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## Transition From High School to Associate Degree Nursing Education: A Qualitative Study

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**TRANSITION FROM HIGH SCHOOL TO ASSOCIATE DEGREE**

**NURSING EDUCATION: A QUALITATIVE STUDY**

By

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## **ABSTRACT**

### **TRANSITION FROM HIGH SCHOOL TO ASSOCIATE DEGREE NURSING EDUCATION: A QUALITATIVE STUDY**

Kathy Jessee Mitchell  
Old Dominion University, 2012  
Director: Dr. Karen Sanzo

Nursing is facing a critical shortage and retention of nursing students is of paramount importance. Much research has been completed related to retention in nursing education and student success, but there is very little in current literature related to issues associated with the transition from high school to associate degree nursing (ADN) education. The purpose of this study was to explore this phenomenon through qualitative research involving ADN students who entered the nursing programs immediately after graduation from high school. This qualitative study involved students from a rural associate degree program. The intent was to provide a better understanding of factors that may contribute to students' success or lack of success in order to develop retention programs. Data was collected using interviews and focus groups; analysis was based on a thematic analysis approach. The major themes identified were academic self-confidence, academic preparedness, academic study skills, and time management with social life changes. The results implicated areas for improvement in both high school and community college student preparation and support.

This dissertation is dedicated to my loving husband, Larry Mitchell and my five amazing children, Jonathan, Elizabeth, David, Stephen, and Nathan. They were always my cheerleaders encouraging me to keep going and convincing me that I could.

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A special note of thanks goes to the students who participated in the study. They were amazing and such a delight. They were articulate and so willing to talk about their experiences; without their exceptional participation this dissertation would have been impossible.

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<b>TABLE OF CONTENTS</b>	<b>Page</b>
LIST OF TABLES.....	x
LIST OF FIGURES.....	xi
CHAPTER .....	
1. INTRODUCTION.....	12
Background.....	13
High School to College Transition.....	15
Barriers to Nursing Student Retention.....	16
Statement of the Problem.....	16
Purpose Statement and Research Questions.....	18
Definition of Terms.....	19
Overview of Methodology.....	20
Significance of the Study.....	21
Delimitations of the Study.....	22
Conclusion.....	22
2. LITERATURE REVIEW.....	23
Method of Review.....	25
Nursing Education and the Community College.....	25
Associate Degree Nursing Education.....	25
Growth of the Community College and Health Care Programs..	26
Transition from High School to Community College.....	29
Developmental Theory.....	33
Perry’s Theory of Intellectual Development.....	33

Magolda’s Theory of Intellectual Development.....	35
College Impact Theory.....	35
Tinto’s Interactionalist Theory of Student Departure.....	35
Bean and Metzner’s Causal Model of Nontraditional Undergraduate Retention.....	39
Jeffreys’ Nursing Undergraduate Retention and Success Model.....	42
Summary.....	52
3. METHOD.....	53
Qualitative Research Design.....	54
Context of the Study.....	56
Limitations of the Study.....	57
Research Questions.....	58
Procedures for Gaining Access to Participants.....	59
Participants.....	60
Procedures for Establishing Researcher-Participant Relationships...	65
The Researcher’s Role.....	65
Ethical Considerations.....	66
Data Collection Procedures .....	67
Interviews and Focus Groups.....	67
Data Analysis.....	70
Summary.....	71
4. RESULTS.....	73
Description of the Participants.....	74
Results.....	75

Academic Self-Confidence.....	76
Academic Preparedness.....	78
Academic Study Skills.....	83
Time Management and Social Life Changes.....	85
Students' Recommendations to Improve Transition.....	88
<b>5. CONCLUSIONS.....</b>	<b>91</b>
Significance of the Study.....	91
Restatement of the Problem.....	93
Review of the Methodology.....	94
Summary of Findings.....	95
Transition.....	95
Preparation.....	98
Students' Recommendations.....	101
Implications for Educational Leaders and the Healthcare Workforce	102
Secondary and Post-Secondary Faculty as Partners.....	102
Credit-Based Transition Program.....	102
Creating a Culture of Student Success.....	104
First-Year Support	105
Community Implications.....	107
Limitations of the Study.....	107
Recommendations for Future Research.....	107
Conclusion.....	108
REFERENCES.....	110
APPENDICES.....	127

A: Interview Protocol, High School to Associate Degree Nursing Students.....	127
B: Focus Group Protocol, High School to Associate Degree Nursing Students.....	131
C: Research Questions with Interview and Focus Group Protocols...	133
D: Letter Requesting Permission to Conduct Study at Community College.....	134
E: Email Requesting Student Participation.....	136
F: High School Characteristics and Advanced Placement Enrollment.....	137
G: High School Standardized Assessment Scores	138
High School Standardized Reading Assessment Scores.....	138
High School Standardized Writing Assessment Scores.....	139
High School Standardized Algebra Assessment Scores.....	140
High School Standardized Biology Assessment Scores.....	141
High School Standardized Chemistry Assessment Scores.....	142
H: Informed Consent Document Old Dominion University.....	143
I: Demographic Questionnaire.....	146
VITA.....	147

## LIST OF TABLES

Table	Page
1. VATNP First-Semester Enrollment and Attrition, 2005-2009.....	18
2. Examples of Pre-entry Attribute Affecting Institutional Departure...	37
3. Variables of Nontraditional Student Attrition.....	40
4. NURS Model of Student Retention.....	43
5. Individual Student Participant Characteristics.....	64
6. Characteristics of School Districts.....	137
7. Characteristics of School Districts.....	138
8. High School Writing Assessment Scores in Percent of Total High School Population, 2009-2010.....	139
9. High School Algebra Assessment Scores in Percent of Total High School Population, 2009-2010.....	140
10. High School Biology Assessment Scores in Percent of Total High School Population, 2009-2010.....	141
11. High School Chemistry Assessment Scores in Percent of Total High School Population, 2009-2010.....	142

**LIST OF FIGURES**

Figure	Page
1. Model of Nursing Undergraduate Student Retention.....	46
2. Area Population, 2011 Estimates.....	61
3. Median Household Income, 2006-2010.....	62
4. Persons Below Poverty Level, Percent, 2006-2010.....	62

## CHAPTER 1

### INTRODUCTION

The United States is facing a critical shortage of registered nurses (RNs) brought about by the growth and aging of the general population and the increasing demand for high quality care (Health Resources and Services Administration [HRSA], 2004). At the same time, a large number of nurses in the American workforce are approaching retirement age and the nursing profession is having difficulty attracting new entrants and retaining the existing workforce. By 2020, it is projected that the shortage will grow to more than one million nurses (HRSA). This prediction challenges nursing programs across the nation to increase the number of graduates prepared for the nursing workforce. Despite this challenge, nursing programs are limited in their enrollment capabilities because of shortages of faculty, clinical placements, and classroom space (National League of Nursing [NLN], 2010). Most nursing programs are already enrolling their maximum capacity of nursing students; in fact, nearly 23.4% of US nursing programs reported receiving more applications than could be accepted in the 2007-2008 academic year (NLN). Increasing retention is one option to increase graduates since most programs are unable to increase enrollment.

In recent decades research focusing on retention and persistence suggests that the first year of college may be the most critical in relation to student success or college completion (Pascarella & Terenzini, 2005; Tinto, 1993; Upcraft, Gardner, & Barefoot, 2005). Much research has been conducted to identify factors associated with retention in nursing education (Higgins, 2005; Hopkins, 2008; Jeffreys, 2007; Salyes, Shelton, &

Powell, 2003); however, there is a deficiency in research exploring issues associated with transition from high school to associate degree nursing education or the first year experience in nursing education. This qualitative study explored these issues to enrich current literature and to identify possible interventions to promote success of the students entering associate degree nursing education immediately after high school graduation.

### **Background**

Registered nurses most often receive pre-licensure education through one of three education pathways. Students preparing for the nursing profession may attend a baccalaureate degree program (BSN), an associate degree program (ADN), or a diploma program. All three programs provide basic knowledge and skills necessary to pass the National Council Licensure Exam for Registered Nurses (NCLEX-RN). Preparation for baccalaureate degrees is provided through four-year programs offered at universities and colleges; according to the National League for Nursing (NLN, 2010), approximately 36% of 2007-2008 RN graduates were graduates of BSN programs. Associate degree programs may be offered at junior colleges, community colleges, four-year colleges, universities, or hospitals. Most ADN programs are offered at community colleges and require 2 to 3 years to complete. During the 2007-2008 academic year 61% of RN graduates were graduates of ADN programs (NLN). Diploma programs are usually hospital-based programs and accounted for only 3% of RN graduates in 2007-2008 (NLN). Diploma programs typically require 3 years to complete. Associate degree programs are designed to move students into the field more quickly and offer a more flexible schedule than either diploma or BSN programs (National Advisory Council on Nurse Education and Practice [NACNEP], 2010). These characteristics of ADN programs

are common to the many community college programs that have contributed to the current growth of community college enrollment.

The number of all students enrolled in community colleges increased by 11.4% from fall 2007 to fall 2008 and by 16.9% from fall 2008 to fall 2009 while the full-time enrollment in U.S. community colleges increased by 24.1% during this 2 year period (Mullin & Phillippe, 2009). The economic decline during this time period resulted in a larger number of high school graduates choosing the lower tuition of a community college for the first two years of a four year college degree (Mullin & Phillippe). Statistics from 2007-2009 indicated that 46% of the community college student population is 21 years old or younger (American Association of Community Colleges [AACCC], 2010). With the growth of community college enrollment and the projected growth in health care jobs, more of these students have chosen health care programs (United States Department of Labor, 2010). The percentage of associate degree students enrolled in health care programs increased from 18.9% of the total student population in 1990 to 20.4% in 2000 and to 29.8% in 2004 (National Center for Education Statistics [NCES], 2006). Despite this growth, the American Association of Community Colleges (2009) challenged community colleges and the healthcare community to continue to recruit high school students into health care careers. An increase in community college enrollment of students immediately out of high school warrants attention to issues associated with transition from high school to associate degree nursing education. Most literature addressing retention in ADN programs does not specifically address the issues of students transitioning to nursing education immediately after high school graduation

Hopkins, 2008; Jeffreys, 1998; Sayles, Shelton, Powell, 2003). In order to promote success of these young students, we must understand their specific issues and needs.

### **High School to College Transition**

First time college students face both academic and social challenges as they struggle with adapting to a new social environment with new independence and responsibilities (Upcraft, Gardner, & Barefoot, 2005). Many students enter college believing they are adequately prepared, only to find that they struggle academically (Conley, 2005). High school courses often focus on content mastery or knowing the right answer and new high school graduates may enter college believing that they have the foundational knowledge to be successful only to learn that merely providing the right answer is no longer adequate (Kidwell, 2005). They discover that their opinions must be supported with reason and evidence; contrary opinions must be fairly analyzed and evaluated. They must analyze why an answer may or may not be correct, what makes one answer better than another, and they must also be prepared to explain what they think and why (Kidwell). Regarding social challenges, Tinto (1993) suggested that external forces are critical in determining whether a student will be successful in college. These factors include the actions of one's family and of members of one's community as well as factors such as events in state or national organizations. Community college students often have numerous responsibilities such as work, family, or community activities conflicting with studies. Twenty-one percent of full-time community college students are employed full-time, 59% are employed part-time; 40% of part-time students are employed full-time and 47% are employed part-time. Approximately 16% of community college students are single parents (AACC, 2009). Community college students often struggle with both

academic and social challenges that affect their adaptation to college. Approximately 45% of high school students who enroll in community colleges immediately after graduating from high school leave without completing a degree or certificate program (Provasnik & Planty, 2008) and the highest rate of attrition is in the first year (Horn, 2009; Provasnik & Planty).

### **Barriers to Nursing Student Retention**

Nursing programs across the nation are challenged to increase student retention and success in an attempt to meet the increased need for nurses predicted by workforce statistics (HRSA, 2008). Nurse educators have identified academic, motivational, personal, and economic challenges that are known to interfere with success in nursing education (Aber & Arathuzik, 2007; Hopkins, 2008; Jeffreys, 2004). According to these studies, students who are unsuccessful often encounter barriers such as employment, child care responsibilities, poor academic preparation, low socioeconomic backgrounds, low self-esteem, poor study skills, poor test taking skills, and lack of family support. There is a lack of empirical research related to the barriers associated specifically with high school students transitioning from high school to community college associate degree nursing education.

### **Statement of the Problem**

Healthcare providers and nurse educators recognize the need to address the nursing shortage currently facing our nation. The State Council for Higher Education in Virginia estimates that Virginia will experience a shortage of approximately 22,600 full-time RNs by 2020. The Virginia Community College System (VCCS) and the Virginia Hospital and Healthcare Association (VHHA) joined forces in 2005 to bring educators

and employers together to address the nursing shortage by creating the Chancellor's Task Force on Nursing Education (VCCS & VHHA, 2005). The charge to the task force was to develop recommendations to increase the number of nursing graduates from VCCS's associate degree nursing programs with specific emphasis on lowering the attrition levels of VCCS nursing students (VCCS & VHHA, 2005).

The VCCS Annual Nursing Report 2009-2010 indicated that the three year graduation rate for all VCCS nursing programs ranged from 62% to 67% for the cohorts enrolling between 2002 and 2006, and 66% for 2007, for an attrition rate ranging from 33% to 38%. During the 2007-2008 academic year, the Virginia Department of Health Professions reported a 32% attrition rate in VCCS ADN programs with about 63% of this attrition occurring in the first semester (Commonwealth of Virginia Board of Nursing, 2008). The VCCS ADN programs' directors reported that students immediately out of high school were at great risk for attrition (VCCS & VHHA, 2010). The overall attrition rate for the traditional age students entering the ADN program involved in this study from 2005-2009 was 43.5% while the overall attrition rate for the program during that same period was 20.6% (Mitchell, 2011). Attrition of recent high school graduates in the program involved in this study is demonstrated in Table 1.

Table 1

*VATNP First-Semester Enrollment and Attrition, 2005-2009 (Mitchell, 2011)*

Year	All First Semester ADN Students			Students transitioning directly from High School to ADN program		
	Total	Attrition	Percent	Total	Attrition	Percent
2005	145	24	17%	8	4	50%
2006	197	28	14%	24	9	37.5%
2007	171	62	36%	8	4	50%
2008	171	26	15%	12	4	33.3%
2009	172	36	21%	10	6	60%
2005-2009	856	176	20.76%	62	27	43.5%

### Purpose Statement and Research Questions

Research has identified factors that influence success of associate degree nursing students, but little attention has been paid to the transition of the high school student to associate degree nursing education. The purpose of this phenomenological study was to investigate the transition of students from high school to community college associate degree nursing education to better understand factors that influence student persistence and program completion. The research questions guiding this study were as follows:

1. How do community college students who enroll in an associate degree nursing program immediately after high school graduation describe the transition from high school to associate degree nursing education?
2. What experiences had the greatest effect on the transition from high school to associate degree nursing education?
3. What institutional or procedural changes do community college students who enroll in an associate degree nursing program immediately after high school graduation suggest can be done to positively influence the transition from high school to associate degree nursing education?

#### **Definition of Terms**

The following terms will be used throughout this study:

*Attrition* is defined as leaving college, regardless of reason, without completing degree requirements (Catalano & Eddy, 1993). In this study attrition refers to leaving the nursing program.

*Nursing Student* is defined as a student who is enrolled in a nursing program (BSN, ADN, or Diploma) preparing for the NCLEX-RN. Although a student may be identified as a nursing major, if not enrolled in nursing courses, then the student would not be considered a nursing student for the purpose of this study. A high school student entering an ADN program directly out of high school would most likely be enrolled in nursing classes during the first semester.

*Persistence* refers to the desire and action of a student to continue enrollment in an education program from beginning through degree completion (Berger & Lyon, 2005)

*Retention* is defined as the ability of an institution to retain a student from admission through graduation (Berger & Lyon, 2005).

*Transition* is defined as any event, or non-event, that results in changed relationships, routines, assumptions, and roles (Schlossberg, Waters, & Goodman, 1995).

### **Overview of Methodology**

Effective strategies to promote student success must be based on understanding of the experiences of the students. Phenomenological research explores a life experience from the participant's perspective by focusing on questions that ask what the experience is like (Creswell, 2003; Houser, 2008; & Patton, 2002). In this study the issue was transition from high school to associate degree nursing education and the participants were recent high school graduates enrolled in an associate degree nursing program immediately after graduation. A phenomenological study approach was selected to provide a better understanding of the transition from high school to associate degree nursing education. These experiences of the various students were brought together to create a better picture of the transition.

A purposeful criterion sampling (Houser, 2008) consisted of all students enrolled in the nursing program during the academic year of the study who entered the program immediately after graduating from high school. The study was completed in one academic year, fall and spring semesters, and involved the use of interviews and focus groups. These three methods of data collection provided triangulation to strengthen the findings. Involving students from both first and second year classes also strengthened the findings. Data analysis was based on a thematic analysis approach, a process for encoding qualitative information by identifying patterns in the information that described

and organized the data and assisted in interpreting aspects of the phenomenon (Creswell, 2007; Patton, 2002; Speziale & Carpenter, 2007).

### **Significance of the Study**

This study adds to the limited body of research on the persistence of the recent high school graduates in associate degree nursing education by exploring the transition from high school to associate degree nursing education. At this time there is a deficit of research to guide nurse educators in planning interventions specific to the needs of the high school graduates who enroll in ADN programs immediately after graduation. This research may be instrumental in developing curriculum activities specifically for these students. College orientation programs and other student success activities may be identified and developed to address the needs of the high school graduates as they enter ADN programs. In addition, nurse educators may be able to identify supportive interventions that may be useful as students progress through the program. High school and community college counselors and advisors may benefit from the findings as they continuously work to strengthen their partnerships and develop pathways for health science careers that begin at the secondary education level.

Institutions of higher education emphasize student success because of the interests of its constituents (Bragg, 2001). Bragg identified such interests as the long-term earnings of the students, the economics gains of the community and the healthcare facilities, the vitality of the institution, the program mission, and the program curriculum. Students who are successful are more likely to continue enrollment, finish the program, graduate, pass the licensure exam, get jobs in local healthcare facilities, take care of the sick, and spend money in their communities.

### **Delimitations of the Study**

Delimitations were used to establish boundaries or narrow the scope of a study (Creswell, 2003). The scope of this study delimits participants to students who entered a community college ADN program immediately after graduation from high school. In addition, its scope was further narrowed to only one rural community college nursing program and to those students who are enrolled in the program in one academic year. Conclusions are not generalizable to any other group of nursing students or to other community college ADN programs.

### **Conclusion**

The nursing shortage continues to be a serious problem in Virginia and the majority of states in the nation. Community college associate degree nursing programs are critical to meeting the needs of the nursing workforce and are challenged to increase their production of RNs. Increasing retention is an opportunity to increase graduates since most of these programs are already at maximum enrollment capacity.

Success in college is largely determined by student experience during the first year (Upcraft, Gardner, & Barefoot, 2005). Data provided by the Virginia Board of Nursing indicated that the first semester is the most critical semester for student success in Virginia's community college ADN programs (Commonwealth of Virginia Board of Nursing, 2008). The purpose of this study was to gain an understanding of the recent high school graduates' perceptions of factors affecting the transition from high school to first semester of associate degree nursing education. This understanding will assist nursing faculty to develop interventions to promote success of these students and ultimately increase the number of graduates from associate degree nursing programs.

