

THE NURSING STUDENT EXPERIENCE: STUDENT PERCEPTIONS  
CONCERNING FACTORS LEADING TO SUCCESS IN AN  
ASSOCIATE OF SCIENCE IN NURSING PROGRAM AT  
MONTANA STATE UNIVERSITY-NORTHERN

by

Mary Weber Pappas

A dissertation submitted in partial fulfillment  
of the requirements for the degree

of

Doctor of Education

in

Education

MONTANA STATE UNIVERSITY  
Bozeman, Montana

November 2006

© COPYRIGHT

by

Mary Weber Pappas

2006

All Rights Reserved

APPROVAL

of a dissertation submitted by

Mary Weber Pappas

This dissertation has been read by each member of the dissertation committee and has been found to be satisfactory regarding content, English usage, format, citations, bibliography style, and consistency, and is ready for submission to the Division of Graduate Education.

Dr. Marilyn Lockhart

Approved for the Department of Education

Dr. Robert Carson

Approved for the Division of Graduate Education

Dr. Carl A. Fox

## STATEMENT OF PERMISSION TO USE

In presenting this dissertation in partial fulfillment of the requirements for a doctoral degree at Montana State University, I agree that the Library shall make it available to borrowers under rules of the Library. I further agree that copying of this dissertation is allowable only for scholarly purposes, consistent with “fair use” as prescribed in the U.S. Copyright Law. Requests for extensive copying or reproduction of this dissertation should be referred to ProQuest Information and Learning, 300 North Zeeb Road, Ann Arbor, Michigan 48106, to whom I have granted “the exclusive right to reproduce and distribute my dissertation in and from microform along with the non-exclusive right to reproduce and distribute my abstract in any format in whole or in part.”

Mary Weber Pappas

November, 2006

## ACKNOWLEDGEMENTS

I thank my husband, Chris Pappas, for his patience and encouragement during the previous 11 years while I was preparing to complete this degree. I also wish to thank my mother, Elizabeth Weber, for always telling me that I am capable of accomplishing whatever it was that I wanted to accomplish.

I want to thank my dissertation committee chair, Dr. Marilyn Lockhart, for her advice and for sticking with me until completion of this work. I also want to express my gratitude to the remaining members of my committee for their comments and input: Dr. Art Bangert, Dr. Betsy Palmer, Dr. Joanne Erickson, and Dr. John Paterson.

I must also thank Dr. Will Rawn and Dr. Suzanne Lockwood for reviewing my questionnaire and Provost Cheri Jimeno for allowing me to take the time to think, reflect, and write. Of course, I need to express my appreciation to the faculty, current students, graduates, and previous nonpersistent students who helped me by providing their time, thoughtful responses and data for this study.

## TABLE OF CONTENTS

LIST OF TABLES .....	ix
LIST OF FIGURES .....	xii
ABSTRACT .....	xiii
1. INTRODUCTION .....	1
Background of the Study .....	1
Setting of the Study.....	3
Statement of the Problem.....	5
Purpose Statement.....	6
Research Questions.....	6
Literature Review and Conceptual Framework .....	7
Method .....	12
Limitations .....	13
Delimitations.....	14
Significance of the Study .....	14
Definition of Terms.....	15
Chapter Summary .....	16
2. REVIEW OF THE LITERATURE .....	17
Introduction.....	17
Student Attrition in Higher Education .....	19
Student Demographic Characteristics Impacting Persistence.....	22
External Student Responsibilities Impacting Persistence .....	23
Support of Friends and Family Members and Persistence.....	24
Academic Preparation .....	24
Psychosocial Factors, Student Motivation, and Self-efficacy .....	25
Financial Resources .....	26
Goal Commitment.....	27
Institutional Commitment .....	27
Residential Status of Students.....	28
Type of Institution, 2-Year Versus 4-Year .....	28

## TABLE OF CONTENTS-CONTINUED

Social Integration .....	29
Academic Integration.....	30
Minority Students and Retention .....	32
Institutional Support and Student Services .....	35
Retention of Nursing Students .....	36
Models of Student Departure .....	41
Spady’s College Student Attrition Conceptual Model.....	41
Tinto’s Student Integration Model.....	42
Bean’s Model of Undergraduate Student Persistence.....	44
Bean and Metzner’s Model of Student Attrition.....	44
Bean and Eaton’s Psychological Model of College Student Retention .....	45
Milem and Berger’s Integrated Model of Undergraduate Persistence.....	45
Comparison of Models.....	46
Chapter Summary .....	47
<b>3. METHOD .....</b>	<b>49</b>
Background and Purpose .....	49
Rationale for Mixed Methods Approach .....	50
Quantitative Phase .....	51
Participants .....	51
Design and Procedure .....	52
Instrument .....	53
Data Collection and Analysis.....	55
Qualitative Phase .....	57
Participants .....	57
Design and Procedure .....	58
Trustworthiness.....	60
Instrument .....	61
Data Collection and Analysis.....	63
Chapter Summary .....	63
<b>4. RESULTS .....</b>	<b>65</b>
Introduction.....	65
Demographic Factors .....	66
Program Factors .....	70
Program Factors: Quantitative Findings .....	70
Program Factors Contributing to Success: Qualitative Findings .....	77

## TABLE OF CONTENTS-CONTINUED

Theme 1: Relationships With Faculty.....	78
Theme 2: Support From Peers .....	80
Theme 3: Curriculum Requirements.....	81
Program Factors Perceived Negatively: Qualitative Findings.....	82
Theme 1: Transition to Level Two .....	82
Theme 2: Nursing Lab Experiences.....	83
Theme 3: Excessive Assignments.....	83
Theme 4: Nonsupportive Faculty.....	84
Theme 5: Nonsupportive Staff Nurses.....	85
Program Factors: Faculty Perceptions .....	86
Summary of Quantitative and Qualitative Program Factors.....	86
Personal Factors .....	88
Personal Factors: Quantitative Findings .....	88
Personal Factors Contributing to Success: Qualitative Findings.....	99
Theme 1: Determination and Commitment .....	100
Theme 2: Support From Family.....	101
Theme 3: Realization of Rigor.....	102
Theme 4: Positive Self-Esteem.....	103
Personal Factors Resulting in Students Leaving the Nursing Program .....	104
Theme 1: Inability to Pass the Examinations.....	104
Theme 2: Personal and Family Illness .....	105
Theme 3: Lack of Commitment.....	106
Theme 4: External Responsibilities .....	107
Theme 5: Lack of Support .....	108
Summary of Quantitative and Qualitative Personal Factors.....	110
Participants' Recommendations.....	111
Theme 1: Prepare Students .....	112
Theme 2: Increase Program Requirements .....	114
Theme 3: Increase Admission Requirements .....	115
Theme 4: Support Students.....	116
Personal Factors: Faculty Perceptions .....	118
Summary of Quantitative and Qualitative Recommendations.....	119
Chapter Summary .....	120
5. CONCLUSIONS.....	122
Introduction.....	122
Overview.....	122
Methods and Data Collection.....	123
Data Analysis.....	125



## TABLE OF CONTENTS-CONTINUED

The Research Questions: Answered .....	125
Research Question 1: .....	125
Research Question 2: .....	126
Research Question 3: .....	127
Research Question 4: .....	128
Research Question 5: .....	129
Research Question 6: .....	130
Comparison to the Literature .....	131
Recommendations.....	132
Suggestions for Further Research .....	142
Chapter Summary .....	143
REFERENCES CITED.....	146
APPENDICES .....	157
APPENDIX A: MSU-BOZEMAN REVIEW BOARD PERMISSION .....	158
APPENDIX B: LETTERS TO PARTICIPANTS .....	160
APPENDIX C: QUESTIONNAIRES.....	163
APPENDIX D: PARTICIPANT CONSENT FORM .....	174
APPENDIX E: INTERVIEW FORMS .....	176

## LIST OF TABLES

Table	Page
1. Table of Specifications: Factors Leading to Student Persistence and Nonpersistence as Stated in the Literature .....	56
2. Question 25: What is your gender?.....	67
3. Question 26: Which cultural group do you identify with? .....	67
4. Question 27: What was your age at the time you entered the nursing program at MSU-Northern?.....	68
5. Question 28: What was your marital status while attending nursing school? .....	69
6. Question 29: What is the educational level of your parents?.....	69
7. Statement 1: I am (was) satisfied with the clinical experience in the nursing program .....	71
8. Statement 2: I am (was) satisfied with the theory courses in the nursing program .....	71
9. Statement 7: I wish I would have attended another nursing program.....	72
10. Statement 15: I have developed strong friendships with fellow nursing students .....	73
11. Statement 16: It is (was) difficult for me to make friends with other nursing students .....	73
12. Statement 17: I am (was) able to interact with faculty outside of the classroom .....	74
13. Statement 18: My interactions with the nursing faculty have (had) a positive effect on my professional growth .....	75
14. Statement 19: I take (took) the initiative to contact faculty when I have (had) questions concerning coursework.....	75
15. Statement 20: I collaborate(d) with other students in the classroom .....	76

## LIST OF TABLES-CONTINUED

Table	Page
16. Statement 23: Personal counseling by student services has been (was) helpful to me while in the nursing program.....	76
17. Statement 24: Tutoring by student services has been (was) helpful to me while in the nursing program.....	77
18. Statement 3: My financial resources are (were) adequate while attending nursing school at MSU-Northern.....	89
19. Statement 4: I am (was) worried about expenses that are (were) required to attend nursing school.....	89
20. Statement 5: I had sufficient academic preparation to succeed in the nursing program at MSU-Northern.....	90
21. Statement 6: I found the transition to college difficult.....	90
22. Statement 8: While in nursing school I gave a higher priority to studying than to anything else.....	91
23. Statement 9: I experience(d) difficulty coping with the stresses of attending nursing school.....	92
24. Statement 10: I am (was) confident in my ability to complete the nursing program at MSU-Northern.....	92
25. Statement 11: I am (was) committed to the goal of becoming a registered nurse.....	93
26. Statement 12: I do (did) not function well during nursing examinations.....	94
27. Statement 13: I am (was) not efficient in the use of study time while in nursing school.....	94
28. Statement 14: Lonesomeness is (was) a problem for me while in nursing school.....	95

## LIST OF TABLES-CONTINUED

Table	Page
29. Statement 21: My family is (was) supportive of my attending the nursing program at MSU-Northern.....	95
30. Statement 22: My significant other is (was) supportive of my attending the nursing program at MSU-Northern.....	96
31. Question 30: What was your cumulative grade point average when admitted to the nursing program?.....	97
32. Question 31: Which of the following describes where you reside(d) while attending nursing school?.....	97
33. Question 32: How many minor dependents are (were) you responsible for while attending nursing school?.....	98
34. Question 33: How many hours per week do (did) you work for pay (on average) while in nursing school?.....	98
35. Question 34: How did you finance your attendance at nursing school?.....	99

LIST OF FIGURES

Figure	Page
1. Conceptual Framework of College Student Persistence .....	11

## ABSTRACT

Retention of nursing students in nursing programs throughout the country is a concern in this time of serious nursing shortages. Educating nursing students is expensive, and when students do not persist in a nursing program, valuable resources are taken from other students who may be successful. The purpose of this mixed methods study was to discover and understand the program and personal factors that current students, graduates, and previous nonpersistent students reported as helping students in the associate of science in nursing program at Montana State University-Northern persist to graduation. The study also explored program and personal factors that current students, graduates, and previous nonpersistent students reported as contributing to leaving the associate of science in nursing program. A questionnaire was developed by the researcher using concepts from the literature review. For the quantitative portion of this mixed methods study, 114 questionnaires were returned from the population of 191 students who were admitted into the program in 2002, 2003, and 2004. Responses to this questionnaire are presented in percentages of responses for each participant type. Twenty-four participants were interviewed for the qualitative portion of this study. Those interviewed consisted of 8 current students, 8 graduates, and 8 previous nonpersistent students. Findings consisted of 21 themes. The major themes were that program factors of relationships between faculty and students, support of peers, and specific factors of the curriculum were perceived as resulting in success in the program. Personal factors that students perceived as helping them be successful include determination and commitment to the goal of being a nurse, support from family members, realization of how hard the program is, and positive self-esteem. Recommendations include developing strategies to promote faculty-student contact, encouraging student contact with other students to develop peer support, making specific curriculum changes, investigating financial resources so that students do not have to work so many hours while in the program, increasing prerequisites to the nursing program, and providing students with assistance in test-taking strategies, study skills, and stress management.

## CHAPTER 1

## INTRODUCTION

Background of the Study

Now more than ever, nursing programs must select students who are both academically and emotionally prepared to become successful nurses. Nursing education itself is academically, emotionally, and physically rigorous, as well as expensive. In addition, there is a nationwide nursing shortage (Barney, 2002; Beu, 2004; Risher & Applebaum, 2002), including in Montana. In 2002, the U.S. Department of Health and Human Services reported that 30 states were experiencing shortages in their nursing workforce, and it was estimated at that time that the demand for nurses would exceed the supply by 110,000 in 2003. Today, this nursing shortage shows no signs of decreasing. This crisis, combined with the high cost of educating registered nurses, is forcing nursing programs to study factors which lead to successful nursing program completion. When nursing students are not successful in their program of study, state-appropriated dollars are not put to efficient use, and valuable resources are taken away from other nursing students at a time when nurses are in short supply. The waste of money, effort, time, and human resources which occurs when nursing students depart from a nursing program needs to be minimized as much as possible (Wilson, 1999).

There are many variables that may predict successful completion of a nursing program. Studies have cited high school rank, high school and college cumulative grade

point average (CGPA), grades in science and math courses, scores on ACT and SAT standardized tests, and grades in nursing classes, basic sciences, and social science courses. Studies have also found that when students have to repeat required courses, they become at risk for attrition (Arathuzik & Aber, 1998; Beeson & Kissling, 2001; Byrd, Garza, & Nieswiadomy, 1999; Campbell & Dickson, 1996). Several studies concluded that the best predictor for unsuccessful National Council Licensure Examination for Registered Nurses (NCLEX-RN) attempts is a student's total number of C grades or lower in nursing theory courses (Beeson & Kissling, 2001; Gallagher, Bomba, & Crane, 2001). Results of these studies are inconsistent and appear to differ at individual nursing schools (Byrd et al., 1999).

Other variables affecting success in nursing programs—such as ethnicity, time management issues, living arrangements, finances, or test anxiety—have been studied; however, no consistent findings have been identified (Barkley, Rhodes, & DuFour, 1998). Few studies have been conducted to research qualitative, nonacademic variables that have an impact on student success, such as holding a job, raising children while attending nursing school, or having financial concerns that make it difficult to pay for schooling, books, and living expenses (Eddy & Epeneter, 2002). Models of retention that have been studied in the past attempt to explain psychological aspects of drop out from information found in data bases or closed-ended questionnaires (Attinasi, 1989).



### Setting of the Study

Montana State University-Northern (MSU-Northern) is an institution of higher education located in Havre, Montana. It serves a large and rural geographical area, including three Indian reservations and numerous agricultural communities. MSU-Northern offers programs in teacher preparation, mechanical and engineering technologies, business and computer information systems, arts, sciences, and nursing (MSU-Northern College Catalogue, 2004-2005). Total enrollment at MSU-Northern is approximately 1200 students, and about 15% are minority students with a predominance of Native American minority students (S. Jamruszka, registrar, personal communication, December 29, 2005).

The MSU-Northern Department of Nursing is located at the main campus with branches in Great Falls and Lewistown. The Department of Nursing offers a baccalaureate degree (BSN) and an associate of science (ASN) degree in nursing. This study focuses on the associate of science in nursing student, not the baccalaureate degree student even though faculty do teach in both programs. The BSN program admits only registered nurses and is entirely online, therefore, the students in the baccalaureate program and associate degree program are not in the same classes at the same time. The total enrollment in the Department of Nursing is 150-160 students, including prenursing students. A total of 65 students are admitted into the associate of science in nursing major every fall semester.

The associate degree nursing program at MSU-Northern is accredited by the National League for Nursing Accrediting Commission and also by the Northwest Association of Accreditation of Schools and Colleges. The nursing program is also fully approved by the Montana State Board of Nursing.

The National League for Nursing Accrediting Commission, Inc. (NLNAC), reported that the mean graduation rates for associate degree programs in nursing for the academic year 2003-2004 was 73.2% and that in baccalaureate degree programs the retention rate was 80.8%. This report also stated that approximately 50% of student departures from nursing programs occurred due to nonacademic reasons (Grumet, 2005).

It is important to determine why 30% of the students in the associate of science in nursing program at MSU-Northern do not progress to graduation, as their reasons may be different from those that associate degree nursing students at other programs in Montana such as at Salish Kootenai College or Miles Community College may have for attrition. The rural area of north central Montana has many small health-care facilities, so even one or two additional graduates per year can make a big impact on the small community hospitals. Students who are at risk for attrition must be identified early so that strategies to prevent student departure can be implemented (Ross, Nice, May, & Billings, 1996).

As the director of the nursing programs at MSU-Northern, this researcher has great interest in discovering why 30% of the nursing students who enter the associate of science in nursing program fail to complete the program. Even though the admission requirements were increased in the fall of 2002, the attrition rate of 30% continues. Therefore, the researcher investigated programmatic and personal aspects of the nursing

student experience. Determining which students are at risk for attrition in this nursing program could provide the director, faculty members, and university administrative personnel with the data needed to provide targeted assistance to students who may benefit from tutoring, part-time study, or other avenues of support. If the administrator of a nursing program is aware of the issues and concerns of the student whom it attracts, then the institution can provide resources which may help the student persist to program completion. It can provide programs or resources to help with both academic and social deficiencies.

#### Statement of the Problem

The MSU-Northern associate of science in nursing program has recently increased the required admission grade point average from 2.50 to 2.75. The program also requires a passing grade of C or above in high school or college algebra, biology, and chemistry. Even so, the problem persists that approximately 30% of students who are enrolled do not graduate. Because of the current nursing shortage in Montana and nationwide, and because of the higher cost of educating nursing students, administrators at MSU-Northern seek to increase the graduation rate. In order to accomplish this, they need to know what institutional and personal factors help and hinder students from persisting to graduation. Administrators can then use this information to make program changes, as well as to provide additional support to students such as improved advising, counseling, tutoring, and/or other needed services.

### Purpose Statement

The purpose of this mixed methods study was to discover and understand the program and personal factors that current students, graduates, and previous nonpersistent students in the associate of science in nursing program at MSU-Northern reported as helping them to persist to graduation. A secondary purpose was to explore program and personal factors that cause participants to view the nursing program negatively and that contribute to nonpersistence in the program. The results of this study will be used to assist administrators and advisors in helping nursing students at MSU-Northern to be successful and to achieve their goal of becoming registered nurses.

### Research Questions

This study was guided by the following research questions:

1. Which program factors, reported by students, graduates, and faculty, have helped students be successful in the ASN program at MSU-Northern?
2. Which personal factors, reported by students, graduates, and faculty, have helped students be successful in the ASN program at MSU-Northern?
3. What program factors have led nursing students to perceive the program negatively?
4. What personal factors have contributed to nursing students leaving the ASN program at MSU-Northern?

5. What recommendations do current students and graduates have for increasing students' chances of success in the ASN program at MSU-Northern?
6. What recommendations do previous nonpersistent students in the nursing program have for increasing students' chances of success in the ASN program at MSU-Northern?

### Literature Review and Conceptual Framework

The conceptual framework of this research is based on several theories of student retention. These theories include Tinto's (1975, 1987, 1993) theory of student integration, Bean's (1980, 1983) theory of undergraduate student persistence, Bean and Metzner's (1985) model of student attrition and Bean and Eaton's (2000) psychological model of student retention.

Tinto (1975, 1987, 1993) asserted that preadmission characteristics have an impact on whether a student remains in college. These characteristics include CGPA, high school rank upon graduation, and SAT and ACT scores (Arathuzik & Aber, 1998; Beeson & Kissling, 2001; Campbell & Dickson, 1996). Other variables—including parental education level, socioeconomic status, ethnicity, age, place of residence, and gender—have also been studied and found to be related to student success (Astin, 1997; Barkley et al., 1998; Bourne-Bowie, 2000; Gerardi, 1996; Grosset, 1991; Lanni, 1997; Mohammadi, 1994; Rendon, 1995; Stage, 1999; Tucker-Allen & Long, 1999; Windham, 1995). Tinto's theory focuses on social and academic integration experiences at college which result in decisions concerning whether to remain in college or leave. Tinto (1975)

stated that students develop a commitment to the institution based on the results of interactions experienced with faculty and staff as well as with student peers. Bean's (1980, 1983) model focuses on institutional factors such as faculty-to-student ratio and institution mission and size. Bean and Metzner (1985) argued that factors external to the student, such as personal responsibilities and support from family, play a large part in persistence in higher education. Bean and Eaton (2000) incorporated concepts such as self-efficacy and motivation to expand Tinto's integration model.

These theories have some commonalities. Each of these theories of retention of college students claims that there is no single cause of student departure but rather many causes or combinations of causes that result in decisions to leave college. One common theme found in these theories is that increased student involvement in the social and academic life on campus results in student persistence. Examples of student involvement include belonging to student groups or employment on the campus. Another common theme in this conceptual framework is "contact with faculty," which has been found to be a very important aspect in persisting to a degree, as interaction with faculty strengthens in students a feeling of being cared about by the faculty.

Social integration is an important aspect of retention in higher education. Having the emotional support of family and friends has been found to increase persistence. Student perceptions of being isolated on campus and feeling that faculty and peers do not care contribute to their making decisions to depart. Living on campus and participating in campus activities as well as having support from family and friends have been found to aid retention (Berger & Milem, 1999; Napoli & Wortman, 1996; Neisler, 1992). A

positive, nurturing social climate at the institution—such as that provided by student services, tutoring, and assistance with housing, health issues, and technical problems—is also found to support retention (Moxley, Najor-Durack, & Dumbridge, 2001).

Academic integration, such as working on projects with other students and belonging to discipline-oriented study groups, contributes to students' satisfaction with their study. This satisfaction can also contribute to persistence in college (Napoli & Wortman, 1998; Walter, 2000). The level of commitment to the institution and the motivation the student has to complete the degree also have been found, in some studies, to impact persistence (Berger & Milem, 1999; Hagedorn, Maxwell, & Hampton, 2002).

