chance for input into class, (b) show respect to students both in teaching and learning process, (c) build on students' prior knowledge, (d) show how the learning can be applied, (e) demonstrate how learning meets the goals of students (Knowles, 1984). Faculty can develop a variety of active learning experiences that supports RNs prior

professional experiences. Inquiry can be promoted and respected by encouraging students to be active participants in their learning.

Galusha, (1997) identified two distinguishing characteristics of adult learning and include the adults' autonomy of direction in learning and the influence of personal experience as a learning source. Both of these characteristics affect how the RN learns and the value their professional experience brings to the classroom regardless of the delivery method.

Additional non-traditional attributes can be easily applied to the RN who is returning to school and juggling multiple roles. The RN brings a wealth of life and professional experiences to the classroom environment. Most RNs do not receive monetary compensation after completing baccalaureate education, therefore the motivation to learn and their readiness to learn is personally valued and would be described as an intrinsic or internal motivator (Merriam, 2001).

Galusha (1997) supports Knowles' andragogical philosophy and further addressed student motivation as having a powerful impact on attrition and graduation rates, regardless of the institutional setting. Motivators for adult learners are different when compared to traditional learners. The adult learner is influenced by a combination of the learner's needs, learner's situation and personal characteristics. Acknowledgement of these motivators can help in the program planning, development and ultimately policy formation (Galusha, 1997).

The review of adult education literature supports the learning needs of the non-traditional student to be different than the traditional student. RNs are considered non-traditional adults who have made a conscious to decision to return to school to complete

the BSN. As adult learners this population has made a commitment to continue their education. Learning is more likely to occur when the learning goals are perceived as useful and realistic and is important and relevant to their personal and professional needs. The learning needs of RNs are shaped by past experiences; their maturity and life experiences provide them insights that are valuable to the learning process.

Nursing Undergraduate Retention and Success Model (NURS)

Guided by Bean and Metzner's (1985) model of the non-traditional undergraduate student attrition, Jeffreys (1998) developed a model with specific considerations to the non-traditional, beginning nursing student. The Nursing Student Retention and Success model examined student profile characteristics and their potential impact on success (Jeffreys, 2004). The Nursing Undergraduate Retention and Success (NURS) model presents the organizing framework for examining the multidimensional factors that affect undergraduate nursing student retention and success, guide innovations in teaching and educational research and evaluate strategy effectiveness (Jeffreys, 2004). The NURS model will be used to collect information on student retention. An extensive search in nursing and higher education literature revealed several conceptual models that have been developed to explain undergraduate student attrition (Bean & Metzner, 1985; Powell et al., 1990; Tinto, 1975). Results from these studies confirmed that nontraditional students often juggle multiple roles that may include parenting, financial provider, and or employee, and were more influenced by environmental variables than academic variables. Students also perceived family, faculty, friends, tutoring and an enrichment program as greatly supportive (Jeffreys, 2004). These models specifically examine college student attrition, while the NURS model focuses on retention. The NURS model

is the only model that specifically targets nursing students. The main goal of the model is to promote undergraduate nursing student retention and success.

The variables that were assessed included age, ethnicity and race, gender, language, prior work experience and enrollment status. Jeffreys' research postulates that these variables provide information "that is integral to determining student needs and strengths or identifying at-risk students. Individual variables may interact to increase or decrease risk of attrition" (Jeffreys, 2004, p. 14). Awareness of these variables is a necessary first step in understanding the multidimensional process of undergraduate nursing student retention. These variables may need to be broadened to include the RN who is returning to school to complete baccalaureate education. For example, RNs who return to school have prior work and life experiences that will impact their learning and may affect retention. The NURS model suggests that the student is committed to a particular task, is familiar with work responsibilities, and time commitments required to work outside of the home environment. Jeffreys (2004) believes nurse educators need to be sensitive to those without work experience as it may affect their confidence which may lead to low goal commitment, more stress and decreased persistence. The RN who is returning to school has prior work experiences, therefore, this variable will need to be broadened to include the non-traditional, working RN.

The literature did not address the impact instructional delivery methods had on RNs retention and graduation. By addressing both populations, RNs who have completed and graduated with a BSN and those who withdrew or did not graduate, valuable information will be gained and eventually applied to the program that will increase the retention and graduation rates of RNs who are completing the BSN degree.

The attrition of nursing students is a concern for Colleges of Nursing and the healthcare of the public. The typical RN nursing student is nontraditional, works full time, frequently attends school part-time, requires more time to complete course requirements, and is more likely to drop in and out of the program prior to graduation (Jeffreys, 2007, 2004, 2001). Prescriptive strategies should be developed by Colleges of Nursing with a committed priority to the BSN-C population through communication with follow up letters or newsletters while maintaining a connection to RNs who experience unpredictable life occurrences. Life happens and RNs need to experience support from the College of Nursing and encouraged to return to ultimately complete the BSN.

Summary

RNs are the least educated of all healthcare providers with only 47.2% who have a baccalaureate or graduate degree in nursing (AACN, 2005). To be effective in change and positively impact patient outcomes, nurses need to have earned at least a BSN. The need for baccalaureate prepared nurses is increasing and will continue to increase. "The movement to expand the availability of baccalaureate level nursing degrees indicates an understanding that today's increasingly complex healthcare system requires a more highly educated clinician" (AACN, 2005, p. 5).

The debate regarding entry into practice continues. The profession of nursing can provide a career of unlimited opportunities. Aiken et al., (2002) provides research that quantifies the impact the BSN provides in affecting patient outcomes by decreasing infection rates, falls, and medication errors while decreasing patient mortality. Personal benefits to individual nurses include increase job satisfaction and increase retention at the institutions the RNs practice (Spratley et al., 2000). Now, both nurses and their

employers are‘re-thinking’ the educational preparation for RNs. In the St. Louis area, two of the largest healthcare institutions provide monetary compensation for an earned BSN and all provide tuition reimbursement (D. Frazier, personal communication, November 12, 2007). The largest healthcare provider in the metropolitan area has made a commitment to employ only RNs with the BSN, as well as to provide them monetary compensation (M. Evans, personal communication, August 4, 2008).

Returning to school can be a challenging time. The need for baccalaureate prepared nurses will continue to increase as complexities of healthcare change. In an effort to maximize education opportunities, universities are developing and implementing a variety of delivery methods that promote convenience and flexibility (Jeffreys, 2004, 2007). There are advantages and disadvantages with each instructional delivery method that should be considered prior to beginning baccalaureate education. Nurse educators can positively influence student retention through designing learning activities that promote engagement and connection between students regardless of the instructional delivery method employed. Educators must be sensitive to the multiple responsibilities facing working RNs and support them as they complete their education. Creating learner-centered activities and flexible student support that acknowledge working students’ needs should be considered by faculty and administrators. Encouraging students to choose the instructional delivery option that meets their needs is important however, as educators we need to ensure they have the resources to succeed.

Student retention is a dynamic and multidimensional phenomenon that is influenced by academic, personal attributes, environmental, socio-economic, and social integration Additional contributing factors include age, previous education, stress, and support

network. (Jeffreys, 2005; 2007). Juggling multiple family and work responsibilities while completing baccalaureate education can be a challenge. Faculty, students, and administrators need to acknowledge the unique characteristics adult students possess. "Realizing the ultimate goal of retention is to ensure students complete course requirements and graduate" (Tracy-Mumford, 1994, p. 5).

Identifying effective prescriptive retention strategies that have assisted other students may promote retention. Both employers and students should recognize the BSN provides nurses with critical thinking and organizational skills with increased professionalism all of which affect patient outcomes (Jeffreys, 2001). Baccalaureate prepared nurses are better equipped to provide quality patient care and be proactive for the future of healthcare.

While Jeffrey's NURS model does provide insight on the multifaceted characteristics of the non-traditional student, the focus of the model is geared to students beginning their educational journey. The model does not address the student who has earned and successfully passed the licensure exam and practices as a professional RN. While these two groups of students may share some common characteristics, the practicing RN needs to be considered as a separate entity which may affect their ability to persist and graduate with a BSN. One primary difference is the RN does not have the structured clinical requirement as beginning students. As a result the RN may have different perceptions and needs that impact their success to persist and graduate.

In the following chapter, the methodology for the study will be discussed. In Chapter four the findings will be presented. The final chapter will provide a summary of the study as well as recommendations for future research.

CHAPTER III

Methodology

This chapter includes the hypothesis, the description and selection of subjects, instrument, data collection and data analysis. The study investigates and compares the effects of three instructional methods, traditional classroom, ITV, and Web-based delivery on retention of Bachelor of Science in Nursing Completion (BSN-C) students.