## CHAPTER 2

### LITERATURE REVIEW

The United States is facing a critical shortage of registered nurses (RNs) that is expected to grow to more than one million nurses by 2020 (Health Resources and Services Administration [HRSA], 2004). This prediction challenges nursing programs across the nation to increase the number of graduates prepared for the nursing workforce. In a report released in 2010, the National League for Nursing (NLN) reported that the majority of all nursing programs were filled to capacity in 2008. Fewer than half of all applicants were accepted to nursing programs in 2008; however, program expansions were limited by shortages of clinical placements, faculty, and classroom (NLN). It is clear that increasing enrollment is not the answer to the need for more registered nurses. Since most nursing programs are limited in their enrollment capacities (NLN), efforts to increase retention and student success are critical to meeting the nursing workforce needs.

A school of nursing may be one of the three types of education pathways providing a state-approved curriculum preparing graduates to pass the National Council Licensure Examination for Registered Nurses (NCLEX-RN). One type of RN education program is a four-year baccalaureate program in a college or university setting. Baccalaureate graduates accounted for 36% of graduates from RN programs in 2007-2008 (National League for Nursing [NLN], 2010). Baccalaureate (BSN) programs provide nursing theory sciences, humanities, and behavioral science to prepare the individual for the full scope of professional nursing responsibilities and to provide the knowledge base necessary for advanced nursing education (American Nurses Association

[ANA], 2011). The second of the three common nursing programs is the associate degree nursing (ADN) program. These programs produced approximately 61% of RN program graduates in the 2007-2008 academic year (NLN, 2010). Most ADN programs are two-year programs set in the framework of general education and most often provided through community colleges (ANA, 2011). The third and least common program is the 3 year diploma, hospital based program (ANA, 2011). During the 2007-2008 academic year, only 3% of graduations from basic RN programs were diploma program graduates (NLN, 2010).

Although much research has been conducted to identify factors associated with retention in nursing education (Aber & Arathuzik, 1996; Allen, Higgs, & Holloway, 1988; Fowles, 1992; Glossop, 2001, 2002; Higgins, 2005; Hopkins, 2008; Jeffreys, 1998, 2001, 2002, 2004, 2007, 2007; Rudel, 2006; Salyes, Shelton, & Powell, 2003; Williams, 2010), there is a deficiency in research exploring issues associated with transition from high school to associate degree nursing education or the first year experience in associate degree nursing education. This review of literature (a) explored the role of associate degree nursing education and the community college in meeting the nursing workforce needs, (b) identified factors associated with transition from high school to college, (c) and discussed college impact theories or retention models developed by Tinto and Bean as well as Metzner, (d) discussed Perry's and Magolda's theories of intellectual development in relation to the first year of college and (e) identified factors of Jeffrey's Model of Nursing Undergraduate Retention and Success (NURS).

### **Method of Review**

This review of the literature was conducted using the Old Dominion University Library on-line resource. Research databases included CINAHL Plus with Full Text, Dissertations and Theses Full Text, Education Full Text, and Eric. The following descriptors were used in the databases searches: retention, success, academic success, attrition, transition, first-year success, first-year, critical thinking, stress, and success. All citations were reviewed and many were applicable to the study and included in the review.

### **Nursing Education and the Community College**

#### **Associate Degree Nursing Education**

Associate degree nursing programs were developed after World War II as a result of a critical shortage of nurses and a push to eliminate hospital based nursing programs (Haase, 1990; Nelson, 2002; Orsolini-Hain & Waters, 2009). Until this time, approximately 85% of nurses received their education in hospital based diploma programs; however, after World War II, women wanted a college education and were less attracted to the apprentice style education of the hospital programs. In addition to the profession's concern about the need for more nurses to provide patient care, the nursing profession was also concerned about the need to take control of its own education and practice (Haase). At the same time, the National Commission on Higher Education urged the expansion of community colleges and the National League for Nursing recognized the community college as one solution to the problems facing nursing (Haase). Through the leadership of Dr. Mildred Montag, the associate degree program for nursing education was created providing nursing education in the academic setting, in a shortened period of

time (Haase; Nelson; Orsolini-Hain & Waters, 2009). Over 60 years later, community colleges and ADN programs continue to be essential to meeting the critical need for nurses (AACCC, 2009). In 1980, 18.7% of registered nurses received their initial education in an ADN program (HRSA, 2010). The enrollment in ADN programs has gradually grown. In 2004, the percentage of RNs receiving their initial education in ADN programs was 42.9 (HRSA); in 2008, the percentage was approximately 61 (NLN, 2010). Most nursing programs are enrolled to capacity; increasing enrollment is not the answer to the nursing shortage. Increasing persistence and graduation rate is an effective way to increase the production of registered nurses (McPherson, 2008; Rudel, 2006; Starck, Love, Wells, 2003).

The majority of all new RNs are educated in associate degree nursing programs and the majority of associate degree nursing programs in the United States are provided by community colleges (AACCC, 2009). Community colleges offer accessible, affordable, quality nursing education to a diverse population and are often the only option for disadvantaged, minority, and rural populations (Mahaffey, 2002; Nelson, 2002). Community college ADN programs provide the nation with its greatest number of minority RNs and educate the majority of RNs in rural settings (Fulcher & Mullin, 2011). Lack of persistence and program completion and an unprecedented demand for registered nurses are continuing challenges for associate degree nursing programs and community colleges.

### **Growth of the Community College and Health Care Programs**

Community colleges emerged at the beginning of the 20<sup>th</sup> century. The original community college, Joliet Junior College, was created to provide the first two years of

college courses to students who lacked the money to attend a 4 year college after graduation from high school (Phillippe & Sullivan, 2005). Since that time, community colleges with lower tuition and open access have provided a gateway for students who would have been denied access to higher education. Community colleges also provide more opportunities for students to balance work, family responsibility, and obtain an education close to home (Phillippe & Sullivan). Today, most Americans have access to a community college within an hour's drive of their home (Phillippe & Sullivan).

The community college is sometimes called the people's college. Its mission is to provide access to postsecondary education and services for achieving stronger, more vital communities (Vaughn, 2000). In partnership with schools, businesses, and other organization in their local areas, community colleges provide lifetime learning opportunities to individuals from all walks of life (Phillippe & Sullivan, 2005). A hallmark of community colleges is their flexible and rapid response to the needs of the learners and the community. Community colleges are distinguished from other institutions of higher education by their commitment to the values of open access admission and community building (Vaughn). Community colleges offer credit and noncredit courses and are often recognized as the cultural, social, and intellectual hub of the communities (Vaughn). Whatever the aspiration or preparation level of the students, the community college provides an environment that promotes learning and success. Open access to higher education is a manifestation of the belief that democracy cannot survive unless its people are educated to the fullest potential (Vaughn). Access is achieved through low tuition, open admission policies, remediation, support services, and program choices (Vaughn). Community colleges are the primary providers of affordable

education for the transfer student or the student in pursuit of on the nation's high demand jobs (Phillippe & Sullivan). Community colleges are successful because they focus on the needs of the individual students first. A California study identified 10 characteristics common to most community colleges in the United States. According to this study, community colleges

- recruit and reward faculty who interact with students to promote their learning and development
- offer tuition that is more affordable than other institutions of higher education and multiple forms of financial aid are available
- offer flexible course offerings and scheduling for student needs
- help students to transfer to the four-year schools that offer the course of study that they want
- hire faculty who are experts in their disciplines
- provide learning resources to develop students' academic skills
- provide technology access for diverse scheduling demands
- are localized so that students do not have to travel long distances to attend classes
- centralize work-study options so students are able to work around their schedules
- provide exposure to diverse career opportunities through recruitment events and counseling (Hagedorn, Perrakis, & Maxwell, 2006).

The economic recession that started in 2007 had a dramatic effect on community college enrollment. The number of traditional aged students opting to attend community

college surged between 2007 and 2009, with an increase of over 5% in 2009 (Dadashova, Hossler, & Shapiro, 2011). Currently approximately 50% of all students enrolled in higher education attend community colleges (American Association of Community Colleges [AACC], 2011). During economic hardships, more families recognize community colleges as a viable option due to lower tuition and fees (Dadashova et al). Increased unemployment reinforced the realization that a college degree was important to obtaining a job (Dadashova et al; Mullin, 2009). Community colleges offer lower tuition and cost savings associated with staying at home that are incentives for many students and families of the baby boom generation (Phillippe & Sullivan, 2005). The growth of the community college and the increasing population of traditional age students in the community college system warrant increased attention to issues associated with success of the student enrolling in community college immediately after graduation from high school.

### **Transition from High School to Community College**

Growing proportions of high school graduates are going to college today, but many students are not prepared for college level course work. Among first-time students who begin their education at a 4 year institution, approximately 75% persist to the second year, compared to roughly 50% of first-time students who start at a 2 year institution (McIntosh & Rouse, 2009). Studies by the U.S. Department of Education indicate that students who enroll in community college immediately after high school are more likely to be lower socioeconomic status, first generation college students, minority background (especially Hispanic), and less academically prepared than their peers in 4 year colleges or universities (Provasnik & Planty, 2008). More than one-third of first-year

undergraduate students entering college, both 2 year and 4 year institutions, during the 2007-2008 academic year, took a remedial course (National Center for Educational Statistics [NCES], 2010). More than 40% of students entering public 2 year institutions, including community colleges, took at least one remedial course during the 2007-2008 academic year (NCES).

There is overwhelming evidence that student success is largely determined by student experiences during the first year of college and the largest proportion of college attrition occurs during the first year (Upcraft, Gardner, & Barefoot, 2005). Yet, transition from high school to college is often marked with disparities and many first year students encounter difficulties (McDonough, 2004). Arum & Roksa (2011) propose that many students enter college not only poorly prepared academically, but also without clear goals or commitments. A study of college freshmen entering 4 year colleges in 2001 indicated that students without clear goals spent less time studying and doing homework in high school and they frequently reported being bored in high school class during their senior year, yet their high school grades continued to soar (Sax, Lindholm, Astin, Korn, & Mahoney, 2001). This national survey found 44.1% of college freshmen reported earning "A" averages in high school in 2001, compared to 42.9% in 2000 and 17.6% in 1968; these students enter college with unrealistic expectations for academic success and poorly prepared to study (Sax, et al).

The first weeks of college may be overwhelming for the new student. Many students have little or no information about what college requires or discover that college is much more difficult than they had anticipated (Bell, Rowan-Kenon, Perna, 2009; Brady & Allingham, 2007; Conley, 2005; Goldrick-Rab, & Roksa, 2008; Kuh, 2005).

Locating classrooms, buying books, making sense of multiple complex syllabi and numerous assignments are among the many tasks that the student faces. Even those who feel comfortable in the beginning may soon find everything seems different (Kidwell, 2005). Most successful students learn that college is not just an extension of high school and that they must be responsible for their education (Kidwell). In many high school environments, students are simply recipients of knowledge and in college they must become active participants in the learning process. First year college students usually find a significant difference in the amount and pace of course work as well as the expectations (Conley, 2005; Erikson & Strommer, 1991; Erikson, Peters, & Strommer, 2006; Kidwell, 2005). Whereas a high school student might be expected to read only a few books over a semester, the college freshman may have to read a book every week. The successful high school student often feels little need to do more than just pay attention and memorize facts. In college the emphasis is more likely on analyzing the basic element of an idea, experience, or theory and they find that their study skills are not adequate. In high school, many students who earn high grade do not find it necessary to complete reading assignments to do well, after entering college reading and understanding the assignments becomes more important (Zlokovich et al, 2003). First year students transitioning from high school to community college typically report that they need to limit time socializing, change work schedule, and sleep less in order to devote more time to studying (Weissman, Bulakowski, & Jumisko, 1998). Evidence suggests that if transition from high school to college is successful, the likelihood of persistence is significantly increased (Pascarella & Terenzini, 1991).

Tinto (1993) identified difficulty adjusting to the new and often more challenging social and intellectual demands of college as a major source of difficulty in making the transition to college. Academic intensity in high school may be an important factor in determining the transition to first year of college. Astin (1975) recognized that difficulty adjusting to college and departure associated with academic issues are frequently related to measure of individual ability and past performance; these are the students who are with poor high school academic records, low aspirations, poor study habits, relatively uneducated parents, and small town background. According to Sax et al (2001), Cooperative Institutional Research Program (CIRP) Freshman surveys revealed record levels of disengagement during high school, especially during the senior year, contributing to a lack of academic preparedness in the first year of college. Students who enter college with higher levels of academic preparation, with higher GPA, advanced placement courses, or dual enrollment courses are more likely to be successful (Arum & Roksa, 2011; Smith & Zhang, 2009). A report prepared for the Center for American Progress (Goldrick-Rab & Roksa, 2008) indicated that advanced course-taking and dual enrollment may help introduce students to the academic demands of college courses; however, these courses were much more commonly utilized by relatively advantaged students. Many students come to realize that the requirements for success in college are considerably more complex and demanding than those of high school and even the brightest students may struggle at the beginning.

Over the past 35 years, there has been a focus on efforts to help first-year students succeed in this transition. Many theories and models have guided research associated with these efforts. Pascarella and Terenzini (2005) suggested that these theories can be

separated into two broad categories, developmental theories and college impact theories. Developmental theories address the nature, structure, and processes of human growth and are dominated by psychological stage theories. College impact theories emphasize change associated with characteristics of the institutions students attend or the experiences or interactions that students have within the institution.

### **Developmental Theory**

#### **Perry's Theory of Intellectual Development**

The difficulty that students encounter during the transition from high school to college may arise from the workload that each course expects of them as well as a transformation of the students' style of learning (Kidwell, 2005). A beginning college student may be confused and frustrated by the demands to think, reason, critique, analyze, reflect, ponder, posit, and value (Conley, 2005). The theory of intellectual development proposed by Perry (1999) is one model that provides an understanding of the transformation of learning styles that academics demand and eases the transition to college. According to Perry, transformation in learning styles occurs in 4 general categories or phases: (a) dualism, (b) multiplicity, (c) relativism, and (d) commitment in relativism. Dualists are passive recipients of knowledge, attending classes to receive knowledge that they store within themselves until it is time to return that knowledge in an essay or exam. Most recent high school graduates enter college as dualists (Kidwell, 2005; Perry, 1999). For dualists, knowledge is a matter of truth, answers are right or wrong. Assignments that require independent thinking or analyze of a problem may be very frustrating to students in this phase of development because they expect the instructors to tell them what they need to know (Upcraft, Gardner, Barefoot, et al, 2005).

Before the end of the first year of college, these same students should be learning to think more independently and may be entering the phase of multiplicity (Perry). In this phase knowledge is no longer truth, but only opinions; answers are no longer right or wrong, but better or worse, and positions are simply a matter of theory, equivalent to mere belief (Perry). Students in this phase are no longer passive learners; instead they strive to learn the rules of the academic game to get the best grades possible (Perry). Merely providing the right answer is no longer adequate; students' opinions must be backed with reason and evidence, and contrary opinions must be fairly analyzed and evaluated (Perry). They must analyze why an answer may or may not be right and what makes one answer better than another; they must also be prepared to explain what they think and why (Perry). In the multiplicity phase students recognize that professors simply hold privileged opinions and learning is a game with students telling professors what they think they want to know (Perry; & Kidwell). The students are no longer a passive learners; they must be prepared to explain what they think and why and they must understand what makes one answer better than another. In the third phase, relativism, students recognize that knowledge is contextual and relative; they have the ability to think analytically and can evaluate their own ideas as well as those of others as they look at the big picture (Perry). Students who arrive at the highest phase of development, commitment in relativism, have made an active affirmation of themselves and their responsibility in making decisions in a contextual world and a commitment to values and beliefs (Perry). This phase of development is consistent with Magolda's pattern of contextual knowing (1992).

### **Magolda's Theory of Intellectual Development**

Magolda's research on intellectual development suggests that students progress from absolute knowing, through transitional and independent knowing, to contextual knowing (Donald, 2002; Magolda, 1992). Magolda's studies indicate that most students enter college in the stage of absolute knowing, consistent with Perry's stage of dualism. The student in the stage of absolute knowing considers knowledge to be certain; this student perceives his or her role as a learner to be limited to obtaining knowledge from the teacher. As students progress to independent learning, they consider learning to be independent; they begin to create their own perspectives and think for themselves (Donald; Magolda). The student in the phase of contextual knowing exchanges and compares perspectives while integrating and applying knowledge in order to think through a problem on the basis of evidence in context (Donald; Magolda). Magolda's research indicates that only 12% of college graduates progress to the phase of contextual learning and this phase is generally achieved after graduation from college.

### **College Impact Theory**

#### **Tinto's Interactionist Theory of Student Departure**

Tinto's Interactionist Theory of Student Departure views the process of persistence as being influenced by the individual's unique characteristics and marked by different stages as the student passes from old forms of association to new forms of memberships or integration in the social and intellectual communities of the college (Tinto, 1987, 1993). According to Tinto, persistence requires both social and intellectual adjustments, or integration, to become a part of the ongoing social and intellectual life of the strange and different world of the college. Most students experience difficulty making

these adjustments and some find it so difficult that they leave college and do not return (Tinto, 1987, 1993). Tinto's theory indicates that departures result from a longitudinal process of interactions between a unique individual and other members of the academic and social environment of the institution such as faculty, administration, and peers (Tinto, 1993).

According to Tinto's theory, individuals enter college with a range of individual characteristics that influence their performance in college and influence their decisions associated with departure (Tinto, 1975, 1987, 1993). These characteristics include family background, individual characteristics, and past educational experiences (Table 2). The impact of these individual characteristics is largely mediated through their impact upon the development of an individual's educational and institutional commitments (Tinto, 1975). The individual's commitment and intentions help establish conditions for subsequent interactions with other members of the institution both socially and academically. According to Tinto, the greater the individual's social and academic integration into the social and academic system of the institution, the more likely he or she will persist to the goal of college graduation. In non-residential institutions, such as community colleges, the individual may have limited social integration and his or her commitment to the institution may be defined largely by academic integration or personally satisfying interactions with the academic systems of the institution (Pascarella, Duby, & Iverson, 1983).

Table 2

*Examples of Pre-entry Attributes Affecting Institutional Departure (Tinto, 1975,1993).*

Family Background	Skills & Attributes	Prior Schooling
Socioeconomic status	Standardized test score	High school GPA
Parents' education	Intellectual & social skills	Pre-college achievements
Family income	Commitment, motivation	High school characteristics
Urban vs. rural	Flexibility	
Family relationship	Sex, Race	
Family expectations	Physical traits or disabilities	

According to Tinto (1993), the student's level of commitment to the institution of higher education affects how integrated he or she becomes into the social and academic life of the college; therefore, the majority of withdrawals reflects the character of the individual's social and academic experiences within the institution. Positive interactions promote integration and persistence whereas negative interactions weaken commitment to the institution and increase the likelihood of departure (Bers & Smith, 1991; Tinto). Student acquaintances have a positive effect on satisfaction, grade performance and persistence indicating that this social connectiveness is an important component of retention (McClenney & WaiWaile, 2005; Thomas, 2000; Tinto, 1993). Faculty interactions are an important component of academic integration according to Tinto (1993). Students have identified faculty as sources of their best and worst experiences. Students appreciated faculty who were friendly, helpful, caring, and actively involved, but felt frustration with faculty they described as aloof, boring, confusing, not interested

in students, or covering material too quickly (Weissman et al, 1999). Students' perception of the support they receive from faculty and staff during their first year of college was a significant indicator of academic competence in the first year of college (Reason, Terenzini, & Domingo, 2007). Students often report that good advising and good faculty relationships are key to keeping them on course toward their goal (McClenney & WaiWaile, 2005). Bean's (2005) studies indicate that faculty members, more than any other college employees, influence the psychological processes and attitudes that affect student retention. Encounters with faculty affect students' sense of fitting in, loyalty, satisfaction, self-confidence, self-efficacy, and stress (Bean, 2005). When students feel that faculty care about them, their bonds to the institution are strengthened; when their academic integration improves, so do their academic performance and their grades (Bean).