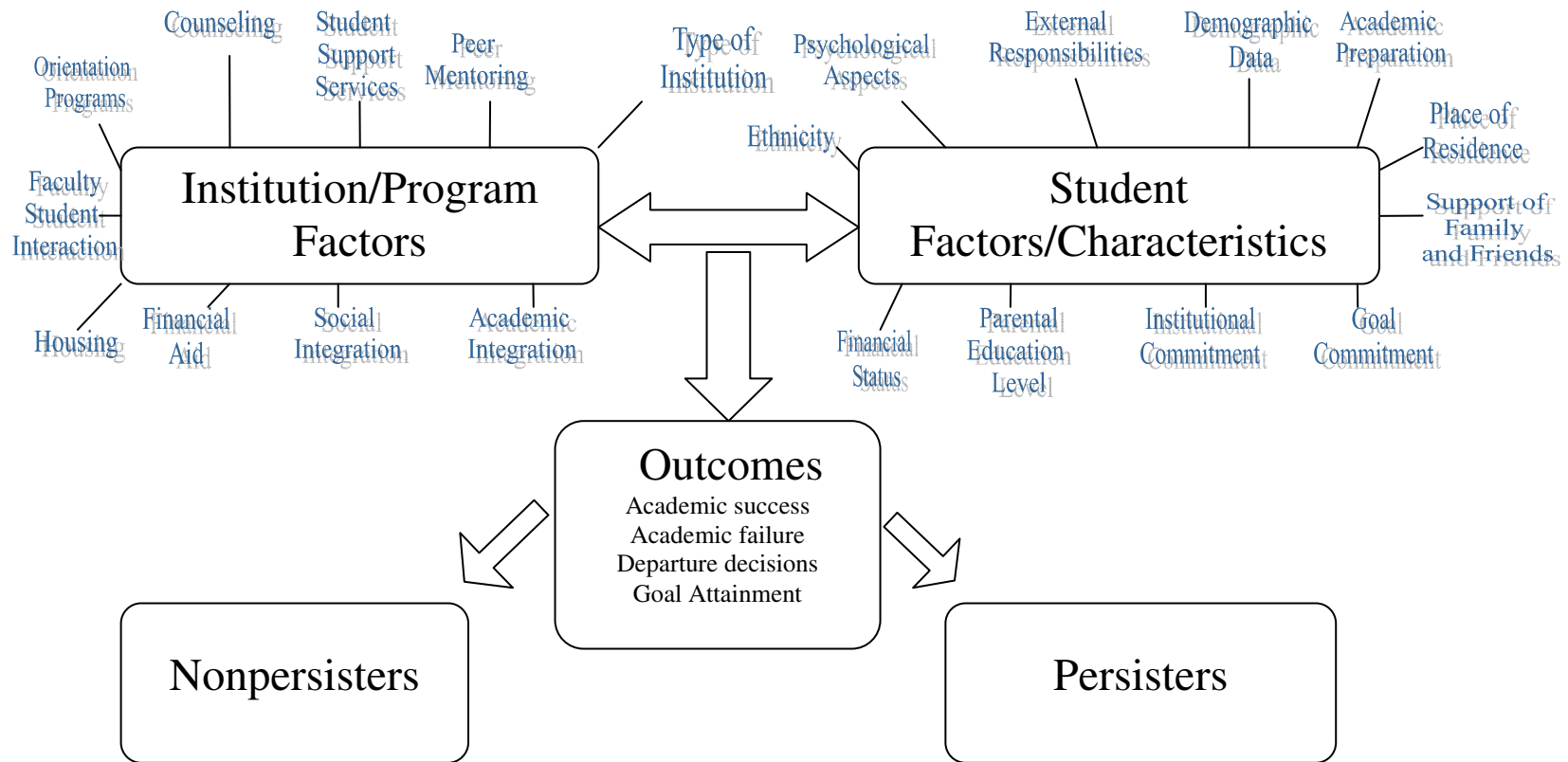
Research concerning the use of these theories on college student retention has identified nonacademic variables which have impacted student persistence. Nonacademic variables such as number of dependents living at home, number of hours working, time management, and anxiety have also been found to impact student success (Bers & Smith, 1991; Eddy & Epeneter, 2002; Napoli & Wortman, 1998). The costs of higher education continue to increase every year, and financial aid is becoming increasingly important in assisting students to remain in college (Cabrera, Nora, & Castaneda, 1992). Areas examined in this study include demographic characteristics of students who are successful as well as those of students who drop out of college. Other areas—such as external responsibilities, support of family and friends, minority status, academic preparation, financial resources, commitment to career goals, and residential status of the student—are also included in this study. Psychosocial aspects such as anxiety, loneliness, motivation, and self-efficacy are discussed. Student social and

academic integration and the responsiveness of student services and their relationship to student persistence in higher education are also addressed. Moxley et al., (2001) stated that institutional support is important when providing resources to help students succeed. They described five broad categories of support that institutions apply to different student situations: (a) emotional support and sustenance, (b) informational support, (c) instrumental support, (d) material support, and (e) identity support. Emotional support and sustenance require that institutions be aware of the stressors that students experience and provide an atmosphere where students can feel supported and know where to go and who to approach for assistance. Informational support refers to the provision of information to students that will enhance their success, as well as the provision of access to peers who have been successful and who can help students by sharing knowledge useful for navigating through college. Instrumental support includes technical and practical support that students may need with housing, transportation, communication, or health. Material support refers to financial aid and emergency loan assistance that students may require to remain in college. Identity support refers to community building by providing students with support groups. Moxley et al., (2001) also stated that there are three additional areas of interactions that are vital aspects of retention efforts—namely, formal retention programs, staff-student interactions, and student-student interactions.

The literature describes numerous personal factors and program factors that impact student departure decisions. These factors are shown graphically in the following diagram (Figure 1). These concepts will provide the conceptual framework for this study.



Figure 1: Conceptual Framework of Student Persistence



### Method

A mixed methods approach was used to study reasons for nursing student attrition from MSU-Northern's Department of Nursing. A mixed methods approach involves the collection of both quantitative and qualitative data to provide a deep understanding of situations or experiences as well as the perceptions of those being studied. "Quantitative researchers are concerned with objective reality that is 'out there' to be discovered; qualitative researchers focus on interpreting their participant's perspectives" (Gay, Miles, & Airasian, 2006, p. 489). The population of participants in this study consisted of all students who were admitted into the ASN nursing program in the fall semesters of 2002, 2003, and 2004. Each fall semester the program admits 60-65 students; therefore, the entire population of 191 students was asked to participate. Initially, quantitative data was obtained from a questionnaire. The purpose of this survey questionnaire was to obtain information concerning characteristics of students who completed the nursing program and compare this data to the characteristics of students who did not complete the program. In addition, the questionnaire served as a method of retrieving information concerning the research questions and a means of asking for volunteers who had graduated, who had left the program, and who were currently enrolled in the program to participate in the qualitative phase of the study by expressing willingness to be interviewed.

Upon completion and return of the questionnaire, a qualitative approach was utilized to obtain richer, thicker information concerning the characteristics of students

who completed the nursing program and those who did not complete the program. This second phase, the qualitative research, involved a process of inquiry which occurs in the natural setting and involves making sense of information brought forth by others (Creswell, 1998). The qualitative approach was used to give the researcher a more in-depth and detailed understanding of the student nurse experience through interviews.

Faculty members in the ASN program at MSU-Northern were asked to complete an anonymous questionnaire to determine their perceptions concerning why some nursing students do not complete the nursing program while others succeed. Information obtained from faculty members was used as a method of triangulation. This study was designed to identify factors that may assist faculty and administration at MSU-Northern in understanding the nursing student program experience and reasons for nursing student departure and nursing student success. By understanding this experience, this researcher gained insight into factors which helped students persist in the ASN program at MSU-Northern. Upon acquiring a better understanding of factors that contribute to success, administrators and faculty can make changes in the nursing program to increase retention.

### Limitations

A limitation of this study was that the subjects in the qualitative aspect of the research were those who agreed to participate voluntarily. This may have eliminated nursing students or graduates who are introverted, have low self-esteem, or were not willing to discuss their nursing student experiences.

An additional limitation may be the fact that the director of the nursing

program at MSU-Northern conducted the research. It is possible that successful students were eager to share their story with the director, or some may have withheld information from the director of the nursing program if they viewed her as an authority figure who can provide favors or make their lives miserable. Current students may have said what they perceived the researcher wanted to hear.

It was anticipated that some students who were not successful may have been unwilling to participate in this study, thereby yielding an insufficient number of participants to provide valid information to the researcher. Fortunately, 8 nonpersistent students of the total 17 who responded to the questionnaire were willing to be interviewed for this study.

#### Delimitations

A delimitation of this study is that the research was conducted in one ASN nursing program; however, the information obtained in the study is of interest to nursing faculty and administrators of other associate degree nursing programs who are also experiencing concerns about student attrition.

#### Significance of the Study

As the director of the nursing program at MSU-Northern, this researcher had a vested interest in determining valid predictors of success of nursing students. Additionally, this information can assist other administrators and faculty in determining ways to increase student retention. By determining reasons for attrition, administrators

will be better equipped to make decisions concerning possible reallocation of resources to improve student success. The findings may be of particular interest to those associate degree nursing programs in rural areas that have students with similar characteristics as those in this study.

#### Definition of Terms

1. “Retention” means remaining in the program until the associate of science in nursing degree is obtained.
2. “Attrition” means dropping out of the nursing program before the associate of science in nursing is obtained.
3. “Dropping out” is withdrawing from the nursing program; those who drop out may also be termed “withdrawers” or “nonpersisters.”
4. “Persisters” are those remaining in the program.
5. “Social integration” is the perception of the college student that his or her social experiences in the nursing program and on campus are fulfilling and meaningful and contribute to professional and/or personal growth (characterized by working together, helping and supporting each other, and enjoying socialization within study groups, clinical practicums, nursing club projects, or other nursing school or institution functions).
6. “Academic integration” is the perception of the college student that academic and scholarly content are incorporated or internalized and contribute to one’s professional

- growth (characterized by studying, maintaining GPA, and completing assignments and practicums).
7. “Program Factors” are those factors that occur as a result of being in the nursing program, such as faculty-student relationships, membership in nursing-oriented study groups, and tutoring.
  8. “Personal Factors” are those factors that are aspects of a person’s being before entry into the nursing program, such as academic preparation, external responsibilities, and commitment to a goal.

### Chapter Summary

Chapter 1 presented an introduction to this study as well as the statement of the problem, the purpose of the study, and the questions that were answered. Limitations, delimitations, significance of the study, and definition of terms were also included.

Chapter 2 will present a review of the literature concerning attrition in higher education as well as information concerning characteristics of nursing students who are successful in their programs of study. Several models of student departure are also presented.

## CHAPTER 2

### REVIEW OF THE LITERATURE

#### Introduction

Understanding which factors lead to college students' dropping out of a program before degree attainment is valuable to faculty, administration, and policy makers. Based on this understanding, strategies to enhance graduation rates can be initiated to improve retention of college students. The purpose of this mixed methods study was to discover and understand the program and personal factors that current students, graduates, and previous nonpersistent students in the associate of science in nursing program at MSU-Northern reported as helping them to persist to graduation. A secondary purpose was to explore program and personal factors that cause participants to view the nursing program negatively and that contribute to nonpersistence in the program. The results of this study will be used as a guide in making program changes and providing additional support to students.

Chapter 2 presents a review of literature on student retention and persistence in higher education. The chapter provides information concerning many areas that have been researched and found to impact persistence of students in college. Among the variables studied are student demographic characteristics such as age, ethnicity, gender, cumulative grade point average, and place of residence. Family characteristics that have been studied include education level of parents and socioeconomic status. External

student responsibilities such as raising children and employment outside of the home have also been studied. Other areas of research include the student's commitment to career and institution; residential status; type of institution attended, major area of study; academic preparation; minority status; financial resources; psychosocial aspects such as anxiety, loneliness, motivation, and self-efficacy; support of friends and family; social and academic integration; and availability of student services, advising, tutoring, or mentoring. Each of these variables is reviewed before the discussion turns to attrition of students in nursing programs and specific models of student retention. The chapter continues by describing prominent models of college student attrition. Upon completion of the study, the researcher will develop strategies that may be used by administrators and advisors to help nursing students in the MSU-Northern Department of Nursing to be successful and to achieve their goal of becoming registered nurses. While many of the same variables pertinent to student retention can be studied at different colleges and universities, the usefulness of the findings to explain student retention depends on the unique characteristics of the institution being studied. The only valid results for a particular institution would be those that have representative data for the specific institution itself (Aiken, 1982); however, information obtained from this study can be useful to other associate degree nursing programs that have students with similar characteristics.



### Student Attrition in Higher Education

The problem of student attrition from institutions of higher education is a concern to colleges and universities as legislatures and governing boards are calling for accountability for their use of public dollars. In addition, retention of students is a means of survival for many colleges as state funding continues to decrease (Summers, 2003).

There are many reasons that students leave higher education, and it is sometimes difficult to determine the reasons for the departures. The literature discusses the phenomenon that many students who enroll in college—particularly in community colleges—have no intention of remaining until they graduate but rather intend to drop out after 1 year or transfer to another college or university (Summers, 2003). Students may state that they are leaving due to academic failure or because they want to transfer to another college or change their occupational goals; however, they may leave due to personal reasons that contribute to the academic reasons. Students may not admit that they are too stressed to study or concentrate, are having difficult financial issues, are partying and not attending classes, or are feeling too emotionally or physically drained from other responsibilities to have the energy to study and succeed (Deary, Watson, & Hogston, 2003). Students may also leave because of recent entry into the work force, or their departure may be due to medical or other personal reasons.

Swail, Redd, and Perna (2003) stated that concerns regarding student retention and persistence in higher education are just as critical today as they were in 1975 when

Vincent Tinto developed the dominant sociological theory of how students achieve degrees in higher education. Approximately 50% of students do not continue in higher education to the point of achieving a bachelor's degree 6 years after entering an institute of higher education. This results in a tremendous expense, as it is very costly to admit students and then lose them to attrition. Of the students who entered a higher education institution in 1982, only 55% obtained some type of a degree or certificate. The fact that 45% were not successful in obtaining a degree substantiates the problem with attrition in higher education (Adelman, 1997). Lederman (1991) reported that of the students admitted to division 1 schools in 1984, only 48% had graduated 5 years later. In a study by DesJardins, Ahlburg, and McCall (2002), only 41% of the students who were admitted to the University of Minnesota in 1991 graduated within 6 years. It is a serious concern that only about one-half of students admitted into higher education progress to graduation, and this is perceived as a failure by many. However, the blame for this failure may be focused on the student, the institution, or the higher education system (DesJardins et al., 2002).

Moxley et al., (2001) stated that institutional support is important when providing resources to help students succeed. The areas they describe include emotional support, provision of information to increase success, access to peer mentors who can assist in socialization into college life, practical support such as housing and health care, financial resources and loan support, and, lastly, community building among groups of students. If the institution provides positive experiences for the students, students are better able to integrate into the college student role.

It has been noted that there are numerous benefits—both economic and noneconomic—in attending a college or university and persevering to the degree (Adelman, 1997; Pascarella & Terrenzini, 1991). Short-term benefits include participation in cultural, athletic, and social events and enjoyment of the enriching learning experience. Long-term benefits include better health, longer life, higher lifetime earnings, better work environments, and a lower probability of being unemployed (Bowen, 1980; Leslie & Brinkman, 1988; McPherson, 1993). Bowen (1980) found that the most important benefit of achieving a higher education degree was that the children of those with a degree also had greater educational attainment. In addition to having better academic skills, children of college-educated parents are less likely to have problems with the law or the police (Jencks & Edlin, 1995; Murphy & Welch, 1993).

Economic advantages are an important aspect of higher education achievement. It has been found that those who obtain a bachelor's degree earn, on average, twice what those with a high school diploma earn and six times as much as a student who drops out of high school. Those with a professional degree earn twice what an individual with a bachelor's degree will earn (Murphy & Welch, 1993; Swail et al., 2003).

A large amount of research exists concerning student persistence and attrition in higher education. This literature review includes those factors that the researcher determined to be salient influences observed in associate of science in nursing students at MSU-Northern. The students in this program are nontraditional aged and many have external responsibilities such as jobs and children. Many receive financial aid and have difficulties paying for their education. In addition, most of these students do not live on

campus but instead live in their own homes. This literature review, therefore, is directed toward the nontraditional students in a two-year program or community college. The typical community college student works part time or full time and takes classes on a part time basis. These students live off campus, in their own homes, and as a result they have to balance the academic and social needs of being a college student with responsibilities of work and family. Retention issues for these students are different than those of students in 4 year colleges (Bonham & Luckie, 1993).

Zhai & Monzon (2001) conducted a study to identify reasons that community college students withdraw from college and they found that conflict with work schedules to be a major reason for withdrawal. Other reasons for attrition in this study were lack of finances, family responsibilities, and transferring to another school.

Another study assessed the relationship of community college students' demographics, academic and personal characteristics, and academic performance after transfer to a university. A statistical relationship was determined between students' later academic performance at a university and their grade point average upon transfer, receipt of an associate degree from the community college before transfer, requests that faculty assist them in their studies while attending the community college, and place of residence. Students who lived at home performed better than those who lived in the residence halls or apartments off campus (Graham & Hughes, 1994).

### Student Demographic Characteristics Impacting Persistence

Many inconsistencies are found in the research concerning demographics of successful college students. Mohammadi (1994) found that age did not have any

relationship to persistence of college students; however, Lanni (1997) determined that age can be a predictor of persistence. Windham (1995) determined that older, nontraditional-aged students are more likely to drop out of college than are younger students, and Summers' (2003) findings concurred that traditional-aged students were more likely to persist. Belcheir, Michener, and Gray (1998) found that persistence was greater for those students who were involved in campus activities; however, this was not the finding for the older students.

Mohammadi (1994) found that gender impacts persistence in college, but only when other variables are taken into account. Fischbach (1990) and Summers (2003) found no relationship between gender and attrition.

Gerardi (1996) found that parents' college attainment levels contributed to students' increased rates of graduation from college. First-generation college students may have a difficult time adjusting to the academic and social milieu at college and be unsatisfied and unhappy with the college experience (Terenzini, Springer, Yeager, Pascarella, & Nora, 1996). Morris, Smith, and Cejda (2003) surveyed 430 first-year students at a Christian college to determine variables that significantly impacted student persistence in college. Their study determined that the father's educational level was a statistically significant predictor of persistence.

#### External Student Responsibilities Impacting Persistence

Bers and Smith (1991) determined that students were more likely to drop out of college if they had home responsibilities such as raising children. Lanni (1997) and Windham (1995) found that students who worked full-time had higher rates of attrition

than students who did not work or who worked limited hours; however, Sandiford and Jackson (2003) found no relation between anticipated number of hours worked and attrition after one semester of study. Okum, Benin, & Brandt-Williams (1996) found no relationship between the number of dependent children and departure decisions. Another study of 1,011 first-time freshman community college students found that student responsibilities such as raising children and working had negative effects on persistence (Napoli & Wortman, 1998).

#### Support of Friends and Family Members and Persistence

Belcheir, Michener, and Gray (1998) found that family support and encouragement is critical to the success of older, nontraditional-aged students. Another study found family and peer encouragement that continued toward the goal of degree attainment at a community college to be a significant contributor to persistence (Okun et al., 1996). Mallinckrodt (1988) found that strong family support contributes to persistence in white students more than it does in black students. However, studies have determined that departure decisions can also be made as a result of pressure from peers, family members, and significant others (Bank, Biddle, & Slayings, 1990; Nora, 1987).

#### Academic Preparation

Several researchers have found that the best predictor of success in higher education is past success. Grant (1986) found that cognitive variables were highly predictive of success in college; however, no consensus was reached concerning which cognitive variables were most predicative. Several researchers found that previous grade

point averages are the best indicator of success in college (Cejda & Rewey, 1998; Graham & Hughes, 1994; Okun et al. 1996). Researchers have found that students who are academically unprepared for college course work and those with low cumulative grade point averages were more likely to drop out of college (Lanni, 1997; Zhao, 1999).

### Psychosocial Factors, Student Motivation, and Self-efficacy

Bandura's (1986) social cognitive theory states that confident, efficacious people will expend the necessary energy to meet their goals. Self-efficacy refers to the perception one has of his or her own ability to succeed. Bandura (1986) stated that those who are inefficacious often dwell on their hardships and failures, thereby decreasing their commitment to personal goals and success. The person with high self-efficacy will view a setback as temporary and will expend more energy in efforts to succeed (Bandura, 1986, 1989).

Psychosocial factors such as loneliness, depression, or anxiety may impact a student's ability to remain in college. Measures of positive psychosocial factors such as psychological well-being and positive self-esteem assist in adjustment to college and to ultimate persistence (Baker & Siryk, 1989). Behaviors such as denial of stress or disengagement from peers and social group involvement increases student departure rates, while students who actively cope with their stressors or who find positive aspects of stress often have decreased rates of departure from college (Bray, Braxton, & Sullivan, 1999).

### Financial Resources

The cost of higher education is increasing every year, thereby making it more difficult for students to attend college or to persist in college once they have started taking college courses. Several studies have found that financial assistance is especially important in helping minority students persist in higher education. Nora (1990) found that both campus- and noncampus-based financial aid contributed to persistence of Hispanic students and that financial need factors contributed to the attrition of Hispanic students more than academic reasons did.

Olivas (1986) found that Hispanic students often overestimated family income and thereby decreased the eligibility of aid which was due them. Over 60% of Hispanic students rely on Pell grants, and when the availability of federal grant money is decreased, the help for Hispanic students is also decreased.

Another study, which focused on reasons minority students were able to persist, determined that students who were able to overcome lack of resources were more likely to persist in college (Padilla & Trevino, 1997).

Cabrera, Nora, and Castaneda (1992) studied several variables and their relationship to persistence in college. They found that financial aid had a significant effect on academic and social integration, goal commitment, and persistence in college.

Astin (1975) and Voorhees (1985) concluded that federal financial aid has a positive effect on persistence in higher education. Blanchfield (1971) found that the federal grants were associated with persisters but that loans did not make a difference in persistence.



Summers (2003) found it interesting that students who did not qualify for financial aid were more likely to remain enrolled in courses. It was hypothesized that these students had access to financial assistance and possibly did not have to expend energy in finding a job and working to pay for college.

### Goal Commitment

Hagedorn et al. (2002) determined that students who could clearly articulate their career goals and who had a high commitment to an academic goal were more likely to continue to graduation than those without such goals. Janes (1997) found that goal commitment was a major factor in persistence among African American students.

Students enrolling in majors such as business or psychology are expected to have higher retention rates than those in programs such as engineering (Astin, 1997). Leppel (2001) studied 2,426 men and 2,521 women to determine which gender and which programs of study were associated with higher persistence in their programs from one year to the next. Women who were majoring in health occupations or education were more likely to persist than were women majoring in business, while men majoring in business were more likely to persist in the program than were men majoring in education. Students who categorized their major as “undecided” were the least persistent and also had the poorest performance.

### Institutional Commitment

Bean (1985) concluded that variables such as intent to graduate, perceived value of the education, and commitment to the chosen institution were associated with student

persistence in college, while Belcheir and Michener (1997) found that intention to obtain a degree from the institute of higher education the student was attending contributed to GPA and therefore to retention. Berger and Milem (1999) found that academic and social integration had statistically significant positive effects on institutional commitment, which ultimately leads to increased persistence from the first year of college to the second year.

### Residential Status of Students

It has been found that students who live in a campus dormitory during their freshman year have increased rates of retention while students who commute to class have a lower rate of retention (Astin, 1997). However, Pascarella and Terenzini (1991) found that the student's place of residence had no direct effect on grade point average and persistence but that campus residence had a positive effect on social integration and ultimately persistence.

### Type of Institution: 2-Year Versus 4-Year

The majority of the research on college student persistence has been conducted on students at 4-year institutions, but in recent years the number of studies concerning retention of community college students has increased. However, little research is being conducted to compare characteristics of students in 2-year schools with those in 4-year schools (Strauss & Volkwein, 2004). The percentage of students who leave college without earning a degree is significantly higher at 2-year institutions than at 4-year institutions. Thirty-eight percent of students entering a 2-year college will eventually

earn some type of a degree, while 65% of those entering a 4-year college will earn a degree (Digest of Educational Statistics, 2004).

Students at 4-year institutions often live on campus or close to campus and have more opportunity to develop out-of-class relationships and to participate in college activities. This results in increased social and academic integration (Strauss & Volkwein, 2004). Vorhees (1997) found that community college students have other demands and responsibilities such as family and work obligations, which compete with study. Napoli & Wortman (1996) found that length of persistence increases students' level of social integration. Social networks tend to continue over many semesters in 4-year colleges where drop-out behavior is less common than in 2-year colleges.