Research Design

A cross-sectional, retrospective, observational design was utilized for this study. Using the retrospective design, the researcher collected data from students who had received instructional delivery methods, including traditional classroom, ITV, and Web-based (Polit et al., 2001). This design has advantages of less costs incurred and less time consuming for large samples who have received different treatment conditions. In the current study, the researcher examined data regarding instructional delivery method to determine if a relationship exists between course delivery methodology and retention/graduation rates for BSN-C students.

Purpose

The purpose of this study was to compare retention and/or graduation rates among the three modes of instructional delivery with BSN-C students. The three instructional delivery modes are: a) traditional classroom; b) ITV; and c) Web-based delivery.

Research Questions

The primary research question was: What, if any, is the impact of Web-based instruction, ITV, and traditional classroom teaching on program retention of BSN-C students? Additional questions included:

1) Are there differences in instructional delivery format of traditional, ITV, or Web-based instruction on Student Perception Appraisal-2 scores among BSN-C students?
2) What factors are associated with retention and/or graduation rates?
3) Is there an association between instructional delivery format and whether students drop out or continue to graduation?

Sampling and Participants

Participants were drawn from a Midwestern, state university that provides a BSN-C program for RNs. Beginning students may choose one of three instructional delivery methodologies: traditional classroom, ITV or Web-based, to complete the BSN degree. The BSN-C program is part-time and requires 31 nursing credit hours. The program takes two calendar years to complete. Students may have additional general education courses to complete to meet university graduation requirements. The general education courses can be completed through the community college, correspondence, or at the University. The College of Nursing first offered three instructional delivery methods; traditional classroom, ITV, and Web-based instruction in the fall of 2001. Students admitted fall 2001 would complete all general education courses required by the university with an anticipated graduation date of summer 2003. All RNs who began the program during 2001-2005 were included in the study.

Data Collection

Retention of non-traditional students returning to complete or continue their education has gained momentum in academic institutions. Typically non-traditional students are older, attend school part-time, and juggle a full-time job along with family responsibilities (Bean & Metzner, 1985; Kemper, 1989; Rovai, 2003). This description fits RNs who are returning to school to complete a baccalaureate degree.

Guided by Bean and Metzner's (1985) model of the non-traditional undergraduate student attrition, Jeffreys (1998) developed a model with specific considerations to the non-traditional, student beginning nursing education in an associate degree program (ADN). The instrument has been adapted by this researcher to include RNs who are returning to school to complete a Bachelor of Science in Nursing (BSN). Students were asked to evaluate each of the 22 items in relation to how each variable might affect their ability to persist and graduate with a BSN degree. A six-point Likert scale was used with the following descriptors: from the lowest 1=does not apply, 2=severely restricts, 3=moderately restricts, 4=does not restrict or support, 5=moderately support, to the highest 6= greatly supports. Students were asked to provide anecdotal comments at the end of questionnaire.

The instruments used in the study were the Student Perception Appraisal-2 (SPA-2) (Appendix A) and Student Withdrawal Questionnaire (SWQ) (Jeffreys, 2004) (Appendix B). These instruments were originally developed by Jeffreys and focused on non-traditional students completing the ADN. Written permission was received by the author of the questionnaire with the desired changes to meet the needs of RNs completing the BSN (Appendix C). The SPA-2 is a 22 item questionnaire that addresses how selective or

supportive academic and environmental variables are perceived to influence retention and academic achievement (Jeffreys, 2004). Several changes were implemented to the original tool. Question three on transportation was omitted from the survey because RNs are working professionals who must have transportation to go to work. Question 13 was also omitted because it related to the pre-nursing enrichment program and this program is not offered at the University. In addition, the participants in the study are practicing professional nurses. Questions 14 and 15, related to college tutoring and counseling services, were omitted because these services are not available to non-traditional students who must take courses in the evening or via the internet. Questions that were added to the questionnaire and are pertinent for RNs returning to school included tuition reimbursement from employer, financial status, and memberships in professional organizations. As a fringe benefit all hospitals offer tuition reimbursement to RNs employed full-time allowing them to return to school with out the additional financial burden that could incur. Financial status was added since RNs are working and receiving a paycheck from their employer. As practicing professional nurses there are multiple professional organizations nurses are encouraged to join to enhance their practice. With the revisions to the questionnaire there were 21 items instead of the original 22. Students were asked to evaluate each of the 21 items in terms of how each might affect their ability to remain and ultimately graduate with the BSN.

The SWQ is a nine item questionnaire that addresses variables that may have prohibited students from graduating. Two items were omitted on the questionnaire to better identify with working professional nurses. The items that were omitted were transportation arrangements and change in major. The rationale for these changes were

based upon working RNs who have attained licensure and are returning to school to complete the BSN. In addition, one item was added and that was change in professional goals. This is based upon personal experience counseling RNs who have shared a reason for non-completion is their professional goals have changed and they do not believe the BSN will be beneficial to them in their professional practice. The revised SWQ had nine items. A likert scale from one to four was used with 1=strong influence, 2=some influence, 3=little influence, and 4= no influence. The lower the score the more significant the variable was believed to influence the RNs decision to drop out or quit their education. Participants were requested to identify the ONE major reason for non-completion based upon the variables provided. They were asked to provide anecdotal comments at the end of the questionnaire. The SWQ questions were typed on green paper to make analyzing the data more accessible.

Validity and Reliability

Content validity for the original SPA-2 instrument, developed by Jeffreys (2007) has been revised two times. Content validity for the revised instrument was completed by a panel of experts that were doctoral prepared faculty who were identified as experts in nontraditional associate degree programs (Jeffreys, 2004). Additional panel members were in the area of academic and retention support services. Educational experts rated content appropriateness of each question using a six point Likert rating scale. Qualitative comments were encouraged. One item was revised for clarity, based on the panels' comments (Jeffreys, 2004). Crohnbach's alpha or coefficient alpha for internal consistency was used. Internal consistency range in value between .00 and 1.00 with the higher the reliability coefficient, the more accurate the measure (Polit et al., 2001). The

alpha was .79 and indicates the tool is reliable based on internal consistency (Jeffreys, 2004).coefficient of the SPA-2

Validity of the adapted tool was established by two faculty in the College of Nursing who have expertise in nursing, instructional delivery methods, and statistics. The author of the SPA-2 survey was contacted to provide her expertise as well. She made grammatical corrections and recommended the six point likert scale be present on each page to decrease chance of error and promote ease in reading the questions. Dr. Jeffreys approved the changes made to the surveys. The content and statistical expert did not have any additional variables to add to the SPA-2 survey and the SWQ questionnaire (Appendix A & B). A university nursing faculty and Dr. Jeffreys approved the SPA-2, SWQ, and the demographic data to be included in the packets.

A pilot study was distributed in an ITV course to determine reliability based upon the changes made on Jeffrey's SPA-2 survey (Appendix D). The survey was administered to 10 RNs during the second to the last semester prior to graduation. A letter requesting consent to participate in the study, as well as the purpose of the study, protection of Human Subjects and decision to complete or not complete the questionnaires would not impact their ability to continue their nursing education at the University (Appendix E). The letter also contained methods of contacting the researcher and the Chair of the Institutional Review Board and the potential usefulness the study will provide for BSN-C students, the College of Nursing, the university, and the researcher.

After the pilot study was completed the data analysis began by using Crohnbach's alpha coefficient. This is a common statistical test administered to determine internal reliability. In ideal circumstances the Crohnbach alpha coefficient should be 0.7 (Pallant,

2005). On the adapted SPA-2 survey one mitigating factor was statistically close and it was social integration with a Crohnbach's alpha coefficient at .667. This is very close to the desired 0.7, however; and it is believed by omitting this variable a higher internal consistency could be obtained. The remaining 20 items were not found to be statistically significant. Table I reflects the reliability of the overall survey and was identified to be .640 which is less than the desired 0.7; however statistically close. The small sample size of ten may have also affected the overall reliability. Jeffrey's original SPA-2 survey had an alpha coefficient of .72 though she did have students complete a pre and post survey and she had a large sample size of 1,156 participants (Jeffreys, 2007). Table I reflects Crohbach's alpha coefficient for each of the 21 variables.For this research student's only completed the SPA-2 at the end of the semester. Due to the small sample size of ten the decision was made to continue with the adapted survey and keep social integration as a dependent variable.