Less than 25% of all institutional departures result from academic dismissal, or the inability or unwillingness of the person to meet the minimum academic requirements (Tinto, 1993). Tinto proposes that most departures result from significant differences in the students' intentions and commitments when they enter college and the character of the individual integrative experience in the academic and social community of the college or difficulty adjusting to college. The interactions between students and faculty inside and outside of class are particularly important during this period of adjustment (Pascarella & Terenzini, 1991, 2005; Tinto, 1993).

Not surprisingly, the incidence of withdrawal is highest during the early stage of the college career (Tinto, 1993). According to Tinto, this is the time that the student is separating from his familiar surroundings and is least integrated into and least committed

to the institution and more acutely aware of deficiencies in prior academic preparation. Tinto believes the institution shares responsibility for helping first-year students achieve academic and social integration. Although some departures are voluntary, most departures are a result of the students' perceptions of insurmountable problems of not belonging or not being involved with the institutional community. In non-residential institutions such as community colleges, the individual may have primary social memberships with family, friends, and colleagues off campus (Braxton & Hirschy, 2005). The student's commitment to the institution may be defined largely by academic integration or personally satisfying interactions with the academic systems of the institution (Pascarella, Duby, & Iverson, 1983).

#### **Bean and Metzner's Causal Model of Nontraditional Undergraduate Retention**

Braxton & Hirschy (2005) indicate that the basic elements of the theory of student departure from commuter colleges include student's entry characteristics, the environments within and external to campus, and the student's academic integration on campus. Bean and Metzner (1985) address each of these elements in their model of nontraditional undergraduate retention based on research conducted primarily at commuter colleges and universities (Braxton & Hirschy). Bean and Metzner's definition of a nontraditional student includes community college students:

A nontraditional student is older than 24, or does not live in a campus residence (e.g., is a commuter), or is a part-time student, or some combination of these three factors; is not greatly influenced by the social environment of the institution; and is chiefly concerned with the institution's academic offerings [especially courses, certification, and degrees]. (Bean & Metzner, 1985, p 489).

According to Bean & Metzner, the nontraditional student most often attends classes and then leaves when the class is over with little or no interactions with peers or faculty and staff before or after classes and is chiefly concerned with the institution's academic offerings (courses, certifications, and degrees). Community college students, according to this definition, are nontraditional. Bean and Metzner's (1985) conceptual model suggests that dropout decisions are based on four sets of variables: background and defining variables, academic variables, environmental variables, and social integration variables (Table 3). Of these variables, academic performance may be the best predictor of attrition (Bean & Metzner). Students with poor academic performance are most likely to dropout. The second major factor identified by Bean and Metzner is intent to leave, influenced by psychological outcomes and academic variable. The third group of variables affecting attrition is background and defining variables, including high school performance and educational goals. Environmental variables are the final set of variables expected to have effect on retention.

Table 3

*Variables of Nontraditional Student Attrition (Bean & Metzner, 1985)*

Background and Defining Variables	Academic Variables	Environmental Variables	Social Integration Variables
Age, ethnicity	Study habits	Finances	Peer interactions
Enrollment status	Academic advising	Hours of employment	Faculty interactions
Residence	Absenteeism	Outside encouragement	Extracurricular activities
Educational goals	Major certainty	Family responsibilities	
HS performance	Course availability	Opportunity to transfer	
Socioeconomic status			

Like Tinto (1975, 1983), Bean and Metzner (1985) recognize that the student enters college with pre-existing attributes or characteristics that will indeed influence his or her performance in college. Background variables affect how the student will interact with the college and as a result, influence attrition. These background variables include the individuals' educational goals and high school performance. Many studies have identified high school GPA (HS GPA) as the strongest academic variable associated with retention (Astin & Oseguera, 2005; Lotkowski, Robbins, & Noeth, 2004; Tinto, 1975, 1993). Research also indicated that of the non-academic factors, academic self-confidence and achievement motivation also had a strong relationship to college GPA and retention (Lotkowski et al, 2004; Tinto, 1975, 1993). Academic-related skills associated with success in the academic environment include time management skills, study skills, and study habits including taking notes, meeting deadlines, and using information resources had a positive relationship to retention (Bean & Metzner, 1985; Lotkowski et al, 2004).

Bean and Metzner's model suggests that nontraditional students are more affected by external or environment variables than by social integration variables (Bean & Metzner, 1985). In a study of commuter freshman students, only the social integration factor related to faculty interaction was related to retention (Metzner & Bean, 1987). Although Bean and Metzner (1987) identified several environmental variables, three have substantial direct effects on dropout decisions for the nontraditional or commuting. These variables were finances, outside encouragement, and intent to transfer (Metzner & Bean). For nontraditional students, environmental support may compensate for weak academic support or low levels of academic support; however, strong academic support will not

compensate for weak environmental support (Bean & Metzner, 1985). Students may leave college when academic variables are good if their environmental variables are weak. A second compensatory effect is between outcome, GPA, and psychological outcomes. Students may drop out despite high GPAs if they perceive low levels of usefulness of their college education for employment opportunities, low levels of satisfaction with the role as a student, goal commitment, or high levels of personal stress (Bean & Metzner). Others may continue with low GPAs if they perceive high levels of psychological satisfaction (Bean & Metzner).

Tinto's Interactionalist Theory of Student Departure and Bean and Metzner's Causal Model of Nontraditional Undergraduate Retention are two commonly identified conceptual models used to explain undergraduate student retention (Bean & Metzner, 1985; Jeffreys, 2004; Tinto, 1975). However, only one model has been identified that specifically targets the nursing student, the Nursing Undergraduate Retention and Success (NURS) model (Jeffreys, 2004)

### **Jeffreys' Nursing Undergraduate Retention and Success Model**

The conceptual framework for this study was the Nursing Undergraduate Retention and Success (NURS) model developed by Jeffreys (2004). The Bean and Metzner causation model of retention provided the underlying framework for Jeffreys' discipline specific model (Jeffreys, 2001, 2004). The NURS model presents an organizing framework for examining the multidimensional factors that affect undergraduate nursing student retention. According to Jeffreys, this model is appropriate for identifying at-risk students as well as developing diagnostic-prescriptive strategies to facilitate success and evaluate program effectiveness. Like Bean and Metzner's (1985)

causation model of retention, Jeffreys' model proposes that a variety of interacting factors or dimensions determine student retention. The NURS model proposes the retention decision of nursing students is based on interactions of student profile characteristics, student affective factors, academic factors, environmental factors, professional integration factors, academic outcomes, psychological outcomes, and outside surrounding factors (Jeffreys, 2004, 2007). The dimensions of this model are identified and defined in Table 4 (Jeffreys, 2004). A diagram of the NURS multidimensional model is provided in Figure 1 (Jeffreys).

Table 4

*NURS Model of Student Retention (Jeffreys, 2004)*

<b>Dimension</b>	<b>Definition</b>
Student Profile Characteristics	Age, ethnicity and race, gender, language, prior educational experience, family's educational background, prior work experience, and enrollment status
Student Affective Factors	Student attitudes, values, and beliefs about education, nursing and one's ability to learn and perform the task required for course and nursing program success
Academic Factors	Personal study skills, study hours, attendance, class schedule, and general academic services provided by the school such as library services, counseling, and computer services

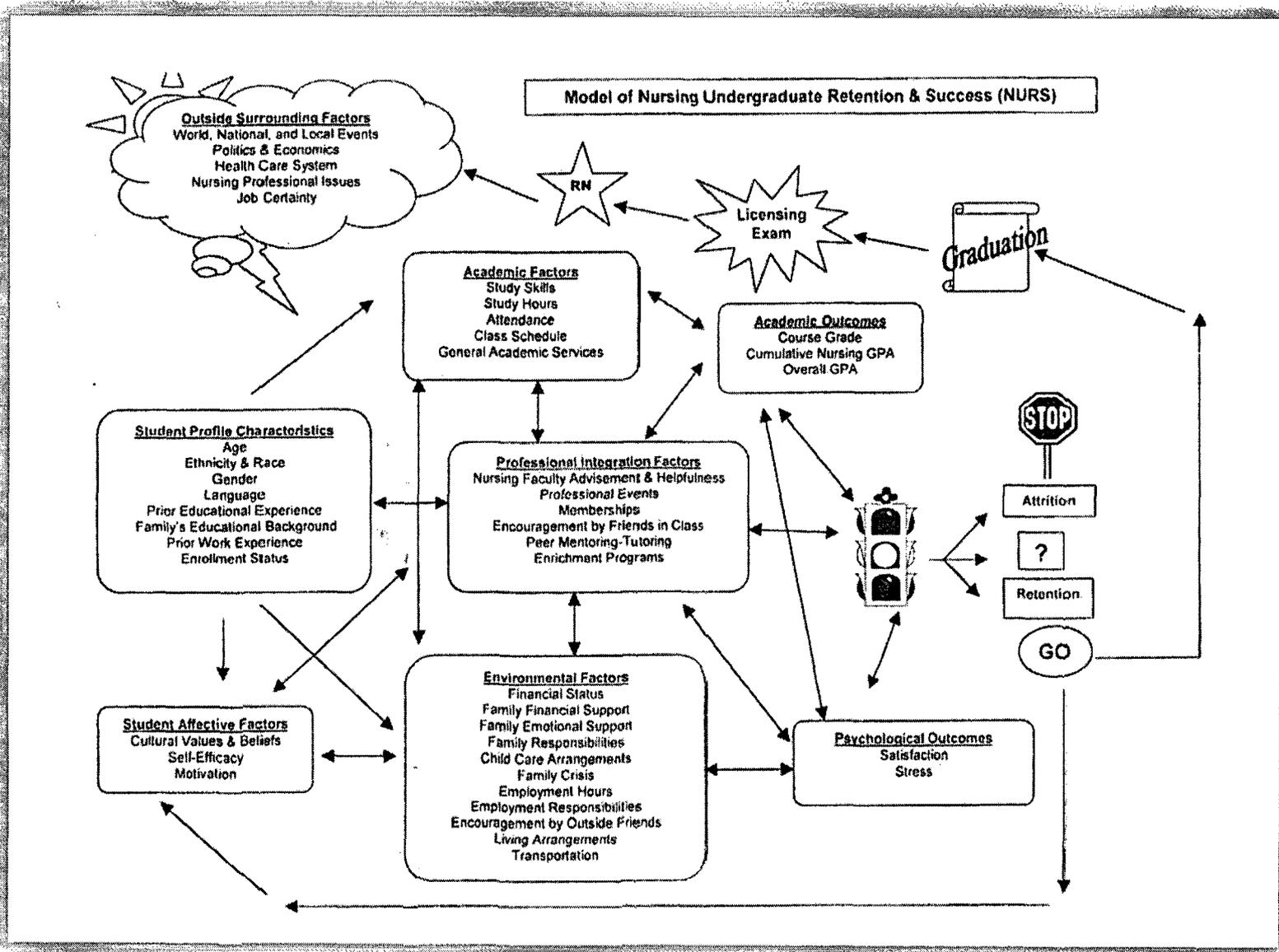
Table 4 Continued

<b>Dimension</b>	<b>Definition</b>
Professional Integration Factors	Nursing faculty advisement and helpfulness, memberships in professional organization, professional events associated with nursing, encouragement by friends in class, enrichment programs, and peer mentoring and tutoring
Environmental Factors	Financial status, family financial and emotional support, family responsibilities, child care arrangements, family crisis, employment hours, employment responsibilities, encouragement by outside friends, living arrangements and transportation
Academic Outcomes and Psychological Outcomes	Nursing course grades, cumulative GPA for nursing courses, and overall GPA Satisfaction and stress
Outside Surrounding Factors	World, national, and local events, politics, economics, healthcare systems, issues affecting the nursing profession and the nursing workforce

The first dimension of Jeffrey's model is student profile characteristics. These characteristics are present and described prior to beginning a nursing course and may interact to increase or decrease student retention. Student profile characteristics have a

direct influence on academic factors, cultural values and beliefs, self-efficacy, motivation, and environmental factors (Jeffreys, 2004). The second dimension, affective factors, recognizes the importance of students' cultural values and beliefs in guiding thinking, decisions, and actions that ultimately affect retention (Jeffreys). Determination, commitment, and persistence or not giving up have been indicated as important factors for success (Glogowska, Young, & Lockyer, 2007; Williams, 2010). Self-efficacy or perceived confidence for learning is another affective characteristic that affects retention according to this model. According to Jeffreys, a student with strong self-efficacy is more likely to be highly motivated and able to overcome obstacles in order to be successful. Students with poor self-efficacy may exhibit poor motivation and insufficient goal commitment; they may be a risk for attrition (Jeffreys). Supremely efficacious students may underestimate the task at hand and overestimate their abilities and strengths putting themselves at risk for failure (Jeffreys).

Figure 1. Model of Nursing Undergraduate Student Retention (Jeffreys, 2004, p 6)



Academic factors impact every dimension of the NURS model. Overall GPA, preadmission GPA, and GPA on nursing courses have been found to be related to student success in nursing programs (Aber & Arathuzik, 1996; Allen, Byrd, Garza, & Niewsiadomy, 1999; Fowles, 1992; Higgs, & Holloway, 1988; Lengacher & Keller, 1990; Newton, Smith, Moore, & Magnan, 2007; Sayles, Shelton, Powell, 2003) Students' perceptions of academic factors, including college academic services and their influence on success, are important to promoting retention (Jeffreys, 2004). Academic challenges are often seen as barriers to student success. Academic stressors include assignments and workloads, test anxiety, extensive reading, pressure of grades, fear of failing, lack of free time and long hours of study; clinical stressors include preparing for clinical activities, dealing with patient suffering or death, lack of clinical knowledge and skills, liability for safety and well-being of patients, handling clinical emergencies, and relations with clinical faculty and staff (Jimenez, Navia-Osorio, & Diaz, 2009; Jones, & Johnston, 1997; Kirkland, 1998; Levett-Jones, Lathlean, Higgins, & McMillan, 2009; Magnussen & Amundson, 2003). Although it is common for all college students to experience stress, the nursing student is particularly at risk (Jeffreys, 2004). Unlike most college courses, nursing courses include theory, skills, and clinical components. In addition, most nursing courses consist of more contact hours and credits per course than general education courses. Literature supports that nursing students experience more stress than college students in general and more stress than students enrolled in other health-related programs (Beck, Hackett, Srivastava, McKim, & Rockwell, 1997; Courage & Godbey, 1992; Kirkland, 1998; Lambert & Nugent, 1994; Meadows, 1998). Since most ADN programs begin nursing classes in the first semester, a student entering an ADN nursing

program immediately after graduation from high school might be poorly prepared for the higher level of cognitive skills that are necessary for clinical judgment. First-year students often underestimate the rigorous academic demands of a nursing curriculum, have inadequate study skills, and are at higher risk for stress and attrition (Fleming & McKee, 2005; Last & Fulbrook, 2003); they may not have adequate study habits (Gilchrist & Rector, 2007; Glogowska et al, 2007).

A primary goal of nursing education is the development of critical thinking skills that begins when the student first enters nursing classes. Critical thinking as defined by the American Philosophical Association is based on five elements, analysis, interpretation, inference, explanation, and self-regulation (Facione, 1990). These concepts are used frequently in nursing literature to define critical thinking (Myrick, 2002; Rane-Szostak & Robertson, 1996; Scheffer & Rubenfeld, 2000; Staib, 2003; Vacek, 2009). This definition is consistent with Perry's phase of commitment in relativism or Magolda's phase of contextual knowing. Both phases are very mature levels of knowing and are not commonly exhibited by students just beginning college (Donald, 2002; Magolda, 1992; Perry, 1999). Building on these concepts, an international panel of 51 expert nurses from 23 states and 9 countries developed the following definition of critical thinking in nursing:

Critical thinking in nursing is an essential component of professional accountability and quality nursing care. Critical thinkers in nursing exhibit these habits of the mind: confidence, contextual perspective, creativity, flexibility, inquisitiveness, intellectual integrity, intuition, open-mindedness, perseverance, and reflection. Critical thinkers in nursing practice the cognitive skills of

analyzing, applying standards, discriminating, information seeking, logical reasoning, predicting and transforming knowledge (Schaffer & Rubenfeld, 2000, p 357).

This definition is consistent with Perry's phase of commitment in relativism or Magolda's phase of contextual knowing. Both phases are very mature levels of knowing and are not commonly exhibited by students just beginning college (Donald, 2002; Magolda, 1992; Perry, 1999). Associate degree nursing students usually begin nursing classes the first semester of the curriculum. Most BSN programs concentrate studies on psychology, human growth and development, biology, microbiology, organic chemistry, nutrition, and anatomy and physiology during the first two years of the students' experience. It is not until the third year of their college education that most BSN students begin nursing classes. The greater one's exposure to higher education, the more advanced one's level of critical thinking becomes (Pascarella & Terenzini, 2005). This lack of exposure to higher education and lack of opportunity to develop critical thinking could indeed contribute to risk of attrition.

When studying student stressors, those associated with clinical experiences differentiate nursing students from other disciplines (Beck et al, 1997; Jiminez, Novia-Osoria, & Diaz, 2009; Last & Fulbrook, 2003). Students in associate degree programs usually begin nursing classes during the first semester with clinical activities involving real-life situations. In the clinical environment, the students, working closely with the nursing instructor, are exposed to situations requiring cognitive, technical, interpersonal, and ethical/legal skills and the ability to use them creatively and critically to prevent disease or illness or promote coping with altered functioning (Taylor, LeMone, Lillis, &

Lynn, 2008). Other stresses associated with clinical experiences include stress associated with patients suffering or death, stress associated with lack of knowledge and skills related to patient care needs or handling clinical emergencies, and stress associated with interacting with members of the interdisciplinary healthcare team (Jiminez et al).

Environmental factors are external to academic processes and affect retention directly and indirectly through academic and psychological outcomes. Consistent with the Bean and Metzner's model (1985), the NURS model recognizes that environmental factors may have either a positive or negative impact on retention (Jeffreys, 2004). Environmental factors include issues associated with family and finances. Family difficulties are commonly reported as the reason for leaving nursing education, followed by financial problems (Glossop, 2002). Personal support from family has also been identified as the single strongest factor influencing the students' abilities to stay in college (Rudel, 2006).

Professional integration factors are at the center of the NURS model (Jeffreys, 2004). This component of the NURS model is consistent with Tinto's theory of retention, stressing the importance of social and academic integration in college in student adjustment, persistence, and success (Tinto, 1975). Professional integration factors include activities that enhance students' interaction with the college environment within the context of the professional socialization and career development (Jeffreys). Nurse educators are the key initiators and advocates of professional integration as they advise students, tutor and encourage students, promote enrichment programs, and encourage memberships in professional organization. Faculty advisement and helpfulness, according to Jeffreys, includes involvement of faculty in a variety of student academic endeavors,

career goals, and professional socialization as well as interaction with students in formal and informal settings. An example of faculty helpfulness is offering to meet with a student outside regular office hours to discuss test taking issues or referring a student to appropriate resources on or off campus to assist with personal problems or concerns (Jeffreys). Studies indicate that nursing students desire a connection with their faculty and indicate an association between positive supportive faculty-student relationships and student success (Gardner, Deloney, & Grando, 2007; Glogowska, Young, & Lockyer, 2007; McEnroe, 2011; Shelton, 2003). Studies also recognize the importance of peer support (Courage, 1992); many nursing students become close friends and depend on each other for a sustaining power (Glogowska et al, 2007; Rudel, 2006).