Community college students are not only faced with problems of adjusting to the demands of college but also adjusting to the demands of external communities (i.e., family, friends and work)...Community college students are more likely to experience greater strain leading to a reduced ability to participate and persist in college. By contrast, freshman college students who attend residential institutions are more likely to be isolated from the day-to-day demands of family, friends and work. (Napoli & Wortman, 1998, p. 450)

Characteristics of students attending 2-year colleges and those attending 4-year colleges are different in respect to other demands. Research findings concerning attrition in 4-year schools cannot be readily generalized to community and 2-year colleges (Cohen & Brawer, 1996; Pascarella & Terenzini, 1991).

### Social Integration

Neisler (1992) studied attrition of African American students in college and found that factors such as feelings of being "isolated," problems with adjusting to college life, and family problems were barriers to success in higher education. Neisler stated that

colleges need to be supportive to these students and should endeavor to offer access to career and personal counselors as well as support services.

A meta-analysis done by Napoli and Wortman (1996) found that social integration of students at community colleges positively impacted persistence of community college students, while Berger and Milem (1999) found that social integration of students at a highly selective research university in the southeast had statistically significant effects on persistence. Braxton, Milem, and Sullivan (2000) state that active learning assignments encourage social integration through the process of developing relationships with peer students who have similar interests. Stronger social relationships ultimately increase commitment to the institution and decrease decisions to depart. Various other studies have found that students who participate in college life have greater rates of persistence in college (Astin, 1993; Belcheir, Michener, & Gray, 1998; Pascarella & Terenzini, 1991; Thomas, 2000).

### Academic Integration

Students are more relaxed and satisfied with their education when they feel that faculty are committed to their success and progression (Braxton et al., 2000). The manner in which faculty teach and interact with students in the classroom contributes to social integration and institutional commitment, resulting in increased persistence. Active learning—such as class discussion, group work, and higher order thinking activities—increases learning and, therefore, student satisfaction with the academic experience, and this results in higher persistence rates (Braxton et al., 2000). Walter

(2000) found that living on campus, having professional career goals, and being satisfied with both academic life and the social life on campus contributed to persistence in college. Astin (1984) stated:

Student involvement refers to the quantity and quality of the physical and psychological energy that students invest in the college experience. Involvement takes many forms, such as absorption in academic work, participation in extracurricular activities, and interaction with faculty and other institutional personnel. (p. 307)

Napoli and Wortman (1998) found that students who interact with instructors and other students concerning academic issues enhance their commitment toward persisting and earning a degree. Other studies have found that students who have more out-of-classroom interactions with faculty are more likely to persist. One qualitative study found that the students who were doing poorly and who had the most need of faculty contact were the students who used their poor grades as a reason to avoid the instructors (Belcheir & Michener, 1997).

Asera (1998) described an academic program at the University of Texas-Austin called the “Emerging Scholars Program” in which persistence in higher education is increased by intensifying academic instruction through the engagement of faculty. These faculty work with at-risk students and assist them as they are socialized and make the transition into higher education. In addition, this program fosters communities of students around career goals and similar major areas of study.

Learning communities have been found to enhance the academic experiences of students in the classroom, and, as a result of working in groups and collaborating on

projects, students became more engaged. This positively influenced student persistence (Tinto, 1997).

Institutions must provide support for students beyond the first year of college, as student needs may change as they progress through the college experience. It is important to get to know the students to determine their needs (Swail et al., 2003). Tinto (1982) stated, “We have reasons to believe that the forces that lead to dropout in the early stages of the academic career can be quite different from those that influence dropout later” (p. 693). It is believed that students leave early because of loneliness and lack of emotional support when arriving at an unfamiliar campus. However, dropping out of school at a later time may be due to academic reasons, financial reasons, transferring to another school, or becoming disenchanted with the program one is enrolled in. It may be expected that integration of both social and academic experiences would further retention and success. Studies have confirmed that academic integration is more predictive of attrition rates of commuter students than is social integration (Pascarella & Chapman, 1983).

### Minority Students and Retention

There are more minority students enrolled in higher education today than ever before; however, the rates of persistence of these students are low. The majority of African American students who are enrolled in higher education attend predominately white campuses, and only one-third to one-half of these academically well prepared students persist to graduation. Many Black students arrive at a large institution and become isolated in their vast surroundings. The students often perceive this environment

as being cold and unfriendly and have difficulty adjusting to life on campus. They find that relationships with peers on campus are superficial, which leads to further isolation and attrition (Campbell & Davis, 1996; Neisler, 1992). It makes sense that African American students are more likely to increase their academic performance and to persist if they have more frequent quality interaction with the faculty (Braddock, 1981). Black students who are well prepared drop out at higher rates than do less prepared students of European ancestry (Bourne-Bowie, 2000).

Amaro, Abriam-Yago, and Yoder (2006) identified obstacles that many ethnically diverse students in college face: lack of finances, insufficient time to do what needed to be done to complete the academic program, family responsibilities, and language difficulties. Academic needs that were identified included the need for tutoring and study groups. Language challenges included verbal, reading, and writing difficulties, while cultural needs arose from a lack of ethnic role models and conflict regarding the use of assertiveness due to the fact that some cultures consider it rude to ask questions or to ask for help.

Stage (1999) found that Caucasian and Hispanic students had higher internal locus of control scores and felt more confident in both social skills and academic skills when compared with Asian students.

Mohammadi (1994) found that Black students were more likely to drop out of college than were Caucasian students; however, other research has found no relationship between ethnicity and dropping out of college (Grosset, 1991; Rendon, 1995). Colleges that have communities of minorities and are more racially accepting of students have less

attrition of minority students than do colleges without minority subcommunities (Rendon, 1995).

A study by Berger and Milem (1999) found that African American students who enrolled in a highly selective, private research university with strong levels of institutional commitment but who perceived the institution to be nonsupportive were less likely to persist than were Caucasian students. Inadequate financial aid as well as lack of academic and social integration have been repeatedly identified as reasons for attrition of minority students in higher education (Janes, 1997).

Tucker-Allen and Long (1999) stated that minority students are often the first in their families who have the opportunity to attend college and are pressured by their families to be successful. In some situations, this puts a great burden upon the shoulders of these students who may find it difficult to deal with.

Tierney (1991) stated that American Indian students are culturally isolated on campus and that faculty do not understand their native beliefs concerning the importance of family. As a result, they do not receive the support or understanding of college representatives, and this places them at increased risk for attrition.

American Indian students reported that a lack of study skills and inadequate counseling before entrance into college contributed to attrition among this cultural group (Hoover & Jacobs, 1992). It was also found that many American Indian students use their native tongue as the primary language in their home. In addition, many English words are interpreted differently by the American Indian population than they are in the college settings (Manifold & Rambur, 2001).



### Institutional Support and Student Services

It is important that institutions provide individualized support as students experience different needs. Each student comes to higher education with a personal set of experiences, which includes various cultural and social situations. These various experiences impact a student's abilities to integrate into the college student role. Moxley et al., (2001) stated that institutional support is important when providing resources to help students succeed. They described areas of support that institutions can use to assist in retaining students.

Dorsey and Baker (2004) described three major reasons that students leave higher education: vague educational goals, dissatisfaction with the academic program, and unclear career objectives. They stated that mentoring could be one avenue of increasing the retention of students, as mentors can increase student comfort in the academic and programmatic milieu as well as assist students in the process of socialization into the profession. Yates, Cunningham, Moyle, and Wolin (1997) discussed how peer mentor programs can improve student self-confidence, communication strategies, and motivation for learning, all of which can impact retention of students. However, Alvarez et al. (1993) found that minority students were less likely to access university support services, resulting in attrition in an already vulnerable group.

Retention efforts are more successful when they are proactive instead of reactive. It is important that retention programs anticipate issues that may cause student problems and result in student departure from higher education. If students are aware of the availability of retention programs, then they know they can access the retention staff

earlier in their academic experiences, or when they need assistance with their studies or with other issues (Moxley et al., 2001).

Wolfe (1998) reported that students who received orientation and counseling services were more likely to persist in community colleges than were those who did not. Institutions of higher education must give more than lip service to a retention program. The institution must commit to retention and have a mission that is congruent with providing student-centered retention assistance to help students graduate (Moxley et al., 2001).

### Retention of Nursing Students

Many factors have been researched to determine variables that lead to success in the nursing student population. In addition, many factors have been researched in an attempt to determine which variables will predict success on the National Council Licensure Examination for registered nurses (NCLEX-RN), an examination that all graduates have to pass before they can practice as a registered nurse. However, the results are inconsistent and appear to differ at individual nursing schools (Byrd et al., 1999). Many studies are focused on baccalaureate nursing schools rather than associate degree nursing programs, yet, the largest group taking the NCLEX-RN are graduates of associate degree nursing programs (Yin & Burger, 2003). Furthermore, relatively few studies describe variables which may predict completion of a nursing program when compared to the number of studies conducted to predict NCLEX-RN success (Glossup, 2001).

Byrd et al. (1999) completed an ex post facto study in which the researchers examined the records of 285 baccalaureate-nursing graduates in a nursing program in the southwestern United States. A total of 197 students completed the nursing program. They found that age, ethnicity, social science GPA, and grades in a medical surgical course during the second semester of the nursing program predicted graduation for 90.9% of students. Yin and Burger (2003) studied a sample of 325 associate degree nursing students and found that college grade point average; grades in the natural science courses and a psychology course were predictors of passing the nursing licensure examination.

Lewis and Lewis (2000) studied 168 transfer nursing students and found that those who had completed anatomy and physiology courses in their previous institutions were more likely to succeed; however, they also found that transfer students were less likely to persist than nontransfer students. Those students who transferred before completing all prerequisite courses did not fare as well as those who had completed all prerequisites.

Standardized tests have been widely used to measure student success in nursing programs. Scores on standardized tests, such as the Mosby Assess Test, the American Colleges Test (ACT), the Standardized Assessment Test (SAT), and the National League for Nursing Admission tests, have been used to predict success with varying results (Campbell & Dickson, 1996; Daley, Kirkpatrick, Frazier, Chung, & Moser, 2003).

One study compared two standardized nursing admission exams to determine which examination was a better predictor of nursing student success. The exams that were compared were the Entrance Examination for Schools of Nursing

(RNEE) and the Nurse Entrance Test (NET). The RNEE assesses numerical ability, verbal ability, physical science knowledge, life science knowledge, and reading comprehension, while the NET, in addition to providing scores in academic areas, also assesses nonacademic areas such as test-taking skills and stress-level profiles. Findings indicated that the RNEE provided good overall prediction of success in the first nursing course in the curriculum and that the reading scores proved useful in estimating a minimum score to determine a 50% probability of success in the initial course in the nursing program. Strong correlations between performance on NCLEX-RN and scores in the pediatric nursing course, the psychiatric health nursing course, and the adult NLN achievement test were found when records of 81 graduates from a baccalaureate nursing program were studied (Gallagher et al., 2001). It was determined that obtaining a grade of C in any nursing course increased the risk of failing NCLEX-RN and that more grades of C or lower increased the probability of failure even further (Barkley et al., 1998; Gallagher et al., 2001). Beeson and Kissling (2001) studied 505 graduates of a baccalaureate nursing program in the southeastern United States between 1993 and 1998 and found that students who passed the licensure examination had higher GPAs, fewer grades of C or below, and higher scores on the Mosby assess test. Students who were 23 years and older had a passing rate of 95.7%, while those younger than age 23 had a passing rate of 88.3%.

Deary et al. (2003) studied stress and burnout in a cohort of 168 nursing students to determine if there was a relationship between these factors and attrition in nursing school. They found that although nursing students experienced increasing amounts of

stress and negative coping as the program progressed, these findings were not significantly related to attrition. They determined that personality factors on admission—particularly in those who received lower scores on the “agreeableness” and “conscientiousness” measures—were significantly associated with increased risk of attrition; however, these variables did not produce a practical method of predicting attrition, as the power values of these two variables failed to reach levels of practicality.

Alten, Nunley, and Scott-Warner (1988) found that Black students in a baccalaureate degree nursing program identified specific factors that decreased their chances of being successful in the nursing program. These factors included feeling alienated and lonely, not having enough financial assistance, failing to use available student services for assistance, undergoing problems with relationships, having poor academic preparation, and experiencing difficulty adjusting to college.

Jalili-Grenier and Chase (1997) studied nursing students who spoke English as a second language to learn if their perceptions of needs were the same as faculty perceptions of their needs. Results indicated that the students and the faculty had different ideas about what these nursing students needed to remain in the nursing program. The researchers found that students perceived that conversing with English-speaking individuals and reading English books helped them become more successful, while faculty believed that English as a second language (ESL) courses impacted student success more than the ESL students themselves did.

Siktberg and Dillard (2001) described actions that one school of nursing took to improve both success in the nursing program and success on the licensure examination.

They increased admission GPA to 2.75 and increased the lower limit of scores on tests that students must achieve to pass the course from 70% to 78%. The faculty at this school also incorporated a more interactive learning approach, resulting in students' taking a more active part in their learning. Test-taking strategies were discussed with students, and faculty endeavored to write the tests at the application level, as that is the standard on the state board exams.

One researcher who studied retention among nontraditional nursing students found that nonacademic variables such as child-care responsibilities and family crises were perceived by the students as being a detriment to success. These students also underestimated the necessity of being prepared for class and clinical (Jeffreys, 1998).

Barriers to success among American Indian students include inadequate academic preparation in the math and science areas, insufficient financial assistance hampered by poor money management skills, and stress associated with adjusting to college and its culture dominated by Anglo-Americans (Yurkovich, 2001). Educators need to realize that reading is not the preferred method of learning for the American Indian population, who would rather learn through listening, doing case studies, and performing nursing skills (Yurkovich, 2001). It must be remembered that American Indians have the highest drop-out rate in higher education of any ethnic group in the United States (Alvarez & Abriam-Yago, 1993); strategies for helping them persist must be determined and implemented. Another study concerning American Indian nursing students determined that high school CGPA does not predict success in nursing school for American Indian

students (Manifold & Rambur, 2001). They also found that a GED is not a predictor of later attrition for American Indian students.

The literature discussed the phenomenon that many students who enroll in college, particularly in community colleges, have no intention of remaining until they graduate but rather intend to drop out after 1 year or transfer to another college or university. However, it is assumed that nursing students do enter nursing programs with a goal of degree attainment (Leppel, 2001).

### Models of Student Departure

Several models have been developed to assist college administrators and faculty in understanding variables which impact a student's decision to persist or withdraw from college. Models illustrate that drop-out decisions may be made as a result of a complex interaction among variables. Following are descriptions of the more prominent models of college student attrition. These models provide a conceptual framework for understanding and predicting student departure so that interventions may be planned to improve retention of college students.

#### Spady's College Student Attrition Conceptual Model

Spady (1970) drew upon the work of Durkheim (1951), who studied suicide. Durkheim determined that suicide was the result of one's failure to become socially integrated into the existing social environment. Spady believed there was a correlation between students who dropped out of college and individuals who committed suicide, as both make the decision to withdraw from their current social strata. His model of student

attrition detailed five independent variables—grade performance, friendship and support of others, development of the intellect, normative congruence, and social integration—as all having an effect on the dependent variable, a decision whether to persist or to withdraw from college. He further described two intervening variables which also have an effect on the dependent variable: satisfaction and institutional commitment.

### Tinto's Student Integration Model

Tinto (1975) also used Durkheim's theories of suicide as he continued to build upon the works of Spady (1970). Tinto argued that decisions regarding student withdrawal depended on the students' social integration and academic integration into life at college. Tinto's student integration model states that students develop social and cognitive attributes during the formative years with parental influence. These attributes, in addition to the student's interaction with peer groups, faculty, and staff, help to determine goals toward college and lifetime socialization, which in turn shape the student's goals to complete a degree and persist in college. "It is the interplay between the individual's commitment to the goal of college completion and his commitment to the institution that determines whether or not the individual decides to drop out" (Tinto, 1975, p. 96). Tinto, however, failed to address certain off-campus factors—such as familial responsibilities, financial difficulties, and health concerns—in his student integration model (Cabrera, Castaneda, Nora, & Hengstler, 1992; Tinto, 1982).

Tinto's theory of student retention involves three stages: separation, transition, and incorporation. Variables that students have when they enter college (such as GPA, ethnicity, parent education levels, socioeconomic status, and commitment to achieve)



contribute to the passage through the first stage of separation (Elkins, Braxton, & James, 2000).

Elkins et al. (2000) explored drop-out rates of 411 students from the first semester to the second semester at a public 4-year institution. They studied the “separation” stage of Tinto’s theory of student retention and found that rejecting previous attitudes and avenues of support from others—especially family, friends, and other members of the previous community—impacted student decisions to remain in college.

These researchers determined that as students leave their communities and start college, they must disassociate from their previous community to some extent and that successful departure from this community contributes to decisions to remain in college.

The second stage of Tinto’s model, that of “transition,” involves the student being open to new ideas and viewpoints found on campus as a result of interactions with faculty, staff, and peers in the academic setting. Tinto stated that this can be a difficult time for new college students:

Though most students are able to cope with the problems of transition, many voluntarily withdraw from college very early in their first academic year, less from an inability to become incorporated in the social and academic communities of the college than from an inability to withstand the stresses that such transitions commonly induce. (Tinto, 1993, p. 98)

The third stage—that of “incorporation”—occurs when students have had repeated contact with others in the formal and informal academic environments. Tinto (1993) stated that the three stages are not distinct and frequently overlap, as the student may give up parts of old ideas during the separation stage and simultaneously adopt new

viewpoints in the transition stage. Tinto emphasized that students may depart from college at any time during any of these three stages.

Tinto's theory has received much critique over the years, and one critic, Attinasi (1989), argued that the theory only works well when the students are homogeneous, a claim that was also stated by Pascarella and Chapman (1983).

#### Bean's Model of Undergraduate Student Persistence

Bean (1980, 1983) developed a model which includes the factors of faculty-student interaction, student-student interaction, and time spent away from the college campus. Bean contended that faculty-student contact and student involvement on campus increase persistence. Bean (1985) also believed that academic integration results in improved grades, while Tinto (1975) conversely argued that good grades lead to academic integration.

When testing his model of "undergraduate student persistence," Bean (1985) found that student interactions with other students had more impact on decisions to persist in college than did student-faculty interactions.

#### Bean and Metzner's Model of Student Attrition

Bean and Metzner's (1985) model of student attrition was developed to explain attrition of the nontraditional student. They defined the nontraditional student as one who 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, certifications, and degrees” (p. 449). They believed that nontraditional students do not have the opportunity to become socially integrated into college life and that social integration plays a smaller role in attrition rates of these students. Bean & Metzner’s model illustrates that the drop-out decisions of the nontraditional student are based on academic performance, intention to leave college, background variables (such as educational goals), and environmental variables.

When Metzner and Bean (1987) tested the model, they found that students with higher rates of absenteeism, poor academic performance, and the intention to leave the institution, as well as those enrolling in fewer courses, had higher rates of dropping out.

#### Bean and Eaton’s Psychological Model of College Student Retention

Bean and Eaton (2000) used aspects of Tinto’s integration model to develop a psychological model that incorporated student characteristics such as self-efficacy and coping processes and attributions such as “locus of control” and motivation to explain commitment and persistence to the goals of completing a degree. Bean and Eaton also stated that student attitudes toward persistence are influenced by the experiences that the student has with the institution.

#### Milem and Berger’s Integrated Model of Undergraduate Persistence

Milem and Berger (1997) utilized Astin’s (1984) “theory of involvement” to develop a model of student persistence. This model combines Astin’s concept of “involvement” with Tinto’s concept of “integration.” Astin (1975) stated that student

involvement contributed to persistence while lack of involvement contributed to departure decisions.

### Comparison of Models

Both Tinto's and Bean's models state that precollege student characteristics are important in determining how students will adjust in college. In addition, both theories argue that an institutional fit between the student and the college is necessary for persistence.

Cabrera, Nora, and Castaneda (1993) compared the two leading theories of attrition in higher education students: Tinto's "student integration model" and Bean's "student attrition model." Their study found that the variables which had the most significant effects on student persistence were commitment by the institution to student success, support and encouragement of family and friends, student commitment to a goal, academic and social integration, and attitudes concerning finances—namely, the ability to pay for college and room and board.

Cabrera, Castaneda, et al. (1992) stated that there are many similarities among the retention models but that a blending of the two models provides a more complete understanding of student persistence in higher education. They argued that precollege characteristics shape college behaviors and that the fit between the student and the institution are important persistence issues.

Cabrera, Castaneda, Nora, & Hengstler (1992) were not convinced that Tinto's student integration model and Bean and Eaton's psychological model of college student retention can explain persistence in minority students or nontraditional-aged students.

Nontraditional students often have to negotiate a new landscape, learn how to step in and out of multiple contexts, engage in double readings of social reality and move back and forth between their native world and the new world of college—all at an accelerated pace. Nontraditional students live in multiple realities and lead cyclical lives that demand a high degree of biculturalism. (Rendon, 1996, p. 19).

### Chapter Summary

Much research has been conducted on retention and attrition of students; however, much of the information is inconsistent and most of the research is quantitative. There is also some research concerning the retention of nursing students in particular, but much of this research used baccalaureate nurses as participants. Braxton, Sullivan, and Johnson (1997) stated that Tinto (1993) and Attinasi (1989) both recognized that interviews with students would provide rich information concerning the phenomenon of departure from college.

Attinasi (1989) stated that previous models of retention have attempted to explain sociological or psychological aspects of drop-out decisions and that information was obtained from institutional data bases or fixed-choice questionnaires. Attinasi argued that these methods of data collection do not provide the rich information that is needed to explain a decision to drop out of college and that qualitative findings may provide more useful information. Acquiring an understanding of the reasons for nursing student departure through qualitative research will benefit the nursing program at MSU-Northern

and the state of Montana, as this is where most of the graduate nurses from this program obtain employment.

The purpose of this mixed methods study was to discover and understand the program and personal factors that current students, graduates, and previous nonpersistent students in the associate of science in nursing program at MSU-Northern reported as helping them to persist to graduation. A secondary purpose was to explore program and personal factors that cause participants to view the nursing program negatively and that contribute to nonpersistence in the program. Administrators at the institution may utilize the results as a guide in making institution and program changes as well as in providing additional support to students through such services as improved advising, counseling, tutoring, and/or other applications.

Chapter 2 presented a review of literature on student retention in higher education, including nursing programs. Models of student retention were also presented.

Chapter 3 will present the methods that were used to obtain information from current students, graduates, and previous nonpersistent students which contributed to persistence or nonpersistence in the associate of science in nursing program at Montana State University-Northern.

## CHAPTER 3

### METHOD

#### Background and Purpose

The purpose of this mixed methods study was to discover and understand the program and personal factors that current students, graduates, and previous nonpersistent students in the associate of science in nursing program at MSU-Northern reported as helping them to persist to graduation. A secondary purpose was to explore program and personal factors that cause participants to view the nursing program negatively and that contribute to nonpersistence in the program. The results of this study will be used as a guide in making institution and program changes as well as in providing additional support to students through such services as improved advising, counseling, tutoring, and/or other applications.

This chapter describes the purpose, participants, design, and instruments used to obtain the data, as well as the statistical methods and verification techniques employed in the study. The research questions addressed in this study are:

1. Which program factors, reported by students, graduates, and faculty, have helped students be successful in the ASN program at MSU-Northern?
2. Which personal factors, reported by students, graduates, and faculty have helped students be successful in the ASN program at MSU-Northern?