TABLE 1 Crohnbach's SPA-2

Variables	Scale Mean If Item Deleted	Scale Variance If Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha If Item Delete
Study skills	83.8889	76.111	.868	.576
Faculty support	83.8889	69.111	.663	.558
Financial	83.8889	96.361	-.315	.685
Tuition reimbursement	82.7778	88.944	.103	.639
Class schedule	83.5556	92.278	-.159	.662
Family support	83.3333	81.500	.429	.611
Hours employ-ment	84.3333	87.250	.066	.646
Study hours	83.8889	85.611	.161	.635
Library	83.5556	85.528	.067	.652
Family emotion support	83.8889	87.611	.113	.639
Family Crises	85.6667	82.000	.400	.613
Employment responsibilities	84.5556	92.028	-.146	.661
Family responsibilities	84.8889	89.111	.022	.646
Financial aid/ scholarship	84.6667	81.750	.095	.660
Academic performance	83.3333	79.000	.682	.593
Friends outside school	83.7778	88.444	.025	.649
Friends in class	83.0000	80.5000	.729	.599
Technology services	83.7778	75.944	.751	.579
Professional memberships	85.3333	68.750	.528	.575
Social Integration	84.5556	88.028	-.022	.667*
Childcare	86.1111	74.111	.376	.605

The study was conducted in two phases. In phase I, initial data was obtained from historical archives to obtain a list of students who were admitted to the nursing program during years 2001-2005. Information regarding instructional delivery methods, completion of course requirements, and graduation dates were obtained through Student Services at the University.

In phase II, a survey packet was sent to RNs who graduated with the BSN, as well as those who did not graduate, for a total of 330 participants. The survey packet consisted of a stamped return envelope, a survey questionnaire with demographic items (see Appendix F), followed by the Student Perception Apppraisal-2 (SPA-2) questionnaire, and a letter that included a letter of consent/information (Appendix E) (Jeffreys, 2004). Graduates and those who did not graduate were differentiated by color of the questionnaire. Graduates questionnaire were blue and those that did not graduate were green. Students who did not graduate were sent two surveys the SPA-2 and the SWQ.

At the end of the questionnaire, students were encouraged to provide anecdotal comments regarding reasons for discontinuing or dropping out of the program. Both groups were encouraged to provide written anecdotal accounts of retention strategy components they believe assisted or prevented them to achieve graduation from the program.

To enhance the response rate, reminder postcards were sent to students two weeks after the packet was delivered to encourage completion and return of the questionnaire. Packets that were returned without a forwarding address were omitted from the study. In an attempt to evaluate retention rates a return rate of 40% was the goal.

Data Analysis

Analysis of variance (ANOVA) was used to answer the question, "Are there differences in instructional delivery format of traditional, ITV, or Web-based courses by applying the on SPA-2 among BSN-C?" ANOVA breaks down the total variability of the dependent variable (program retention) into two components: variability attributable to the independent variable (delivery method) and variability due to other sources. Variation between groups was contrasted with variation within groups to yield an F ratio (Polit et al., 2001). After analyzing the F ratio, a post hoc test, was completed to examine pairwise combination among the means of the instructional delivery formats (Corty, 2007). In other words each mean is compared to the other mean to see if a difference exists between instructional delivery methods (Salkind, 2007).The Scheffe Test was the post hoc test chosen because it is used with unequal sample sizes and allows all possible contrasts between groups to be tested for significance to determine if delivery method has an affect on retention (Polit et al., 2001).

Descriptive information was used to answer the question, "What factors are associated with retention and/or graduation rates among BSN-C students?" This information was gleaned from anecdotal comments written by RNs who returned the SPA-2 questionnaire. Data was categorized according to common themes. Identifying effective prescriptive strategies for retention is the objective for answering the question; "What factors are associated with retention and/or graduation rates among BSN-C students?"

To answer the question, "Is there an association between instructional delivery formats and whether students drop out and/or to continue to graduation?" categorical information

was obtained. For this question, the non-parametric statistical test, Chi Square, was used to identify if there is a relationship between delivery method and retention.

Summary

The Nursing Undergraduate Retention and Success (NURS) model presents an organizing framework for examining the multidimensional factors that affect undergraduate nursing student retention and success in order to develop diagnostic-prescriptive strategies to facilitate success, guide innovations in teaching and educational research and evaluate strategy effectiveness (Jeffreys, 2004). However, it does not address the factors that may impact practicing RNs or the delivery method utilized. This study was designed to specifically address the returning RN population and to identify if delivery method does impact retention. Anecdotal comments provided by RNs who chose to graduate and those who chose to not persist and graduate will guide the development of strategies Colleges of Nursing can implement to promote retention. The literature and research supports that retention is an institutional and student concern. Research on retention and graduation rates for non-traditional returning RNs needs to increase to support the complex healthcare issues that face society and ultimately the future of the nation.

CHAPTER IV

Results

The primary purpose of this research study was to compare three instructional delivery methods to determine if they impact retention/graduation rates in BSN-C students. Jeffreys (2002, 2004, 2005, 2007) has studied non-traditional nursing students seeking the associate degree in nursing and retention. However, her research did not address BSN-C students and instructional delivery methods to determine if these factors impact retention. This study identified if a relationship existed between instructional delivery method and retention in non-traditional, adult nurses returning to school to complete the BSN. In this chapter the findings will be described and the results from analysis of the survey data will be described and determined if instructional delivery methods impacts student retention with the ultimate purpose to identify prescriptive strategies that Colleges of Nurses can implement to promote retention in the BSN-C student population.

The population of this study consisted of RNs who had completed the BSN in a Midwestern University, using one of the instructional delivery methods offered through the university. The delivery methods included traditional classroom, ITV, or Web-based instruction. Graduation dates for this study included the academic years 2003-2007.

Participants

A total of 330 survey packets were mailed. Fifty- three packets were returned to sender without any forwarding address provided. After two weeks a reminder postcard was mailed to 277 RNs. A total of 68 returned the completed SPA-2 survey including 10 who returned both the SPA-2 and SWQ surveys. The overall sample size was 68. There were 21 graduates who returned the completed SPA-2 survey and identified the

traditional classroom as the primary instructional delivery method they participated in while completing the BSN. Nineteen identified ITV and 18 identified Web-based instructional delivery method as the primary instructional delivery they participated in while completing the BSN. Three surveys were returned incomplete and were deleted from the study. The overall return rate was 24% which was below the original goal of 40%. By eliminating the 53 returned packets with no forwarding address the sample size decreased to 277 with the return rate increasing to 39%. Participants that chose option 1=does not apply were eliminated from the data analysis. These participants were analyzed according to the descriptive data. One participant did not complete the SPA-2 and was eliminated from the study.

Several findings will be presented. First, there will be descriptive data describing the participants of the study. The retention rates for academic years 2003-2007, as well as the instructional delivery methods will be addressed. A summary of analysis of variance (ANOVA) of factor scores grouped according to 21 variables on the SPA-2 scores for BSN-C graduates will be provided. Descriptive data from written anecdotal comments on the SPA-2 for students who graduated and anecdotal comments from the SWQ students who did not graduate will be presented. Lastly the question, "Does interaction of instructional delivery format influence students to drop out or continue to graduate?" will be analyzed by applying the statistical test Chi Square.

Descriptive Data

Descriptive data were collected on students who graduated with the BSN and are reflected in Table 1. The categories for "age" included 20-29 years of age, 30-39 years of age, 40-49 years of age, 50-59 years of age, and 60+ years of age. Age ranged between

20-60+ years with the greatest age represented by the 40-49 (32.4%) year age group. According to AACN data (2005) the average age of the professional nurse is 43 years of age and this study did correspond with the national average. The next largest category was in the 50-59 year age representing 29.4%. Gender was identified to be predominantly female with 65 RNs (95.6%). This number reflected a slightly higher proportion of female RNs according to the AACN data (AACN, 2005). The highest degree earned was the BSN representing 69.1%. There were not any participants who identified themselves as Native American or Hispanic; therefore these categories were eliminated. Caucasian (89.7%) was the largest represented ethnic group and this supports findings by AACN (2005). The majority of participants (67.6%) were employed and is reflected in Table 2. Most participants were married (69.1%). Additionally, many of the participants did not have any children with (42.6%).

TABLE 2: Descriptive Data

Variable	Frequency (N)	Percent (%)
Student Age		
20-29	9	13.2
30-39	14	20.6
40-49	22	32.4
50-59	20	29.4
60+	3	4.4
Gender		
Male	3	4.4
Female	65	95.6
Degree		
ADN	5	7.4
BSN	47	69.1
MSN	12	17.6
Other	4	5.9

TABLE 2: Descriptive Data (cont.)

Variable	Frequency (N)	Percent (%)
Ethnicity		
Asian	1	1.5
African American	5	7.4
Caucasian	61	89.7
Other	1	1.5
Employment		
Full-time	46	67.6
Part-time	15	22.1
Not working by choice	4	5.9
Other	3	4.4
Marital Status		
Single	9	13.2
Married	47	69.1
Divorced/Separated	10	14.7
Single living with partner	2	2.9

TABLE 2: Descriptive Data (cont.)

Variable	Frequency (N)	Percent (%)
Dependent Children		
None	29	42.6
One	18	26.5
Two	9	13.2
Three	9	13.2
Four	2	2.9
Five or more	1	1.5

In summary of the descriptive data, RNs most likely to begin and graduate earning the BSN were 40-49 years old, female, with an earned Bachelor Degree in Nursing as the highest academic preparation, is Caucasian, employed full-time, married and does not have children.