Outside surrounding factors are the final category of variables in the NURS model and include both academic and psychological outcomes (Jeffreys, 2004). Outside surrounding factors continually interact with each other and with the other variables in the NURS model and directly influence persistence; however, good academic performance results in retention only when accompanied by positive psychological outcomes. A review of Jeffrey's NURS model (Figure 1) shows a clear relationship between student profile characteristics, affective factors, academic factors, professional integration factors environmental factors and academic and psychological outcomes. Academic outcomes include students' nursing course grades, cumulative GPA for all nursing courses, and overall GPA. Psychological outcomes include satisfaction and stress. Outside variables continually interact with each other and with the other variables in the NURS model and directly influence persistence; good academic performance results in retention only when accompanied by positive psychological outcomes.

### **Summary**

An extensive review of the literature did not yield any results specifically related to the transition of a traditional age student to associate degree nursing education immediately after graduation from high school. The review of literature on transition from high school to college focused on theories of cognitive development suggesting that students immediately out of high school may not be intellectually and cognitively developed to adequately meet the rigorous demands of associate degree nursing education. College impact theories emphasize the significance of social and academic integration and stresses the importance the individual or background characteristics and the role of faculty in the community college setting. A model specifically addressing retention in nursing education, the NURS model (Jeffreys, 2004) includes components of these theories.

## CHAPTER 3

### METHOD

Effective strategies to promote student success should be based on students' experiences and perceptions. This study explored the perception of students as they transitioned from high school to associate degree nursing education. A qualitative research design with a phenomenological study approach was used to explore experiences that positively or negatively affected the transition and to discover students' ideas for optimizing the transition period. The ultimate goal was to use this knowledge to lay a foundation to enhance the transition of recent high school graduates enrolled in associate degree nursing programs, thereby leading to increased student persistence to graduation.

According to Speziale and Carpenter (2007), qualitative research emphasizes six characteristics: (a) a belief in multiple realities, (b) a commitment to identifying an approach to understanding that supports the phenomenon studied, (c) a commitment to the participant's viewpoint, (d) the conduct of inquiry in a way that limits disruption of the natural context of the phenomenon of interest, (e) acknowledged participation of the researcher in the research process, and (f) the reporting of the data in a literary style rich with participant commentaries. These characteristics were evident in the design of this study. This chapter describes the qualitative research design used in the study and the rationales for using this approach, the context of the research, the research questions, the role of the researcher, ethical considerations, data collection procedures, and data analysis.

### **Qualitative Research Design**

Qualitative research using the phenomenological study approach was suited for this research to describe the meaning for several individuals of their lived experiences of a concept or phenomenon (Creswell, 2003). In this study the concept is transition from high school to a community college associate degree nursing education program immediately after graduation from high school. Program data collected from 2005 through 2009 indicated that attrition of students entering the program in this study immediately after graduation from high school was approximately twice as high as the overall program attrition rate. However, to know that an outcome is lower than desired provides little information for program improvement; developing an understanding of what the experience is like better illuminates what the program needs in order to undertake improvement initiatives (Patton, 2002). In this study, the researcher explored students' perceptions of the transition from high school to a community college associate degree nursing education program.

The research employed criterion sampling (Creswell, 2003; Patton, 2002) to invite involvement of first and second year students from a two year, four semester associate degree nursing (ADN) program. Criterion sampling is a purposeful sampling technique that involves picking all cases that meet some criterion (Creswell; Patton). In this study the criterion was enrollment in a community college ADN program immediately after graduation from high school. The study was conducted over a single academic year involving students in both the first semester and the final semester of the nursing program in order to achieve a more complete picture of the experience.

The researcher collected detailed information using qualitative methods including interviews and focus groups to illuminate experiences of the students. Face-to-face interviews and focus groups are common primary data collection methods used to collect first-hand data and are indicated in this study to enhance the researcher's understanding of the experience of the students (Kumar, 2005; Patton, 2002). This understanding is essential to developing interventions to enhance student success and is particularly important because the phenomenon of transition from high school to community college associate degree nursing education is poorly explored in the current literature.

Instruments used to collect data in qualitative research need to be consistent and precise. Validity is the ability of an instrument to consistently measure what it is supposed to measure (Houser, 2008). The guidelines used in this study for interviews and focus groups were reviewed by a group of community college educators for face and content validity prior to a pilot study. The pilot study was completed at an earlier time with a similar group of students in the nursing program being studied. Assessment of validity involved subjective judgment about whether the measurement looked like it measured the concepts it was supposed to measure and if it appeared to represent the concepts of interest (Houser). Detailed notes and audio recordings created from the pilot study provided thick descriptions of responses associated with each research question. The review by outside experts and the pilot study supported the validity of the instruments used in the project. This allowed the researcher to more easily identify themes and patterns within the themes for encoding qualitative information that described and organized the data in the pilot study.

Triangulation of methods and sources was used to validate the data; data were collected from students at three college locations at two points of progression in the nursing program and from sixteen public high schools. Two methods of qualitative research, interviews and focus groups were implemented to strengthen the validity of the findings.

### **Context of the Study**

This study focused on the traditional age student enrolled in an associate degree program immediately after graduation from high school. The majority of new registered nurses (RNs) are graduates of associate degree programs (NLN, 2010), and most of these graduates are educated at community colleges (Viterito & Teich, 2002). As nursing programs focus on increasing the number of graduates to meet the demands created by the nursing shortage, it is important to focus on retention of the traditional age students who enroll in ADN education program immediately after graduation from high school. There is a deficiency in the current literature related to retention or success of this population of students. Data from the program involved in the study suggest that these students were at high risk for attrition during the first semester of enrollment. The purpose of this study was to explore the transition of the traditional age student from high school to a community college ADN education program.

The nursing program, with a total enrollment of approximately 400 students, was a consortium program involving three rural community colleges in a southern state. Between 2005 and 2009, the enrollment of traditional age students entering the program immediately after graduation from high school ranged from a minimum of 8 students to a maximum of 24 students. Program admission requirements included a minimum grade

point average (GPA) of 2.5, completion of high school algebra, biology, and chemistry, and a minimum score in the 45th national percentile on a standardized admission test for nursing programs. In 2011, the student population was approximately 97% Caucasian and 2% African American, approximately 60% of the total program population were high school graduates, 5% had completed the General Educational Development (GED), 25% had 2-year college degrees, 25% had 4-year college degrees, and the average age was 27 years old. More than 50% of the students reported working greater than 20 hours per week; more than 40% worked 40 hours or more. The majority of the students in the rural community college program were first generation students and were eligible for financial aid (Mitchell, 2011).

### **Limitations of the Study**

Although this study provided insights into the transition of high school students to associate degree nursing education, several limitations restricted the significance of the findings of this qualitative research (Creswell, 2003; Patton, 2002). Qualitative research is highly contextual and case dependent (Patton). During interview and focus group activities, limitations associated with timing, selectivity of students, and potential for students to avoid answering questions authentically were all considerations. The researcher used triangulation to minimize the effects of these limitations and was cautious to report both methods and results in proper contexts to avoid controversies associated with over generalizing with purposeful samples (Patton). The researcher's role as administrator of the nursing program was a significant limitation and required constant vigilance to avoid leading questions and bias.

### Research Questions

The review of the literature supported the need to investigate the transition of students from high school to community college ADN education to better understand factors that influence student persistence and program completion. The research questions were:

1. How do community college students who enroll in an associate degree nursing program immediately after high school graduation describe the transition from high school to associate degree nursing education?
2. What experiences had the greatest effect on the transition from high school to associate degree nursing education?
3. What institutional or procedural changes do community college students who enroll in an associate degree nursing program immediately after high school graduation suggest can be done to positively influence the transition from high school to associate degree nursing education?

The first two questions explored the transition of traditional age nursing students to associate degree nursing education immediately after graduating from high school and experiences that affected this transition. The students responded readily to each question with minimal effort on part of the interviewer. Occasionally, the researcher used probing questions to encourage discussion of transition experiences associated with family life, class/instructors, coursework, clinical activities, finances, time management, and social life. She asked the students to describe their expectations when they entered the programs and how the community college differed from high school. Other topics included high school GPA and personal perception of preparation for the rigorous nursing requirements

as well as personal study habits, time management, stress management, and work on or off campus. The goal of questions 1 and 2 was to develop a better understanding of the transition experience of students who enrolled in an associate degree nursing program immediately after graduation from high school in order to lay a foundation to develop an evidence based retention model for recruitment and retention of high school to associate degree nursing students.

Interviews and focus groups were the methods of data collection and examined what students believed could be done to positively influence the transition of traditional age nursing students to associate degree nursing education immediately after graduating from high school. Open ended questions were used to explore issues associated with both secondary and post-secondary education (Appendices A & B). The students readily shared experiences including the areas identified in the focus group guide. Appendix C displays the primary questions from the interview and focus groups guides in relation to the three research questions.

### **Procedures for Gaining Access to Participants**

The research protocol required approval and cooperation from all parties involved and considered the rights of the participants as human subjects. Students involved in the project were not subjected to risks greater than those associated with attending class. The Darden College of Education's Human Subjects Research Committee reviewed and approved the research proposal (Proposal Number 201101019). The proposal clearly indicated that the students involved in the project would not be subjected to risks greater than those associated with attending class and that their responses would be kept confidential. After approval by the Darden College of Education's Human Subjects

Research Committee, the Vice President of Instruction and Student Affairs at each of the participating colleges reviewed the proposal and provided approval for the study to begin. Requests for approval from the individual colleges included a request to ask nursing faculty to identify students on each campus who met the study's criteria for participation (Appendix D). The researcher worked with the nursing faculty to identify an appropriate time and location for these activities taking into consideration each student's class and clinical activities to minimize the inconvenience for each student and to avoid asking any student to travel on a day when they were not scheduled to be on campus. Once the students were identified, the investigator sent an email (Appendix E) to each student explaining the purpose of the study and asking for participation. These communications included the location, date, and time for the interview or focus group.

### **Participants**

This phenomenological study involved purposeful sampling of traditional age first- or second-year students enrolled in a two-year, four-semester community college associate degree nursing program immediately after graduation from high school. The sample included students from each of three rural community colleges associated with the nursing program. The nursing program faculty reviewed program admission and progression records to identify students who were traditional age, recent high school graduates in first and second year courses. Twenty-two students were identified, 15 in the first-year group and 7 students in the second-year group. Twenty-one students participated. One first year student declined the invitation.

The area served by the program's three community colleges included 9 counties and 2 cities and covered approximately 4,230 square miles. The population range of these

beautiful mountainous communities was 23,177 to 54,876 with a total population of 324,564 (U.S. Census Bureau [USCB], 2012). The winding roads and picturesque mountains provided the setting for the three community colleges. These colleges provided workforce training, occupational and technical education, and transfer degrees to the community residents. The nursing program is among the most popular programs. Admission to the program is a competitive process based on applicants' grade point averages (GPAs) and scores on a standardized nursing admission test.

The median income for the service area ranged from \$29,183 to \$41,372 compared to the state median income of \$61,406. The percent of population living below poverty level ranged from a low of 14.7% to a high of 23.4%, compared to a state percent 10.3% (USCB, 2012). Figures 1, 2, & 3 demonstrate the population, median income, and percentage of population living below poverty level (USCB).

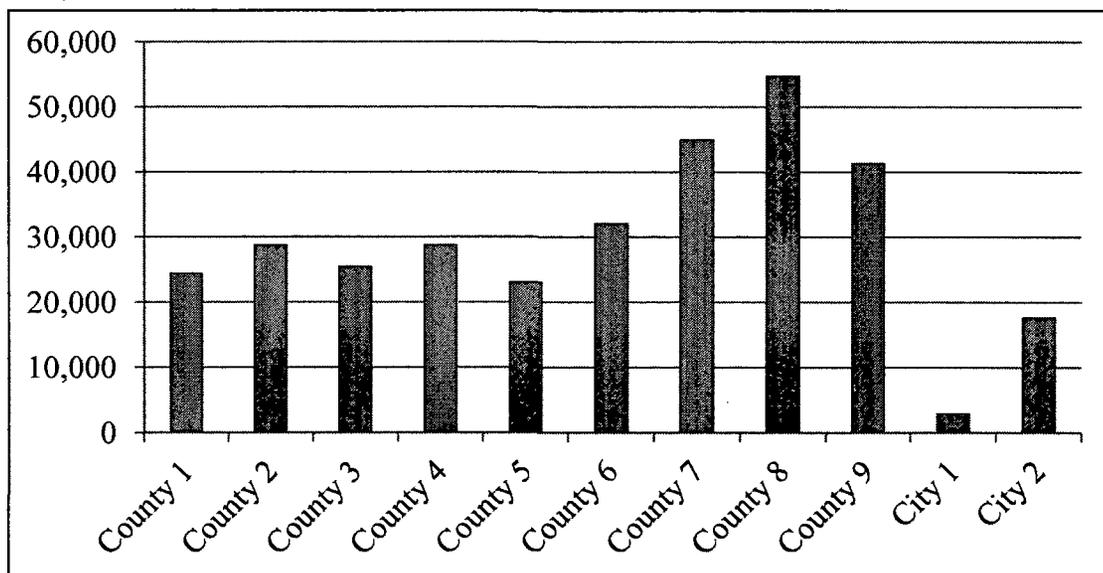


Figure 2. Area Population , 2011 Estimates (USCB, 2012).

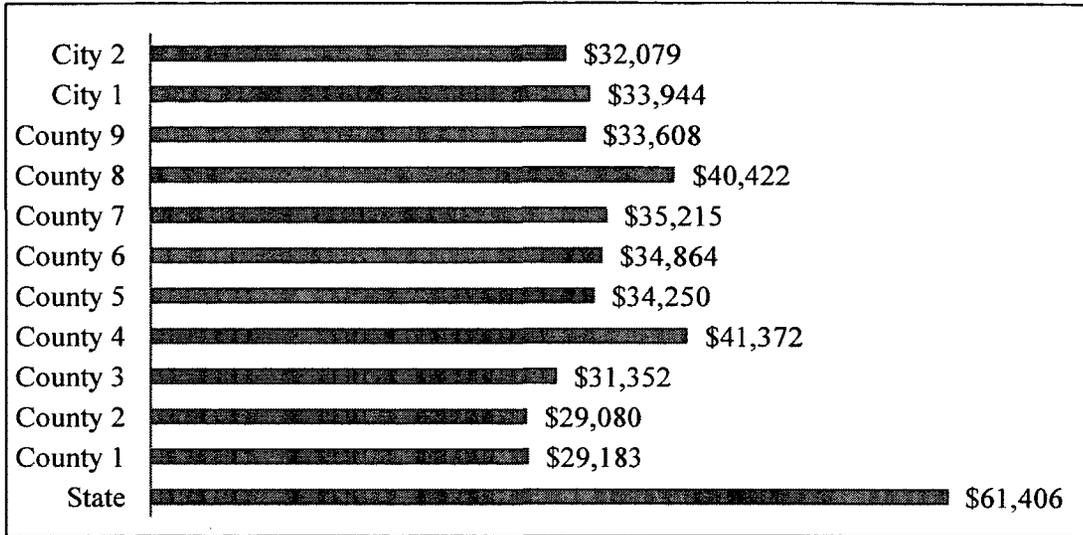


Figure 3. Median Household Income, 2006-2010 (USCB, 2012).

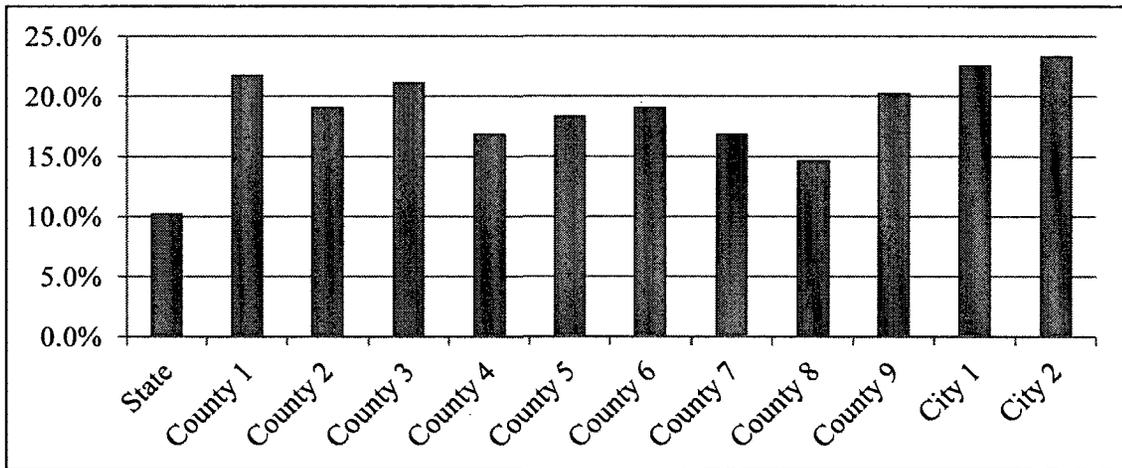


Figure 4. Persons Below Poverty Level, Percent, 2006-2010 (USCB, 2012).

Each of the counties and cities was identified with a distinct school district. The K-12 student population of these school districts range from 856 in one of the cities to 7,486 with an average of 4,290 students per school district and a median student population of 3993 (Virginia Department of Education [VDOE], 2012). Each of the two cities had 1 high school and the county school districts ranged from 2 to 4 high schools.

The student population, number of high schools (hs), and percentage of students enrolled in dual enrollment or Advanced Placement (AP) classes are identified in Appendix F, Each school district's report card provided data on the statewide standardized high school assessment tests. The report cards indicated the percent of total student population in the school district who failed the standardized test as well as the percent of students who passed the test. The percentage of those who passed was further reported as either proficient or advanced proficiency. Reading, writing, algebra, biology, and science scores are also provided in Appendix G. Districts 1 through 9 represent districts for each of the 9 counties; districts 10 & 11 represent the 2 cities in the service area.

Table 5 provides a summary of individual characteristics of each student who participated in the study. This includes gender, age, ethnic background or race, financial aid, advanced education high school experience, high school grade point average, national percentile score on standardized nursing admission test, highest level of education of both parents, the number of hours the student worked per week during nursing school, and the school district where they attended high school. Only one of the 21 students was a male, all were Caucasian, nineteen students had a high school GPA of 3.5 or higher, 10 students received federal financial aid, all but one student had completed dual enrollment or other advanced placement courses while in high school, TEAS scores ranged from 47-92 with an average of 64.4, 7 were first-generation college students, only one student's parents had higher than a 2 year college degree, and 8 students worked 5 or fewer hours.