3. What program factors have led nursing students to perceive the program negatively?
4. What personal factors have contributed to nursing students leaving the ASN program at MSU-Northern?
5. What recommendations do current students and graduates have for increasing students' chances of success in the ASN program at MSU-Northern?
6. What recommendations do previous nonpersistent students in the nursing program have for increasing students' chances of success in the ASN program at MSU-Northern?

#### Rationale for Mixed Methods Approach

It is important to learn more about the reasons that students withdraw from college. It is important to distinguish between factors leading to voluntary withdrawal and those leading to involuntary withdrawal. Thicker and richer information explaining college persistence can be found by using both quantitative and qualitative approaches. A mixed methods study approach was used to study the above-stated questions. "The purpose of mixed methods research is to build on the synergy and strength that exists between quantitative and qualitative research methods in order to understand a phenomenon more fully than is possible using either quantitative or qualitative methods alone" (Gay et al., 2006, p 490). "Quantitative researchers are concerned with objective reality that is 'out there' to be discovered; qualitative researchers focus on interpreting their participants' perspectives" (Gay, Miles, & Airasian, 2006, p. 489). Qualitative



research provides the researcher with a deeper, richer understanding of the topic or participants being studied than does quantitative research alone (Creswell, 2003).

As this study has two distinct phases, each part will be described separately. The quantitative phase is discussed initially since it was completed first; subsequently, the qualitative phase will be described.

### Quantitative Phase

#### Participants

The population for this quantitative study consisted of 191 nursing students who were admitted into the associate of science in nursing program at MSU-Northern during 2002, 2003, and 2004. Each fall semester the program admits 60-65 students; therefore, the entire population of 191 students was asked to participate. The population was divided into three categories of participants: current students (61), graduates (84), and previous nonpersistent students (46). Some of the students who were admitted in fall of 2004 remain in the nursing program, and they completed the questionnaire while on campus. Those students who were admitted into the program in the fall of 2004 but have since left the program received their questionnaire by mail.

The current students completed the questionnaire in the classroom in late April of 2006 just before finals week. Fifty-eight of the 61 students returned the instrument for a response rate of 95%. Twenty-two questionnaires were returned from the 84 graduates for a response rate of 26%, and 15 questionnaires were returned from the 46

nonpersistent students for a response rate of 33%. A total of 95 questionnaires were returned after the first distribution, and, because the total response rate was only 50%, a reminder letter (see Appendix B) with another questionnaire was mailed to all graduates and previous nonpersistent students who did not sign the permission to participate- indicating that their response was already received. After the second mailing, an additional 17 graduates and 2 nonpersistent students returned the questionnaire, resulting in a total response rate of 60%. The questionnaire was determined to have a confidence level of 90% and a confidence interval of 5% based on use of the Pearson, NCS Survey Tool Kit, Sample Size and Confidence Interval Calculator. These parameters of confidence correspond with a sample of 114 participants drawn from a population of 191.

Demographic characteristics of the sample indicated that 89% of the participants are female and 87% are Caucasian. Fifty-five percent of the sample are married. Forty-one percent are in the 25- to 40-year age group. Thirty-four percent are less than 25 years of age, while 24% are age 41 or over. Sixty-five percent of the sample have parents that attended some college, while 9% of the sample said that neither parent completed high school.

### Design and Procedure

Survey questionnaires are useful in providing data from larger groups and take less time than other methods of data collection, such as interviews (Gay et al., 2006). Additionally, they can provide valuable and necessary information to institutions so that changes can be made based on evidence-based data.

The questionnaire served as a method of providing information concerning the research and requested that participants provide consent to being interviewed for the qualitative phase of the study. It was mailed to the graduating classes of 2004 and 2005 and was also given to 61 nursing students who are currently in the program. The questionnaire was mailed to all graduates and students admitted in 2002, 2003, and 2004 who did not complete the program, asking if they would be willing to discuss their experiences as nursing students with the researcher. Completion of the questionnaire indicated permission of the participant to have his or her information included in the study. Mailing addresses that were not current and valid resulted in eight questionnaires being returned; correct addresses were not available to the researcher.

### Instrument

The questionnaire was designed to obtain data from a sample of current students, graduates, and previous nonpersistent students who were admitted to the nursing program at MSU-Northern in 2002, 2003, and 2004. The 37-item questionnaire (see Appendix C), used in the quantitative phase of this mixed methods study, was developed by the researcher and is based on the findings in the literature review concerning attrition and persistence of college students (Baker & Siryk, 1989; Jeffreys, 2004). Several standardized questionnaires have been used to study freshman attitudes, student retention, and student satisfaction; however, a questionnaire should have relevance to the problem, as some published surveys may have questions that are not pertinent or do not apply to the situation (Suskie, 1996). The questionnaire used in this study was designed to obtain demographic and personal information regarding age, gender, marital status,

socioeconomic status, parental education level, ethnicity, cumulative grade point average, residential status while attending college, number of hours worked each week, and number of dependents living at home with the student. The questionnaire asked about students' personal study habits and their attitudes about goal attainment and social support as well as about program factors such as faculty contact and satisfaction with theory and clinical courses, out-of-classroom assignments, and opportunities to work with peer students. Information was also requested concerning use of tutors, counseling, and financial aid while in college. In addition, the questionnaire asked three open-ended questions designed to encourage current students, graduates, and previous nonpersistent students to state information he or she would like the researcher and the nursing program to know about retention of students and perceptions concerning reasons students leave the program.

Content and face validity of the questionnaire were determined by having two doctorally prepared senior faculty/staff at MSU-Northern review the questionnaire for accuracy and content. A group of seven nursing students at Montana State University College of Technology in Great Falls (MSU-COT Great Falls) also piloted the survey instrument for internal consistency, congruency, and syntax. This pilot of the questionnaire, using students in the MSU-COT Great Falls nursing program who were graduating in summer semester of 2006, was conducted to determine if additional questions should be included in the questionnaire survey and to make sure that students perceived the questions in the same way the researcher perceived them. The researcher provided lunch for these students and they proceeded to complete the questionnaire and

provide the input. The questions were perceived to be understandable and appropriate by the participants. As a result of their comments concerning the questionnaire, some editorial changes were made, but, overall, the students felt it was pertinent to nursing students and their experiences. After the instrument was approved by the Institutional Review Board (IRB) at Montana State University-Bozeman (see Appendix A), the current students were asked to complete the questionnaires in the classroom and the remainder of the questionnaires was mailed to the graduates and previous nonpersistent students.

Completion of the questionnaire indicated permission of the participant to have his or her information included in the study. This questionnaire included a signature page, requesting that subjects participate in the qualitative phase and agree to be interviewed.

The table of specifications (see Table 1) presents the concepts which were determined in the literature to be significant factors related to college student persistence and attrition. In addition, the table of specifications shows which survey question asks about each of these factors. This table also aligns the survey questions with the research questions posed by this study. The table of specifications helps to establish validity to the study.

### Data Collection and Analysis

Descriptive research involves collecting data to answer questions about reality and how participants view certain conditions or issues. Descriptive data is often obtained through surveys and questionnaires (Gay & Airasian, 2000).

Table 1. *Table of Specifications: Factors Leading to Student Success in the Associate of Science Nursing Program at MSU-Northern*

Program Factors	Survey Question Number	Research Question Number
1. Academic Integration	1, 2, 7, 20, 36	1, 3, 5, 6
2. Social Integration	15, 16, 36	1, 3, 5, 6
3. Faculty Student Interaction	17, 18, 19, 36	1, 3, 5, 6
4. Financial Aid	34, 36	1, 3, 5, 6
5. Counseling (Student Services)	23, 36	1, 3, 5, 6
6. Tutoring (Student Services)	24, 36	1, 3, 5, 6
Personal Factors	Survey Question Number	Research Question Number
7. Demographic Characteristics	25, 26, 27, 28, 29	2, 4
8. External Responsibilities	32, 33, 35	2, 4, 5, 6
9. Support of Family and Friends	21, 22, 35	2, 4, 5, 6
10. Minority Status	26, 35	4, 5, 6
11. Academic Preparation	5, 30, 35	2, 4, 5, 6
12. Financial Resources	3, 4, 35	2, 4, 5, 6
13. Goal Commitment	11, 35	2, 4, 5, 6
14. Residential Status	31, 35	2, 4, 5, 6
15. Psychosocial Factors	6, 8, 9, 10, 12, 13, 14, 35	2, 4, 5, 6

In this study, descriptive statistics were used in the quantitative phase of the study. After the questionnaires were returned to the researcher, analysis of student characteristics was conducted using SPSS for Windows. Descriptive statistics in the form of percentages were used to report demographic, personal, and program characteristics determined from results of the questionnaire. Results from a comparison of answers provided by each group—current students, graduates, and previous nonpersistent students—were reported. This information assisted in describing college student persistence behaviors and indicated membership into either the persisting or nonpersisting category of achievement in the nursing program.

### Qualitative Phase

#### Participants

Upon student completion and return of the questionnaires, a qualitative approach was utilized to obtain richer, thicker information concerning the characteristics of current students, graduates, and previous nonpersistent students. A purposeful sample of 8 current successful students, 8 graduates, and 8 previous nonpersistent students was chosen from those who agreed to participate in the study. The participants in the qualitative portion of the study were chosen from those who self-selected on the return questionnaire and were readily available for a personal interview or a phone interview. Every effort was made to choose students who could provide a variety of information concerning their experiences in the nursing program, thus utilizing intensity sampling, which allows different levels of the research topic to be studied (Gay & Airasian, 2000).

Current students at the Havre campus, the Lewistown campus, and the Great Falls campus and those who left the program for academic reasons as well as nonacademic reasons were chosen. Students who had graduated from the program were also interviewed. Interviews usually took place in local restaurants, and the researcher purchased meals for the participants.

Nursing faculty who have taught in the program for at least 1 year were asked to participate, and an anonymous survey was placed in their mailboxes or mailed to them if they were at distant campuses. Seven of these faculty members are prepared at the master's degree level and 1 has a doctoral degree. The additional 2 faculty members who do not have master's degrees are currently in master's programs with anticipated graduation dates in the fall semester of 2006. The faculty have a total of 44 years of teaching experience in nursing programs. They were asked to share their perceptions of why students are successful in the ASN program at MSU-Northern as well as their perceptions of why students are unsuccessful and do not persist in the program. A total of nine surveys were mailed to faculty and five surveys were returned for a 56% response rate. Faculty responses provided triangulation. Triangulation provides additional sources of information and is used to strengthen both internal validity and reliability (Merriam, 1998).

### Design and Procedure

The second phase of the study, the qualitative research, involved a process of inquiry which occurs in the natural setting and involves making sense of information brought forth by others (Creswell, 1998). Small samples are appropriate for qualitative



research, as purposive samples provide more in-depth studies than do those attained in quantitative research, which aims for numbers (Miles & Huberman, 1994). This study was designed to identify themes which will assist faculty and administration at MSU-Northern in understanding the nursing student program experience and reasons for nursing student departure and nursing student success. By understanding this experience, this researcher gains insight into factors that help students be successful in the ASN program at MSU-Northern. Purposive sampling involved selecting a sample of individuals who are appropriate for the purpose of the study (Gliner & Morgan, 2001), which is to discover and understand program and personal factors that help students persist to graduation.

The author obtained informed consent prior to interviews and reminded the participants that their responses were confidential and voluntary. Participants were also informed that they could withdraw from the study at any time.

The researcher conducted 21 face-to-face interviews and 3 telephone interviews. The researcher had no difficulty in obtaining participants who were current students and graduates; however, only 8 previous nonpersistent students were willing to be interviewed, including 6 students who left the program for academic reasons and 2 who left for nonacademic reasons. In this phase of the study, the researcher traveled to several Montana rural communities including Glasgow, Malta, Lewistown, Great Falls, Fort Benton, and Chester. Several interviews took place in Havre, and 3 interviews were by telephone as the participants were either out of state or more than 200 miles from the researcher. Interviews were taped if the participant granted permission to do so. The

researcher asked each participant if taping would make him or her uncomfortable and hesitant in the ability to be fully forthright in the conversation. With the exception of the 3 telephone interviews and 2 person-to-person interviews, all interviews were taped. Two participants expressed concerns about being taped; therefore, those conversations were not taped. In the situations where taping was not done, the participant was interviewed with the researcher documenting the student's perceptions of program and personal experiences in the nursing program that impacted persistence or nonpersistence as well as recommendations for the program.

### Trustworthiness

Verification procedures were done throughout the collection and analysis of the data in order to ensure trustworthiness of data. Procedures which established trustworthiness included maintaining participant confidentiality, obtaining field notes during the interviews, transcribing these notes immediately following the interviews, member checking, and triangulation. In addition, the researcher remained aware of the potential of her own bias throughout the process as the integrity of qualitative findings can be compromised as data is value laden and often subjective when obtained during interviews (Gliner & Morgan, 2001). Participants were informed that confidentiality would be maintained and signed consent forms to participate were obtained. The researcher asked probing questions of clarification throughout the interviews to verify accuracy of participant responses. Interview notes were transcribed immediately after the interviews, and field notes were kept throughout the analysis process. Information was categorized; then coded and ultimately themes emerged. Member-checking was

accomplished with the participants 2-3 weeks after the interview and member-checking helped to establish validity of the data by determining if the participants believed the researcher's perceptions were accurate. Five participants responded to the member checking and stated that the transcripts for member-checking were correct, and in two cases, the participants added some information for clarification or expansion.

Triangulation occurred through data received from the questionnaires during the quantitative phase of the study and faculty also provided information on an anonymous survey which contributed to triangulation.

### Instrument

In a cover letter explaining the questionnaire and the research study, the researcher requested that the students give permission to participate in an interview. The cover letter was brief and designed to motivate individuals to respond. This was done by describing the purpose of the study as a worthwhile project. In addition, the cover letter explained how the data obtained may result in benefit and improvement in the field (Gay et al., 2006). Students were informed that participation was voluntary and that they may withdraw from the study at any time.

The researcher utilized qualitative research to gather information not obtained from the questionnaire. The interview form was developed utilizing content determined to reflect important risk factors of attrition from higher education. This information was gleaned from the literature review concerning attrition, retention, and student success in higher education and can be found in the conceptual framework for this study. The interview format was initiated; however, changes were made after the data from the

questionnaire had been compiled. Face and content validity of the interview form were provided by the Interim Dean of Education, Arts and Sciences and Nursing at MSU-Northern, as he reviewed the instrument for accuracy and relevance to the purpose. A pilot of the interview instrument was conducted when the questionnaire had been returned by the current student participants and the interview form was revised. The pilot subject did not recommend additional data to be added to the interview survey. Gliner and Morgan (2001) stated that some predetermined questions may not provide the researcher with the desired information and that a pilot study of the structured interview may work better to answer the research questions. Some standardization of questions is necessary, and the participants should be asked the same questions to aid in comparison in order to develop themes (Miles & Huberman, 1994). The researcher used semistructured follow-up questions to obtain deeper, richer data to help explain or explore answers given by interviewees (Gay et al., 2006). Since instrument reliability depends on the reliability and validity of the researcher—as the researcher is the instrument when qualitative research is conducted—the researcher must be aware of potential bias, endeavoring to use the same body language and demeanor with all participants (Miles & Huberman, 1994).

The questionnaire form for faculty is found in Appendix C and a copy of the participant consent form is found in Appendix D. A copy of the cover letters is included in Appendix B, and a copy of the interview forms used when interviewing current students, graduates and previous nonpersistent students in the ASN program at MSU-Northern is found in Appendix E.

### Data Collection and Analysis

Qualitative analysis assists the researcher in developing thick and rich descriptions of the findings. In addition, qualitative data serve to verify and add meaning to the quantitative results. The researcher organized data obtained during the interviews and categorized groups of closely related data into initial codes. Notes containing thoughts and ideas that the researcher had while reading and examining and reexamining the interview transcripts assisted in developing codes. Interpretations and meaning of the data were explored and determined as the information was collected. The data were color-coded into categories on the transcript notes and then were integrated into topics that relate to each other. Ultimately, themes emerged (Creswell, 2003). Findings were conveyed in a detailed, thick, and rich narrative with illustrations and descriptions of the participant perspectives.

The researcher must ensure confidentiality when reporting findings. For instance, “long quotes gathered in qualitative studies may be identifiable because they may include unique or personal information recognizable by others. In these cases, such information would have to be altered or deleted from the research report” (Gliner & Morgan, 2001, p. 350).

### Chapter Summary

The purpose of this mixed methods study was to discover and understand the program and personal factors that current students, graduates, and previous nonpersistent

students in the associate of science in nursing program at MSU-Northern reported as helping them to persist to graduation. A secondary purpose was to explore program and personal factors that cause participants to view the program negatively and that contribute to nonpersistence in the program.

Chapter 3 presented information concerning the quantitative and qualitative methods that were used to obtain information from current students, graduates of the program, and previous nonpersistent students regarding program and personal factors which contributed to persistence or nonpersistence in the nursing program at MSU-Northern.

Chapter 4 will present the quantitative and qualitative findings from questionnaires and interviews.

## CHAPTER 4

## RESULTS

Introduction

The purpose of this mixed methods study was to discover and understand the program and personal factors that current students, graduates, and previous nonpersistent students in the associate of science in nursing program at MSU-Northern reported as helping them to persist to graduation. A secondary purpose was to explore program and personal factors that cause participants to view the program negatively and that contribute to nonpersistence in the program. The results of this study will be used to make recommendations for institution and program changes, such as providing additional support to students through such services as improved advising, counseling, tutoring, and/or other applications.

The research questions addressed in this study were as follows:

1. Which program factors, reported by students, graduates, and faculty, have helped students be successful in the ASN program at MSU-Northern?
2. Which personal factors, reported by the students, graduates, and faculty, have helped students be successful in the ASN program at MSU-Northern?
3. What program factors have led nursing students to perceive the program negatively?

4. What personal factors have contributed to nursing students leaving the ASN program at MSU-Northern?
5. What recommendations do current students and graduates have for increasing students' chances of success in the ASN program at MSU-Northern?
6. What recommendations do previous nonpersistent students in the nursing program have for increasing students' chances of success in the ASN program at MSU-Northern?

This chapter presents quantitative and qualitative findings obtained from questionnaires and interviews. The responses to the questions concerning demographic characteristics are presented first followed by the answers to questions concerning program factors and personal factors.

#### Demographic Factors

This chapter begins by presenting demographic factors concerning the 114 participants of this study. These demographic characteristics are presented in Tables 2-6, and each table is followed by a brief description of the answers to the demographic question addressed in that table.



Table 2. *Question 25. What is your gender?*

Participant Type	Male	Female
Current Students (n = 58)	14%	86%
Graduates (n = 39)	5%	95%
Nonpersistent Students (n = 17)	12%	88%

Table 2 shows that the majority of current students (86%), graduates (95%), and previous nonpersistent students (88%) are female.

Table 3. *Question 26. Which cultural group do you identify with?*

Participant Type	Cauc	Nat Amer	Hispanic	Asian	Bi/mult racial
Current Stud (n = 58)	90%	7%	0	2%	1%
Graduates (n = 39)	90%	3%	3%	4%	0
Nonpersistent Students (n = 17)	70%	18%	0	6%	6%

Table 3 demonstrates that 90% of current students and graduates reported they were Caucasians while 70% of nonpersistent students were Caucasian. Thirty percent of the students who did not persist were members of the nondominant minority groups. Ten

percent of current students and 10% of graduates belonged to nondominant minority groups.

Table 4. *Question 27. What was your age at the time you entered the nursing program at MSU-Northern?*

Participant Type	less than 25yrs	25-40yrs	41-55yrs	over 55
Current Stud (n = 58)	39%	39%	22%	2%
Graduates (n = 39)	33%	41%	26%	0
Nonpersistent Students (n = 16)	25%	50%	25%	0

Table 4 shows that 50% of nonpersistent students were in the 25-40-year-old age category. A greater percentage of current students (39%) and graduates (33%) were in the less-than-25-year-old category than in the previous nonpersistent (25%) category.

Table 5. *Question 28. What is (was) your marital status while attending nursing school?*

Participant Type	Married	Single
Current Students (n = 57)	48%	50%
Graduates (n = 39)	59%	41%
Nonpersistent Students (n = 17)	65%	30%

Table 5 shows that a higher percentage of nonpersistent students (65%) were married compared to current students (48%) and graduates (59%).

Table 6. *Question 29. What is the educational level of your parents?*

Participant Type	Neither parent completed high school	One or Both parents completed high school	One or Both parents completed some college	One or Both parents completed grad school
Current Students (n = 58)	5%	24%	60%	10%
Graduates (n = 39)	10%	26%	54%	10%
Nonpersistent Students (n = 17)	18%	35%	41%	5%

Table 6 reveals that, compared to current students and graduates, a higher percentage of participants in the nonpersistent student category had parents who either did not complete high school or who had not attended college.

### Program Factors

This section of Chapter 4 presents the findings concerning program factors. Quantitative findings from the questionnaires are presented first, followed by the qualitative findings obtained from the interviews. The table of specifications (see Table 1 in Chapter 3) refers to the survey question number and the research question number which align with the program factors. The reader is directed to Chapter 1 for a discussion of program factors.

#### Program Factors: Quantitative Findings

A total of 11 statements on the survey sought information concerning program factors that may have contributed to nursing student success or nonpersistence. Each of the 11 statements is presented in a table, which provides the responses to each statement. Tables 7 through 17 present the percentages of responses that were made by each category of participants. Each table illustrates the responses to one statement and shows the answers of the current students, graduates, and previous nonpersistent students. Following the table is a brief discussion concerning the findings specific to the table.

Table 7. *Statement 1: I am (was) satisfied with the clinical experiences in the nursing program.*

Participant Type	Strongly Agree	Agree	Disagree	Strongly Disagree
Current Students (n = 58)	8.6%	63.8%	22.4%	5.2%
Graduates (n = 39)	15.4%	59%	20.5%	5.1%
Nonpersistent Students (n = 16)	17.6%	52.9%	11.8%	5.9%

Table 7 shows that the majority of current students (72.4%), graduates of the program (74.4%), and previous nonpersistent students (70.5%) strongly agreed or agreed that they are (were) satisfied with the clinical experience in the ASN nursing program at MSU-Northern.

Table 8. *Statement 2: I am (was) satisfied with the theory courses in the nursing program.*

Participant Type	Strongly Agree	Agree	Disagree	Strongly Disagree
Current Students (n = 58)	15.5%	51.7%	27.6%	1.7%
Graduates (n = 39)	15.4%	59%	20.5%	5.1%
Nonpersistent Students (n = 17)	5.9%	58.8%	17.6%	11.8%

Table 8 depicts that the majority of current students (67.2%), graduates (74.4%), and previous nonpersistent students (64.7%) expressed satisfaction with the theory courses in the nursing program.

Table 9. *Statement 7: I wish I would have attended another nursing program.*

Participant Type	Strongly Agree	Agree	Disagree	Strongly Disagree
Current Students (n = 58)	6.9%	15.5%	56.9%	17.2%
Graduates (n = 38)	10.3%	17.9%	43.6%	23.1%
Nonpersistent Students (n = 16)	35.3%	5.9%	47.1%	5.9%

Table 9 indicates that the majority of current students (74.1%), graduates (66.7%), and previous nonpersistent students (53%) expressed disagreement or strong disagreement with the statement indicating that they wish they would have attended another nursing program.