Retention

Retention data was obtained through Student Services at the University. Table 3 provides the retention rates obtained through historical archives. The academic years included fall 2003 through fall 2007. In 2003 the retention rate was identified to be 83% while in 2007 retention rates increased 10%.

TABLE 3: Retention Rates

School Term	Percent (%)
Fall 2003	83
Winter 2004	82
Fall 2004	82
Winter 2005	62
Fall 2005	71
Winter 2006	83
Fall 2006	82
Winter 2007	88
Fall 2007	93

Instructional Delivery Method

The instructional delivery methods used in this study include traditional classroom, ITV, and Web-based. The largest cohort is the traditional classroom and comprised 39.7% of RNs returning to complete the BSN and is represented in Table 4.

TABLE 4: Instructional Delivery Method

Instructional Delivery Method (for all groups)	Frequency (N)	Percent (%)
Traditional	27	39.7
ITV	20	29.4
Web-based	21	30.9

ANOVA

Analysis of variance (ANOVA) was applied to determine if instructional delivery method of traditional classroom, ITV, and Web-based instruction had an affect on the 21 variables on the SPA-2 on retention with BSN-C students. The 21 variables identified in the SPA-2 were personal study skills, faculty support and helpfulness, financial status, tuition reimbursement, class schedule, family support, hours of employment, personal study hours, college library services, family emotional support, family crises, employment responsibilities, financial aid and/or scholarship, academic performance, encouragement by friends outside school, encouragement by friends in class, technology services, memberships in professional organizations, social integration into the profession, and child care arrangements (Jeffreys, 2007). The ANOVA enables the researcher to look at more than two means to test the influence of more than one factor at a time as well as examine a combination of factors that could potentially have affected students' ability to complete the BSN. This statistical test is useful to compare the overall means, standard deviations, the significance of the f value and level of significance for

the dependent variables on the 21 item SPA-2 survey. Table 5 represents the four variables that were statistically significant.

TABLE 5: ANOVA

Variable	Mean	Std. Deviation	F	Sig
Class Schedule				
Traditional	4.9	1.22	4.326	.017*
ITV	5.78	.428		
Web	5.12	.957		
Family Support				
Traditional	4.86	1.014	4.990	.010*
ITV	5.67	.485		
Web	5.38	.806		
Family Responsibilities				
Traditional	3.43	1.076	4.213	.016*
ITV	4.33	1.188		
Web	4.35	1.169		
Financial Aid/ Scholarship				
Traditional	4.00	1.265	3.474	.042*
ITV	5.18	1.079		
Web	4.30	1.059		

The level of significance is .05 and the data supports that four variables were identified to significantly impact students' ability to graduate. These included class schedule, family support, family responsibilities, and financial aid and/or scholarship. For the complete ANOVA used for the study see Appendix G.

Class schedule was identified to be significant based upon the ANOVA. The Scheffe test for class schedule was applied and compared traditional classroom delivery to ITV and was found to be statistically significant. Class schedule was found to be more

important for ITV (Mean=5.78) than for the traditional classroom (Mean=4.9). There is a significant difference in the effect of class schedule for students in the three delivery formats: traditional, ITV, and Web-based instruction based upon the f=4.326; df= 2; and p=0.017. Class schedule had more of a statistical effect on graduation for students choosing the ITV as the delivery format (Mean 5.78). Students attending the traditional classroom felt that class schedule least supported their ability to graduate (Mean= 4.90). The ANOVA statistically supported a difference in class schedule between the traditional and ITV student groups. Table 6 illustrates the significance by applying the post hoc Scheffe test to identify if a statistical difference was supported between instructional delivery method and class schedule and impact on RNs' ability to graduate. Class schedule was statistically supported between the three instructional delivery methods, traditional classroom, ITV, and Web-based.

TABLE 6 Scheffe Test and Class Schedule

	Delivery	Delivery	Sig
	Traditional	ITV	.020
		Web	.786
	Web-base	Traditional	.020
		ITV	.125
	ITV	Traditional	.020
		Web	.125

There is a significant difference in the effect of family support for students in the three delivery formats: traditional classroom, ITV, and Web-based instruction. The ANOVA statistically supported significant difference between the groups with f=5.021; df= 2; p=.010. Family support had more of an effect for students choosing ITV (Mean=5.67) and Web-based instruction (Mean 5.35).

The Scheffe Test does support a statistical significance in delivery format with family support between the traditional classroom and ITV delivery. There was a significant difference in importance of family support between the students in the traditional class and ITV (p=.011) (see Table 7). RNs who chose "does not apply" were eliminated from the statistical analysis.

Table 7 Scheffe Test and Family Support

Delivery Method	Delivery Method	Sig
Tradition	ITV	.011
	Web-base	.179
ITV	Tradition	.179
	Web-base	.520
Web-base	Tradition	.179
	ITV	.520

Family responsibilities were also identified to be significant. There is a significant difference in the effect of family responsibilities for students in the three delivery formats: traditional, ITV, and Web-based instruction based upon the f=4.497;df=2; and p=.016. Table 8 illustrates there was a significant difference in family responsibilities related to RNs choosing the Web-based delivery format as compared with the traditional delivery method. The Scheffe Test does statistically support the significance family responsibilities has between students in the traditional classroom and Web-based instruction (p=.038). The traditional classroom (Mean=3.43) and the Web-based format (Mean=4.39), which supports family responsibilities, had more of an affect on Web-based students. RNs who choose "does not apply" were eliminated from the statistical analysis.

TABLE 8 Scheffe Test and Family Responsibilities

Delivery Method	Delivery Method	Sig
Web	Tradition	.038
	ITV	.989
Tradition	ITV	.054
	Web	.038
ITV	Tradition	.054
	Web	.989

Table 9 illustrates a statistical difference occurred between the ITV and traditional instructional delivery method on financial aid/scholarship. This is further supported based upon the f=3.491;df=2; and p=0.042; and the Scheffe Test statistically supports there is difference between students using the delivery method of ITV and traditional classroom but does not support significance with Web-based instruction.

TABLE 9 Scheffe Test and Financial Aid

	Delivery	Delivery	Sig
	Tradition	ITV	.043
		Web	.724
	ITV	Tradition	.043
		Web	.261
	Web	Tradition	.724
		ITV	.261

Financial aid/scholarship was significant with the ITV (Mean=5.18) while the traditional classroom had a (Mean=4.00). Students choosing ITV as the instructional delivery method identified financial aid as more important for them to receive than the traditional classroom students. The university used in this research does charge additional distance fees to students in both ITV and Web-based classroom. A statistical significance was not found with Web-based classroom.

Applying the Scheffe post hoc Test, class schedule was the only statistically significant variable for all three delivery methods. This supports the premise that students like to have options that can fit into their busy lives and flexible class schedule allows them to make the required accommodations to pursue baccalaureate education.

Two instruments were used for data collection and included the Student Perception Appraisal –2 (SPA-2) and the Student Withdrawal Questionnaire (SWQ). For students who had successfully graduated with the BSN the SPA-2 was mailed to their home address. To those who had not graduated, they were sent both the SPA-2 and SWQ.

SWQ

Students who did not complete to graduation were sent the SWQ and SPA-2 surveys. The sample size was small with 10 completing the SWQ. Students were requested to respond to nine variables to determine if one or more impacted their ability to graduate. The variables included: financial status, class schedule, family crisis, employment responsibilities, family responsibilities, academic difficulty or failure, child care arrangements, change in health status and change in professional goals. At the end of the survey students were asked to identify the ***ONE*** major reason for non-completion of the BSN-C program. They were also requested to provide anecdotal comments. The ANOVA was used to analyze the data and showed no significant differences between the variables.

There was not one major theme identified for non-completion. One student did not answer the question. The reasons/themes given for dropping out focused on financial status, family crises, class schedule, employment responsibilities and a change in professional goals.

Two students did comment in the anecdotal portion that they planned to return to complete the BSN when their lives were not so busy, two students reported they are currently in the program completing general education requirements and plan to graduate. One reported financial reasons due to tuition reimbursement from employer. Student 29 reported:

> If my employer would provide tuition reimbursement at the beginning of the class instead of the end of the semester it would not create financial hardship and I would be willing to return to school.

Another student wrote in next to the question regarding tuition reimbursement that the employer would only reimburse nursing courses and not general education courses.

SPA-2

For graduates who completed the SPA-2 the common themes focused on convenience, flexibility, and general positive experiences with faculty and staff. There were three students who reported less than positive experiences and 26 (44%) who did not provide written comments.

Common Themes

Convenience.

Convenience was the most common theme with 16 (36.2%) graduates who shared if it was not for the convenience of the program they may not have been successful in completing the BSN. Eight students completed the instructional delivery method of Web-based instruction. Student 18 wrote:

> Web-based was perfect for my family and my full-time job. As a returning student and nurse for 20 years it was the best delivery method.