Table 5  
*Individual Student Participant Characteristics*

Student & Semester	Gender	Age	Race	Fed. Fin. Aid	Fin. Aid Other	Education	HS GPA	TEAS	Mother's Level of Education	Father's Level of Education	Hrs. work /wk.	School District
1. A1	F	18	Caus	No	Yes	HS+ Advanced	3.9	65	2 yr college	Grad. degree	25	5
2. B1	F	19	Caus	No	Yes	HS+ Advanced	3.6	61	2 yr college	HS	20	1
3. C1	F	18	Caus	Yes	Yes	HS+ Advanced	3.6	58	HS	HS	24	1
4. D1	F	18	Caus	No	Yes	HS+ Advanced	3.8	88	Grad. degree	Grad. degree	0	8
5. E1	F	19	Caus	Yes	Yes	HS+ Advanced	3.8	63	HS	HS	10	8
6. F4	F	19	Caus	Yes	No	HS+ Advanced	3.5	81	2 yr college	2 yr college	25	4
7. G4	F	19	Caus	No	Yes	HS+ Advanced	3.7	69	HS	HS	16	4
8. H1	F	18	Caus	Yes	Yes	HS+ Advanced	4.0	59	2 yr college	HS	0	1
9. I1	F	18	Caus	No	No	HS+ Advanced	4.0	50	HS	HS	0	8
10. J4	F	20	Caus	No	Yes	HS+ Advanced	3.9	66	HS	2 yr college	0	4
11. K1	F	18	Caus	Yes	Yes	HS+ Advanced	3.9	48	HS	HS	20	3
12. L4	F	20	Caus	No	Yes	HS+ Advanced	2.7	61	2 yr college	Some HS	13	3
13. M1	F	18	Asian	Yes	Yes	HS	4.0	56	?	?	16	3
14. N1	F	19	Caus	Yes	No	HS+ Advanced	3.5	65	2 yr college	HS	0	8
15. O1	F	18	Caus	Yes	No	HS+ Advanced	4.0	79	2 yr college	Some HS	0	9
16. P4	M	19	Caus	Yes	Yes	HS+ Advanced	3.9	71	2 yr college	2 yr college	20	7
17. Q1	F	18	Caus	No	Yes	HS+ Advanced	3.7	50	2 yr college	HS	18	5
18. R4	F	20	Caus	No	Yes	HS+ Advanced	2.9	47	2yr college	HS	24	5
19. S1	F	19	Caus	Yes	Yes	HS+ Advanced	3.9	52	HS	HS	16	7
20. T4	F		Caus	No	Yes	HS+ Advanced	3.8	92			0	11
21. U4	F	18	Caus	No	Yes	HS+ Advanced	3.9	71	2 yr college	HS	5	12

Key: Student & Semester: 1 = 1<sup>st</sup> year, 1<sup>st</sup> semester student, 4 = 2<sup>nd</sup> year, 4<sup>th</sup> semester student

Fed. Fin. Aid: Yes = recipient of federal needs based financial aid

Fin. Aid Other = financial aid other than needs based financial aid, e.g. scholarship

Education, HS + Advanced = General HS courses + dual enrollment and/or advanced placement courses

TEAS: Test of Essential Academic Skills, standard pre-nursing test, national percentile rank

Hrs. work/wk. = average number of hours per week that student works

### **Procedures for Establishing Researcher-Participant Relationships**

The researcher, who was also the program administrator, sent each potential candidate an email correspondence one week prior to the proposed data collection activity requesting his/her participation. No coercion was used and participants were told that neither their participation nor lack of participation would affect their grades or progress in the program. The researcher explained her separate roles as both a researcher in a doctoral program and as administrator of the nursing program. She established that the information collected in the study would remain confidential, no names would be used in any discussions or writings related to the research, and only group data would be reported. She explained the purpose of the study and that an increased understanding of transition from high school to associate degree nursing education and the first-year experience could help to improve the program for future students. All correspondence with participants emphasized that participation was voluntary and that participants would be anonymous. In addition, participants were informed that all data would remain confidential and only reported as aggregate data. All participants were given an opportunity to ask questions about the project at both the beginning and the end of the interview/focus group sessions.

### **The Researcher's Role**

The researcher had over 25 years experience in nursing education, a master's degree in psychiatric nursing, and extensive experience in both interviewing and group activities. Her experience and skills enhanced her ability to easily develop trust with students in both one on one interviews and in group situations. She recognized her role as an instrument in the qualitative research process, and throughout the process she was

attentive to the effects of her own experiences and perspectives to avoid manipulation of findings to arrive at predisposed truths (Patton, 2002). She collected data according to the approved research methodology and the published interview and focus group protocols (Appendices A and B). The researcher also recognized the responsibility to protect documents that were produced by the project. All field notes and audio records, as well as students' permission to participate in the study were stored in a secure location; only the researcher had access to these materials.

In the first step of this phenomenological process, the researcher identified her experiences working with nursing students who were admitted to the nursing program immediately after graduation from high school. The researcher acknowledged it had been her experience that high school graduates entering the nursing program immediately after graduation from high school struggled academically and were at high risk for attrition. This acknowledgement helped the researcher set aside her personal experiences so she could focus more directly on participants in the study (Patton, 2002). The researcher maintained a reflective journal to identify and explore her thoughts and feelings through the data collection and analysis.

### **Ethical Considerations**

The research design considered the rights of the students as human subjects. Students' risks were minimal. The community colleges involved with this nursing program do not have institutional research boards; therefore, the researcher followed each college's policy for permission for research before proceeding with the study. Students' participation was voluntary and students were not penalized for participation or nonparticipation or for any comments in the interviews. Throughout the process the

researcher was aware of the need to protect both the rights of the participants and the integrity of the nursing program.

### **Data Collection Procedures**

#### **Interviews and Focus Groups**

The researcher interviewed first- and fourth-semester nursing students using a semi-structured face-to-face interview approach (Appendix A) or focus group (Appendix B) to provide consistency for multiple interviews and to enhance data coding and analysis. The interviewer used directive structured interviewing technique with a question protocol to keep students focused on the topic at hand. A directive approach allowed greater coverage of the topic in the time available (Stewart, Shamdasani, & Rook, 2007).

Fourth-semester students were interviewed in a private office with consideration of personal space and comfortable seating. First-semester focus groups met in classrooms with students seated comfortably around a table with the interviewer; privacy was provided during the focus group. The researcher used a semi-structured protocol for both interviews and focus groups (Appendices A & B). Similar questions were used for both the interviews and the focus groups to provide consistency and to enhance data coding; these questions are listed in association with the three major research questions in Appendix C.

Students were asked to sit around a table with the interviewer for the focus groups. One group met in a nursing classroom with chairs positioned around one long table. The remaining two assembled in conference rooms with chairs positioned around long tables. Allowing the students to sit around a table tended to promote comfort of participants by creating a sense of territoriality (Stewart, et al, 2007). Each student

created name cards to place on the table so the interviewer could easily remember their names during the activity. Addressing each study by name helped the researcher build trust and rapport (Stewart, et al); only first names were used to ensure privacy. Fourth semester student interviews were conducted in a private office at the student's home campus with the interviewer facing the student during the conversation with no desk between them to create a more open atmosphere.

Prior to asking any questions, the interviewer described the project emphasizing that participation was voluntary. Students were told that the interviewer was acting as a Ph.D. candidate conducting research and not as the program administrator in this situation. She described the study and asked for students' participation while assuring the students that participation or lack of participation would not affect grades or progression in the program. Students who agreed to participate were asked to sign the consent (Appendix H) to participate and permission to record before beginning the process. After signing the consent to participate, each student completed a demographic questionnaire (Appendix I) prior to beginning the research activities. Students were informed that the recording would only be used to insure accuracy in documenting their comments.

The researcher used interview and focus group protocols (Appendices A & B) as guides to provide consistency and to enhance data coding and analysis (Patton, 2002). The guide consisted of ice breakers to help decrease the students' anxiety and three standardized questions to insure that each student was presented major questions in the same way and in the same order. Each standardized question included probes to assure that topics important to the subject of the initial question were included. The interview questions were opened ended to focus the students on in-depth discussions of their

experience. The topics covered in the interview were guided by the literature review associated with transition from high school to first year of college and retention, preparation for college, and suggestions for improving the transition. These included topics related to transition such as social life, coursework, family life, classes, instructors/faculty, campus activities, time management, study habits, academic abilities, test taking skills, employment responsibilities, peer relationships, etc.

Each focus group and interview was initiated with general conversation and ice breaker questions to promote student comfort. Students were told that their participation or lack of participation would not affect their grades or progression in the program and that their comments would be confidential. They were told that the interviewer was a graduate student in this situation, completing a required assignment for a Ph.D. They were asked to disregard the fact that the interviewer was the administrator of the nursing program. Ice breaker questions were used to give the interviewer and students an opportunity to introduce themselves to each other in a nonthreatening manner. Students were asked identify their role models in life and why they decided to become nurses.

Once the students had responded to the ice breakers, the interviewer introduced the questions for discussion using the focus group or interview protocols. Each question was introduced with a primary broad, open-ended question. Specific questions were used to elicit more information as needed. This approach is a funnel approach beginning with more general questions and following with more specific narrow questions (Stewart et al). The interviewer occasionally used personal examples as they related to student comments to help students relax. For example, when students talked about believing that none of their friends had to study as much as they did in the nursing program; the

interviewer shared her experience as recognizing that none of her non-nursing student friends ever seemed to have to study either. She shared that her other friends had time to go to movies or go on weekend trips, but nursing students always had to study. The interviewer only shared personal experiences as they related to comments made by students to diminish the possibility of influencing their responses. The focus groups lasted approximately 90 minutes each and interviews were about 60 minutes each.

The researcher documented each interview and focus group by interviewer field notes and audio recordings. Each student provided written and verbal permission. Verbal permission was requested before the interviewing processes began and then repeated on the audio recording. Permission to participate in the study was required for each student and each activity. The use of multiple methods, interview and focus groups, and students from 2 points of progression in the program strengthened the study. The study was also strengthened by involving students from three community colleges representing 16 public high schools from 1 city and 8 county school systems.

### **Data Analysis**

Data analysis was based on a content or theme analysis approach (Creswell, 2007; Patton, 2002; Speziale & Carpenter, 2007). This process involved analyzing the content of the narrative data to identify themes and patterns within the themes for encoding qualitative information that described and organized the data. The analysis followed the steps outlined by Creswell (2007, pp 156-157)

- Create and organize files for data
- Read through text, make margin notes, form initial codes
- Describe the case and its context

- Use categorical aggregation to establish themes to patterns
- Use direct interpretation
- Develop naturalistic generalizations
- Present in-depth picture of the cases using narrative, tables, and figures.

The researcher transcribed audio recordings of all interviews and focus groups. She read and reread the field notes and transcripts several times to gain perspective on the overall content and to select core components of the answers to each question. As recommended by Creswell (2007), the researcher identified a list of significant statements and grouped these statements into larger units of information or themes. A description of what the participants in the study experienced in their transition from high school to associate degree nursing education was written including verbatim examples. Creswell (2007) and Patton (2002) described this as a “textural description”.

After coding each interview and focus group, the interviewer compared each question and group responses by code. After coding each of the protocols, the researcher organized all data into categories to reflect over-arching themes as they related to the initial research questions. The composite description of the cases conveyed what the students experienced during their transition from high school to associate degree nursing education.

### **Summary**

Although research has identified factors that influence success of associate degree nursing students, there is a deficit of research related to the transition of the high school student to associate degree nursing education. This chapter discussed the use of qualitative research to investigate the transition of recent high school graduates to

community college associate degree nursing education. The results of this study helped to better understand factors that influence student persistence and program completion for planning interventions to promote success of the recent high school graduate enrolling in associate degree nursing education.

## CHAPTER 4

### RESULTS

In an attempt to increase program completion and student success, nurse educators have completed numerous research activities specific to student retention and factors that increase attrition in nursing education. In 2005, the Virginia Community College System (VCCS) Chancellor's Task Force on Nursing Education recommended an increase in the number of nursing students' from the Virginia Community College System's (VCCS) associate nursing programs with specific emphasis on lowering attrition levels (Virginia Community College System [VCCS] & Virginia Hospital & Healthcare Association [VHHA], 2005). Karen Daley, President of the American Nurses Association (ANA) reported an increase in the number of new nursing graduates in their early twenties after three years of decline (2012). According to Daley, this resurgence of young graduates is important to meeting the next generation of expert clinicians, educators, researchers, and nurse leaders. Little or no research has specifically addressed the young student who enters a community college associate degree nursing program immediately after graduation from high school. The following chapter discusses the findings of a phenomenological research project to identify issues associated with the transition from high school to associate degree nursing education.

The purpose of phenomenological analysis was to identify the meaning, structure, and essence of the lived experience of a phenomenon for a person or group of people (Patton, 2002). This phenomenological research explored everyday experiences from the point of view of the young student who entered a community college associate degree

nursing program immediately after graduation from high school. The study focused on three research questions:

1. How do community college students who enroll in an associate degree nursing program immediately after high school graduation describe the transition from high school to associate degree nursing education?
2. What experiences had the greatest effect on the transition from high school to associate degree nursing education?
3. What institutional or procedural changes do community college students who enroll in an associate degree nursing program immediately after high school graduation suggest can be done to positively influence the transition from high school to associate degree nursing education?

### **Description of Participants**

The nursing program in this study was a consortium program with over 400 students involving three rural community colleges serving 9 counties and 2 cities. Students at each of the three community colleges participated, representing 16 public high schools, 8 counties, and 1 city. At the time of the study, 22 students meet criteria for participation in the study. All were invited to participate and 21 students participated in the study, 20 females and one male. Seven participants were second year students in the final semester before graduation and 14 were in the first semester of the first year of the curriculum. The student who declined was a first year, male student.

All but one of the students received some type of financial aid with 11 students qualifying for need-based federal grants. Seven students worked more than 20 hours per week; none worked full time. All but two of the students were living at home with

parents and family. Ten of the 14 first-semester students were 18 years old at the time of the interview; 4 were 19 years old. Three of the final semester students were 19; 4 were 20 years old. High school Grade Point Averages (GPA) ranged from 3.5 to 4.0 for 19 of the 21 students; 7 students were first-generation college students. All but one student reported participating in dual enrollment or advanced placement courses prior to high school graduation.

Each interaction began with the interviewer introducing ice breaker questions. In response to a question about their personal role model, most of the students identified family members, mother, father, grandparents as role models. The students described these family members as strong, independent, hard workers who were dedicated to their families and did not give up when times were difficult. One student identified her minister as a role model of compassion and caring. In response to the question about the reason for wanting to be a nurse, one student identified job security as her reason for becoming a nurse; the others related their desire to help others. They talked about family members who had been ill and received nursing care. They were inspired by these nursing activities. As the casual conversation continued, students were obviously more comfortable and the dialogue was more relaxed. It was evident that the students were familiar with and provided support for each other as they laughed and talked together with the interviewer.

### **Results**

As the students discussed the high school to community college associate degree nursing education experience, they expressed similar high school experiences and similar experiences associated with the community college nursing program. Although the

students represented a variety of high schools in different school districts, their answers were so similar that one would expect that they were all from the same school or that the notes were replicas of one interaction.

All students described spending a great deal of time socializing with high school friends and all agreed that they did not really study in high school. They concurred that making good grades in high school was easy. Several students shared that in order to make an “A” on a test they listened in class and reviewed the instructor prepared notes during the class immediately preceding the test. They acknowledged that they seldom read a book in high school because everything was read to them in class. Those who participated in Advanced Placement (AP) or dual enrollment classes said they were required to read in these advanced classes, but not as much as they read in nursing classes. They acknowledged that they were not prepared for the rigor of nursing education. As the interviews and focus groups were analyzed and data was coded, major themes emerged. These themes were academic self-confidence, academic preparedness, academic skills, and social-life. Each of the themes was relevant to the research questions.

### **Academic Self-Confidence**

Jeffreys (2004) emphasizes the importance of confidence in one's academic abilities as a characteristic affecting student success. According to Jeffreys' studies, students who were confident in their abilities to learn or perform tasks necessary to achieve their goal are more likely to be successful. Determination, commitment, and persistence or not giving up are important factors for success (Glogowska, Young, &

Lockyer, 2007; & Williams, 2010). Students who have low self-confidence may not exhibit motivation or goal commitment sufficient for success (Jeffreys).

The average GPA of the students involved in this study was 3.7. Obviously they had been very successful in high school and as they talked it was evident that they began their college career with confidence in their abilities to be successful. Although they expected nursing school to be hard, they noted that they were not prepared for the rigor that they faced. Most of the students left high school confident in their abilities to be equally successful in college. They talked freely about their disappointment in not being able to make A's in nursing classes after having such good grades in high school and shared similar comments. They indicated that the first low grades that they received in nursing were really hard to accept and made them question their self-confidence. Most students expressed disappointment in themselves because they did not get the A's that they were accustomed to in high school. They indicated that they had expected the program to be hard and were anticipating studying a couple of hours each night, but she had not anticipated that she would have to study all the time. Another one said that getting a poor grade was really weird; she was accustomed to getting A's and said she felt dumb when she made less than an A in nursing. They said they wondered if they had made the right choice when they took their first test. Most of them had considered quitting. Some described crying because they felt so inadequate. Yet, they were able to look around and say "If they can do it, I can do it" and they did not give up. The following comments were from a variety of students and indicated their confidence especially in the beginning:

“It wasn’t what I expected. I thought I would get A’s, but I learned it was OK to get C’s.”

“I thought college would be easy because I had done well in high school.”

“I had always had A’s in high school; it was devastating to get a C.”

“It was scary, very scary, very scary....I was nervous.”

“Overwhelming, stressful, very stressful, O My God, shoot me now hard.

Sometimes I just wanted to quit; it was not what I expected.”

“After the first test with a low grade, it opened my eyes to what I had to do. “

“In orientation, someone said we would fail the first nursing test. I didn’t believe them and I felt really bad when I did fail a test.”

### **Academic Preparedness**

First-year college students are often overwhelmed during the first weeks of college. They seldom have adequate information about what will be required in college and they find that college is much harder than they had anticipated (Bell, Rowan-Kenon, Perna, 2009; Brady & Allingham, 2007; Conley, 2005; Goldrick-Rab, & Roksa, 2008; Kush, 2005). The majority of the conversations with students focused on academic preparedness. No matter what the subject of the question, the response usually reverted to not being adequately prepared for the rigor of the nursing program. They repeatedly commented that they were not required to think in high school classes and that they were not challenged. According to these students, high school tests were knowledge-based and did not require critical thinking. Most said that their senior year was especially easy and some described it as boring. Students frequently commented that they were not challenged in high school and some said that their senior year was a "waste of time."

“The senior year in high school was more about having fun than learning.”

“High school classes were so simple; I could do homework in class and get A’s. We were told college would be different, but high school did not present the difference.”

“Life is very different from high school. In high school 2 hours of studying was a hard study night. Now I spend the entire weekend on one project, not just 2 hours. In high school, teachers always told us what the answers were. Here, no one is telling you what will be on the test.”

“All high school classes were core classes, but the high school experience did not prepare me for college. That is a really big problem. They (high school educators) didn’t worry about what we would really learn; most of them just worried about SOL (Standards of Learning) testing and getting funded for the next year. Course syllabi had SOL outlines. They did not come out and say SOL was the only focus, but they had to stay on track.”

These students indicated that they had always made good grades in high school and seldom studied. Simply listening in class was adequate in most high school classes. Their impression was that high school teachers’ only concern was the students’ performance on standardized testing associated with “No Child Left Behind”. According to these students, they were given notes in high school and told what they needed to know; tests were based on facts and only required memorization. If they read or memorized the notes that they were provided by their teachers, they said they could easily make A’s or B’s. After a few tests, they acknowledge that this study habit would not achieve the same results in nursing. However, they never knew what to expect on a

nursing test because it would be application of what they had learned in class. When they began nursing classes, they were not prepared for tests involving critical thinking.

Critical thinking is an essential component to nursing and nursing education (Schaffer & Rubenfeld, 2000). The students indicated that they did not have to think critically in high school. They acknowledged that success in nursing classes required more than just memorizing what they were told in class; they understood that success required understanding and application of knowledge. One student stated that she expected the program would be hard because “college is supposed to be hard”, but she was not prepared for the level of difficulty that she encountered. Another stated that she knew college would be hard, but she thought the community college would be much easier than a 4-year college.

Students commented:

“In high school, I just memorized information for a test. I didn’t feel like I had to put it in a memory bank to use later; now, I have to remember everything. I will be responsible for someone’s life. The information I learn now is vital and I will always need to know it.”

“In high school we were told what we needed to know but never had to apply anything that was taught.”

“I did not study much in high school. Sometime I studied for advanced placement A & P (anatomy and physiology). Test questions in high school were always simple questions like vocabulary. In nursing school, we have to think and apply what we have learned.”