Table 10. *Statement 15: I have developed strong friendships with fellow nursing students.*

Participant Type	Strongly Agree	Agree	Disagree	Strongly Disagree
Current Students (n = 58)	55.2%	37.9%	1.7%	0
Graduates (n = 39)	43.6%	48.7%	5.1%	2.6%
Nonpersistent Students (n = 17)	17.6%	47.1%	29.4%	5.9%

Table 10 reveals that the majority of current students (92.1%), graduates (92.3%), and previous nonpersistent students (64.7 %) strongly agree or agree that they have developed strong friendships with fellow nursing students.

Table 11. *Statement 16: It is (was) difficult for me to make friends with other nursing students.*

Participant Type	Strongly Agree	Agree	Disagree	Strongly Disagree
Current Students (n = 58)	1.7%	6.9%	34.5%	55.2%
Graduates (n = 39)	0	0	46.2%	51.3%
Nonpersistent Students (n = 17)	5.9%	23.5%	41.2%	23.9%

Table 11 shows that the majority of current students (89.7%), graduates (97.5%) and previous nonpersisting students (65.1%) disagreed or strongly disagreed that it is (was) difficult for them to make friends with other nursing students.

Table 12. *Statement 17: I am (was) able to interact with faculty outside of the classroom.*

Participant Type	Strongly Agree	Agree	Disagree	Strongly Disagree
Current Students (n = 58)	17.2%	67.2%	13.8%	0
Graduates (n = 39)	10.3%	56.4%	28.2%	5.1%
Nonpersistent Students (n = 17)	5.9%	35.3%	29.4%	23.5%

Table 12 shows that current students (84.4%), graduated students (66.7%), and previous nonpersistent students (41.2%) strongly agree or agree that they were able to interact with faculty outside of the classroom.



Table 13. *Statement 18: My interactions with the nursing faculty have (had) a positive effect on my professional growth.*

Participant Type	Strongly Agree	Agree	Disagree	Strongly Disagree
Current Students (n = 58)	22.4%	58.6%	17.2%	0
Graduates (n = 39)	7.7%	53.8%	35.9%	2.6%
Nonpersistent Students (n = 17)	5.9%	35.3%	23.5%	17.6%

Table 13 indicates that current students (81%), graduates (61.5%), and previous nonpersistent students (41.2%) strongly agree or agree that their interactions with faculty have had a positive effect on their professional growth.

Table 14. *Statement 19: I take (took) the initiative to contact faculty when I have (had) questions concerning coursework.*

Participant Type	Strongly Agree	Agree	Disagree	Strongly Disagree
Current Students (n = 58)	37.9%	53.4%	8.6%	0
Graduates (n = 39)	25.6%	66.7%	7.7%	0
Nonpersistent Students (n = 17)	5.9%	76.5%	11.8%	0

Table 14 shows that the majority of current students (91.3%), graduates (92.3%), and previous nonpersistent students (82.4%) strongly agreed or agreed that they take (took) the initiative to contact faculty when they had questions concerning coursework.

Table 15. *Statement 20: I collaborate(d) with other students in the classroom.*

Participant Type	Strongly Agree	Agree	Disagree	Strongly Disagree
Current Students (n = 58)	46.6%	46.6%	5.2%	0
Graduates (n = 39)	43.6%	56.4%	0	0
Nonpersistent Students (n = 17)	35.3%	47.1%	11.8%	5.9%

Table 15 indicates that the majority of the current students (93.2%), graduates (100%), and previous nonpersistent students (82.4%) strongly agreed or agreed that they collaborate(d) with other students in the classroom.

Table 16. *Statement 23: Personal counseling by student services has been (was) helpful to me while in the nursing program.*

Participant Type	Strongly Agree	Agree	Disagree	Strongly Disagree	NA
Current Students (n = 58)	3.4%	8.6%	17.2%	8.6%	62.1%
Graduates (n = 39)	0	10.3%	23.1%	7.7%	59%
Nonpersistent Students (n = 17)	0	11.8%	11.8%	7.6%	58.8%

Table 16 displays that the majority of current students (62.1%), graduates (59%), and previous nonpersistent students (58.8%) responded “not applicable” to the statement, “Personal counseling by student support services is/was helpful to me while in the nursing program.”

Table 17. *Statement 24: Tutoring by student services has been (was) helpful to me while in the nursing program.*

Participant Type	Strongly Agree	Agree	Disagree	Strongly Disagree	NA
Current Students (n = 58)	5.2%	15.5%	10.3%	10.3%	58.6%
Graduates (n = 39)	2.6%	17.9%	12.8%	5.1%	61.5%
Nonpersistent Students (n = 17)	0	17.6%	17.6%	11.8%	52.9%

Table 17 shows that the majority of current students (58.6%), graduates (61.5%), and previous nonpersistent students (52.9%) responded “not applicable” to the statement, “Tutoring by student services is/was helpful to me while in the nursing program.”

#### Program Factors Contributing to Success: Qualitative Findings

Twenty-four students were interviewed to obtain qualitative findings for this study. Eight current students, 8 graduates, and 8 previous nonpersistent students participated in these interviews. The participants reported program factors which helped them be successful in the nursing program at MSU-Northern, and the following three

program factors emerged as themes: faculty relationships, support from peer students, and curriculum requirements. An additional idea that deserves to be mentioned came forth from the interviews: One student stated that it was helpful to be able to argue with the instructor for additional test points, stating, “This is the nursing content that I really remember.”

### Theme 1: Relationships with Faculty

Program factors which students stated that lead to success in the nursing program at MSU-Northern most frequently involved relationships students have with their faculty. Fourteen of 16 current students and graduates who were interviewed emphasized the importance of faculty/student relationships. They expressed that faculty support and encouragement are the major program factors leading to success in the nursing program.

Previous students who did not persist to graduation, especially those who dropped out for nonacademic reasons, also stated that the faculty were helpful. Three of the 6 nonpersistent students who dropped out for academic reasons believed that faculty tried to help them. One current student stated,

Student interaction with faculty has everything to do with a student being successful in the program. Students need to have open communication with their instructors, advisers, and mentors. It is important for students to know that their instructors are there for them and that they welcome questions. To have evaluative feedback is crucial. It is good when a faculty member calls you into their office and says they are concerned about you and want to help you.

Current students and graduates appreciated faculty flexibility. One current student stated, “It is nice when faculty change some of their schedules to help us. One faculty had a tutoring session with us and it shows students that she was concerned about

us. One faculty changed some of her lectures to emphasize what we need to know.”

Another student stated that, “I appreciate it when instructors let the students know when students are not doing well and some outside intervention from the instructor can help the students to focus.”

Students did not always agree with their instructors; however, they appreciated having the ability to talk to them about their disagreements. A current student stated that:

It is very important to feel that you can go to your instructor and find out how you are doing and get feedback regarding your performance. I have lots of faculty interaction, but that is because I put myself into that situation. I ask to see the faculty. Every one of your faculty are very approachable. I can go to any one of them if I had a problem. Even outside of the nursing program I felt this way. I did not always agree with them but that is OK—perhaps because of my age I felt more comfortable approaching them.

A graduate expressed appreciation for faculty understanding concerning family responsibilities:

I think that the faculty were great. They were understanding when I had a sick kid and they expected me to take care of my children. There were a couple of times I had to call and said, “sick kid, can’t do it,” and I never worried about not passing the program because they were understanding about sick kids.

Students appreciated faculty availability. “They [faculty] are there when I need them. I appreciate that I can call faculty at home. It is good if you have a question about getting ready for clinical. I feel that my faculty’s support is a very important part of my being successful.”

One student commented that some students did not appreciate some of the faculties’ efforts. “I found all the faculty very helpful. They wanted to be helpful, and some students were never happy with the faculty no matter what they did for them.”

## Theme 2: Support from Peers

Fourteen students, graduates, and previous nonpersistent students stated that peer support was an important factor that helped them persist to graduation. One graduate, who was an older student, stated that “peer support was wonderful; I did not feel uncomfortable because some of the others were my age and I did not feel like the grandmother of the class.”

A current student who has experienced college life at another institute of higher learning in the past stated:

There was a tremendous amount of peer support [at MSU-Northern]—we are the only ones who really understand the stress we are dealing with. This caused nursing students to become cohesive and supportive. I went to college for 6 or 7 years before this and I never experienced this closeness to the other students before. I think this cohesiveness helped some students who would not have made it otherwise. Many times we took part of the lesson and shared our information with others and helped each other.

Several current students described the importance of study groups. One said, “I worked with a study group that I was involved in—others in the study group may see things in a different light, so it is always helpful to talk about our assignments and our readings with classmates.” Another current student said, “We met every Monday and made assignments for each other, and one person would make an outline of one chapter and share it with others. We were an on-task study group, and it worked really well.” Another current student stated that all members of a study group can benefit: “Study groups were helpful because we talked out loud and someone’s interpretation would be different than ours and we would learn from each other.”

One current student gave a different slant to peer support, however, when she stated that “peers could be downers, though; you are better off with positive people around you. Getting negative feedback is not good—and sometimes other students were not a good influence.”

### Theme 3: Curriculum Requirements

Eleven of the 24 participants that were interviewed believed that certain factors about the nursing curriculum contributed to their success. Among curricular requirements that were perceived as helpful were the 100 NCLEX questions students were required to answer every week during level 2 to help prepare them for NCLEX, which is the national licensure examination for nurses. A current student said, “Doing the NCLEX questions every week has been helpful for me to gain a better understanding of the content.” Students also completed the Assessment Technology, Inc., (ATI) tests that provided students with feedback concerning their progress in the program and knowledge of nursing content. One current student said, “The ATI tests have been helpful and the ATI study book is really good.” Students stated that frequent tests helped them to succeed. One graduate stated, “Testing abilities [helped me succeed]—our program had us taking at least one test every week, maybe two. I am an excellent test taker because of this. This ability helped me with my boards.”

Writing nursing care plans is a necessary part of learning how to care for patients; however, students often consider writing care plans to be a time-consuming nuisance. One current student said, “I like writing care plans. I know it sounds off, but that process of thinking about how to care for patients is important. I like to do research. Sometimes

it cuts into study time that I need.” Another current student commented, “I learned to write care plans because the faculty made me do them over and over until I got them right.”

Clinical experiences helped students as well. “Doing some of the procedures on clinical helped me to put it all together, and it did help me on the nursing tests. You can read theory in the books, but seeing this happen in the hospital actually helps me.”

Another current student stated, “I really like my clinicals. Hands-on is the best way for me to learn.”

### Program Factors Perceived Negatively: Qualitative Findings

Current students, graduates, and previous nonpersistent students reported program factors which caused them to perceive the program negatively. Five themes that emerged were transition to level 2, nursing lab experiences, excessive assignments, nonsupportive faculty, and nonsupportive staff nurses.

#### Theme 1: Transition to Level 2

Six current students, graduates, and previous nonpersistent students said that the second year of the nursing program was more difficult and challenging than the first year. One current student stated, “There needs to be more continuity between level 1 and level 2—it is a big jump from one year to the next.” Another current student stated that

The academic level went up so much from the first year to the second year. It did not seem like there was any transition; it went from being a certified nurse’s assistant (CNA) and then we were responsible for watching a PICC [peripheral indwelling central catheter] line and starting IVs and having two or three patients. It was tough.



### Theme 2: Nursing Lab Experiences

Five current students and graduates expressed dissatisfaction with the lab experiences which are required in the nursing program. A current student emphasized that “the problem with the math content needs to be solved. We were left on our own to prepare for the math for meds examinations. We had a book thrown at us and were told we were responsible for the information in it and to study. That was tough.”

A graduate described how she felt during her first clinical experience and how she wished the nursing lab experience had prepared her better for patient care:

I was doing clinical and I felt we were just thrown into the clinical and told to get the patient up, and I had no idea how to lift the patient without hurting her. And everybody was too busy to help me. I was so nervous and apprehensive. I felt so unprepared. The confusion of the first semester could have easily caused me to quit the program. It was so fast paced and I did not know what was expected. I am so glad I stuck it out because I love nursing.

Another graduate of the program said,

We could have a more structured lab, and we could have more practice with documentation. We were told how important it is to document but never really told how to document. We had to rely on the staff nurses to help us, and we really learned which ones (staff nurses) were approachable to help us.

### Theme 3: Excessive Assignments

Student nurses are expected to be prepared to give safe nursing care to their patients. The provision of safe care requires developing a nursing care plan and writing drug cards to learn about the medications that the students will administer. Five current students, graduates, and previous nonpersistent students stated that it is difficult to stay up all night and be prepared to care for patients on the clinical floors.

How can we be safe when we are up all night doing our nursing care plan? It takes 9 or 10 hours to prepare, and sometimes you stay up until 2 in the morning, and then you make choices as to whether to prepare or sleep. You do not sleep well because you think you won't hear the alarm clock. That is the most overwhelming thing.

One current student had an idea to prepare some drug cards ahead of time: "I think we should get a list of drugs that are commonly used so we could do our drug cards ahead of time. If we could do the drug cards ahead of time, we would not have to do so many at 3 in the morning. At 3 in the morning, we are copying and not learning."

#### Theme 4: Nonsupportive Faculty

Five current students and previous nonpersistent students said that nursing faculty were not as encouraging as they believed they should have been. "Some of the instructors are not encouraging—they seem like they are just waiting for us to fail. It is almost on the military level. I know that there is a lot of important information we must learn, and to not have the instructors' support is just hard." One current student said this about the importance of encouragement and reinforcement from faculty: "Faculty need to give positive reinforcement to students. A few encouraging words make a big difference." A previous nonpersistent student stated,

This nursing program often made students feel that they were not smart enough or capable enough to be a nurse. Instead of always building up the students to make them see how great a nurse they could be, the program often tore students down, making them feel they were incapable of obtaining their dream of becoming an RN.

Current students also commented on timely feedback from faculty. "We have to turn our work in in a timely manner; why can't the faculty return the work in a timely manner? We should be getting feedback on our care plans. We keep doing the same

things wrong when we do not get timely feedback. How are we supposed to learn in time to write our next care plan?”

#### Theme 5: Nonsupportive Staff Nurses

Participants discussed nonsupport by staff nurses, who are nurses working at the hospitals, clinics, and nursing homes where students do their practicum clinical experiences. Five current students and graduates expressed concern about staff nurses at the clinical facilities and how they were treated by them, with comments such as the following:

It is helpful to put students with nurses who are actually nice to them. Sometimes I had patients whose primary nurse did not like students. These particular nurses were very short and rude to me. On those days I went home and cried and felt as though I did not want to finish. It was not a good learning experience.

One current student reflected during the interview, “On clinical days when I was with a nurse who did not mind having a student, I felt more confident in my abilities to become a nurse.”

One graduate discussed how she was treated by a practicing nurse. “Sometimes I did not feel supported by the nursing staff in either the nursing home or on the acute care floors. That is a barrier to success—why don’t they remember what it was like as a student?”

One current student alluded to the fact that perhaps some of the responsibility in gaining a relationship with the nursing staff lies upon the students: “It is great when the nurses let us do things. Sometimes students need to be more assertive, and it may be the attitude you walk in with that determines how much the nursing staff will trust you.”

### Program Factors: Faculty Perceptions

Five of nine faculty members replied to a survey requesting their perceptions concerning program factors that cause student success in the nursing program. Findings supported many of the perceptions of the current, graduated, and previous nonpersistent students and were used as a method of triangulation of the findings.

Program factors that faculty perceive as being important in increasing student success include faculty use of a variety of teaching methods to help students learn. One faculty member emphasized the importance of promoting the use of critical thinking both in the classroom and at the clinical setting. Another faculty member stated that the use of weekly NCLEX questions were important “in assisting students with test-taking skills as well as helping them review nursing content.”

Two faculty stated that providing students with support and encouragement enhances student learning and success. One faculty wrote, “We need to let students know that they are capable of completing the program.”

In addition, one faculty stated that some students may benefit from having an alternate curriculum. She said that some students are overwhelmed by other responsibilities and that part-time study may be the answer for them.

### Summary of Quantitative and Qualitative Program Factors

The participant responses on the questionnaires and during the interviews found that current students and graduates were more likely to have positive relationships with

faculty and to believe that the faculty had a positive effect on their professional growth. Fewer previous nonpersistent students believed that they were able to interact with faculty outside of the classroom or that their interactions with nursing faculty had a positive effect on their professional growth. The qualitative findings indicated that student-faculty relationships were one of the most important factors leading to student success.

Participant responses on the questionnaires revealed that the development of strong friendships with fellow nursing students was found more frequently among current students and graduates than nonpersistent students. Fewer previous nonpersistent students indicated that strong friendships were developed, which is congruent with the qualitative findings concerning the importance peer support has in contributing to success in the nursing program. In addition, current students and graduates were more likely to have collaborated with other students in the nursing program than were the nonpersistent students. Fewer nonpersistent students stated that they collaborated with other students in the classroom, which concurs with the finding that peer support is an important factor leading to success in the nursing program, as stated by current students and graduates. Qualitative findings concurred that peer support was an important program factor in student success.

Current students, graduates, and previous nonpersistent students all expressed “satisfaction with clinical courses or satisfaction with theory courses.” Even though there was satisfaction with these aspects of the program, there were also several curricular areas that students expressed dissatisfaction with during interviews, such as the schedule

requiring that they study late at night, the increase in requirements between the first and second year of the nursing program, nonsupportive faculty, nonsupportive staff nurses, and skills labs that lacked structure.

### Personal Factors

This section of Chapter 4 presents the findings concerning personal factors. Quantitative findings from the questionnaires are presented first, followed by the qualitative findings obtained from the interviews. A total of 18 statements in the survey questionnaire provided information concerning personal factors that may contribute to nursing student success or nonpersistence. The table of specifications (see Table 1 in Chapter 3) refers to the survey question number and the research question number which align with the personal factors. The reader is directed to Chapter 1 for a discussion of personal factors.

### Personal Factors: Quantitative Findings

A total of 18 statements on the survey requested information concerning personal factors that may have contributed to nursing student success or nonpersistence. Each of the 18 statements is presented in a table, which provides the responses to each statement. Tables 18 through 35 present the percentages of responses that were made by each category of participant. Each table illustrates the responses to one question and shows the answers of the current students, graduates, and previous students who were

nonpersistent. Following each table is a brief discussion concerning the findings specific to the table.

Table 18. *Statement 3: My financial resources are (were) adequate while attending nursing school at MSU-Northern.*

Participant Type	Strongly Agree	Agree	Disagree	Strongly Disagree
Current Students (n = 58)	8.6%	41.4%	39.7%	10.3%
Graduates (n = 39)	23.1%	46.2%	25.6%	5.1%
Nonpersistent Students (n = 17)	11.8%	47.1%	23.5%	11.8%

Table 18 shows that at least half of current students (50%), graduates (69.3%), and previous nonpersistent students (58.9%) strongly agreed or agreed that the financial resources are (were) adequate while attending nursing school.

Table 19. *Statement 4: I am (was) worried about expenses that are (were) required to attend nursing school.*

Participant Type	Strongly Agree	Agree	Disagree	Strongly Disagree
Current Students (n = 58)	24.1%	51.7%	19%	1.7%
Graduates (n = 39)	23.1%	33.3%	30.8%	12.8%
Nonpersistent Students (n = 17)	17.6%	47.1%	17.6%	11.8%

Table 19 reveals that the majority of current students (75.8%), graduates (56.4%), and previous nonpersistent students (64.7%) strongly agreed or agreed that they worried about the expenses that were required to attend nursing school.

Table 20. *Statement 5: I had sufficient academic preparation to succeed in the nursing program at MSU-Northern.*

Participant Type	Strongly Agree	Agree	Disagree	Strongly Disagree
Current Students (n = 58)	19%	67.2%	10.3%	3.4%
Graduates (n = 39)	28.2%	61.5%	7.7%	2.6%
Nonpersistent Students (n = 17)	5.9%	52.9%	23.5%	11.8%

Table 20 reveals that the majority of current students (86.2%), graduates (89.7%), and previous nonpersistent students (58.8%) strongly agreed or agreed that they had sufficient academic preparation to succeed in the nursing program at MSU-Northern.

Table 21. *Statement 6: I found the transition to college difficult.*

Participant Type	Strongly Agree	Agree	Disagree	Strongly Disagree
Current Students (n = 58)	5.2%	13.8%	44.8%	32.8%
Graduates (n = 39)	2.6%	23.1%	41%	28.2%
Nonpersistent Students (n = 17)	11.8%	17.6%	47.1%	17.6%



Table 21 displays that the majority of current students (77.6%), graduates (69.2%), and previous nonpersistent students (64.7%) disagreed or strongly disagreed that they found the transition to college difficult.

Table 22. *Statement 8: While in nursing school I gave a higher priority to studying than to anything else.*

Participant Type	Strongly Agree	Agree	Disagree	Strongly Disagree
Current Students (n = 58)	32.8%	44.8%	22.4%	0
Graduates (n = 39)	51.3%	35.9%	12.8%	0
Nonpersistent Students (n = 17)	23.5%	47.1%	23.5%	5.9%

Table 22 shows that the majority of current students (77.6%), graduates (87.2%), and previous nonpersistent students (70.6%) strongly agreed or agreed that they gave a higher priority to studying than to anything else in nursing school.

Table 23. *Statement 9: I experienced difficulty coping with the stresses of attending nursing school.*

Participant Type	Strongly Agree	Agree	Disagree	Strongly Disagree
Current Students (n = 58)	6.9%	43.1%	43.1%	6.9%
Graduates (n = 39)	7.7%	28.2%	53.8%	10.3%
Nonpersistent Students (n = 17)	11.8%	58.8%	29.4%	0

Table 23 depicts that current students (50 %), graduates (35.9 %), and previous nonpersistent students (70.6 %) strongly agreed or agreed that they experienced difficulty coping with the stresses of attending nursing school.

Table 24. *Statement 10: I am (was) confident in my ability to complete the nursing program at MSU-Northern.*

Participant Type	Strongly Agree	Agree	Disagree	Strongly Disagree
Current Students (n = 58)	41.4%	45.1%	13.8%	1.7%
Graduates (n = 38)	43.6%	35.9%	15.4%	2.6%
Nonpersistent Students (n = 17)	23.5%	47.1%	11.8%	17.6%

Table 24 shows that the majority of current students (86.5%), graduates (79.5%), and previous nonpersistent students (70.6%) strongly agreed or agreed that they were confident in their ability to complete the nursing program at MSU-Northern.

Table 25. *Statement 11: I am (was) committed to the goal of becoming a registered nurse.*

Participant Type	Strongly Agree	Agree	Disagree	Strongly Disagree
Current Students (n = 58)	86.2%	12.1%	0	0
Graduates (n = 39)	84.6%	15.4%	0	0
Nonpersistent Students (n = 17)	47.1%	47.1%	5.9%	0

Table 25 reveals that the majority of current students (98.3%), graduates (100%), and previous nonpersistent students (94.2%) strongly agreed or agreed that they were committed to the goal of becoming a registered nurse.

Table 26. *Statement 12: I do (did) not function well during nursing examinations.*

Participant Type	Strongly Agree	Agree	Disagree	Strongly Disagree
Current Students (n = 58)	8.6%	24.1%	48.3%	19%
Graduates (n = 39)	2.6%	30.8%	46.2%	20.5%
Nonpersistent Students (n = 17)	5.9%	52.9%	29.4%	5.9%

Table 26 reveals that current students (67.3%), graduates (66.7%), and previous nonpersistent students (35.3%) disagreed or strongly disagreed that they did not function well during nursing examinations.