Student 16 shared her story:

> While completing the BSN I experienced a divorce and if classes had not been on-line I may not have been able to complete.

Student 12 wrote:

> I appreciated the fact that I could "attend" class whenever it was convenient for me.

Six students (9.6%) completed the BSN via ITV and provided written anecdotal comments related to convenience. Student 12 wrote:

> I found the program to be very convenient and accommodating to my work schedule and to my family responsibilities. These factors made it possible it possible for me to go back to college in my in my 30's and successfully complete my BSN.

Student 9 wrote:

> Attending ITV classes close to home was a huge plus for me the drive time and scheduling challenge would have been in serious deterrent. Additionally, having class once a week worked well with my "real life", schedule/obligations. Finally, I sincerely appreciated being treated like an "adult" learner by all instructors. Thanks.

Student 6 wrote:

> This method (ITV) was a great advantage for me. I probably would not have finished the BSN otherwise.

Student 2 wrote:

> Personally this delivery method was perfect for me. It was right in

> my area of work. I got to class in about 5 minutes from leaving work/ getting to my car. One night a week didn't take me away from my home life with four children.

Flexibility.

Flexibility was another common theme for RNs juggling multiple roles. Four students utilized Web-based instruction and two chose ITV making a total of six students (9.6%) believed flexibility with instructional delivery methods enabled them to complete the BSN. Student 2 wrote:

> I started taking classes on campus then transferred to the online program to finish my last year in the BSN-C program. This option is what enabled me to graduate on time.

Student 14 wrote:

> ITV flexibility allowed me to complete the program after work hours and was very conducive to adult learning.

Student 19 wrote:

> The flexibility of the online program is the only way I was able to complete the BSN related to the fact I work 12 hour nights.

Positive Interactions.

The positive remarks were more general in nature and comprised five students (11.6%). Student 18 wrote:

> I enjoyed the traditional classroom. After already being an RN and returning To complete my BSN, it was nice being physically around other people with similar working situations. I liked having instructors physically available.

Student 13 wrote:

> The UMSL staff and faculty are the most supportive I have had the opportunity to study under. I give them great accolades and will never forget them.

Student 1 who had taken courses through ITV wrote:

> I had a very positive experience with the BSN-C program. I wish there was A MSN program I could take like that.

Student 2 shared similar experiences and wrote:

> Finishing the BSN on-line contributed to my success. I am now having problems scheduling graduate classes with my work schedule.

It is important to appreciate that all students do not experience positive learning outcomes. There were five (11.6%) who reported less than favorable experiences regardless of the instructional delivery method. Student 4 wrote:

> ITV has its negatives. As the distance student you have to realize there will be a delay if you interject in discussion. Just the nature of the beast. Most instructors are aware of that and work accordingly to make the distance students feel a part of the process.

Student 21 was in the traditional classroom and wrote:

> Most of the courses were greatly supported by instructors but my research course was by far the worst. Also the community course was difficult—the instructor offered no help even admitted they were not there to help us just to grade our work. That was very disappointing and it meant the difference between and A and B; needless to say I am going to another institution for my masters.

Student 9 was in the traditional classroom and wrote:

The amount of homework could restrict your BSN completion.

Overall the written comments illustrate the value instructional delivery methods offer adult learners, who are working and taking care of families, while striving to attain the BSN. Providing learning options when unexpected life experiences occur can make the difference between attaining the BSN and non-completion.

Is There an Association between Instructional Delivery and Graduation?

The final research question in this study is the primary focus of the research. Does interaction of instructional delivery format influence students to drop out or continue to graduate? The question was answered by applying the non-parametric statistical test of Chi Square. Tables 10 illustrates there was not a significant relationship between instructional delivery method and students ability to graduate with the BSN or chose to not continue to graduation.

TABLE 10. Chi-Square Test on Association between Delivery Methods and Whether Drop Out or Graduation

	Continue to graduate	Drop out	χ^2	p

	Frequency (%)			
Tradition	21 (36.2)	6 (60)	1.346	.510
ITV	19 (32.7)	2 (20)		
Web	18 (31)	2 (20)		
Subtotal	58 (100)	10 (100)		

*p value significant .05

The Chi Square (1.346) for comparing instructional delivery and impact on retention was found to not be significant with df=2 and significance to be .510 which is above the 0.05 as is identified in Table 10. Thus, based upon this research instructional delivery method does not impact retention in BSN-C students when applying Chi Square.

Summary

The descriptive data revealed the most common student attending the BSN-C program was between the ages of 40-49, female, completed the BSN, Caucasian, worked full-time, was married and did not have any children. The data is supported in the AACN (2004, 2005) literature.

This study addressed the question, "Are there differences in instructional delivery format of traditional, ITV, or Web-base course on SPA-2 scores among BSN-C graduates?" The ANOVA identified four variables from the SPA-2 questionnaire that impacted students' ability to graduate. These were class schedule, family support, family responsibilities, and financial aid and/or scholarship.

To further support the findings, the post hoc test, Scheffe Test was applied to determine statistical significance between the three instructional delivery methods. The only variable that was found to be significant for all instructional delivery methods was class

schedule. The groups did differ in size, though small, the independent variables in the SPA-2 and SWQ may influence the dependent variable of instructional delivery method. By using the Scheffe Test, variances between groups are assumed equal. The Scheffe Test performs simultaneous joint pairwise comparison for all possible pairwise combination of means. The traditional classroom, ITV and Web-based instruction delivery methods were analyzed using the 21 variables in the SPA-2 survey. The Scheffe Test does support class schedule is important to RNs in every instructional delivery method, traditional classroom, ITV, and Web-based instruction. The importance of family support was demonstrated between traditional classroom and ITV delivery methods. The significance of family responsibilities was identified between traditional and Web-based delivery methods. Finally, financial aid/scholarship was statistically supported more of an influence on students choosing ITV as the delivery format.

In regard to factors that promote retention and graduation the common themes included convenience, flexibility, and positive interactions. Convenience was reported to be significant with the highest mean of 36.2% and flexibility was also considered important with a mean of 9.6%.

To answer the final question Chi Square was applied to determine if a statistical difference or relationship occurred between instructional delivery format and retention. Chi square was not able to support that a relationship existed between instructional delivery method and graduation rates.

Chapter five will conclude the research study. The content provided in the chapter will include implications of the study, recommendations for future research, prescriptive strategies to improve graduation, and the conclusion.

CHAPTER V

Discussion, Implications, and Future Recommendations

Technology is changing education and the university classroom. Through alternative delivery methods students have increased opportunities to complete baccalaureate education and perhaps graduate education that may extend beyond the walls of the traditional classroom.

RNs are the least educated members in the healthcare system. However, research confirms that Bachelor of Science in Nursing (BSN) education has a direct impact on patient outcomes (Aiken et al., 2002). Hospitals are recognizing the impact BSN nurses have on patient outcomes and many provide tuition reimbursement to encourage nurses to continue their education. Nurses work long hours, have families to support and now are being encouraged to earn advanced degrees. Providing instructional delivery options enables RNs to complete the BSN and does not require them to stop their professional life.

This chapter contains the discussion of the findings regarding instructional delivery method and impact on RNs returning to complete the BSN and retention. The implications of these findings for educational practice in nursing and future research will also be highlighted.

The purpose of this research was to compare the retention and/or graduation rates among the three instructional delivery formats: traditional, ITV, and Web-based classroom. The research identified little difference between instructional delivery method and graduation rates. At the mid-western university where the study was conducted graduation rates for BSN-C students increased during 2003 when the graduation rate was

83% to the current 2007 graduation rate of 93%. Providing instructional delivery alternatives to learning may account for the 10% increase in retention rates. This is significant when other schools using alternative instructional delivery methods are experiencing retention rates between 40-50% (Herbert, 2006; Kreideweis, 2005). Reasons for dropping out are varied and may include lack of access to required technology, lack of computer skills, lack of faculty and student interaction and lack of peer support (Kreideweis, 2005). None of these disadvantages were identified by the participants in this study.

In an attempt to discern if particular factors had more of an impact on retention, a tool that was developed by Jeffreys (2004) and adapted by this researcher to include alternative instructional delivery methods. The tool was mailed to students who had graduated from the program, as well as, to those who chose to drop out or not continue through graduation. Three hundred and thirty packets were mailed with 68 packets returned. Those that returned the SPA-2 consisted of 58 students and 10 returned both the SPA-2 and SWQ. Three were incomplete and omitted from the study. The overall return rate was 24%.

Research Question 1

Are there differences in instructional delivery format of traditional, ITV, or Web-based instruction on Student Perception Appraisal-2 scores among BSN-C students? According to the SPA-2 survey and the ANOVA, the following variables were statistically significant; class schedule, family support, family responsibilities, and financial aid and/or scholarship. In order to better understand the relationship of the variables on the SPA-2 the Scheffe Test was applied and a significant relationship existed

between the variables class schedule, family support, family responsibilities, and financial aid/scholarship and instructional delivery format.