“Course work in nursing program is much more demanding. High school teachers gave notes and told us what we needed to know for tests. Here, we have to think and must provide our own knowledge. What we go over in class may or may not be on the test.”

“In high school, if we didn’t finish our work, something happened. In college, no one follows you to see that you have done your work. College is much more independent.”

“In high school, I just memorized information for a test. I didn’t feel like I had to put it in a memory bank to use later; now, I have to remember everything. I will be responsible for someone’s life. The information that I learn now is vital and I will always need to know it.”

“In high school, we could just listen and study a few minutes before the test and put it on the test, now we have to study and apply it to a problem.”

“In high school, we had a lot of little activities or assignments for grades. We could just read and memorize the notes a few minutes before the test and make A’s.”

When asked about specific courses such as science, math, and reading, they indicated that their high school courses had not challenged them to think independently or to apply critical thinking skills. Most were very negative about their science courses and felt that they had not learned what they needed to prepare them for nursing education. All but one student said that they hated to read. They indicated that they were not required to read in high school and that their reading comprehensive was never evaluated. They indicated that they were not prepared for the large volume of reading in the nursing

curriculum and they did not know how to read for comprehension. However, all students had taken advanced math courses in high school and felt adequately prepared for nursing math.

These discussions often lead to students talking about their disappointment with high school and especially their senior year. Most indicated that although they had fun in high school and really liked their high school teachers, they had not learned what they needed. All but one student had taken dual enrollment and/or advanced placement courses. They said that even though they were more rigorous than other high school classes, they still received notes and study guides and were told exactly what would be on the tests. They were glad that they had completed these advanced courses in high school because it decreased their work loads and allowed them more time to study for nursing classes. They also indicated that these advanced classes helped them to prepare for the more rigorous college courses even though they were not as demanding as nursing classes. One student commented on the independence in learning required in college. She stated that if an assignment was not completed in a high school class, someone was there to make sure that it was. However, college education was different; if the student did not complete the work, they did not get the grade.

Comments about dual enrollment and advanced placement courses:

“I would have been lost without dual enrollment classes.”

“Dual enrollment English and Government classes were harder than high school classes and prepared us for college level work. These classes were more rigorous with higher expectations. Other high school courses were very easy.”

“The only courses in high school that helped prepare us were dual enrollment and other advanced placement courses. But no class in high school really helped prepare us for the nursing program.”

“The only classes that prepared me was advanced placement A & P (anatomy and physiology). This course had a lot of reading so it taught me self-discipline.”

“The only courses in high school that helped prepared me were dual enrollment courses. Governor’s school (advanced placement) A & P forced me to study.”

Only night class psychology at the community college, dual enrollment or governor’s school A & P helped prepare me for college.

They concurred that high school was not challenging and did not prepare them for the rigor of college. As they talked about their high school experience, it was clear that they felt disappointment. One student stated sorrowfully: “I loved my high school teachers, but now I know I didn’t learn anything.” They made numerous comments indicating regret such as “if we had only been challenged just a little…”

### **Academic Study Skills**

When asked about the academic or study skills that they brought to college, the students immediately responded “not any.” The two most commonly identified academic skills that the students indicated as lacking were the ability to think critically and the ability to read with comprehension and recognize what was most important to learn. They commented that they never had to apply what they had learned in class. They knew that tests would be simple facts that they had been given in study notes and they did not have to understand or apply any knowledge or concepts covered in high school classes. They recognized that this created a disadvantage when they started nursing classes, assuming

that tests would be knowledge based, they were totally unprepared for test questions that required application of knowledge or critical thinking. As one student stated: “Critical thinking was the biggest thing I had to learn in nursing school.”

They also identified reading as a weakness and indicated that they had little required reading in high school. Only one student said that he liked to read. Others said they read very little in high school and still did not like to read, but had to read for nursing classes. They discussed that they did not have to read for understanding in most of their high school classes because they knew the teacher would tell them what they would need to know for tests.

“I didn’t read anything in high school. I didn’t have to, the teachers read to us in class so it was pointless to read on my own.”

“I am a slow reader. I did not have to read in high school except AP English courses. For other courses I used *Spark Notes*.”

“I did not have to read in high school, they always told us in class what would be on the tests.”

“I never read in high school. The teachers gave us books. Some teacher told us we would not use them, they just had to give them to us.”

“I had to learn to read and know what was important to know.”

Students repeatedly commented on the need to learn how to study, most of them indicated that they studied very little in high school and were not prepared for the amount of study that was required of the nursing program. They said that they did not know how to study when they started nursing classes. Students said that they had always been told in high school exactly what to study and what would be on the test. They agreed that high

school tests were simple questions based on memorization of facts or vocabulary provided by a study guide. They indicated that they had to learn how to read with comprehension and understanding.

“I did not have any study habits; I studied little or none in high school”

“I did not know how to study; in high school I did not have to study.”

“I had to learn to study”.

“I did not study in high school except for dual enrollment classes. I only read for dual enrollment class; my high school books stayed in the locker.

Students frequently indicated that they did not know how to take notes or read through a book and know what she needed without a study guide. They pointed out that they did not know how to take notes in a college class because their high school teachers had always given notes for classes. One student said that high school did not teach them to learn independently because they were just told what they needed to know.

### **Time Management and Social Life Changes**

Time management was another dominant topic in the conversations about transitioning from high school to nursing education. The students repeatedly said that time management was not an issue in high school. They indicated that they could do whatever they wanted to in high school and did not have to make plans to study or prepare for classes. They commented that they typically completed their high school homework while in class and spent very little time preparing outside of class. They considered 2 hours per week a hard week for study in high school. They reported spending 20 or more contact hours per week in nursing classes. They were also involved

in skills laboratory and clinical activities requiring up to 12 additional hours per week and they quickly realized that they had to learn to manage time.

The students indicated that learning time management was critical to their continuation in the program. One student said that she simply would not do all the work required for the program if she did not really want to be a nurse. She and others said that they had to set priorities and force themselves to study when they would rather be doing something with family or friends. For these students, time management included prioritizing and deciding not to do many of the social activities that they had been involved in previously. They noted that their community college friends who were not in the nursing program did not have to study as much. When discussing social activities they unanimously agreed that their social life had greatly changed. In high school, they had a great deal of time to spend with friends; in nursing school they seldom had time for friends unless they scheduled it. Although the majority of the students were still living at home with their parents, they indicated that they had less time for family activities.

“I did not realize that there would be no social life and time for nothing but study. I thought I could still do things with friends.”

“I have no social life now, no time for social activities.”

“I have to set time aside to be with my family.”

Several students indicated that they had learned to use daily calendars to help manage their time. One first-semester student noted that 3 students who were her friends in high school and started the nursing program had recently withdrawn from the program because they did not want to give up the social life and make time for study. A second-year student commented that 4 students who had started the nursing program right out of

high school with her had withdrawn from their program because they did not want to commit to the time requirements to be successful. As one student said:

“We don’t have a social life. Everyone else is going out and having fun, but nursing students are in their rooms studying. If you do go out, you take books with you.”

“I did not realize there would be no social life and time for nothing but study. I thought I could still do things with my friends.”

College educators understand that the greater a student is involved in the social and academic system of the institution, the more likely there are to be successful (Tinto, 1975, 1987, 1993; Pascarella. 1980; Pascarella, Smart, & Ethington, 1986). Engagement in college activities creates a sense of belonging and enhances the students’ commitment to their goals. These students noted that they were not involved in any college activities outside the nursing program activities. They all agreed that there was no time for campus activities; however, they explained that they found a sense of belonging with their peers in nursing classes. They explained that they thought of the nursing education building as their college and the place where they belonged in the institution because they were not involved with other students. Although they participated in general education classes with non-nursing students, they felt a sense of belonging in the nursing education building and classrooms with other nursing students. Students repeatedly indicated that their social network in college was their circle of friends in the nursing programs. None of the students were involved in campus activities other than the nursing club. They all said they did not have time for any campus activities.

The discussion of social life and college related activities led to discussion of peer relationships in the nursing program. These students were certainly in the minority in relation to age. Over 175 new students entered the program with the first-year students, less than 10% were immediately out of high school. Their classmates were older, sometimes old enough to be their parents. One second year student stated that as a new high school graduate, she did not know as much about her purpose in life as the older students in her class and that she believed that new high school graduates were not as confident in themselves as the older or more mature students. They indicated that the older students often helped them to learn to study and helped them to be more confident in themselves. They recognized that their classmates, regardless of their ages, were their support system because they understood each other's challenges.

#### **Students' Recommendations to Improve Transition**

Most of these students indicated that they had completed their major course requirements for high school graduation by the end of their junior year. They indicated they accomplished very little during their senior year. They indicated that their senior year should have been devoted to classes and activities that would have prepared them for college success. One student said that high school teachers should challenge students more and that more dual enrollment or concurrent enrollment classes at the community college should be made available.

As the conversation progressed, they easily led to discussing opportunities to improve the transition for future students. They suggested that a college prep course in high school could have helped to learn to study and prepared them for the transition from high school. They also suggested modifications of the college orientation class that is

required for all students in the community college system. Most indicated that the orientation class was devoted primarily to learning how to get around the college and what they really needed was to know how to study and prepare for a college course. After all, they could find everything they needed on campus after the first day. They suggested that an orientation class could be created specifically for nursing students to prepare them for the rigor of nursing education. According to these students, topics that would be helpful include tips on how to study, note taking, test taking, time management, and stress management. They suggested that the class should also focus on how to maximize use of the resources provided by the nursing program such as on-line textbook resources, progressives testing, and remediation materials.

The interviewer followed the discussion of an orientation for nursing class with questions about when this class should be taught. At first, the response was to provide the class before nursing classes started. But as they continued the discussion, they resolved that they probably would not appreciate the importance of the class until they had actually been in nursing classes for a few weeks. They commented about their expectations of success when they first entered the program. Although they were immediately overwhelmed with the amount of work that would be required in the program; they did not realize how poorly prepared they were until they experienced a couple weeks of study and at least one test which required critical thinking and knowledge application. They believed that they would be more attentive to such a class when they truly understood that they needed it.

When discussing ways to ease the transition from high school, not one student said that the nursing program should be easier. They recognized the importance of

learning and being able to apply what they had learned. They indicated that they were not adequately prepared for the rigor of the nursing program. One student commented that in her high school, "No Child Left Behind" meant "no child challenged." One student commented that the good student was never challenged in high school because there was so much focus on making sure that everyone did well.

These students were among the brightest students in their high schools, yet they obviously felt that their needs had not been met. The results of this study could provide a foundation for development of a retention program specifically designed for the student who enters this associate degree nursing program immediately after graduation from high school. This study suggests that students entering the nursing program immediately after graduation from high school experience significant issues related to transition. Four major themes emerged: (1) academic self confidence, (2) academic preparedness, (3) academic skills, and (4) time management and social life changes. The themes are consistent with literature related to factors affecting student retention (Byrd & MacDonald, 2005; Gilchrist & Rector, 2007; Jeffreys, 2004; Lotkowski, Robbins & Noeth, 2004; Summers, 2003). A discussion of these issues in nursing education could lead to efforts to increase success of students entering associate degree nursing education immediately after graduation from high school.

## **CHAPTER 5**

### **CONCLUSION**

#### **Significance of the Study**

The nursing shortage is expected to continue over the next few decades as the Baby Boomer Generation ages and requires more care and as people in general continue to live longer lives. The increased care necessary for the sustaining the aging population will continue to provide a large economic need for qualified nurses. Furthermore, with President Obama's signing into law the Affordable Care Act on March 23, 2010, health care will be available to an additional 32 million uninsured U.S. citizens (Healthcare.gov, n.d.). This will undoubtedly put a strain on the already weak health care system. Community colleges will help to fill in the health care gaps as they continue to provide opportunities for nursing education in an affordable environment.

The State Council for Higher Education in Virginia estimates that Virginia will experience a shortage of approximately 22,600 full-time RNs by 2020 (State Council of Higher Education for Virginia [SCHEV], 2004). The Virginia Community College System (VCCS) and the Virginia Hospital and Healthcare Association (VHHA) joined forces in 2005 to bring educators and employers together to address the nursing shortage by creating the Chancellor's Task Force on Nursing Education (VCCS & VHHA, 2005). The charge to the task force was to develop recommendations to increase the number of nursing graduates from VCCS's associate degree nursing programs with specific emphasis on lowering the attrition levels of VCCS nursing students (VCCS & VHHA, 2005). The nursing programs within the VCCS are limited in their enrollment capabilities because of shortages of faculty, clinical placements, and classroom space. Most nursing programs are already enrolling their maximum capacity of nursing students; in fact,

nearly 23.4% of US nursing program reported receiving more applications than could be accepted in the 2007-2008 academic year (National League for Nursing [NLN], 2010). Since most programs are not able to increase enrollment, increasing retention is one option to increase graduates:

The findings of this study provided some insight into the struggles experienced by the associate degree nursing student immediately out of high school. First time college students face both academic and social challenges as they struggle with adapting to a new social environment with new independence and responsibilities (Upcraft, Gardner, Barefoot, et al, 2005). Many students enter college believing they are adequately prepared, only to find that they struggle academically (Conley, 2005; Upcraft, Gardner, Barefoot, et al). These challenges often result in attrition. Approximately 45% of high school students who enroll in community colleges immediately after graduating from high school leave without completing a degree or certificate program (Provasnik & Planty, 2008) and the highest rate of attrition is in the first year (Horn, 2009; Provasnik & Planty).

Nurse educators have identified academic, motivational, personal, and economic challenges that are known to interfere with success in nursing education (Aber & Arathuzik, 2007; Hopkins, 2008; Jeffreys, 2004). According to these studies, students who are unsuccessful often encounter barriers such as employment, child care responsibilities, poor academic preparation, low socioeconomic backgrounds, low self-esteem, poor study skills, poor test taking skills, and lack of family support. Other barriers included poor academic preparation, poor study skills, and poor test taking skills as critical barriers that were encountered in nursing. The students who participated in this

study said they were not prepared for the rigor of nursing education and were overwhelmed by the social changes and time commitment necessary for success. They indicated that they were not adequately prepared to think critically and did not have the study skills that were needed to be successful. There is a lack of empirical research related to the barriers associated specifically with high school students transitioning from high school to community college associate degree nursing education.

### **Restatement of the Problem**

As more high school graduates choose the community college, it is critical that community college faculty be ready to help them to make the transition successfully. Although research has identified factors that influence success of associate degree nursing students, little attention has been paid to the transition of the high school student to associate degree nursing education. The purpose of this phenomenological study was to investigate the transition of students from high school to community college associate degree nursing education to better understand factors that influence persistence and program completion. This understanding may assist nursing faculty and community colleges to develop interventions to promote success of these students and ultimately increase the number of graduates from associate degree nursing programs.. The research questions guiding this study are as follows:

1. How do community college students who enroll in an associate degree nursing program immediately after high school graduation describe the transition from high school to associate degree nursing education?
2. What experiences had the greatest effect on the transition from high school to associate degree nursing education?

3. What institutional or procedural changes do community college students who enroll in an associate degree nursing program immediately after high school graduation suggest can be done to positively influence the transition from high school to associate degree nursing education?

### **Review of the Methodology**

Using a phenomenological approach, this study provided insight into the experience of students entering one associate degree nursing program in a rural community college immediately after graduation from high school. A purposeful criterion sampling (Houser, 2008) consisted of traditional age first- and second-year students enrolled in an associate degree nursing program who entered the program immediately after graduating from high school. The study was completed in one academic year and involved the use of face-to-face interviews and focus groups to collect qualitative data. The study involved students from three community colleges and both first- and second-year, classes. The involvement of students from more than one college strengthened the study by decreasing the variables associated with characteristics of individual nursing faculty or high school characteristics. The involvement of both first- and second-year students provided insight from students who were made the initial adjustments to college while the inclusion of 2nd year students provided opportunity for a more mature perspective.

The research protocol required approval and cooperation from all parties involved and considered the rights of the participants as human subjects. Students involved in the project were not subjected to risks greater than those associated with attending class and their responses were kept confidential. Each student provided written and verbal consent

to participate in the study. Interview and focus group protocols were used to collect data. Open ended questions were used to explore issues associated with both secondary and post-secondary education. The researcher documented each interview and focus group by interviewer field notes and audio recordings. Data analysis was based on a thematic analysis approach, a process for encoding qualitative information by identifying patterns in the information that describe and organize the data and assist in interpreting aspects of the phenomenon (Creswell, 2007; Patton, 2002; Speziale & Carpenter, 2007).

### **Summary of Findings**

#### **Transition**

The students in this study described the immediate transition from high school graduation to the community college associate degree nursing program as stressful and far harder than their high school experiences or their expectations of college. Despite the fact that all students participating in this study had impressive high school grade point averages and had completed a number of dual enrollment or other advanced placement courses, they felt overwhelmed with the academic requirements and rigor of the nursing program. They described a very difficult transition without adequate preparation from high school. They felt overwhelmed with the academic requirements of the nursing program and described intense feelings of inadequacy.

Studies indicated that deterioration in self-esteem or self-efficacy could contribute to academic withdrawal if the student did not receive adequate support (Bean, 2005; Jeffreys, 2004). The students in this study were among the highest achieving students in their high school and expected to do well in college. They had excellent grades in high school; yet, they felt poorly prepared for nursing education and were disappointed in their

abilities when they did not do well on the initial nursing assignments. Although self-esteem was insulted, they were able to accept that they could be successful and made adjustments necessary for success. According to Bean (2005), students with adequate self-efficacy believe in their ability to survive and are able to adapt in a challenging academic environment. These students acknowledged that they had peers who had started the program but withdrew because of the rigor of the program and the inability to make the necessary adjustments to be successful. Early in the program they accepted that they could do better if they changed their study habits and devoted more time to preparation for classes. They acknowledged they initially were not spending enough time studying and learned that they would have to study much more in order to be successful.

In order to devote more time to studying and class preparation, the students in this study indicated that they gave up many of the typical social activities that many of the peers were experiencing in other college majors. Educational research recognizes that student involvement in college activities and a sense of belonging to the college institution are key factors in success (Pascarella & Terenzini, 2005; Tinto, 1993; Astin, 1975). Social integration or social support is an important process influencing students' decisions to stay in college or withdraw (Bean, 2005; Wilcos, Winn, & Fyvie-Gauld, 2005; Yazedijan, Purswell, Sevin, & Toews, 2007). During the early transitional period most college students have an urgent need to identify with other students, to belong, and to feel safe in their new environment. Students who fail to make this social integration, or who continue to spend too much time with former friends, are more likely to encounter problems.

Peer are a valuable source of support for students in transition (Martin, Swartz-

Kulstad, & Madison, 1999; Yazedjian, Purswell, Sevin, & Toews, 2007; Tinto, 1993; Pascarella & Terenzini, 2005), yet the students in this study were not involved in any of the traditional college activities and they associated with few students outside the nursing classroom. They acknowledged that success in the nursing program demanded that they abandon the usual college social activities. They recognized other college students involved in activities around the college, while nursing students spent time in class activities or studying. Although these students were not involved in typical student activities, they were very involved in activities directly associated with their nursing classes and classmates and this led to strong peer relationships within the nursing program. They recognized that students in the nursing program could more easily identify with them because they shared the same academic mindset (Yazedjian, Purswell, Sevin, & Toews, 2007). Their classmates became their support group and their sense of belonging to the college was associated entirely with the nursing program. Not only did they get together routinely in study groups, they also supported each other through phone calls, social media such as *Facebook*, and other interactions.