Table 27. *Statement 13: I am (was) not efficient in the use of study time while in nursing school.*

Participant Type	Strongly Agree	Agree	Disagree	Strongly Disagree
Current Students (n = 58)	5.2%	20.7%	43.1%	31%
Graduates (n = 39)	5.1%	7.7%	48.7%	38.5%
Nonpersistent Students (n = 17)	11.8%	29.4%	29.4%	29.4%

Table 27 shows that the majority of current students (74.1%), graduates (87.2%), and previous nonpersistent students (58.8%) disagreed or strongly disagreed that they were not efficient in the use of study time while in the nursing program.

Table 28. *Statement 14: Lonesomeness is (was) a problem for me while in nursing school.*

Participant Type	Strongly Agree	Agree	Disagree	Strongly Disagree
Current Students (n = 58)	0	31%	41.4%	25.9%
Graduates (n = 39)	5.1%	5.1%	35.9%	51.3%
Nonpersistent Students (n = 17)	17.6%	11.8%	41.2%	23.5%

Table 28 displays that the majority of current students (67.3%), graduates (87.2%), and previous nonpersistent students (64.7%) disagreed or strongly disagreed that lonesomeness was a problem for them in nursing school.

Table 29. *Statement 21: My family is (was) supportive of my attending the nursing program at MSU-Northern.*

Participant Type	Strongly Agree	Agree	Disagree	Strongly Disagree
Current Students (n = 58)	72.4%	24.1%	1.7%	1.7%
Graduates (n = 39)	79.5%	20.5%	0	0
Nonpersistent Students (n = 17)	58.8%	35.3%	5.9%	0

Table 29 shows that the majority of current students (96.5%), graduates (100%), and previous nonpersistent students (94.1%) strongly agreed or agreed that their family was supportive of their attending the nursing program at MSU-Northern.

Table 30. *Statement 22: My significant other is (was) supportive of my attending the nursing program at MSU-Northern.*

Participant Type	Strongly Agree	Agree	Disagree	Strongly Disagree
Current Students (n = 58)	62.1%	10.3%	3.4%	1.7%
Graduates (n = 39)	61.5%	10.3%	10.3%	2.6%
Nonpersistent Students (n = 17)	41.2%	29.4%	0	5.9%

Table 30 shows that the majority of current students (72.4%), graduates (71.8%), and previous nonpersistent students (70.6%) either strongly agreed or agreed that their significant other was supportive of their attending the nursing program at MSU-Northern.

Table 31. Question 30: What was your cumulative grade point average when admitted to the nursing program?

Participant Type	3.50-4.00	3.00-3.49	2.50-2.99	Do not recall
Current Students (n = 58)	33%	36%	16%	16%
Graduates (n = 39)	33%	36%	15%	15%
Nonpersistent Students (n = 17)	24%	24%	18%	35%

Table 31 displays that nonpersistent students had the lower grade point averages, and 35% of respondents in this category did not recall their cumulative grade point average.

Table 32. Question 31: Which of the following describes where you reside(d) while attending nursing school?

Participant Type	Campus housing	Parents' home	Off campus, not with parents
Current Students (n = 55)	7%	5%	82%
Graduates (n = 38)	3%	8%	84%
Nonpersistent Students (n = 17)	6%	11%	82%

Table 32 shows that the majority of participants in this study lived off campus and not with their parents.

Table 33. *Question 32: How many minor dependents are (were) you responsible for while attending nursing school?*

Participant Type	0	1-2	3-5	More than 5
Current Students (n = 58)	50%	33%	16%	1%
Graduates (n = 39)	38%	46%	15%	0
Nonpersistent Students (n = 17)	59%	24%	18%	0

Table 33 shows that current students (50%), graduates (61%), and previous nonpersistent students (42%) had at least one dependent that they were responsible for while attending nursing school.

Table 34. *Question 33: How many hours per week do (did) you work for pay (on average) while in nursing school?*

Participant Type	0	1-10	11-20	More than 20
Current Students (n = 57)	44%	13%	23%	21%
Graduates (n = 39)	37%	23%	28%	13%
Nonpersistent Students (n = 17)	24%	6%	29%	41%



Table 34 displays that current students (44%), graduates (41%), and previous nonpersistent students (70%) worked more than eleven hours per week (on average) when in nursing school.

Table 35. *Question 34: How do (did) you finance your attendance at nursing school?*

Participant Type	Loans	Grants/ scholarships	Loans/grants and scholarships	I did not receive financial aid
Current Students (n = 56)	36%	9%	50%	5%
Graduates (n = 39)	33%	5%	54%	8%
Nonpersistent Students (n = 17)	41%	18%	35%	6%

Table 35 reveals that few participants financed their own education. Over 90% of all categories of participants depended on loans, grants, and/or scholarships to attend nursing school.

#### Personal Factors Contributing to Success: Qualitative Findings

Twenty-four students were interviewed to obtain qualitative findings. Eight current students, 8 graduates, and 8 previous nonpersistent students participated in these interviews. The participants reported personal factors that helped them be successful in the nursing program at MSU-Northern. Four personal factors emerged as themes in

contributing to their success in the nursing program: determination and commitment, support from family, realization of rigor, and positive self-esteem.

### Theme 1: Determination and Commitment

According to 15 current students and graduates of the program, the major personal factors that contribute to success are determination, desire, dedication, commitment, and motivation. Students and graduates repeatedly stated that they would not have been able to complete the program without the strong desire and motivation to be nurses. Many stated that becoming a nurse was a goal that they had had for many years. “It was a goal I had ever since I was a young girl, and I was absolutely determined to be a nurse. I also had a lot of support from my family.” One graduate stated that “determination, focus, and placing nursing school and studying first in [her] life while attending school” was her major reason for being successful. One current student commented, “I never allowed failure to be an option” and “My goal was to try to learn something every day. I worked on this goal every day. I was determined, and I had to have discipline.”

One graduate described her life situation and how setbacks caused her to be more determined. When asked what caused her to be successful, she said,

Just flat determination to get this degree. I was determined, and I had a lot of setbacks along the way, and they just made me more determined. I had five kids, I was working in a bar and getting divorced. I was scared because I was out of school for 30 years, but determination was what did it for me. Also a positive attitude. My kids say that “Mom, your life is like a big chess game; you never think you are going to lose.” So if I am not falling off the board then life is good.

## Theme 2: Support From Family

Fourteen participants stated that supportive relationships with family contributed to their success. Many discussed these relationships in the same breath or at least in the same sentence as the “determination and commitment” theme. Many students quickly stated that family support was also a very important aspect of their success. One graduate stated, “My mother was a wonderful support system by helping me with my child. Everything in my life was put after nursing school which was hard with being a single parent, but it was worth it.” Another graduate stated, “My family has been the biggest reason and possibly the only reason for my success.” One graduate described how her children helped her so she could have more time for studying: “My own kids were exceptional; they pitched right in and helped me with housework, and they did not care about cobwebs in the corners.”

Another graduate described how other nurses in her family encouraged her by telling her she would succeed.

I stayed with my mother and stepfather who let me stay with them in Great Falls. I also have a family of nurses who helped me a lot. My sister and a sister-in-law are nurses, and sometimes I used them as far as concerns about care plans, but mostly I used them to encourage me—they would encourage me to continue and tell me that I could do this.

One graduate was discouraged by a former family member but stated that talking to her children about her reason for going to nursing school helped them understand: “My kids were very supportive, but my ex-husband said I was too dumb to be able to do it. My kids were neglected when I went to school, but they knew why I was doing it, and we

were really close and talked a lot about why I went to school. I never felt guilty—I was doing this for them too.”

### Theme 3: Realization of Rigor

Participants believed that the realization that the program was difficult was an important factor in obtaining success. Six current students and graduates stated that being older, more mature, and being prepared and ready to work hard contributed to their success. “I was a little more mature. You understand that you need to set goals, and you work harder to achieve those goals. When you are younger, you do not see beyond the moment. Something goes wrong and it affects you so that you do not continue.”

Another graduate reflected upon the advantages of being older and being a nursing student. “I think older students have some advantages when they come to nursing school. They have had more life experiences, and many have raised kids. This certainly helps as far as doing the pediatrics and obstetrics rotations—and the psychiatric course too. Some of the younger students were scared of the little kids.” One student compared the nursing program with the rigor and work requirements of students she knew who were in other academic programs: “The body of knowledge [in nursing] is so great; there are other programs where you can bullshit your way through, but nursing is not one of them.” One student stated that “willingness to accept how strenuous the program was and willingness to put school before everything else” was responsible for her success. Another statement from a graduate was that “being older and understanding that hard work does not come without sacrifices” contributed to her success.

Sacrifices were made by students. One current student realized that she had to give up her job in order to increase her chances of being successful in the program.

It is not a question of if I can cram it in the night before a test—as you progress in the program, putting in the time becomes even more important. I studied everyday, especially in the last year, and I worked full time until October of the last year. I had hoped to work full time through out the program but discovered that I would be more successful and a better nurse if I quit working and studied full time. Every one of the students in my study group came to the same conclusion as I did, and we came to the same realization that we could not keep working as much. In order to complete this program, you have to be willing to put in long hours of study, long hours away from family, and long hours away from things you enjoy. If you have not committed to the goals of passing, then you might as well not do it.

#### Theme 4: Positive Self-Esteem

Having confidence in oneself and a positive self-esteem was seen as a factor that contributed to success by six of those who were interviewed. Two students attributed their success to confidence they attained during previous life experiences. “I was confident. I had been through another college program and it was also a tough program so I was confident that I could succeed.” Another stated, “I have a lot of confidence in myself. I feel confident in my ability, and I feel that my CNA experience has helped me to be more confident in my abilities.”

Two graduates discussed how their confidence increased while in the nursing program. One said, “I was confident in my ability to complete the program, and this program has helped me to gain a lot of confidence.” The second stated,

I loved nursing school. I knew I would succeed because I am not a minimum wage kid. During clinical there were times that I was not confident. When I gave my first injection the needle bounced right off the patient, but my instructor was great and said, “Do not worry about it, just push harder next time.” I have now given a million shots.

One current student discussed the perils of having excess confidence. “If you do not have faith in yourself, it will not work. But being overly confident is not a good thing either—but I do not see anyone in this program who is overly confident and passing.”

### Personal Factors Resulting in Students Leaving the Nursing Program

Students who left the nursing program at MSU-Northern had numerous reasons for doing so. Of the 24 participants who were interviewed, 8 nonpersistent students had dropped out of the program. Eight current students and 8 graduates were also interviewed and asked why they thought students had left the program. Five themes emerged from the interviews: inability to pass the examinations, personal and family illness, lack of commitment, external responsibilities, and lack of support. In addition to these themes, one student made another noteworthy comment: She believed that some students left the nursing program because they had problems dealing with sickness and death, stating that “the emotional aspect of nursing can be very intimidating.”

#### Theme 1: Inability to Pass the Examinations

The most frequent reason cited for leaving the nursing program was academic difficulty and problems passing the examinations. Six students who dropped out of the nursing program said they were getting poor grades on examinations. One former student stated, “My reasons for leaving nursing school were that my test scores were less than 75%. I was not used to being in nursing school and all the discipline that went with it.

No one really prepared us for how hard nursing school really is.” Another nonpersistent student said, “I did not obtain an average of 75% in NURS 250. I also had problems with the math for meds test and did not pass it. I was under a lot of stress and do not think the instructor prepared us for the examinations.”

One former student described how college was different from high school. “In high school, I was able to get away with a lot because I was bright and could cram the night before and be successful. I am a procrastinator, and it has got me into trouble. I found out that I could not get away with cramming at the last minute.”

Another former student dropped out before she earned a failing grade: “The reason I dropped out is because I knew I was going to get an ‘unsatisfactory.’ I did not want to ask for help. This is what I did; I felt I should not be granted any special privileges; I was putting around and my time management was really poor.”

### Theme 2: Personal and Family Illness

Three former nonpersistent students who were interviewed left because of serious illness in the family. One student left after her husband was diagnosed with cancer: “He was diagnosed in November and died in May. I needed to take care of him, and it was all consuming. I just could not come back to the nursing program. I thought about it, but it was just not to be.” Another student withdrew from the nursing program as her ability to concentrate suffered after her father became seriously ill:

My father became ill and I thought he was going to die. He was in the hospital in Billings for many days, and I had to be with him. I could not even give 50% of my energies to school—I started out OK, before he got sick, but with all I had going on, I could not concentrate, and I started to do poorly on my tests. I finally

decided to withdraw so I would not fail. I was drained and had no motivation for school; I was just drained.

Another former student stated that she suffered from depression and found that she could not successfully pass her nursing exams. “Depression was a problem for me—I would read my books for hours and then not know what I had read when I was done. I couldn’t sleep. I would only get 2 or 3 hours of sleep, and it was hard to concentrate.”

One student dropped out of the program after her mother-in-law was diagnosed with a serious illness. “My mother-in-law was diagnosed with a terminal disease and she was dying, which made it hard for me. I had things going on. It was just so much.”

### Theme 3: Lack of Commitment

Current students, graduates, and nonpersistent students were asked what they perceived as reasons that students left the program, and 6 participants believed that it involved a lack of commitment or lack of a desire to be a nurse. One graduate said, “We lost students academically because they just did not think they had to study as hard as they needed to. They seemed to have a lack of commitment to the program.” A current student agreed, “Students drop out because the program is hard; you cannot have any fun; you really have to be motivated and want to be a nurse. You need to remember everything you learned in level 1 and in anatomy and physiology and microbiology.” One current student stated that succeeding is a matter of “how much...I want to commit myself to this program.” She added, “Students have a responsibility to be prepared for class—if they are not, then they may not pass.”



One former student who did not persist in the program admitted, “I knew I had to study but I had different priorities.” Another former student changed her mind about becoming a nurse after being admitted into the program and attending classes for half a semester. “I do not think it [nursing] was a good fit for me. I was overwhelmed and not ready to move forward with the demands of being a nursing student.”

One nonpersistent student was very thoughtful as she reflected on her experience as a nursing student and discussed what she would change when she entered the program again in the future:

People just do not put the time and energy into studying. Some people put the program as the second in priority, not the first. That is how I was when I was in the program. I said, I will get to the studying when I can, and did not make it a priority. When I get into the program again, I need to remember that it is only 2 years out of my life to be in the nursing program, and my kids will not say to me when they are 18 years old that I did not spend any time with them when they were 4 years old. I am thinking differently now. I will need to sacrifice because I will be studying, but there will always be a powwow or a family reunion next year. I am not going to miss out of the rest of my life because I spent 2 years studying my nursing.

#### Theme 4: External Responsibilities

Another reason for leaving the nursing program was parental responsibilities. One student who left the program stated, “I had an 8-month-old baby who I was not spending enough time with.” Another stated, “I felt as though I was spending too much time away from my family, and caring for my three children impinged on my study time. I missed a lot of their school functions.... It was very hard for me.”

Work responsibilities were a factor in one student’s leaving the nursing program. She said that she “was overwhelmed and too tired to study after working.” One of the

graduates had concerns about students who worked and tried to go to nursing school. “Some people cannot support themselves without working. It is hard to work and to study. In nursing you have to make the nursing program your life, and if your life is working, then you will not be successful.” One of the current students tried to help another student who was not able to keep up with the studying and reading because of other responsibilities. “I was a tutor, and when I was trying to tutor one person, she said her spouse was working and the baby needed her. So she couldn’t study. I told her not to ‘waste your money if you cannot even read your book.’ ”

#### Theme 5: Lack of Support

For some students, a lack of support from family may taken the form of not having adequate financial resources. Few students discussed their own lack of financial resources; however, current students, graduates, and nonpersistent students did discuss their concerns about their peers’ financial issues. A current student discussed a peer who could not get adequate financial aid to assist her in paying for school:

I feel bad for the younger student who is under 25. They get a small student loan and perhaps a grant. Some of the students cannot get their parents to fill out the student loan forms for them and they cannot get any money. I can get all the financial aid I want because I am an adult with dependents. I ended up in a good situation. For example, [another student] still is under her parents and they make too much money, yet they do not finance any of her education. It is tough! She worked two jobs during her first year. The stress of having to work and not having money to live on is very stressful.

Personal relationship issues contributed to decisions to leave the program for two former students. “I went through a divorce and developed serious problems with my concentration. I could not retain the information that I read until the exams, and

ultimately I failed the exams.” Another former student who was interviewed commented about her husband’s lack of support: “He did have a hard time adjusting to my going to school. He asked me why I was doing this, and I told him I wanted a better life for our children and to be more financially secure.” She continued, “Sometimes it was hard to study at home because my husband told me I was making too much noise.... Yes, just because I was typing on the computer. He could hear the typing and it bothered him.”

Two of the students who left the nursing program felt that they were not accepted by their peers. “I felt like I did not belong. There was no study group that I could participate in. I had no information on how to get help.” Another said, “I had no friends. I did not know my classmates, and I felt like I was an outsider. No one was helpful. Neither the students or the faculty would help me.”

Two former students wished that their faculty had been easier to approach. “I did not feel like I knew the faculty. They did not try to get to know me and I did not try to get to know them.” Another stated, “I always felt awkward asking faculty for help and to stop and explain things because I did not understand; I did not want the class to get behind because of me.” One current student also alluded to the fact that she desired more support from the faculty: “Sometimes I was afraid to ask questions because I thought that the instructor would think that I should know the material. I made it more stressful for myself than I needed to.”

### Summary of Quantitative and Qualitative Personal Factors

The responses on the questionnaires and the themes that emerged from the interviews revealed areas of agreement between the quantitative and the qualitative findings.

Nearly all current students and graduates proclaimed commitment to the goal of becoming a registered nurse as helping them become successful. This finding agrees with the personal factor of “determination and commitment” being a major factor leading to success. Seventy percent of nonpersistent students gave a higher priority to studying than to anything else, compared to 87% of graduates and 77% of current students. This indicates congruency with the theme of determination and commitment being a major personal factor that leads to success in the nursing program.

Regarding support from family, over 90% of all categories of participants stated that their family was supportive. This is in agreement with the qualitative theme that the “support of family” was instrumental in student success.

Confidence appears to be a personal factor that plays a part in being successful, as the majority of participants agreed they were confident in their ability to complete the nursing program. Nonpersistent students had less confidence in their ability to complete the program when compared to current students and graduates. Confidence and positive self-esteem emerged as a theme which helps nursing students succeed.

Inability to pass nursing examinations was another theme that emerged when students were asked why they left the program. This finding supports the quantitative

finding that 58.8% of previous nonpersistent students stated that they did not function well during nursing tests.

One area is not congruent between the quantitative and qualitative findings: the age of the student as it relates to persistence. The survey showed that a greater percentage of current students and graduates were under age 25 than were those in the nonpersistent category. However, respondents in the qualitative part of the study perceived that maturity in realizing rigor and requirements of the program was an important aspect of persisting to graduation.

Seventy percent of nonpersistent students worked more than 11 hours per week on average, which supports the theme that “external responsibilities” contribute to students leaving the program. However, more current students and graduates had at least one dependent that they were responsible for while attending nursing school, according to the responses on the questionnaires. This finding does not concur with the theme that “external responsibilities” contribute to students leaving the nursing program.

### Participants’ Recommendations

The researcher requested that the participants provide recommendations for improving the chances of student success in the ASN nursing program at MSU-Northern. Four themes emerged from the interviews: Prepare students, increase program requirements, increase admission requirements, and support students.

Participants felt that some students had no idea how hard they would have to work or how many hours were required to be successful in the nursing program. The first

theme that emerged was that prospective students need to be informed about the program requirements.

### Theme 1: Prepare Students

Thirteen participants who were interviewed recommended that students need to understand what they are “getting into.” One graduate recommended, “Students need to know that nursing is not cute or fun—it is hard work—and that they will need to study hard. They need to know what they are getting into. If you could change the perception that nursing is easy, then it would help to decrease the drop-out rate.” Another graduate stated, “Some students do not know what they are getting into when they start the nursing program. We have a lot of responsibility, and it is hard. They need to know this up front.” Five current students and graduates stated that many of the students did not know what they were getting into when they started the nursing program and did not realize the rigors of the program. They believed that students should be better prepared and informed of all the requirements, especially concerning how much time is required for studying, writing care plans, and doing the clinical hours. “Students need to know that it isn’t going to be easy, but that it is very worth it.”

One graduate stated that students seem to have an unrealistic view of what nursing really is: “You do not learn about nursing from watching ER on television. It sounds glamorous, and you hear advertisements about traveling nurses making \$50.00 an hour, but they do not realize what the actual patient care is like.”

Another current student said that students need to know that they cannot be great partiers or socializers. “I never hung out with students. I did not see any successful

nursing students who were partying. I am not saying that did not go on, but I never saw it. Other students have fun and do OK in their programs of study, but you need to tell new students that it does not happen in the nursing program.”

One current student gave the researcher this piece of advice: “Tell students during orientation not to be afraid but to work hard. Tell them that this is probably the hardest thing they have ever done, and they need to put in the time. It is not difficult if you put in the time—night after night, after night after night after night. Tell them to read, read, read.”

Another subtheme concerning what students need to know before starting the program concerns coping with parental responsibilities. Students believed the researcher should talk to students about parental guilt they may experience over spending so many hours studying while in nursing school and not giving enough time to their children. Students believe that the program should also provide support to students who experience parental guilt. A graduate of the program said, “There was nothing better that I could do for my kids. It set a good example and taught them that education is important. They all love to tell people that their mom is a nurse.” A current student stated, “I gave up a lot for this program, particularly when it concerned my kids. I have missed a lot of the kids’ activities when I need to be studying. It has caused me a lot of guilt.” Another current student who felt his children were neglected by him stated, “If there is anything that I regret, it is lost time with my daughters, and I do not know if it is a positive thing. I lost a lot of Dad time. I know there is a mountain of material to cover, but it is a lot to expect

people to give as much as they have had to give in his program. I hope that I can make it up to my kids.”

Two students also talked about the stress of going to nursing school. One recommended to “decrease stress as much as possible. Stress and anxiety [were] so great at times. I was going to quit, but I was lucky and always had someone to talk to who encouraged me to just suck it up.”

Sometimes nursing students attend nursing school in order to please someone else. One nonpersistent student stated, “My family was pushing me to be a nurse—my mom and my dad. My parents have college degrees and they really pushed me; they said that I was going to get my nursing degree no matter what.” Another said, “I should not have been there to begin with. I did not have an accurate perception of what nursing really is about.”

### Theme 2: Increase Program Requirements

Five of the participants who were interviewed stated that the first year of the nursing program did not do a good job of preparing students for the second year of the nursing program. One current student stated, “I would like to see the first year as tough or tougher than the second year. It is almost unfair to get into your second year and then fail.” Another current student said that “it is a shock to go to the second year. I think that if the first year would have been tougher, students would either gain more and be successful or would have dropped out then.” One of the graduates concurred, “Level 1 was probably too easy and it should be tougher. Level 1 was a breeze, and then in level 2 we were slammed. Level 1 did not prepare us for level 2.”



Nursing students need to chart on their patients' medical records starting the second year of the nursing program. One current student suggests that students learn to chart during the first year.

We do not do nursing notes in the first year at all. We could get a pretend situation and this is what the nurse did and how you would chart this. It feels like we spent a lot of time in the first rotation of the second year just learning how to chart. If we knew how to chart, we would not have seven students standing around the instructor and the computer telling us how to chart. We could be taking care of our patients if we were not waiting to have our instructor help us to chart.