Class schedule was statistically significant for students regardless of the instructional delivery format. “Availability of courses, flexibility of courses, and convenience are factors that can influence retention through academic, and psychological outcomes” (Jeffereys, 2004, p. 29). The literature supports “RNs arranged school to fit with their lives rather than arranging their lives to fit with school” (Zuzelo, 2001, p. 55). There are multiple reasons why class schedule is considered important for all groups. Students’ perceptions of class schedule, with its physical demands and time constraints, can have positive and negative influences (Jeffreys, 2004). When life happens such as a death in the family, health related problems, or birth of a child the RN may need to withdraw from the nursing course or program for a period of time. The RN can return and begin coursework again and has options to choose which instructional delivery format fits his/her personal needs. If this option was not available it could prolong education and increase expense. Or, a student may transfer to a different university that does provide multiple instructional delivery formats resulting in lost revenue dollars for the college.

Web-based instruction provides an additional learning option. The reasons students chose a Web-based program is multifaceted. It is often assumed that students taking a Web-based course are geographically distant from the institution (Nash, 2005). However, this was not supported with students choosing Web-based instruction, in this particular study. Career and family responsibilities may keep students from attending a physical classroom. Richards and Ridley (1997) found in their study that distance from the classroom was not a major factor in determining which students enrolled in online

courses. The key factors they found were time and scheduling barriers. This is further supported in the research by Schrum (2002) that identified students choose an online class because they perceive it will be more convenient and flexible around other schedule demands. A great advantage with Web-based course options is that students can attend class at whatever time of day or night that is most available and productive for them. However, it is also important to recognize the same work and family responsibilities that keep one from attending a traditional classroom, may also interfere with accomplishing the required work the course demands.

During 2006-2007, the College of Nursing has experienced growth in Web-based instruction and these classes are the first to fill forcing potential students to choose another instructional delivery format. This study supported the notion that instructional delivery method is important and does promote student success and graduation. By offering instructional delivery options for students outside of a traditional campus RNs have the opportunity to complete the BSN.

Family support and family responsibilities were identified to be statistically significant between the ITV and traditional class. This may be due to the scheduled weekly class meetings requiring family members of students to assume additional home responsibilities (Jeffreys, 2004). Required group work outside of the home environment may cause an additional burden on family member responsibilities.

The importance of family support and responsibility is considered to be more important to the non-traditional, commuter student who is juggling family, work, and academic responsibilities (Bean & Metzner, 1985). Lack of family support and responsibilities may not always be a barrier to academic success, but may be the affect of

cultural differences (Jeffryes, 2004). Identifying cultural norms, values and beliefs related to the family role need to be considered. Nurse educators should always be aware the influence cultural values and beliefs have on the students' ability to persist through graduation (Jeffreys, 2004).

It is expected that having more family responsibilities interferes with study time, attendance, academic performance, and faculty and peer interaction all of which may impact the students' ability to graduate. Family responsibilities may compete with school responsibilities. Inability to meet family responsibilities may after the students' ability to complete class assignments. " In a study of first semester non-traditional associate degree nurse students, 51% perceived that family responsibilities were moderately restrictive and 6% perceived them as severely restrictive" (Jeffreys, 1998, p. 85). As nurse educators it is important to listen to every students' needs and strive to promote balance at home and while finishing their degree. Allowing student to submit required assignments at a later date may be all that is required to assist the student during stressful life experiences.

Applying the scores from the ANOVA financial aid and/or scholarship those who had the highest means were ITV and Web-based instructional delivery. Some students who are employed full-time or part-time do receive some tuition reimbursement from their employer, but it may not be received until the end of the semester when grades are submitted. While tuition reimbursement is a fringe benefit, hospitals do require RNs to remain an employee at their work institution for at least two years after completing the BSN. If RNs change employers they are required to pay back a portion of the tuition they received. Tuition reimbursement often is not adequate to meet all of the tuition needs for RNs choosing ITV or Web-based instruction. It is also important to note that participants

in this study did not identify their place of employment. The university does not provide financial aid for working full-time students or scholarships for RNs. Some of the local hospitals will provide scholarships if RNs apply early enough to receive the money before the limited pool is depleted of funds. This is an area where more research should be conducted because as healthcare costs increase retaining qualified BSN nurses can provide cost savings to healthcare institutions. The average cost to orient a new graduate nurse is $50,000-60,000 (personal conversation T. Mercer, October 23, 2008). Therefore, retaining seasoned BSN nurses not only improves patient outcomes but can decrease healthcare costs (Aiken et al., 2002). Delaney & Piscopo research identified barriers to completing the BSN and included cost of the education as the primary stumbling block to RNs considering returning to school (2004).

Tuition reimbursement is a fringe benefit offered by many hospitals to encourage nurses to complete advanced degrees. Dialogue with institutions to consider changing policies to include providing monies at the beginning of the semester versus the end of the semester would decrease financial hardships nurses may incur while encouraging completion of the BSN.

Research Question II

Research question two focused on the factors associated with retention/graduation rates? The two most common themes included convenience and flexibility and is supported in research. "Adult students demand flexibility and convenience in continuing education programs to meet personal obligations and continue their academic endeavors concurrently" (DeBourgh, 2003, p. 160).Tracy-Mumford's (1994) research also supported advantages to distance learning to include convenience and flexibility. Jeffreys

(2004; 2007) found this to be the case in her research studies with non-traditional students completing the associate degree. In the current research presented, RNs who had to drop out of the program did not identify one primary reason for dropping out. Two did report they were completing general education requirements and two reported they planned to return. The variables they identified that prevented them from continuing included financial issues, family crises, and change in professional goals. Only ten returned the SWQ and one did not answer the question leaving only nine which is too small of a group to make any generalizations or to identify specific themes. These themes are consistent with the literature in regard to distant learners and attrition rates (Herbert, 2006; Nash, 2005). Students want flexibility and convenience while completing their educational journey.

Research Question III

Lastly, "Is there an association between instructional delivery formats and whether students drop out or continue to graduation?" was examined. Based upon the Chi Square instructional delivery format did not significantly influence students to drop out or continue to graduation. The return sample size was small (24%) which affected the outcome results.

This study supported that institutions that provide multiple instructional delivery options may experience an increase in retention/graduation rates. Academic institutions are recognizing the importance of retention of freshman students, however, retention of all students regardless of entry level is an institutional measure of success. The goal is to keep students in academic programs with completion of course requirements and ultimately, graduation (Mumford-Tracy, 1994). Institutions that provide instructional

delivery options offer students choices which can affect their ability to graduate was supported by this research, as well as the research of others (Nash, 2005; Swan, 2001).

Discussion

The majority of research on retention has addressed traditional students attending a residential university campus (Bean, 1990; Kuh, Kinzie, Schuh, Whitt, and Associates, 2005; Seidman, 2005; Tinto, 1975; Tracy-Mumford, 1994). The implications and interventions are different when compared to the non-traditional, adult student attending class part-time. Due to the acute nursing shortage, retention of nursing students attending associate degree programs are being studied with strategies to promote retention (Jeffreys, 2001; 2002; 2004; 2007; Peterson, 2001; Shelton, 2003). Additional research needs to address the adult nurse returning to school to continue academic studies whether it is the BSN-C, MSN, or PhD. The shortage in these advance nursing roles is expected to continue to increase (AACN, 2006).

A larger sample size may have gleaned additional information. Networking or partnering with schools of nursing who provide the same instructional delivery methods would have provided a larger sample size that could be generalized to a larger working RN population. Telephone surveys or email surveys may have resulted in a larger sample size. The problem with maintaining contact with graduates is they move and frequently do not provide the university with a change of address. Sending more than one reminder postcard might have yielded a greater return. The challenge is maintaining current student records that will promote easier follow up.

Class size is another limitation in all instructional delivery formats whether it is traditional, Web-based or ITV (Simonson et al., 2006). In order for the instructional

delivery format to be effective Web-based and ITV have class size limitations. Research supports limiting Web-based courses to 12-15 students will promote active learning and retention (Herbert, 2006; Nash, 2004).

Faculty are essential regardless of the instructional delivery method utilized. However, faculty may perceive the increase use of technology as a threat and may resist implementing technology into the classroom (Simonson et al., 2006). Many faculty have been educated in the traditional classroom and may need help to re-conceptualize their style of teaching to include non-traditional venues that may include ITV or Web-based instruction. While the traditional role of the instructor has changed from "expert" to "facilitator" the importance of meaningful interaction with the instructor has not changed. Administrators need to provide faulty development programs to ensure the faculty are receiving resources needed to make the needed transitions.