Students often recognize the importance of support from their families and from the college faculty (Yazedjian, Purswell, Sevin, & Toews, 2007). The students in this study frequently noted the importance of the emotional support and encouragement provided by their families. Although they were intimidated by the nursing faculty at times, they recognized that they were always willing to help them. The staff-student relationship (including receptiveness, inclusion/exclusion, legitimization of the student role, recognition and appreciation, challenge and support) has an important influence on the student's sense of belonging and learning (Levett-Jones, Lathlean, & McMillan,

2009). Positive relationships with staff and faculty promote student self-confidence and motivation and enhance student success (Tinto, 1993).

### **Preparation**

The students in this study repeatedly noted that their high schools did not prepare them for the rigor and academic demands of the nursing program. Both the first and second year students said that high school had not provided the academic skills that they needed. They pointed out that they had never had to really study in high school and that they had to learn to study for college classes. In high school they were told what they needed to know for testing and all they had to do to make an “A” was memorize what they had been told to know. When comparing high school and college tests, they said there were no similarities. Simply memorizing information was not enough to be successful on college tests where more than one answer could be right and they had to select the best answer by applying knowledge they acquired from class or reading.

Brady and Allingham (2007) noted a significant number of students felt their high school experience did not prepare them for the transition to college. College students who do not acquire critical learning skills during their high school years may struggle with the college/teaching environment (Brady & Allingham, 2007). According to a 2012 report from the Center for Community College Student Engagement (CCCSE), about 60% of community college students report that their placement tests indicated a need for developmental education in at least one area and fewer than half of students entering community college achieve their goal of obtaining a credential within six years of beginning college. Although none of the students in this study had placement scores indicating a need for developmental education, they pointed out that they felt that their

high school courses had not prepared them for the advanced level of thinking required in the nursing program.

Students often enter college expecting assignments and tests with clear right and wrong answers that do not require much interpretation or even much thinking (Conley, 2005). The students in this study quickly learned that their study habits from high school were grossly inadequate and did not feel that high school had adequately prepared them for the rigor of the nursing education and college courses. As one student said, "I have never been so stressed. No one could have told me how hard this would be." Like students in Brady and Allingham's (2007) study, the students in this study also had to adjust to reduced levels of support and had to learn to keep up on their own without teachers always keeping track of their progress and making sure that they had completed the required work. These students had to become active learners with instructors serving not so much as authorities but facilitators or co-learners with the students (Kidwell, 2005).

When discussing high school courses that prepared them for college, the students in this study indicated that the most beneficial courses they completed in high school were the dual enrollment or advanced placement courses. Although they indicated that these advanced placement courses had been helpful, they also complained that many of the advanced placement courses had been little more than an introduction to the advanced level of thinking required in nursing classes. They also indicated that non-nursing college classes were more like their high school advanced placement courses.

Conley (2005) acknowledged the importance of advanced placement and dual enrollment courses, indicating that they give students a realistic picture of what will be

expected of them in college. Even if the classes were not specific to the nursing curriculum or not as rigorous as nursing classes, students in this study indicated that dual enrollment and advanced placement courses encouraged them to “learn to think and not just memorize.” Many students also acknowledged that taking dual enrollment or advanced placement classes in high school allowed them to take a smaller course load which was especially helpful in the first semester when they made the biggest adjustments. They recommended that more dual enrollment courses be available in all high schools. Providing dual enrollment courses provides an opportunity to support students’ college success while still in high school; yet, these students often commented that dual enrollment courses was not as rigorous as on-campus courses and especially, not as rigorous than nursing courses..

Students often enter college believing that they need only to acquire more knowledge. Perry (1999) described this belief as dualist thinking. Students who view the world dualistically believe that all they have to do is learn simple truths or right answers. This thinking is reinforced in high school as the students became receptacles of knowledge that they were required to repeat when asked. Higher education requires progression from dualistic thinking to a higher level, relativistic thinking (Perry, 1999). Students who think relativistically are able to see the big picture and think analytically.

In nursing education, students must be more than just receptacles of knowledge; they must internalize the knowledge and apply it to real life situations involving patient care decisions. The students recognized that they did not know how to think critically and they found this to be a serious challenge in the nursing program. In most academic programs, students begin their college experience with basic general education courses

and gradually advanced to students requiring critical thinking. In associate degree nursing education, students typically enroll in nursing classes in the first semester that required application of knowledge.

### **Students' Recommendations**

All students described similar study habits. Recent research indicates that the college student spends an average of 13 hours per week in study activities outside the classroom (Arum & Rokso, 2011). According to Arum and Rokso's study, college students today typically spend less time per week in academic activities than they spend during a week in high school. The associate degree nursing students in this study reported that they studied at least 20-24 hours per week, with 2-3 hours of study each night and an additional 6-8 hours on Saturdays and Sundays. They said they quickly learned that they really did have to read all of the assigned reading. Students commented on the support that they received from the nursing faculty as they struggled with the transition. Second year students indicated that student success sessions provided by the nursing faculty during class time and focusing on time management, study skills, and test taking had been very helpful. All of the second-year interviewees indicated that they used the time management and study skills recommended by the nursing faculty and suggested that these skills had contributed to their success.

Students' suggestions for improving the transition period included providing more structured student success activities. They recommended an orientation program introducing student success activities prior to beginning nursing classes followed by a more intense program after classes are underway. They suggested that the student success class activities focus on study skills, testing taking, critical thinking, and time

management. They believed that providing a student success program after classes were underway would be beneficial because they would then recognize the need for the activity. Although they suggested a pre-nursing class orientation session, they implied that they would not be as receptive in the earlier activity because immediately after graduation from high school, they thought that they were prepared for college.

The students emphasized that soon after beginning nursing classes they learned that they needed to read and study so much more than in high school or even in non-nursing college classes. They acknowledged that the reading was more difficult with many unfamiliar words. They recommended that all students should take a medical terminology course in the summer before entering the nursing program. First-year students said they were still learning how to study and did not describe the structured study habits that the second-year students identified.

### **Implications for Educational Leaders and the Healthcare Workforce Secondary and Post-Secondary Faculty as Partners**

One method of addressing transition issues is to create opportunities for high school and college instructors to share their expectations for student learning (Upcraft, Gardner, Barefoot, et al, 2005). These conversations should focus on students in the colleges' service area to identify curriculum needs. For example, the students in this study identified the need for a more rigorous advanced placement or dual enrollment anatomy and physiology class to provide the knowledge foundation that they would need as they began to study nursing.

### **Credit-Based Transition Programs**

Tinto (1993) indicated the amount of change this transition from high school to college entailed depended on a number of factors, including the degree of difference

between high school and college. Dual enrollment or advanced placement courses provide opportunities to minimize the difference between high school and college by preparing students for the rigors of college level work (Fowler & Luna, 2009; Karp, Calcagno, Hughes, Jeong, & Bailey, T.; 2007).

Partnerships between local high schools and community colleges should work toward developing career pathways with dual enrollment or advanced placement opportunities for high school students who express interest in nursing education. The program involved in this study might consider adding dual enrollment credits to the admissions equation for ranking students for acceptance. Providing access to rigorous college courses through dual enrollment increases the efficiency of education by reducing the time and cost of obtaining postsecondary degrees and increasing the rigor of high school instruction (may also decrease the need for postsecondary education remediation (Lewis & Overman). Secondary education leaders working in partnerships with postsecondary education leaders can promote a more rigorous curricula by providing more dual enrollment courses to enable students to take college courses while still in high school (Fowler & Luna; Karp, Calcagno, Hughes, Jeong, & Bailey, 2007). Studies have indicated dual enrollment courses ease the transition from high school to college and lead to increased student success in college (Bragg, 2001; Fowler & Luna, 2009; Karp & Hughes, 2007; Karp, Calcagno, Hughes, Jeong, & Bailey, 2007; Lewis & Overman, 2008).

Conley (2005) acknowledged the importance of advanced placement and dual enrollment courses, indicating that they give students a realistic picture of what will be expected of them in college. Even if the classes were not specific to the nursing

curriculum or not as rigorous as nursing classes, students in this study indicated that dual enrollment and advanced placement courses encouraged them to “learn to think and not just memorize.” Many students also acknowledged that taking dual enrollment or advanced placement classes in high school allowed them to take a smaller course load which was especially helpful in the first semester when they made the biggest adjustments.

Implementation of career pathways in high schools is one approach to preparing students for associate degree nursing education. This concept was presented by Hull (2005) who defined career pathway as a “coherent, articulated sequences of rigorous academic and career/technical courses, commencing in the ninth grade and leading to an associated degree, baccalaureate degree and beyond, an industry-recognized certificate, and/or licensure.” According to Hull, the career pathway is developed, implemented, and maintained in partnership among secondary and postsecondary education, business, and employers. High school students receive dual credit for college courses and usually graduate high school with at least one year of college completed (Hull) and students learn how to succeed in college classes while still in high school. The positive habits acquired in the dual enrollment/career pathways program are expected to stay with the students as they continue their career plans.

### **Creating a Culture of Student Success**

Leaders may foster faculty enthusiasm by appealing to the fundamental values of the faculty and providing faculty development (Upcraft, Gardner, Barefoot, et al, 2005). Research indicates a positive relationship between faculty teaching practices and student engagement, learning, and persistence (Pascarella & Terenzini, 2005). With this in mind,

leaders should consider assigning the most effective teachers to freshman classrooms to create a positive impact on the achievement and persistence of students (Upcraft, Gardner, et al, 1989). Leaders must focus on student success and make it a priority (Kuh, Kinzie, Schuh, Whitt, et al, 2010); leaders must create a culture of success by. We must invest in our first-year students if we want them to be successful students (Erickson, B. L., Peters, C. B., Strommer, D. W., 2006). Faculty must be supported through professional development and leaders must create a culture in which faculty are expected to partner with first year students. The culture must expect success.

### **First-Year Support**

It is remarkable to note that all students in the program involved in this study were required to complete a student development course, orientation to college success, prior to enrolling in nursing courses. For high school students transitioning to associate degree nursing education immediately after graduation, this course would be in summer immediately after graduation. When discussing this particular course during the interviews and focus groups, students did not acknowledge any benefits associated with the class. This is perhaps supportive of the researcher's belief that students don't really know what they need to learn to study when they are immediately out of high school.

Students' recommendation for additional support beyond the traditional student development course suggests that a transition program or first-year seminar for nursing students might be beneficial. This activity should intentionally acculturate recent high school graduates to the values and expectation of the nursing education program as well as introduce them to campus resources and opportunities (Kuh, Kinzie, Schuh, Whitt, et al, 2010). Brownell & Swaner (2010) described academic seminars that included

academic skill-building topics, particularly writing or critical thinking, within the context of a first year course. This would be appropriate for first semester, nursing fundamentals courses and would likely involve the nursing course instructor. The students recommended activities throughout the first year to help them to conquer the rigor of the nursing program. A comprehensive student success group or first-year seminar could be developed with a series of workshops throughout the first year. Topics identified by this study include critical thinking, note taking, reading and study skills, time management, and test taking skills. This first-year seminar should provide emotional support for students as they learn to make personal life adjustments required to be successful in nursing education. Achievement, motivation, and academic self-confidence should promote student success and retention (ACT, 2004).

Transition assistance programs typically stress both academic and social issues and are designed to assist individuals to cope with the many social and academic difficulties that arise during the transition to college (ACT, 2004; Ishler, 2005; Tinto, 1993). The first-year seminar is one of the most valuable predictors of persistence to the second year of college (ACT; Ishler; Tinto). A transition program should begin as soon as the students enter the nursing program with services aimed at integrating students into the nursing program through orientation, tutoring, advising, constant monitoring of academic progress, and recognition of achievement (Courage & Godbey, 1992; Brownell & Swaner, 2010). Leadership is very important in successful implementation of first-year support activities. Faculty need support and encouragement to develop such activities that may be in addition to their current workload.

### **Community Implications**

This study has further implications for the service regions of the community colleges in relation to healthcare and workforce development. Sixty percent of all RN's are graduates of associate degree programs (AACN, 2008). Community colleges are critical to meeting the current and future workforce needs for RN's in healthcare. Community colleges that are successful in preparing students for employment in high demand nursing jobs provides potential for local and state economic development (Miller, 2008).

### **Limitations of the Study**

The limitations of this study were recognized. All of the students involved in this study were from a single nursing program in a rural community. Participants in the study had not experienced academic failure or withdrawal from nursing courses; thus the findings only reflect the perspective of persistent students in one particular nursing program. Findings from such a study may not be generalized to students in a more urban environment or to those in other associate degree nursing programs. Further, the findings may not apply to students who did not persist in the program.

### **Recommendations for Future Research**

Future research efforts should include students transitioning from high school to associate degree nursing education from more than one associate degree nursing program to increase the validity of the results. Validity is strengthened when consistency and dependability is supported (Patton, 2002). It is possible that there would be some difference between the students who did not successfully progress to the second year of the program and those who did. Future research should include exploration of the

perceptions of students who were not successful in making the transition high school to associate degree nursing education. The perspective of these non-completers might provide more insight into the needs of those students who aspired to be nurses but then withdrew or were academically unsuccessful. This insight could strengthen the planning and development of retention programs for nursing students immediately out of high school.

Efforts to identify the recent high school graduate's critical thinking skills could provide more insight into activities to promote student success. An assessment of critical thinking skills could help to plan learning activities to promote clinical reasoning and better prepare students for the rigor of nursing education. Although students commented very little on relations with faculty, future research could explore the role of the student/faculty relationship in student achievement in the first-semester.

### **Conclusion**

In conclusion, this study provided a picture of transition from high school to associate degree nursing in a community college setting through the eyes of students. This information is valuable for nursing programs as they strive to create positive learning environments in an effort to promote student success. The study suggests that high school students may not be adequately prepared for the academic rigor of nursing education in the community college and suggests that student success or retention programs should be introduced immediately after enrollment in nursing classes. Introduction of career pathway programs in high school with adequate opportunities for dual enrollment or other advanced placement activities was a consideration for improving students' preparation for nursing education. Students also recommended the introduction

of a medical terminology course early in the curriculum could enhance the students' ability to read nursing literature with understanding.

It was apparent that there are significant factors affecting the transition experience that should be addressed. High schools and community colleges must consider issues surrounding the transition from high school to associate degree nursing programs and community college. Steps should be taken to develop a more successful transition. First-year activities related to enhancing student success are recommended. These activities should include teaching study skills, critical thinking, note taking, test taking, and reading for comprehension. Nursing faculty should also develop student activities to promote a sense of student belonging or engagement and enhance helpful relationships with both faculty and peers.

Nursing programs that recognize the needs of recent high school graduates will be most successful in retaining students. High schools and community colleges must work together to address the nursing shortage that is facing our nation.

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## APPENDIX A

### Interview Protocol

#### High School to Associate Degree Nursing Students

Schedule an interview appointment with second-semester students for these personal interviews. All interviews will be completed on the student's campus in a private office. The interviews will be scheduled at times that do not conflict with the students' class schedules. Call the student a week in advance to confirm the appointment. On the day of the appointment, reintroduce yourself and establish rapport.

**“As part of my dissertation work, I would like to know more about your experiences as a recent high school graduate. I would like to talk with you about your transition from high school to college and experiences during your first year in the VATNP.”**

**“I would like to tape record our conversation if that is okay with you, so that I will have an accurate record. I will not use your name in any discussions or in any writings related to the research. Your participation or lack of participation will not affect your grades in any way. Only group data will be reported. Is that okay?”**

Turn the tape recorder on to begin recording. Repeat the two paragraphs above and record the student's answer.

**“Do you have any questions about this project? Shall we begin?”**

1. **“Tell me about your experiences during the transition from high school to the Virginia Appalachian Tricollege Nursing Program and \_\_\_\_\_ (Mountain Empire Community College, Southwest Virginia Community College, or Virginia Highlands Community College.)”**

Topics to be used for probing questions if students cannot think of any experiences or do not mention these areas:

- Family life
- Class/instructor
- Coursework
- Clinical activities
- Finances
- Time management
- Social life
- Campus Activities

2. **“What did you expect when you entered the nursing program?”**

Topics to be used for probing questions if students cannot think of any experiences or do not mention these areas:

- Family life
- Class/instructor
- Coursework
- Clinical activities
- Finances
- Time management
- Social life

**3. “How did your first semester community college experience differ from your high school experience?”**

Topics to be used for probing questions if students cannot think of any experiences or do not mention these areas:

- Instruction
- Faculty/staff
- Grades
- Level of difficulty of the classes
- Physical layout
- Stresses
- Pros and Cons

**4. “How well do you think your experiences in high school prepared you for the nursing program?”**

Topics to be used for probing questions if students cannot think of any experiences or do not mention these areas:

- Course work
- Study habits
- Reading/reading comprehension
- Math
- Biology/science
- Test taking
- Time management
- Stress management

**5. “Tell me about your study habits during your first semester in the nursing program.”**

Topics to be used for probing questions if needed.

- Number hours of study per week
- Study preferences – studying alone or with a group
- Study resources, e.g., student study guides, ATI resources
- Study habit changes during your first year

**6. “Did you work on or off campus during your first semester?”**

Topics to be used for probing questions to use if students answer yes to this question:

- Where employed
- Number of hours per week
- How long employed
- Effect of working upon grades, homework, social life, etc.

**7. “How well did you do academically during the first semester? Did you do as well as you expected? Please explain.”**

Topics to be used for probing questions to use if students cannot think of any experiences or do not mention these areas:

- High school final GPA
- End of 1<sup>st</sup> year college GPA
- Most difficult course(s)
- Total points in NUR 112 at end of semester

**8. “What adjustments, if any, did you have to make after you started the nursing program?”**

Topics to be used for probing questions:

- Academically
- Within your family
- Socially
- With regards to work

**9. “How well academically do you expect to do this semester?”**

Topics to be used for probing questions:

- How many points do you have currently?
- What plans have you made to help you be successful this semester?

**10. “Have you had any problems in nursing courses so far this semester?”**

Topics to be used for probing questions:

- How many points do you have currently?
- How is the second year different from last year?
- Personal factors affecting course work, e.g. work, family, stress, time management, study habits,

**11. “What plans have you made to help you be successful in nursing this semester?”**

Topics to be used for probing questions:

- Academically
- Within your family
- Socially
- With regards to work

**12. “If you could make any changes in yourself right now, what would they be?”**

**13. “What could the nursing program have done to make your transition easier?”**

Topics to be used for probing questions:

- Instruction
- Faculty/staff
- Support
- Student Activities

**14. “What could have been different for you at your high school to make your transition to the nursing program easier?”**

Topics to be used for probing questions:

- Instruction
- Faculty/staff
- Support

**15. “What could the nursing program or community college do to help you at this point?”**

Topics to be used for probing questions:

- Instruction
- Faculty/staff

- Support
- Tutor
- Decreased course work load

**“Thank you for taking the time out of your busy schedule to meet with me today. Is there anything else you feel would be helpful for me to know?.....Again, thank you very much. I hope everything goes well for you this semester.”**

## APPENDIX B

### Focus Group Protocol

#### High School to Associate Degree Nursing Students

Schedule a focus group appointment with at least 5 fourth semester nursing students. Call the students a week in advance to confirm the appointment. The focus group will be completed on the students' campus in a non nursing classroom with chairs arranged in a circle. At the beginning of the activity, I will reintroduce myself and establish rapport.

The questions provided in the protocol will serve as a general guide to help lead and focus the group discussion.

**“As part of my dissertation work, I would like to know more about your experiences as a recent high school graduate. I would like to talk with you about your transition from high school to college and experiences during this first semester in the VATNP.”**

**“I would like to tape record our conversation if that is okay with you, so that I will have an accurate record. I will not use your name in any discussions or in any writings related to the research. Your participation or lack of participation will not affect your grades in any way. Only group data will be reported. Is that okay?”**

Turn the tape recorder on to begin recording. Repeat the two paragraphs above and record the student's answer.