### Theme 3: Increase Admission Requirements

Nursing students may take other required courses such as anatomy and physiology, microbiology, and college algebra during the first year while taking nursing courses. Participants stated it would be helpful to complete these courses before starting the nursing program of study. Four participants discussed their perception that they should have all their course prerequisites completed before entering the nursing program. "I would have preferred to have my preliminary coursework—particularly anatomy and physiology—completed before entering the nursing program." Another current student said, "I found that I could work better when I only had nursing to worry about. It was more difficult when I had to worry about studying for chemistry also."

One graduate expressed frustration about not being able to take a course she felt she needed:

As the schedule was laid out, we were told that we could take anatomy and physiology, chemistry, written communication, and public speaking classes while taking level 1 nursing courses—so while in level 1, I was also taking anatomy and physiology and chemistry. This was an overwhelming load. Then an optional pharmacology class was offered to level 1 students. There was no way I could

take this class, so I graduated from nursing school with less pharmacology knowledge than my peers. It needs to be that all prerequisite courses are finished before entering level 1.

One nonpersistent student who left the program wished she had completed her anatomy and physiology courses before starting her nursing courses. “I was not academically prepared. I need to take it in more bite-sized pieces. I need to understand the material or I get frustrated. If I would have had anatomy and physiology the year before, I may have been OK.”

#### Theme 4: Support Students

All groups of students remarked about the difficulty of the nursing examinations and that they were “different” from other examinations they had taken in other courses. Five of the previous nonpersistent students who left the program believed that students should be tutored and receive help with study skills and test-taking skills. “I was struggling with the nursing tests because they were hard. I tried to analyze the tests, and I always read too much into them from my own previous experiences.” Another student described her feelings when taking the examinations: “I felt like a bomb just dropped on me every time I took a test. The first quiz I took really shook me up. I was just like ‘wow, what just happened?’ I felt completely unprepared.” Another former student considered the tests different: “It was so stressful—the tests were so much different than any tests I had ever taken before.”

One former student was very descriptive concerning her feelings when taking a test. “I felt like I was going to throw up every time I took a test.... We need consistency.

I need to learn how to retain information. I tried to retain the information, but it was hard.”

One former student also stated that she wished she had received help with study skills. “My study habits probably need to be refined. I have some problems concentrating and focusing. I let outside things influence me, and I was always in a hurry to get done with studying.”

Three nonpersistent students stated that faculty need to provide a more positive learning environment for students, saying, for instance, “It feels great when teachers are supportive and it is difficult to attend class every day and feel successful when an instructor is not supportive. Faculty should give positive reinforcement, and they should be specific about what we are doing well.” One student echoed the fact that some positive reinforcement makes a difference. “There needs to be more positive feedback from instructors. The student needs to feel that they really do matter and that the instructors want the students to talk to them. I did not feel comfortable talking to the instructors.”

One graduate talked about how important it is for faculty to be committed to educating nursing students. “Instructors need to have the will for their students to succeed, and not try to find ways for them to fail. It is a tough program and they need to know that they are doing well, not just what they need to do better.”

One former student emphasized that students become stressed when not supported by faculty and that this affects their ability to learn. “The faculty need to treat everyone

the same and not be biased. Faculty just could be more helpful. They need to realize that when a student feels threatened, they become stressed, and this inhibits their learning.”

#### Personal Factors: Faculty Perceptions

Five of nine faculty members replied to a survey requesting their perceptions concerning personal factors that cause student success in the nursing program. The survey also asked for faculty perceptions concerning why they thought students had left the nursing program. Findings supported many of the perceptions of the current students, graduates, and previous nonpersistent students. Personal factors that faculty perceive to increase student success include the student’s determination to become a nurse, student intelligence, and putting in the time to read and study. One faculty wrote, “The student needs to be willing to put in the study time that is necessary to succeed in the nursing program.”

One faculty stated that she believed that inadequate finances caused students to leave the nursing program, especially when students have to work to pay their bills. In addition, personal and family illness was seen as a personal factor or reason for students leaving the nursing program.

### Summary of Quantitative and Qualitative Recommendations

The responses on the questionnaires and the themes that emerged from the interviews revealed areas of agreement between the quantitative and the qualitative findings in this study.

One theme concerning a recommendation to help students be successful was to provide assistance with study skills and test-taking skills. In the quantitative phase, it was determined that a majority (58%) of nonpersistent students felt they did not function well during tests, while 32% of current students and 33% of graduates felt they did not function well during tests. The first theme that emerged when asking nonpersistent students their reasons for leaving the nursing program was “inability to pass the nursing tests.”

One finding from the quantitative data was that 70% of nonpersistent students agreed that they experienced difficulty coping with the stresses of attending nursing school. This is congruent with the qualitative findings recommending that the researcher prepare new students for the rigor and requirements of the nursing program.

More current students (86%) and graduates (89%) believed that they had adequate academic preparation to succeed in the nursing program at MSU-Northern than did nonpersistent students (58%). Recommendations of the participants included increasing academic preparation so that math and science courses are completed before entering the nursing program.

### Chapter Summary

The purpose of this mixed methods study was to discover and understand the program and personal factors that current students, graduates, and previous nonpersistent students in the associate of science in nursing program at MSU-Northern reported as helping them to persist to graduation. A secondary purpose was to explore program and personal factors that cause participants to view the program negatively and that contribute to nonpersistence in the program. The results of this study will be used to make recommendations for institution and program changes, such as providing additional support to students through such services as improved advising, counseling, tutoring, and/or other applications.

Chapter 4 presented the responses from 114 returned questionnaires describing program and personal factors that either helped students to persist in the nursing program at MSU-Northern or that caused them to view the program negatively. In addition, recommendations for the program were provided by current students, graduates, and nonpersistent students. Five faculty members returned an anonymous questionnaire which provided the researcher with factors that faculty believe lead to success in the program or nonpersistence in the program. Twenty one themes concerning program factors, personal factors, and recommendations made by current students, graduates, and nonpersistent students emerged from the 24 interviews.

Chapter 5 will present an overview of this mixed methods study and the answers to the research questions. A discussion of the findings, recommendations and suggestions for further research will also be presented.

## CHAPTER 5

### CONCLUSIONS

#### Introduction

The purpose of this mixed methods study was to discover and understand the program and personal factors that current students, graduates, and previous nonpersistent students in the associate of science in nursing program at MSU-Northern reported as helping them to persist to graduation. A secondary purpose was to explore program and personal factors that cause participants to view the nursing program negatively and that contribute to nonpersistence in the program. Understanding which factors lead to college students' dropping out of a program before graduation is valuable to faculty, administration, and policy makers. Strategies to enhance graduation rates can then be initiated to improve retention of nursing students.

#### Overview

The MSU-Northern nursing program has recently increased the required admission grade point average from 2.50 to 2.75. The program also requires a passing grade of C or above in high school or college algebra, biology, and chemistry. However, the problem continues that approximately 30% of students who are enrolled do not graduate. Because of the current nursing shortage in Montana and nationwide, and because of the higher cost of educating nursing students, administrators at MSU-Northern



seek to increase the graduation rate. The problem is that administrators need to know the program and personal factors that help and hinder students from persisting to graduation. Administrators can then use the results as a guide in making institution and program changes as well as in providing additional support to students through services such as improved advising, counseling, tutoring, and/or other applications.

Student and graduate perceptions concerning program variables such as faculty-student relationships, financial aid, student support services, academic integration, social integration, and the curriculum were investigated. Personal factors and demographic factors such as age, gender, commitment to the career goal, academic preparation, external responsibilities, confidence and self-esteem, support of family, minority status, residential status, and parental education level were also studied. This study provided information concerning program and personal factors that participants perceived to help them be successful or that resulted in nonpersistence in the ASN nursing program at MSU-Northern. This chapter presents the answers to the research questions, a comparison to the literature, a discussion of the results, recommendations, and suggestions for further research.

### Methods and Data Collection

A mixed methods approach was used to conduct this study, as thicker and richer information explaining college persistence can be found by using both quantitative and qualitative approaches. The quantitative portion of the study was achieved first through information obtained from a questionnaire. This was followed by the qualitative portion in which interviews were conducted. The research of Vincent Tinto (1975), Bean and

Metzner (1985), and Bean and Eaton (2000) provided the conceptual framework for this study. Concepts from the conceptual framework were utilized in the development of the questionnaire. This instrument requested the participants to provide answers to questions concerning program factors and personal factors they experienced during attendance in the nursing program. Demographic data were also requested.

The population consisted of 191 students who were admitted into the nursing program in 2002, 2003, and 2004. Questionnaires were returned from 114 respondents: 58 from current students, 39 from graduates, and 17 from previous nonpersistent students.

In the second phase of this study, 24 participants were interviewed for the qualitative portion. Those interviewed consisted of 8 current students, 8 graduates of the program, and 8 nonpersistent students who did not complete the program. During the interviews, the researcher asked participants to share information concerning both personal and program factors that resulted in their being successful in the program or that resulted in their leaving the program, and they were asked to provide program factors that they viewed negatively. In addition, all participants were asked to provide recommendations that the program could initiate to assist students to persist to graduation. All interviews were conducted in person except three, which were held over the telephone. The three phone interviews were not audiotaped, nor were two additional interviews, as the participants in these interviews preferred that the researcher not tape the conversation.

### Data Analysis

Data was entered into SPSS 11.5 for Windows, and descriptive information was generated and used to calculate percentages of students who agreed or disagreed with statements on the instrument. This data was presented in chapter 4. Tapes of the interviews were transcribed, coded, and categorized into related themes. The themes were developed and are also presented in chapter 4. In addition, some unique perspectives that were stated by participants were included.

### The Research Questions: Answered

#### Research Question # 1

Which program factors, reported by students, graduates, and faculty, have helped students be successful in the ASN program at MSU-Northern? The findings in this research show that faculty-student relationships, support from peer nursing students, and specific aspects of the nursing curriculum are important factors in students' being successful.

Current students and graduates said that the encouragement they received from faculty when their efforts were reinforced gave them the will and confidence needed to continue in the program. As one current student stated, "When the faculty don't care, it is hard."

Participants also believed that the support they received from their peers contributed to their success. Students form strong relationships as they spend hours

together during the time they are in the nursing program. Nonpersistent students did not seem as likely to develop strong friendships as did current students and graduates.

The participants of this study also perceived that certain components of the nursing curriculum led students to be successful in the nursing program. Current students and graduates believed that answering NCLEX questions each week during the second year of the program and taking frequent tests contributed to their test-taking skills and ultimately to passing the courses and the national licensure examination. Participants also believed that clinical experiences and caring for patients also helped them be successful.

#### Research Question # 2

Which personal factors, reported by students, graduates, and faculty, have helped students be successful in the ASN program at MSU-Northern? Current students and graduates reported that commitment to the goal of achieving a nursing degree, support from family members, maturity, and positive self esteem were personal factors that helped them be successful in the ASN program.

Participants in this study believed that the main reason they were successful in the program was that they had a strong desire to be a nurse. They used terms such as “determined” and “committed to completing the program” or “having motivation to succeed” and “being dedicated” to the achievement of their goals. Many participants simply stated that they really wanted to be nurses and had wanted to be nurses for a long time. Respondents to the questionnaires reported agreement that they were committed to their goals as well as agreement that they gave priority to studying, which indicates

determination and commitment. More current students and graduates than nonpersistent students stated that they gave a higher priority to studying than to anything else. Giving priority to studying also indicates commitment.

Participants reported that support from family was another major reason for their success. Family members helped with child care and provided money to help students buy books and pay for other expenses. Responses from the questionnaires also reflected the importance of this personal factor, as the majority of participants agreed that family were supportive of their attending nursing school.

Participants believed that being older, having more life experiences, and having responsibilities also results in persistence to graduation in the nursing program.

Finally, participants believed that feeling positive about one's own abilities contributes to persistence in the nursing program. The majority of students agreed that they were confident in their ability to complete the nursing program, according to responses to the questionnaires.

### Research Question # 3

What program factors have led nursing students to perceive the program negatively? Participants believed that some aspects of the nursing curriculum should be improved and that some faculty and nursing staff at the clinical facilities were not supportive of them.

Participants stated that the first year of the nursing program should have more rigor and it should better prepare students for the second year of the nursing program. They also believed that there should be more content and structured practice of nursing

skills in the nursing lab. In addition, participants expressed concerns about doing assignments the night before clinical. They stated that they do not learn when they are up at night preparing for clinical and ultimately may make decisions that are unsafe for patients when at clinical the next day.

Participants also expressed that having faculty who are not supportive of students and who do not encourage them causes the program to be perceived negatively. In addition, they believed that nonsupportive staff nurses caused them to feel unsupported and discouraged. This resulted in their perceiving the program in a negative fashion.

#### Research Question # 4

What personal factors have contributed to nursing students leaving the ASN program at MSU-Northern? Students drop out of the ASN program at MSU-Northern for many personal reasons and they include the inability to pass the nursing examinations, personal and family illness, lack of commitment, and lack of support from family, peers, and faculty.

In this study, the inability to pass the examinations was the most frequently stated factor resulting in students being nonpersistent. In addition, personal illness and family illness were also stated as factors resulting in nonpersistence for three students who left the program. Two students who were interviewed and who had made decisions to leave the program stated that nursing was not their goal any longer.

Some participants stated that a lack of support from family, peers, or faculty contributed to their decision to leave the program. Family members who did not provide financial assistance or sign financial aid forms contributed to some students' having to

work. Nonsupport of significant others was also stated to be a barrier to success by 2 of the 8 nonpersistent students who were interviewed. Significant others were not supportive in some cases by not encouraging study and by demanding time with the student who needed study time. Family support was considered to be an important part of being successful by those students who were interviewed. Some students who left the program also stated that they did not feel accepted by their peers or the faculty.

#### Research Question # 5

What recommendations do current students and graduates have for increasing students' chances of success in the ASN program at MSU-Northern? Participants provided several recommendations for increasing student chances of success in the nursing program. These included providing new students with more information concerning the realities of the program and increasing academic and preadmission requirements.

Participants felt that the nursing program administrator and the faculty should provide additional information about the program to new students during orientation. This information should consist of explanations about the rigor of the program and the hours involved in reading and preparing for clinical and for examinations. Students stated that they found the program stressful. Graduates stated that the program needs to prepare students to cope with the stress that is involved with nursing in general. While tests for significance were not conducted, students who did not persist seemed to perceive that they experienced more difficulty coping with the stress of attending nursing school

than current students or graduates did. It is recommended that the program help students with stress management.

Participants recommended that some aspects of the curriculum be strengthened—particularly nursing skills lab experiences, patient documentation or charting, and methods of teaching the math for meds content. Academic requirements were found to be a concern among participants who were interviewed. Graduates and current students recommended that the first year curriculum prepare students better for the second year.

Participants also suggested that the algebra course and the science courses should be completed before admission to the nursing program so that students can concentrate on the nursing courses.

#### Research Question # 6

What recommendations do previous nonpersistent students in the nursing program have for increasing chances of success in the ASN program at MSU-Northern?

Nonpersistent students stated that the nursing program should make more efforts to support students. Most of the students who left the program did so because of poor test grades, stating that they did not function well during nursing examinations and needed help with test-taking skills. Nonpersistent students also recommended that the program provide assistance with learning how to improve study skills. Participants desire that faculty be more supportive, encouraging, and helpful to students.



### Comparison to the Literature

The results of this study support many of the findings in the literature. Tinto (1975) stated that social integration and academic integration contribute to commitment to the institution and to persistence. Interactions that students have with faculty and with peers contribute to persistence. Napoli and Wortman (1998) stated that discipline-oriented study groups contribute to student satisfaction with their programs. Belonging to study groups that are focused on nursing content was also perceived by participants as being an important factor in succeeding in the nursing program. This study found that support from peers and faculty-student interactions also had an impact on persistence.

Hagedorn et al. (2002) found that students who could clearly state their career goals and were committed to achieving their goal were more likely to continue to graduation. Bean and Eaton (2000) expanded Tinto's integration model by adding to it motivation to succeed and self-efficacy. Bandura (1986) stated that confident, efficacious individuals are more likely to meet their goals. This study found that being committed to the program of study and being confident in one's own ability to succeed contributed to success. Determination and commitment were factors that participants said helped them be successful.

In this study, the majority of students who persisted had parents who had attended college. This finding agrees with Gerardi (1996), who found that students with parents who attended college had increased rates of graduation from college.

Belchier et al. (1998) found family support to be an important factor in the success in nontraditional-aged students, while Okun et al. (1996) found family and peer support to contribute to persistence. This study found that students perceived that family support contributed to success.

Several studies (Astin, 1975; Cabrera et al., 1992; Vorhees, 1985) found that financial aid has a positive effect on persistence. It was found that participants in this study used financial aid to assist them in paying for their education.

Napoli and Wortman (1998) found that students who worked and had family responsibilities had higher rates of attrition. In contrast, this study did not find that students with more children dropped out. However, nonpersistent students worked more than 11 hours per week.

One area that was not congruent with the findings in this study was the use of student support services. Moxley et al. (2001) stated that student services such as tutoring, mentoring, and counseling have a positive effect on student retention; however, the majority of students in this study did not participate in these services.

### Recommendations

The researcher makes the following recommendations based on the results of this study.

1. Develop a series of faculty development sessions concerning nursing student success and retention.

The study showed that supportive faculty are perceived by participants as helping students to become successful. Faculty need to be aware of the importance of student-faculty contact. Interactions between students and faculty are an important factor in helping students become successful and students stated that these interactions must be encouraged. Faculty should provide opportunities for students to interact with them outside of the classroom and they should brainstorm strategies for increasing student faculty interaction during a faculty meeting. Nursing faculty do not receive pedagogy and andragogy information in many of the graduate nursing programs that they attended and graduated from; therefore, information concerning teaching methods will be presented during the faculty development sessions. Chickering and Gamson's (1987) *Seven Principles for Good Practice in education* provides a guideline to faculty concerning the encouragement of contact between students and faculty. In order to ensure that this principle concerning faculty contact with students is adopted, faculty should meet with their students at least twice a semester and this strategy should be incorporated into the syllabus. Faculty should work closely with students on group projects, during clinical practicum's, and they should plan and attend social functions with the students—perhaps potlucks—as well as participating in fund-raising endeavors such as helping students at a bake sale.

The Department of Nursing at MSU-Northern has an evaluation plan which requires faculty to complete a survey concerning curricular issues, adequacy of teaching resources and clinical evaluation instruments every year. The nurse administrator will address student-faculty contact by including in this survey a question asking faculty to

state ways that they have incorporated student-faculty contact into the curriculum. In addition, the nursing administrator will request feedback from the nursing students to determine amount and quality of contact that they have with their faculty. As faculty evaluations are a negotiated item between the administration and the faculty, the researcher will discuss the importance of faculty student contact with union officials with the intention of adding it to student evaluation criteria.

2. Develop opportunities for nursing students to work together and socialize to foster peer support.

The majority of participants who were interviewed and over 90% of current students and graduates who completed questionnaires agreed that developing strong friendships with fellow nursing students is an important part of being successful. Only 65% of nonpersistent students agreed with the statement that they developed strong friendships with fellow nursing students. Students spend many hours with each other on the clinical floors, and they also spend time together doing group work and studying for tests. This togetherness serves as the basis for the “social integration” into the life of a nursing student. The nursing faculty should facilitate the formation of study groups and encourage students to eat lunches together during clinical practicum breaks and to assist each other with child care. In addition, the researcher will schedule more social gatherings in the future, with the goal of enhancing more social integration.

More nonpersistent students agreed that loneliness was a problem for them than did current students or graduates. This finding provides another reason for increasing opportunities for students to work together.

Academic integration will be encouraged by placing students into groups and assigning projects to enhance knowledge of nursing content. The nursing program faculty and staff should provide opportunities for students to study together by assigning group projects or group presentations, and students will be required to attend enrichment workshops offered by the faculty or other qualified people in the nursing profession. Enrichment workshops could consist of having a faculty member discuss a new policy implemented at the hospital or new equipment that the students may not be familiar with.

Faculty will also investigate the use of cohort groups in which students may attend the same clinical practicums through their years in the nursing program. A structured peer mentoring program should be initiated also, as participants perceived that peer support was an important factor leading to success in the nursing program. Peer mentoring would be accomplished by pairing up a second-year student with a first-year nursing student.

3. Revise the curriculum to include increased academic preparation and more structure in the nursing skills lab.

While more than 80% of current students and graduates agreed that they had had adequate academic preparation for the nursing program, only 59% of nonpersistent students agreed that they had sufficient academic preparation to succeed. Five of the current students and graduates who were interviewed stated that the first year of the nursing program did not prepare them well for the second year of the nursing program. Specific curricular changes, such as changes in program prerequisites should be presented to the Department of Nursing Curriculum Committee, and then changes presented to the

faculty for discussion concerning an implementation plan for these changes. Participants expressed a desire to have more of their coursework—especially science and math courses—completed before starting the nursing program.

Faculty should discuss some of the recommendations for curricular changes or areas needing more attention at faculty meetings and make decisions concerning changes in course content. This study indicated that specific areas of concern included the need for more experience with charting and more help with math for medication calculations. The structure of the nursing skill lab experiences should be improved by having faculty state lab objectives that students need to achieve while in the skills lab.

4. Provide student assistance in the areas of test-taking strategies, study skills, and stress management.

Five of the eight nonpersistent students who were interviewed stated that students would benefit from learning test taking strategies and study skills. These participants stated that assistance in these areas should be made available for all students by the faculty at the beginning of the nursing program so that these strategies can be implemented before students have problems in the courses.

More attention needs to be paid to students who are not passing their examinations. Fifty-nine per cent of nonpersistent students agreed that they did not function well during nursing examinations while only 33% of current students and graduates agreed that they did not function well during nursing examinations. Assistance with test-taking skills is important because students stated that nursing examinations are different from any other examinations they have taken—primarily because principles

learned are applied to the patient care setting on the examinations. Faculty write these examinations and are, therefore, the most logical persons to assist students with the particular test-taking skills required.

Seventy-one per cent of nonpersistent students agreed that they experienced difficulty coping with the stresses of attending nursing school and students stated that they require help in coping with the stresses of nursing school, and, in some cases, they need assistance dealing with the guilt they feel for spending so much time away from their children while they study. Faculty need to discuss the stress involved with nursing school as well as possible coping methods and information on where students can go for help. These discussions will occur during advising sessions and during scheduled faculty led workshops focused on “success in nursing”.

Information concerning note taking, identifying and focusing on important content in the chapters, and strategies for studying and reviewing in groups should also be presented in the classroom by faculty during the early weeks of the first semester.

5. Determine the reasons that students do not utilize student support services for counseling and tutoring.

Few students utilize the assistance that is available from student support services in the areas of tutoring and counseling. One way to determine reasons for this is to ask the students in informal conversations why they do not use student services. Faculty can do this when students begin to have difficulties in the program. This would be an opportune time to find out why their student support services are poorly utilized. Alternatively, or in addition, the nursing program administrator and nursing faculty can

also administer a survey to obtain this information. The nurse administrator must ensure that students are aware of the availability of these resources and also provide tutors who can assist with tutoring. In addition, the faculty will ask students about their reasons for not attending tutoring sessions. It may be that there is a scheduling conflict, or they may have a perception that tutoring is not going to be helpful to them.

Faculty should work with student support services and utilize a reporting system to assist students, wherein faculty refer students to obtain help with their courses. Faculty will need to have follow-up conversations with students and student support services personnel to evaluate progress.