"Although the faculty member needs to be present at designated times, such as in class or in the faculty office, the most important factor is that the student perceives the faculty member as caring and encouraging" (Jeffreys, 2004, p. 106). AACN (2005) reports the average age of nursing faculty is 54. With aging faculty there are additional challenges which may include their willingness to adapt to a new instructional delivery method or to incorporate technology into the classroom (Murray, 2007; Udod & Care, 2004). Compounding aging faculty with the nursing faculty shortage may impact the frequency courses are delivered. This can also result in class offerings on an annual basis.a year. During that time the student may become disenchanted or decide to attend another university that has more resources and can offer classes every semester enabling the student to graduate sooner.

Communication is integral regardless of the delivery method. For example, participants in the study reported they were not aware the class was ITV or class expectations included alternative learning activities that may include Web-based assignments. This can result in dissatisfaction, disengagement, and/or frustration with completing baccalaureate education. According to the AACN (2005) the average age of the nurse is 45 years old and these nurses may lack confidence in their abilities to return to the academic setting. Studies support similar findings in non-traditional students returning to school (Galusha, 1997; Herbert, 2006). Advancing computer technology may also impact students' willingness to investigate or begin a BSN-C program. Providing computer refresher courses to new students or students who have not been in an academic setting for 10 or more years may increase confidence and their ability to graduate with the BSN. Another option might be a required campus visit to orient the non-traditional student and provide support networks with the common objective to promote engagement among students and faculty with the overall goal to promote graduation.

Implications and Recommendations for Future Research

Based upon the findings of this study instructional delivery method does not impact retention for BSN-C students. This is actually a positive result because instructional delivery methods have been identified to increase graduation rates at the university where the research was conducted with graduation rates at 93%. Replicating this study with a larger population would provide data that could be useful to universities, employers, faculty, and students. Providing options for RNs returning to school is important and allowing them to alternate between delivery methods can make progression and graduation more likely to occur.

Future qualitative and quantitative studies on this subject would also assist Colleges of Nursing to implement prescriptive strategies to promote retention and graduation. Even a pre and post questionnaire would provide insight to what is working and what is not effective allowing changes to be implemented in a timely manner while increasing graduation rates.

Prescriptive strategies that could be implemented would focus on providing education that is learner centered. Allowing students to register and pay tuition online would decrease the amount of time required for working students as many work full-time jobs. It would also decrease costs incurred to drive to campus. As well as, offering students the option to order books online or through the campus bookstore to have mailed to their home. Encouraging and promoting student cohorts within their classes will create lifelong support networks and encouragement to continue their educational journey

Another prescriptive strategy that was supported in this research was providing different instructional delivery methods that allows students to choose which best meets their learning needs while considering their family and professional needs. Colleges of Nursing need to provide students with instructional delivery options that fit students' busy lifestyles, as well as ensuring flexibility between delivery options. For example, the birth of child may affect the RNs ability to attend class. Providing Web-based delivery may be something the RN would want to consider if only for a semester.

Technology is a tool for learning, however for it to be effective faculty need to embrace technology (Kozlowski, 2004). Encouraging faculty to create connections with students through prompt feedback, returning papers, and encouraging faculty representation in the BSN-C program through active participation in college committees

are a few mechanisms that can influence student satisfaction and retention. Ensuring the BSN-C student is supported and not forgotten regardless if they are physically present on campus, is something faculty and the institution need to be held responsible to do. Colleges of Nursing should provide advisors and administrators whose focus is the BSN-C student. Faculty that are designated because of their passion for this population and their ability to use alternative instructional delivery methods need to be rewarded through intrinsic or extrinsic means.

Conclusion

Education and nursing are changing. The nursing shortage is expected to only increase (Aiken et al., 2002; Nevidjon & Erickson, 2001; Savor, 2002). Providing instructional delivery methods for RNs will create increased educational opportunities, expand access to resources, and provide greater flexibility (Murray, 2007). Technology is here to stay and can provide the educational medium RNs need to complete the baccalaureate degree. This study does support the growing interest in instructional delivery methods and the importance options have for professional RNs who work, attend school, and provide for their families. Education will grow in value as nurses continue to seek higher education, because the most exciting opportunities for nurses are to be found at the master's level and above.

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Appendix A

Student Perception Appraisal – 2 (SPA-2) Revised

Going to school was one part of your life. Certain factors may have restricted or supported YOUR successful goal attainment of the BSN.

Evaluate each item in terms of how it affected YOUR ability to remain in nursing courses ***or*** factors that restricted your ability to complete the BSN program.

Please choose the ***primary*** delivery method used in your coursework while completing the BSN.

_____Traditional Classroom _____Interactive Television (ITV) _____Web-based

Choose a number from (1) to (6) and mark your response accordingly.

1. Does Not Apply
2. Severely Restricts
3. Moderately Restricts
4. Does Not Restrict or Support
5. Moderately Supports
6. Greatly Supports

1)	Personal study skills	1 2 3 4 5 6
2)	Faculty support and helpfulness	1 2 3 4 5 6
3)	Financial status	1 2 3 4 5 6
4)	Tuition reimbursement from employer	1 2 3 4 5 6
5)	Class schedule	1 2 3 4 5 6
6)	Family support for school	1 2 3 4 5 6
7)	Hours of employment	1 2 3 4 5 6

1. Does Not Apply
2. Severely Restricts
3. Moderately Restricts
4. Does Not Restrict/Support
5. Moderately Supports
6. Greatly Supports

8)	Personal study hours	1 2 3 4 5 6
9)	College library services	1 2 3 4 5 6
10)	Family emotional support	1 2 3 4 5 6
11)	Family crises	1 2 3 4 5 6
12)	Employment responsibilities	1 2 3 4 5 6
13)	Family responsibilities	1 2 3 4 5 6
14)	Financial aid and/or scholarship	1 2 3 4 5 6
15)	Academic performance	1 2 3 4 5 6
16)	Encouragement by friends outside school	1 2 3 4 5 6
17)	Encouragement by friends in class	1 2 3 4 5 6
18)	Technology services	1 2 3 4 5 6
19)	Memberships in professional organizations	1 2 3 4 5 6
20)	Social integration to profession	1 2 3 4 5 6
21)	Child care arrangements	1 2 3 4 5 6

Please add additional comments related to the delivery method and the impact it had on your ability to complete or continue in the program.

Please return all forms in envelope provided.

Thank you for your time and contributions!

Jeffreys, M. R. (2004). *Nursing student retention: Understanding the process and making a difference.* New York, NY: Springer Publishing.

Appendix B

Student Withdrawal Questionnaire

Student feedback is essential for meeting future student needs. Please answer the following questions and mark your response accordingly. RNs who graduated with the BSN ***will not need*** to complete this questionnaire.

Please choose the ***primary*** delivery method used in your coursework while you were a student in the BSN-C program at University of Missouri-St. Louis.

_____Traditional Classroom _____Interactive Video (ITV) _____Web-based

Part I

How did each item influence ***YOUR*** decision to quit or drop out of the BSN-C program? Using the scale below, choose a number from (1) to (4) and mark your response accordingly.

1. Strong influence
2. Some influence
3. Little influence
4. No influence

A.	Financial status	1 2 3 4
B.	Class schedule	1 2 3 4
C.	Family crises	1 2 3 4
D.	Employment responsibilities	1 2 3 4
E.	Family responsibilities	1 2 3 4
F.	Academic difficulty or failure	1 2 3 4
G.	Child care arrangements	1 2 3 4
H.	Change in health status	1 2 3 4
I.	Change in professional goals	1 2 3 4

Part II

From the above items, please select the ***ONE*** major reason for non-completion of the BSN-C program. Make your response accordingly.

A B C D E F G H I

Please provide additional comments related to delivery method and the impact it had on your ability to continue in the program.

Please return all forms in envelope provided.

Thank you for your time and contributions!

Jeffreys, M. R. (2004). *Nursing student retention: Understanding the process and making a difference.* New York, NY: Springer Publishing.

Appendix C

October 18, 2007

This letter is to grant permission to

Cynthia Billman, MSN, RN, BSN-C Program Coordinator, University of Missouri-St.Louis, College of Nursing & Adult Education Doctoral Student

for your use of the Nursing Undergraduate Retention and Success (NURS) model, the Student Perception Appraisal-2 (SPA-2), and the Student Withdrawal Questionnaire (SWQ) in your research study. You may adapt the SPA-2 and SWQ as you delineated in your request letters of October 6, 2007. Please note that I have written some comments and suggestions on your proposed drafts. Should you wish to incorporate these suggestions, you may do so. The questionnaires may be reproduced; however please be sure that all respondents return the questionnaire. I do request that you send me a copy of: a) any published work resulting from use of your adapted SPA-2 and/or SWQ; and b) any further reliability and validity test results.

Please acknowledge Dr. Marianne R. Jeffreys as the creator and copyright holder of the above mentioned conceptual model and questionnaires.