**“Do you have any questions about this project? Shall we begin?”**

#### **Section A: Ice Breaker**

##### **Introductions**

**“Where did you go to high school and why are you in the nursing program. Respond on note card #1.”**

**“Who is your role model in life and why? Respond on note card #2.”**

**Invite the participants to share their responses for one or both questions.**

#### **Section B: Transition**

**“Tell me what it has been like for you to enter the nursing program immediately after graduation from high school.”**

Topics to be used for probing questions if students cannot think of any experiences or do not mention these areas:

- Family life
- Class/instructor
- Coursework
- Clinical activities
- Finances
- Social life
- Time management
- Campus activities
- New peer relationships

**“How did your first semester compare to high school? What was your biggest adjustment?”**

**How did it compare to your initial expectations?”**

**Section C: Preparation for college**

**“Describe how your high school experience prepared you for the nursing program”**

Topics to be used for probing questions to use if students cannot think of any experiences or do not mention these areas:

- Course work
- Study habits
- Reading/reading comprehension
- Math
- Biology/science
- Test taking

**“What adjustments, if any, did you have to make after you started the nursing program?”**

Topics to be used for probing questions:

- Academically
- Within your family
- Socially
- With regards to work

**Section D: Student recommendations**

**“What could the nursing program do to make the transition easier for new high school graduates?”**

Topics to be used for probing questions:

- Instruction
- Faculty/staff
- Support
- Counseling or advising services
- Student Activities

**“What could have been different for you at your high school to make your transition to the nursing program easier?”**

Topics to be used for probing questions:

- Instruction
- Faculty/staff
- Support

**“What could the nursing program or community college do to help you at this point?”**

Topics to be used for probing questions:

- Instruction
- Faculty/staff
- Support
- Tutor
- Decreased course work load

**“Thank you for taking the time out of your busy schedule to meet with me today. Is there anything else you feel would be helpful for me to know?.....Again, thank you very much. I hope everything goes well for you this semester.”**

## APPENDIX C

## Research Questions with Interview and Focus Group Protocols

Research Question	Structured Interview Question	Focus Group Question
How do community college students who enroll in an associate degree nursing program immediately after high school graduation describe the transition from high school to associate degree nursing education?	<p>Tell me about your experiences during the transition from high school to the VATNP.</p> <p>What did you expect when you entered the nursing program?</p> <p>How did your first semester community college experience differ from your high school experience?</p> <p>How well did you do academically during semester?</p> <p>Have you had any problems in nursing courses so far this year?</p>	<p>Tell me what it has been like for you to enter the nursing program immediately after graduation from high school. How does your first semester compare to high school? What has been your biggest adjustment? How does it compare to your initial expectations?</p>
What experiences had the greatest effect on the transition from high school to associate degree nursing education?	<p>How well do you think your experiences in high school prepared you for the nursing program?</p> <p>Tell me about your study habits during your first year in the nursing program. Did you work on or off campus during your first year?</p> <p>How well did you do academically during the first? Did you do as well as you expected? Please explain.</p> <p>What adjustments, if any did you have to make after you started the nursing program?</p> <p>What plans have you made to help you be successful in nursing this semester? If you could make any changes in yourself right now, what would they be?</p>	<p>Describe how your high school experience prepared you for the nursing program. What adjustments, if any, did you have to make after you started the nursing program?</p>
What institutional or procedural changes do community college students who enroll in an associate degree nursing program immediately after high school graduation suggest can be done to positively influence the transition from high school to associate degree nursing education?	<p>What could the nursing program have done to make your transition easier?</p> <p>What could have been different for you at your high school to make your transition to the nursing program easier?</p> <p>What could the nursing program or community college do to help you at this point?</p>	<p>“What could the nursing program do to make the transition easier for new high school graduates?”</p> <p>“What could have been different for you at your high school to make your transition to the nursing program easier?”</p> <p>What could the nursing program or community college do to help you at this point?</p>

**APPENDIX D****Letter Requesting Permission to Conduct Study at Community College**

Dear \_\_\_\_\_,

I am a Ph.D. Candidate in the Department of Educational Foundations and Leadership Department of the Darden College of Education at Old Dominion University. As part of this education process, I am completing my dissertation on the transition of recently graduated high school students to associate degree nursing education. The study is an attempt to develop a better understanding of the needs of recent high school graduates in nursing education and to explore how this understanding can help us to improve retention and success of these nursing students. The proposal has been approved by Old Dominion University's Institutional Research Board.

This study is based on qualitative research methods and will be based on me interviewing recent high school graduates enrolled in the Virginia Appalachian Tricollege Nursing Program (VATNP) in either a one on one interview or in a focus group.

I would like to request permission to conduct this study within the VATNP. If approved, I will ask VATNP faculty to identify and provide email addresses for students who are currently enrolled in the program and entered immediately after graduation from high school. The identified students will be sent letters and emails describing the research and asking for their voluntary participation. The letters will clearly indicate that their participation or lack of participation will not affect their grades or their progress in the program. Prior to participating in the interviews, each participant will be asked to sign an informed consent form indicating that they understand that their participation is voluntary and confidential.

Participation in the research will involve being interviewed with questions specifically related to experiences associated with transitioning from high school to associate degree nursing education. The interviews will occur on the students' home campus, scheduled

around a time that they are traditionally on campus, and should not last more than 1 to 1 ½ hours. Each student will be asked to complete a demographic questionnaire to provide a descriptive picture of the group. The information resulting from these interviews will be reported only in summary of the study, no student names will be associated with the results. Attachments included with this letter provide the list of questions that will be used during this process.

Your consideration of this request is sincerely appreciated.

Sincerely,

Kathy Mitchell,  
Ph.D. Candidate, Old Dominion University.

## APPENDIX E

### Email Requesting Student Participation

Dear,

I am a Ph.D. Candidate in the Department of Educational Foundations and Leadership Department of the Darden College of Education at Old Dominion University. As part of this education process, I am completing my dissertation on the transition of recently graduated high school students to associate degree nursing education. The study is an attempt to develop a better understanding of the needs of recent high school graduates in nursing education and to explore how this understanding can help us to improve retention and success of these nursing students. The study will be based on interviews with recent high school graduates enrolled in the Virginia Appalachian Tricollege Nursing Program. Your faculty have identified you as a potential participant in this study.

I would like to invite you to participate in my dissertation research in order to know more about your experiences as you transition from high school to associate degree nursing education. Your participation is voluntary and your decision to participate or not participate will not affect your grades or your progression in the nursing program.

Participation in the research will involve being interviewed with questions specifically related to your experiences transitioning from high school to associate degree nursing education. The interviews will occur on your home campus, scheduled around a time that you are traditionally on campus, and should not last more than 1 to 1 ½ hours. The information resulting from these interviews will be reported only in summary of the study, your name will not be associated with the results.

Your consideration of this request is sincerely appreciated. If you are able to participate, please respond in reply to this email as soon as possible so we can schedule the interview before the final exam rush.

Sincerely,

Kathy Mitchell, Ph.D. Candidate  
Old Dominion University.

## APPENDIX F

## High School Characteristics and Advanced Placement Enrollment

Table 6

*Characteristics of School Districts (VDOE, 2012; & U.S. Census, 2012)*

School District	Total Population	Student Population	No. HSs	HS Dual Enrollment	HS AP Enrollment
District 1	24,098	3,386	4	14.52%	13.75%
District 2	15,903	2,573	3	6.76%	3.83%
District 3	25,587	3,651	2	No data	1.73%
District 4	28,889	4,317	3	13.24%	2.79%
District 5	34,250	3,993	3	23.72%	No data
District 6	34,864	4,996	3	19.05%	7.06%
District 7	45,078	6,790	3	10.42%	8.44%
District 8	54,876	7,486	4	19.88%	10.15%
District 9	41,452	6,784	3	13.06%	0.83%
District 10	3,058	856	1	No data	No data
District 11	17,835	2,355	1	17.50%	2.65%
Total	312,169	47,187	30		
Mean		4,290	2.7	15.35%	5.69%
Range	3,058-54,876	856-7486	1-4	6.76-23.72%	0.83-13.75%
Median	28,889	3,993	3	14.52%	3.83%

Key: HSs = number of high schools in the school district

HS Dual = percent of high school students participating in community college dual enrollment classes

HS AP = number of high school students participating in advanced placement courses

**APPENDIX G****High School Standardized Assessment Scores**

Table 7

*High School Reading Scores in Percent of Total High School Population (VDOE, 2012)*

Reading	Fail	Advanced Proficiency	Proficient	Pass
State	6	46	48	94
District 1	3	42	55	97
District 2	6	46	48	94
District 3	8	48	45	92
District 4	4	52	44	96
District 5	3	54	43	97
District 6	6	43	51	94
District 7	5	42	53	95
District 8	4	49	48	96
District 9	6	45	49	94
District 10	2	49	49	98
District 11	4	56	39	96

Table 8

*High School Writing Assessment Scores in Percent of Total High School Population,  
2009-2010 (VDOE, 2012)*

	Fail	Advanced Proficiency	Proficient	Pass
State	8	34	58	92
District 1	11	24	64	89
District 2	11	23	66	89
District 3	11	29	60	89
District 4	9	35	56	91
District 5	4	34	62	96
District 6	14	20	66	86
District 7	10	24	66	90
District 8	12	22	66	88
District 9	8	28	64	92
District 10	2	32	66	98
District 11	4	41	55	96

Table 9

*High School Algebra Assessment Scores in Percent of Total High School Population,  
2009-2010 (VDOE, 2012)*

Algebra	Fail	Advanced Proficiency	Proficient	Pass
State	4	29	66	96
District 1	0	29	70	100
District 2	7	25	69	93
District 3	5	33	61	95
District 4	6	12	82	94
District 5	2	31	68	98
District 6	7	23	70	93
District 7	3	32	65	97
District 8	9	17	73	91
District 9	1	42	57	99
District 10	2	21	77	98
District 11	3	32	65	97

Table 10

*High School Biology Assessment Scores in Percent of Total High School Population,  
2009-2010 (VDOE, 2012)*

Biology	Fail	Advanced Proficiency	Proficient	Pass
State	11	18	71	89
District 1	5	11	84	95
District 2	11	15	74	89
District 3	14	8	77	86
District 4	11	13	75	89
District 5	3	23	74	97
District 6	7	16	77	93
District 7	12	14	74	88
District 8	9	12	80	91
District 9	9	13	78	91
District 10	10	17	73	90
District 11	5	22	73	95

Table 11

*High School Chemistry Assessment Scores in Percent of total High School Population,  
2009-2010 (VDOE, 2012)*

	Fail	Advanced Proficiency	Proficient	Pass
State	7	17	77	93
District 1	3	5	91	97
District 2	5	13	82	95
District 3	5	13	82	95
District 4	6	17	78	94
District 5	1	33	66	99
District 6	9	10	81	91
District 7	7	10	83	93
District 8	2	14	84	98
District 9	4	24	72	96
District 10	0	14	86	100
District 11	0	14	86	100

## APPENDIX H

### INFORMED CONSENT DOCUMENT OLD DOMINION UNIVERSITY

**PROJECT TITLE:** Transition from High School to Associate Degree nursing Education: A Qualitative Study

#### **INTRODUCTION**

The purposes of this form are to give you information that may affect your decision whether to say YES or NO to participation in this research, and to record the consent of those who say YES. Participation will consist of participating in an interview or focus groups with the researcher to explore the phenomenon of transition from high school to associate degree nursing education. The interview will take place in a private office on your community college campus. Focus groups will take place in a closed classroom or conference room on your college campus.

#### **RESEARCHERS**

Responsible Principal Investigator:

Karen L. Sanzo Ph.D.,

Old Dominion University

Department of Educational Foundations and Leadership, Darden College of Education

Investigator:

Kathy Mitchell, R.N., M.S.N., Ph.D. Candidate

Old Dominion University

Department of Educational Foundations and Leadership, Darden College of Education

#### **DESCRIPTION OF RESEARCH STUDY**

Several studies have been conducted looking into the subject of nursing education and factors affecting student success. None of them have provided an understanding of the factors that contribute to the success or lack of success of students who enter associate degree nursing education immediately after graduation from high school. The purpose of this study is to explore this phenomenon through the voices of students who are currently enrolled in associate degree nursing education and entered the program immediately after graduation from high school. If you decide to participate, then you will join a study involving qualitative research. As a participant, you will be invited to participate in an interview with the investigator or a focus group with the investigator and other students from your campus who entered the program immediately after graduation from high school. The interviews and focus groups will consist of questions exploring your perceptions of factors affecting transition from high school to associate degree nursing education. You will also be asked to complete a short demographic data form that will be used only to provide a description of the participants.

If you say YES, then your participation will last for 60-90 minutes at your home college, Mountain Empire Community College, Southwest Virginia Community College, or Virginia Highlands Community College in a private office or closed classroom or conference room.

Approximately 15 nursing students who entered the program immediately after graduation from high school will be participating in this study.

**EXCLUSIONARY CRITERIA**

To the best of your knowledge, you should not have completed high school requirements more than 6 months prior to entering the nursing program. If you graduated high school 6 months prior to entering the program or if you are under 18 years old, you will not be allowed to participate in this study.

**RISKS AND BENEFITS**

**RISKS:** If you decide to participate in this study, then you may face a risk associated with attending class or meeting with an instructor or program administrator. There is risk of intimidation associated with being interviewed by the investigator who is also the dean of the program involved in this study. The researcher tried to reduce these risks by identifying a private location for the interview and assuring confidentiality. The results of the study will not affect your progress or grades in the nursing program. And, as with any research, there is some possibility that you may be subject to risks that have not yet been identified.

**BENEFITS:** The main benefit to you for participating in this study is having an opportunity to contribute to a better understanding of transition from high school to associate degree nursing education.

**COSTS AND PAYMENTS**

The researchers want your decision about participating in this study to be absolutely voluntary. Yet they recognize that your participation may pose some inconveniences, such as volunteering personal time in order to participate.

The researchers are unable to give you any payment for participating in this study.

**NEW INFORMATION**

If the researchers find new information during this study that would reasonably change your decision about participating, then they will give it to you.

**CONFIDENTIALITY**

All information obtained about you in this study is strictly confidential unless disclosure is required by law. The results of this study may be used in reports, presentations and publications, but the researcher will not identify you. The results will not affect your grades or your progress in the nursing program.

**WITHDRAWAL PRIVILEGE**

It is OK for you to say NO. Even if you say YES now, you are free to say NO later, and walk away or withdraw from the study -- at any time. Your decision will not affect your relationship with the Virginia Appalachian Tricollege Nursing program or your home college, Mountain Empire Community College, Southwest Virginia Community College, or Virginia Highlands Community College. Your decision will not cause a loss of benefits to which you might otherwise be entitled. The researchers reserve the right to withdraw your participation in this study, at any time, if they observe potential problems with your continued participation.

**COMPENSATION FOR ILLNESS AND INJURY**

If you say YES, then your consent in this document does not waive any of your legal rights. However, in the event of harm arising from this study, neither Old Dominion University nor the researchers are able to give you any money, insurance coverage, free medical care, or any other compensation for such injury. In the event that you suffer injury as a result of participation in any research project, you may contact the principal investigator, Dr. Karen Sanzo at 757-683-6698 at Old Dominion University, the investigator, Kathy Mitchell at 276-739-2440, or Dr. David Swain

the current IRB chair at 757-683-6028 at Old Dominion University, who will be glad to review the matter with you.

**VOLUNTARY CONSENT**

By signing this form, you are saying several things. You are saying that you have read this form or have had it read to you, that you are satisfied that you understand this form, the research study, and its risks and benefits. The researchers should have answered any questions you may have had about the research. If you have any questions later on, then the researchers should be able to answer them:

Kathy Mitchell at 276-739-2440

If at any time you feel pressured to participate, or if you have any questions about your rights or this form, then you should call Dr. David Swain, the current IRB chair, at 757-683-6028, or the Old Dominion University Office of Research, at 757-683-3460.

And importantly, by signing below, you are telling the researcher YES, that you agree to participate in this study. The researcher should give you a copy of this form for your records.

<b>Subject's Printed Name &amp; Signature</b>	<b>Date</b>
<b>Witness' Printed Name &amp; Signature</b>	<b>Date</b>

**INVESTIGATOR'S STATEMENT**

I certify that I have explained to this subject the nature and purpose of this research, including benefits, risks, costs, and any experimental procedures. I have described the rights and protections afforded to human subjects and have done nothing to pressure, coerce, or falsely entice this subject into participating. I am aware of my obligations under state and federal laws, and promise compliance. I have answered the subject's questions and have encouraged him/her to ask additional questions at any time during the course of this study. I have witnessed the above signature(s) on this consent form.

<b>Investigator's Printed Name &amp; Signature</b>	<b>Date</b>
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## APPENDIX I

## Demographic Questionnaire

Please complete the following questionnaire. In any study, it is important to provide a description of the participants. The data resulting from this data will be used for descriptive purposes only; no names will be associated with the information. **Your participation or lack of participation will not affect your grades in any way. Only group data will be reported.**

1. What is your gender? Male \_\_\_ Female \_\_\_
2. What is your current age? \_\_\_\_\_
3. What is your ethnic background? (Please circle one)
 

a. American Indian or Alaskan Native	b. Asian (not underrepresented)
c. African American	d. Hispanic or Latino
e. Native Hawaiian/Pacific Islander	f. Caucasian
g. Other (please specify _____)	
4. What type of financial aid are you currently receiving? Please circle all that apply.
  - a. Pell Grant
  - b. Scholarship
  - c. Work-study program
  - d. None
5. What was the highest level of education completed prior to admission to the VATNP?
  - a. High school diploma
  - b. GED
  - c. High school diploma plus dual enrollment or advanced placement courses
6. What was your high school graduation grade point average? \_\_\_\_\_
7. What was your national percentile score on the TEAS admission test? \_\_\_\_\_
8. Identify your mother's highest level of education. (Please circle one)
 

a. Elementary school or less	b. Some high school
c. High school diploma	d. GED
e. 2 year college degree	f. Graduate degree, Masters of higher
g. Don't know	
9. Identify your father's highest level of education. (Please circle one)
 

a. Elementary school or less	b. Some high school
c. High school diploma	d. GED
e. 2 year college degree	f. Graduate degree, Masters of higher
g. Don't know	
10. What is the average number of hours you work per week outside the home? \_\_\_\_\_

**VITA****Kathy Jessee Mitchell**

Department of Community College Leadership  
 Darden College of Education  
 Old Dominion University  
 Norfolk, VA 23529

**Education**

Ph.D.	Community College Leadership Darden College of Education Old Dominion University, Norfolk, VA	2012
M.S.N.	School of Nursing University of Virginia, Charlottesville, VA	1981
B.S.N.	School of Nursing East Tennessee State University, Johnson City, TN	1976

**Professional Experience**

2005-2012	Dean, Nursing and Allied Health, Virginia Highlands Community College, Abingdon, VA
1983-2005	Nurse Educator, Virginia Highlands Community College, Abingdon, VA
1980-1983	Clinical Nurse Instructor, Veterans Administration Medical Center, Salem, VA
1977-1980	Staff nurse and nurse supervisor, psychiatric mental health unit University of Virginia Medical Center, Charlottesville, VA

**Grant Awards**

Virginia Community College System Grant for introducing advanced technology in community health in ADN education  
 Southwest Virginia Area Health Education Center Grant for purchase of teaching materials for the nursing classroom  
 VCCS Learning Ware Grant for introducing PDAs in Nursing Education  
 HRSA Grant to implement a part-time evenings/weekend ADN Program at all three campus locations of the VATNP  
 HRSA Grant to implement technology in nursing education