Best wishes in your research endeavors and commitment to promoting student retention and success. I would be happy to discuss the questionnaires with you and maintain correspondence as a consultant.

Sincerely,

Marianne R. Jeffreys

Marianne R. Jeffreys, EdD, RN
Professor, Nursing
jeffreys@mail.csi.cuny.edu
(718)-982-3825

Appendix D

Student Perception Appraisal – 2 (SPA-2) Revised
PILOT

Going to school was one part of your life. Certain factors may have restricted or supported YOUR successful goal attainment of the BSN.

Evaluate each item in terms of how it affected YOUR ability to remain in nursing courses ***or*** factors that restricted your ability to complete the BSN program.

Please choose the ***primary*** delivery method used in your coursework while completing the BSN.

_____Traditional Classroom _____Interactive Television (ITV) _____Web-based

Choose a number from (1) to (6) and mark your response accordingly.

1. Does Not Apply
2. Severely Restricts
3. Moderately Restricts
4. Does Not Restrict or Support
5. Moderately Supports
6. Greatly Supports

1)	Personal study skills	1 2 3 4 5 6
2)	Faculty support and helpfulness	1 2 3 4 5 6
3)	Financial status	1 2 3 4 5 6
4)	Tuition reimbursement from employer	1 2 3 4 5 6
5)	Class schedule	1 2 3 4 5 6
6)	Family support for school	1 2 3 4 5 6
7)	Hours of employment	1 2 3 4 5 6

1. Does Not Apply
2. Severely Restricts
3. Moderately Restricts
4. Does Not Restrict/Support
5. Moderately Supports
6. Greatly Supports

8)	Personal study hours	1 2 3 4 5 6
9)	College library services	1 2 3 4 5 6
10)	Family emotional support	1 2 3 4 5 6
11)	Family crises	1 2 3 4 5 6
12)	Employment responsibilities	1 2 3 4 5 6
13)	Family responsibilities	1 2 3 4 5 6
14)	Financial aid and/or scholarship	1 2 3 4 5 6
15)	Academic performance	1 2 3 4 5 6
16)	Encouragement by friends outside school	1 2 3 4 5 6
17)	Encouragement by friends in class	1 2 3 4 5 6
18)	Technology services	1 2 3 4 5 6
19)	Memberships in professional organizations	1 2 3 4 5 6
20)	Social integration to profession	1 2 3 4 5 6
21)	Child care arrangements	1 2 3 4 5 6

Please add additional comments related to the delivery method and the impact it had on your ability to complete or continue in the program.

Please return all forms in envelope provided.

Thank you for your time and contributions!

Jeffreys, M. R. (2004). *Nursing student retention: Understanding the process and making a difference.* New York, NY: Springer Publishing.

Appendix E

College of Education

Division of Educational
Leadership and Policy Studies

One University Boulevard
St. Louis, Missouri 653121-4400
Telephone: 314-516-5944
Fax: 314-516-5942

Informed Consent
April 16, 2008

Impact of Delivery Method on Retention in BSN-C Students

Cynthia Billman, a doctoral candidate at University of Missouri-St.Louis, under the direction of advisor Dr. E. Paulette Isaac-Savage, is conducting research to complete the dissertation. The Internal Review Board at the University of Missouri-St. Louis has granted approval of the research. The research investigation is entitled: Impact of Delivery Method on Retention in BSN-C Students. The purpose of the study is to compare and contrast the relationship between delivery method and impact on retention in RNs who are returning to school to complete the BSN.

Participation in the study is voluntary and you are free to discontinue or withdraw participation at any time. Completing the questionnaires will take approximately 15 minutes. At the completion of the research all information obtained will be destroyed and the results will be reported in aggregate form and will not be traceable to you.

Important points about the research:

1. The purpose for the research is to compare and contrast three modes of delivery and determine if they impact retention of BSN-C students. The three delivery modes are: a) traditional classroom; b) interactive television, ITV; and c) Web-based delivery. The study focuses on: What, if any, is the impact of delivery method on program retention/graduation of BSN-C students?
2. The process has three parts. Please follow the directions and complete all of the information. First, complete the demographic information which will include information such as your age, gender, educational preparation, as well as additional personal information. Second, complete the Student Perception Appraisal-2 questionnaire (SPA-2). The third form is to be completed only if you ***did not complete and graduate with the BSN***. RNs in this category will be asked to complete ***both*** the SPA-2 and the Student Withdrawal Questionnaire (SWQ). ***Return completed questionnaire in envelope provided by May 9, 2008.***
3. There are no foreseen discomforts that may be faced during this project.
4. There are no foreseen risks.
5. The results of your participation will be anonymous.
6. Any questions you have can be answered by contacting Cynthia Billman at (314) 516-6074; billmancy@umsl.edu., or Dr. E. Paulette Isaac-Savage at (314) 516-5941; EPIsaac@umsl.edu, or the Institutional Review Board at the University of Missouri - St. Louis at (314) 516-5897; ora@umsl.edu.

Thank you for your participation!

Signature of Primary Investigator_____

Date_____

Printed Name_____

Appendix F

Please choose the delivery method used in your coursework as a student at UMSL.

_____Traditional _____ITV _____Web-based Instruction

Year of Graduation_____ Today's Date_____

RETURN IN ENVELOPE PROVIDED
Please circle the response that describes you.

DEMOGRAPHIC DATA

1. My age:
   a. 20-29
   b. 30-39
   c. 40-49
   d. 50-59
   e. 60+

2. Gender:
   a. Male
   b. Female

3. Highest degree I have earned:
   a. Associate Degree in Nursing
   b. Bachelor's Degree in Nursing
   c. Master's Degree in Nursing
   d. Doctorate in Nursing
   e. Other

4. My ethnic identity:
   a. Asian
   b. African American
   c. Caucasian
   d. Hispanic
   e. Native American
   f. Other

5. I currently am employed:
   a. Full-time
   b. Part-time
   c. Not working by choice
   d. Other

6. Marital Status:
   a. Single
   b. Married
   c. Divorced/Separated
   d. Widowed
   e. Single living with partner

7. Number of dependent children living with you:
   a. None
   b. One
   c. Two
   d. Three
   e. Four
   f. Five or more

Appendix G

ANOVA	Mean	Std. Deviation	F	Sig
Study Skills				
Traditional	5.24	.831	.275	.761
ITV	5.11	1.023		
Web	5.35	1.057		
Faculty Support				
Traditional	5.19	.814	2.012	.144
ITV	5.33	.594		
Web	4.76	1.147		
Financial Status				
Traditional	4.57	.811	3.334	.055
ITV	5.06	1.063		
Web	4.14	1.099		
Tuition Reimburse				
Traditional	4.95	1.050	1.758	.183
ITV	5.56	.892		
Web	5.27	.961		
Class Schedule				
Traditional	4.9	1.221	4.326	.017*
ITV	5.78	.428		
Web	5.12	.957		
Family Support				
Traditional	4.86	1.014	4.990	.010*
ITV	5.67	.485		
Web	5.38	.806		

147

Hours Employment				
Traditional	4.30	1.380	1.389	.259
ITV	4.94	1.144		
Web	4.29	1.404		
Study Hours				
Traditional	4.95	1.050	.057	.944
ITV	5.06	.873		
Web	5.00	.953		
Library				
Traditional	4.65	1.137	.152	.860
ITV	4.76	1.033		
Web	4.82	.951		
Family Emotional Support				
Traditional	4.81	.981	2.465	.095
ITV	5.39	.859		
Web	5.31	.793		
Family Crisis				
Traditional	3.06	1.063	1.075	.351
ITV	3.62	1.261		
Web	3.60	1.242		
Employment Responsibilities				
Traditional	3.62	1.117	2.605	.083
ITV	4.39	1.037		
Web	4.29	1.312		
Family Responsibilities				
Traditional	3.43	1.076	4.213	.016*
ITV	4.33	1.188		
Web	4.35	1.169		
Financial Aid				
Traditional	4.00	1.265	3.474	.042*
ITV	5.18	1.079		
Web	4.30	1.059		

148

Academic Performance				
Traditional	5.48	.602	.749	.478
ITV	5.22	.732		
Web	5.29	.686		
Friends Out-side School				
Traditional	4.80	.951	1.388	.259
ITV	4.94	.827		
Web	5.25	.577		
Friends In Class				
Traditional	5.05	.759	1.873	.164
ITV	5.39	.608		
Web	4.86	1.027		
Technology Services				
Traditional	4.90	.718	1.629	.206
ITV	5.06	.873		
Web	5.35	.702		
Professional Organizations				
Traditional	4.58	.793	1.261	.295
ITV	4.08	.494		
Web	4.25	1.000		
Social Integration				
Traditional	4.89	.875	.193	.825
ITV	4.80	.862		
Web	4.71	.726		
Childcare				
Traditional	4.00	1.225	.294	.748
ITV	4.38	1.061		
Web	4.25	.707		