The nursing program administrator will talk to the student support services administrators to determine student eligibility criteria for services and to arrange for a tutor with nursing knowledge as well as with study skills and stress management expertise.

6. Revise student orientation to include the realities of being a nursing student.

Thirteen participants who were interviewed stated that students need to know what they are getting into and they need to know how hard the nursing program is. Current student and graduates believed that students who do not succeed are not aware of the hours of study time and level of commitment that are required to be successful in the nursing program. They feel that the requirements of nursing school need to be addressed with the students early in the program. It will be beneficial for current students to participate in the orientation process by being available to answer questions. A panel of current students should discuss factors that have helped them be successful, and they



could share information concerning where students can go to obtain help if needed. In addition, students need to be aware that holding a job while in the nursing program may decrease persistence in the program.

7. Investigate the possibility of an alternate curriculum to assist students who are struggling in the nursing program.

The option of part-time study may assist students who need to work so that more time and energy would be available to study and read. Students will be informed about this possibility at the beginning of the program, and they should be informed that students who have to work seem to have less persistence in the program. Faculty may be aware of other avenues of study to help the student who is struggling and their suggestions will be discussed at a faculty meeting.

8. Collaborate with financial aid, the MSU-Northern Foundation, clinical facilities, and community groups to find additional funding for nursing students.

Of the participants in this study, 70% of nonpersistent students, 44% of current students, and 41% of graduates worked more than 11 hours per week. The researcher believes that financial issues cause these students to work in order to have adequate funds to pay their bills and their tuition. Students may have no energy for studying due to such external responsibilities. The nursing administrator will search for other mechanisms to help finance nursing education, perhaps through working with financial aid or community groups in hopes of obtaining some scholarship assistance. In addition, the MSU-Northern Foundation may be able to solicit funds from alumni for scholarships. The nursing administrator and faculty will explore grant opportunities to help students. Loan

pay-back opportunities will also be investigated, and this information will be shared with the students.

9. Share concerns about nonsupportive staff nurses with nursing administration at the facilities where students do their clinicals. Participants in this study stated concern about the way some staff nurses treated them. The nursing faculty and administrator need to be aware of the way staff nurses are interacting with students, and strategies will be developed to help students cope with nonsupportive attitudes and behaviors of the staff nurses. The nursing faculty should assist students in dealing with this lack of support and help students develop ways of responding. Faculty should assist students in dealing with conflict and ridicule from others. Students need to realize that they will encounter this behavior in clinical facilities from physicians, nurses, and patients. This is an unpleasant aspect of nursing, and the high stress associated with it affects those in the profession; nurses need to be taught that they should not accept ridicule in a personal way nor should they internalize it (or exhibit it themselves). In addition, the nursing director must discuss this concern with the nursing administration at the facilities where students do their clinical practicum. A reporting mechanism will be developed to inform the faculty and the administrator when this behavior arises so that faculty can assist with conflict resolution strategies.

10. Assist nursing faculty in developing competence in their role as faculty advisor.

This study revealed that 81% of current students, 61% of graduates and 41% of previous nonpersistent students agreed that their interactions with faculty had a positive effect on their professional growth. It is important that faculty advisors be able to do

more for their advisees than simply prescribe which courses they need to take or what action they should take if they have problems or concerns. Advisors must offer their presence and exhibit a caring approach toward nursing students and listen to them while showing a desire to assist them to succeed. Nursing faculty should be available to students during their posted office hours and have interactions offering encouragement as well as academic advice. To assist faculty to develop their role as advisors, an advising workshop will be held to share the importance of providing students with positive reinforcement, promoting positive self esteem and confidence in the student's own abilities. During faculty meetings, faculty will brainstorm strategies they can use when students are having problems in their courses or in their personal lives. Faculty also must realize that being good role models assists the students in their socialization process into the profession of nursing. Students' ability to grow professionally will then be aided through the advisement of competent, caring faculty advisors.

The nursing administrator will work with the union officials to facilitate the implementation of competent advising as a criteria used in promotion and tenure decisions.

11. Evaluate the effectiveness of increased faculty student contact and its impact on retention of nursing students in the associate of science in nursing program at MSU-Northern.

This evaluation will be done through the use of faculty surveys which request information concerning strategies used to increase faculty student contact. These surveys will be incorporated into the program evaluation plan. In addition, students will be

surveyed to determine their satisfaction with advising and faculty contact. This information will then be included in the reports to the State Board of Nursing and the National League for Nursing Accrediting Commission which are submitted on an annual basis. The Department of Nursing Evaluation Committee will determine the effectiveness of these strategies by evaluating changes in retention rates.

### Suggestions for Further Research

Suggestions for further research concerning persistence and nonpersistence of nursing students include the following:

1. Conduct research to learn more about reasons students do not persist. Seventeen nonpersistent students returned questionnaires for this study, and only 8 nonpersistent students were willing to be interviewed. These nonpersistent students left the program for a multitude of reasons, and better understanding of these reasons could be beneficial. It may be helpful for researchers to obtain information earlier in the program or at the time of student exits before graduation. In addition, it must be noted that 30% of nonpersistent students identified themselves as a member of a minority group. Although this group only consisted of 17 participants, continued monitoring will determine if this rate of nonpersistence among minority students continues, and then further action can be implemented if necessary.
2. Determine reasons that students do not utilize the services offered by student support services. It is possible that students perceive these services as not being helpful or

perhaps they believe they are not eligible to use them, or it may be that they do not have the time available in their schedules.

3. Conduct research to determine if students tend to leave the program during a specific course or at a specific time in the program. A quantitative design could be used to study grades in all required nursing courses to determine if differences exist in graduates and students who do not graduate.
4. Determine through research whether a part-time track, where students take fewer nursing credits per semester, could increase persistence to graduation.
5. Utilize quantitative methods to study the admission requirements of cumulative grade point average and its impact upon persistence and passing the NCLEX.

### Chapter Summary

The purpose of this mixed methods study was to discover and understand the program and personal factors that current students, graduates, and previous nonpersistent students in the associate of science in nursing program at MSU-Northern reported as helping them to persist to graduation. A secondary purpose was to explore program and personal factors that cause participants to view the nursing program negatively and that contribute to nonpersistence in the program. The results of this study will be used to assist administrators and advisors in helping nursing students at MSU-Northern to be successful and to achieve their goals of becoming registered nurses.

The findings of this study provided the researcher and the faculty with recommendations for increasing persistence of associate of science in nursing students at

MSU-Northern. Many variables that have been found in the literature to support student persistence to graduation were also found in this mixed methods study. Nursing programs are rigorous and it is important to assist students to become successful as early in the program as possible. There are many personal reasons for students leaving the program, and it is important to try to help each individual student before it is too late for him or her to remediate. Determining which students have study skills deficits or do not test well should be achieved early in the program so that time is available to help the student. Early interventions are especially important in two year associate degree programs as students in these programs do not have the luxury of time to remediate that may be available to students in a four year baccalaureate program.

This study emphasizes the fact that persistence in the associate of science program at MSU-Northern is a complex interaction of several factors. Although faculty and administrators cannot instill determination and motivation into the student nurse, faculty can encourage students to achieve their dreams while planning interventions in which faculty and students work together. In addition, faculty can promote student-student interactions, so they can also get to know each other and support each other.

As the director of the nursing program that was the focus of this study, the researcher has great interest in helping students be successful. The shortage of nurses requires that nursing schools assist students to be successful in their programs as this provides students with the opportunity to take and pass the NCLEX-RN and join the nursing work force. The health care system relies on nurses with knowledge to provide competent health care to the public.

After teaching in this ASN program for seventeen years, this researcher believed she had a good understanding of factors that cause students to be successful. The findings that determination or commitment to the goal of becoming a registered nurse was not surprising nor was the importance of faculty and peer support. However, the student perception that some of them feel they are inadequately prepared and that they believe that some of the prerequisite courses should be completed before they start the nursing courses provides the researcher with some ideas to improve the program. Even though test taking strategies and study skill information is provided, it will be provided to all students in a formal, structured manner. The researcher now anticipates that changes can be made based on evidence. Jeffreys (2004) discusses how faculty and administrator consensus that retention efforts are important will not make success and retention happen, but taking appropriate action today will influence what happens tomorrow.

Each nurse educator or future nurse educator is empowered to make a difference in the world of nursing education and in the lives of students. As active partners in the complex process of nursing student retention, nurse educators can continually seek to understand the dynamic and multidimensional process of nursing student retention, develop empirically and conceptually supported retention strategies, and make a positive difference (Jeffreys, 2004. p. 280).

The purpose of this chapter was to present an overview of this mixed methods study and to present the answers to the research questions as well as comparison to the literature, discussion, recommendations, and suggestions for further research.

## REFERENCES CITED

- Adelman, C. (1997, Oct. 22). Turn college "access" into "participation." *Education Week on the Web*. Retrieved August 4, 2005, from <http://www.edweek.org/ew/articles/1997/10/22/08adelh17>
- Aiken, N. D. (1982). Student performances, satisfaction and retention. *Journal of Higher Education*, 53(1), 32-50.
- Alten, M., Nunley, J., & Scott-Warner, M. (1988). Recruitment and retention of black students in baccalaureate nursing programs. *Journal of Nursing Education*, 27(4), 107-116.
- Alvarez, A., & Abriam-Yago, K. (1993). Mentoring undergraduate ethnic-minority students: A strategy for retention. *Journal of Nursing Education*, 32(5), 230-232.
- Amaro, D. J., Abriam-Yago, K., & Yoder, M. (2006). Perceived barriers for ethnically diverse students in nursing programs. *Journal of Nursing Education*, 45(7), 247-254.
- Arathuzik, D., & Aber, C. (1998). Factors associated with National Council Licensure Examination-Registered Nurse success. *Journal of Professional Nursing*, 14, 119-126.
- Asera, R. (1998). Supporting student persistence. *Black Issues in Higher Education*, 15(10), 104-105.
- Astin, A. W. (1975). *Preventing students from dropping out*. San Francisco: Jossey-Bass.
- Astin, A. W. (1984). Student involvement: A developmental theory for higher education. *Journal of College Student Personnel*, 25, 297-308.
- Astin, A. W. (1993). *What matters most in college: Four critical years revisited*. San Francisco: Jossey-Bass.
- Astin, A. W. (1997). How "good" is your institution's retention rate? *Research in Higher Education*, 38(6), 647-658.
- Attinasi, L.C. (1989). Getting in: Mexican Americans' perceptions of university attendance and the implications for freshman year persistence. *Journal of Higher Education*, 60, 247-77.



- Baker, R.W., & Siryk, B. (1989). *SACQ student adaptation to college questionnaire manual*. Los Angeles, CA: Western Psychological Services.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.
- Bandura, A. (1989). Regulation of cognitive processes through perceived self-efficacy. *Developmental Psychology*, 25(5), 729-735.
- Bank, B., Biddle, B., & Slayings, R. (1990). Effects of peer, faculty and parental influence on student persistence. *Sociology of Education*, 63, 208-225.
- Barkley, T., Rhodes, R., & DuFour, C. (1998). Predictors of success on the NCLEX-RN among baccalaureate nursing students. *Nursing and Health Care Perspectives*, 19(3), 132-140.
- Barney, S. (2002). The nursing shortage: Why is it happening? *Journal of Healthcare Management*, 47(3), 153-156.
- Bean, J. P. (1980). Dropouts and turnover: The synthesis and test of a causal model of student attrition. *Research in Higher Education*, 12, 155-187.
- Bean, J. P. (1983). The application of a model of turnover in work organizations to the student attrition process. *Review of Higher Education*, 12, 155-182.
- Bean, J. P. (1985). Interaction effects based on class level in an explanatory model of college student dropout syndrome. *American Educational Research Journal*, 22, 35-64.
- Bean, J. P., & Eaton, S. (2000). A psychological model of college student retention. In J.M. Braxton (Ed.), *Reworking the student departure puzzle (pp.48-61)*. Nashville, TN: Vanderbilt University Press.
- Bean, J. P., & Metzner, B. S. (1985). A conceptual model of nontraditional undergraduate student attrition. *Review of Educational Research*, 55(4), 485-508, 520-530.
- Beeson, S. A., & Kissling, G. (2001). Predicting success for baccalaureate graduates on the NCLEX-RN. *Journal of Professional Nursing*, 17(3), 121-127.
- Belcheir, M. J., & Michener, B. (1997). *Dimensions of retention: Findings from quantitative and qualitative approaches* (Report No. HE030868). Boise, ID: Boise State University Office of Institutional Assessment. (ERIC Document Reproduction Service No. ED414869)

- Belcheir, M.J., Michener, B., & Gray, N.L. (1998). *Who stays? Who leaves? Results from a qualitative freshman grades* (Report No. HEO31655). Boise, ID: Boise State University Office of Institutional Assessment. (ERIC Document Reproduction Service No. ED423807)
- Berger, J. B., & Milem, J. F. (1999). The role of student involvement and perceptions of integration in a causal model of student persistence. *Research in Higher Education, 40*(6), 641-664.
- Bers, T., & Smith, K. (1991). Persistence of community college students: The influence of student intent and academic social integration. *Research in Higher Education, 32*(5), 539-556.
- Beu, B. (2004). The nursing shortage and the Nurse Reinvestment Act. *AORN Journal, 79*(5), 1061-1063.
- Blanchfield, W. C. (1971). College dropout identification: A case study. *Journal of Experimental Education, 40*, 1-4.
- Bonham, L. A. & Luckie, J. A. (1993). Community college retention: Differentiating among stopouts, dropouts, and optouts. *Community College Journal of Research and Practice, 18*, 113-129.
- Bourne-Bowie, K. (2000). Retention depends on new models of student development. *Black Issues in Higher Education, 17*(13), 37.
- Bowen, H. (1980). *Adult learning, higher education, and the economics of unused capacity*. Princeton, NJ: College Entrance Examination Board.
- Braddock, J. H. (1981). Desegregation and Black student attrition. *Urban Education, 15*(4), 403-18.
- Braxton, J., Sullivan, A., & Johnson, R. (1997). Appraising Tinto's Theory of College Student Departure. In J. Smart (Ed.), *Higher education: Handbook of theory and research* (Vol. XII, pp. 435-465). New York: Agathon Press.
- Braxton, J., Milem, J., & Sullivan, A. (2000). The influence of active learning on the college student departure process: Toward a revision of Tinto's theory. *Journal of Higher Education, 75*(5), 569-590.
- Bray, N., Braxton, J., & Sullivan, A. (1999). The influence of stress related coping strategies on college student departure decisions. *Journal of College Student Development, 40*(6), 645-657.

- Byrd, G., Garza, C., & Nieswiadomy, R. (1999). Predictors of successful completion of a baccalaureate nursing program. *Nurse Educator*, 24(6), 33-37.
- Cabrera, A., Castaneda, M., Nora, A., & Hengstler, D. (1992). The convergence between two theories of college persistence. *Journal of Higher Education*, 63(2), 143-164.
- Cabrera, A., Nora, A., & Castaneda, M. (1992). The role of finances in the persistence process: A structural model. *Research in Higher Education*, 33(5), 571-593.
- Cabrera, A., Nora, A., & Castaneda, M. (1993). College persistence: Structural equations modeling test of an integrated model of student retention. *Journal of Higher Education*, 64(2), 123-140.
- Campbell, A. R., & Davis, S. M. (1996). Faculty commitment: Retaining minority nursing students in majority institutions. *Journal of Nursing Education*, 35(7), 298-303.
- Campbell, A. R., & Dickson, C. J. (1996). Predicting student success: A 10-year analysis. *Journal of Professional Nursing*, 12(1), 47-59.
- Cejda, B.D., & Rewey, K.L. (1998). The effect of academic factors on transfer student persistence and graduation: A community college to liberal arts college case study. *Community College Journal of Research and Practice*, 22, 675-686.
- Chickering, A. W., & Gamson, Z. F. (1987). Seven principles for good practice in undergraduate education. *American Association of Higher Education Bulletin*, pp. 3-7.
- Cohen, A. M., & Brawer, F. B. (1996). *The American community college*. San Francisco: Jossey-Bass.
- Creswell, J. W. (1998). *Qualitative inquiry and research design: Choosing among five traditions*. Thousand Oaks, CA: Sage.
- Creswell, J.W. (2003). *Research design: Qualitative, quantitative and mixed methods approaches (2<sup>nd</sup> ed.)*. Thousand Oaks, CA: Sage.
- Daley, L., Kirkpatrick, B., Frazier, S., Chung, M., & Moser, D. (2003). Predictors of NCLEX-RN success in a baccalaureate nursing program as a foundation for remediation. *Journal of Nursing Education*, 42(9), 390-396.
- Deary, I., Watson, R., & Hogsten, R. (2003). A longitudinal cohort study of burnout and attrition in nursing students. *Journal of Advanced Nursing*, 43(1), 71-81.

- DesJardins, S. L., Ahlburg, D. A., & McCall, B. P. (2002). A temporal investigation of factors related to timely degree completion. *Journal of Higher Education, 73*(5), 555-582.
- Digest of Educational Statistics (2004). *Table 311: Percentage distribution of enrollment and completion status of first time postsecondary students starting during the 1995-96 academic year, by type of institution and other student characteristics: 2001*. Retrieved January 28, 2006, from <http://nces.ed.gov/programs/digest/d04.html>
- Dorsey, L., & Baker, C. (2004). Mentoring undergraduate nursing students: Assessing the state of the science. *Nurse Educator, 29*(6), 260-265.
- Durkheim, E. (1951). *Suicide*. Glencoe, IL: The Free Press.
- Eddy, L., & Epeneter, B. (2002). The NCLEX experience: Qualitative interviews with graduates of a baccalaureate nursing program. *Journal of Nursing Education, 41*(6), 273-278.
- Elkins, S., Braxton, J., & James, G. (2000). Tinto's separation stage and its influence on first-semester college student persistence. *Research in Higher Education, 41*(2), 251-268.
- Fischbach, R. (1990). *Persistence among full-time students at Illinois Central College*. (ERIC Document Reproduction Service No. ED 325190)
- Gallagher, P., Bomba, C., & Crane, L. (2001). Using an admission exam to predict student success in an ADN program. *Nurse Educator, 26*(3), 132-135.
- Gay, L. R., & Airasian, P. (2000). *Educational research: Competencies for analysis and application* (6<sup>th</sup> ed.). Upper Saddle River, NJ: Merrill Prentice Hall.
- Gay, L. R., Miles, G. E., & Airasian, P. (2006). *Educational research: Competencies for analysis and application* (8<sup>th</sup> ed.). Upper Saddle River, NJ: Merrill Prentice Hall.
- Gerardi, S. (1996). *Factors which influence community college graduation*. New York: City University of New York, NYC Technical College. (ERIC Document Reproduction Service No. ED 398945)
- Gliner, J. A., & Morgan, G. A. (2001). *Research methods in applied settings: An integrated approach to design and analysis*. Mahwah, NJ: Lawrence Erlbaum.
- Glossup, C. (2001). Student nurse attrition from pre-registration courses: Investigating methodological issues. *Nurse Education Today, 21*, 170-180.

- Graham, S. W., & Hughes, J. C. (1994). Moving down the road: Community college students' academic performance at the university. *Community College Journal of Research and Practice*, 18, 449-464.
- Grant, R. E. (1986). Predicting academic success. In W.L. Holzheimer (Ed.), *Review of research in nursing education* (Vol. 1, pp. 93-106). New York: National League for Nursing.
- Grosset, J. (1991). Patterns of integration, commitment, and student characteristics and retention among younger and older students. *Research in Higher Education*, 32(2), 159-178.
- Grumet, B. R. (2005). *Message from the executive director: 2005 report to constituents*. New York: National League for Nursing Accrediting Commission.
- Hagedorn, L. S., Maxwell, W., & Hampton, P. (2002). Correlates of retention for African-American males in community colleges. *Journal of College Student Retention*, 3(3), 243-263.
- Hoover, J. J. & Jacobs, C. C. (1992). A survey of American Indian college students: Perceptions toward their study skill/college life. *Journal of American Indian Education*, 1(32), 21-29.
- Jalili-Grenier, F., & Chase, M. (1997). Retention of nursing students with English as a second language. *Journal of Advanced Nursing*, 25, 199-203.
- Janes, S. (1997, November). *Experiences of African-American baccalaureate nursing students examined through the lenses of Tinto's Student Retention Theory and Astin's Student Involvement Theory*. Paper presented at the Annual Association for the Study of Higher Education, Albuquerque, NM.
- Jeffreys, M. R. (1998). Predicting nontraditional student retention and academic achievement. *Nurse Educator*, 23(1), 42-48.
- Jeffreys, M. L. (2004). *Nursing student retention: Understanding the process and making a difference*. New York: Springer.
- Jencks, C., & Edlin, K. (1995). Do poor women have a right to bear children? *The American Prospect*, 20, 43-52.
- Lanni, J. (1997). *Modeling student outcomes: A longitudinal study*. Paper presented at the annual Forum of the Association for Institutional Research, Orlando, FL. (ERIC Document Reproduction Service No. ED 410870)

- Lederman, D. (1991). College athletes graduate at higher rate than other level 2 students but men's basketball players lag far behind, a survey finds. *Chronicle of Higher Education*, 37, 1.
- Leppel, K. (2001). The impact of major on college persistence among freshmen. *Higher Education*, 41, 327-342.
- Leslie, L., & Brinkman, P. (1988). *The economic value of higher education*. New York: Macmillan.
- Lewis, C., & Lewis, J. H. (2000). Predicting academic success of transfer nursing students. *Journal of Nursing Education*, 39, 234-236.
- Mallinckrodt, B. (1988). Student retention, social support, and dropout intention: Comparison of Black and White students. *Journal of College Student Development*, 29, 60-64.
- Manifold, C., & Rambur, B. (2001). Predictors of attrition in American Indian nursing students. *Journal of Nursing Education*, 40(6), 279-281.
- McPherson, M. (1993). How can we tell if financial aid is working? In M. S. McPherson, M. O. Schapiro, & G. C. Winston (Eds.), *Paying the piper: Productivity, incentives, and financing in U.S. higher education*. Ann Arbor: University of Michigan Press.
- Merriam, S. B. (1998). *Qualitative research and case study applications in education*. San Francisco: Jossey-Bass.
- Metzner, B. S., & Bean, J. P. (1987). The estimation of a conceptual model of nontraditional undergraduate student attrition. *Research in Higher Education*, 27(1), 15-38.
- Milem, J. F., & Berger, J. B. (1997). A modified model of college student persistence: The relationship between Astin's theory of involvement and Tinto's theory of student departure. *Journal of College Student Development*, 38(4), 387-400.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded Sourcebook* (2<sup>nd</sup> ed.). Thousand Oaks, CA: Sage.
- Mohammadi, J. (1994). *Exploring retention and attrition in a two-year public community college*. Martinsville, VA: Patrick Henry Community College, Institutional Planning and Research Information Services. (ERIC Document Reproduction Service No. ED 382257)

*Montana State University-Northern catalogue, 2004-2005.* MSU-Northern.

- Morris, J., Smith, A., & Cejda, B. (2003). Spiritual integration as a predictor of persistence at a Christian institute of higher education. *Christian Higher Education, 2*, 341-351.
- Moxley, D., Najor-Durack, A., & Dumbriague, C. (2001). *Keeping students in higher education: Successful practices and strategies for retention.* Sterling, VA: Stylus.
- Murphy, K., & Welch, F. (1993). Inequality and relative wages. *American Economic Review, 83*, 104-109.
- Napoli, A. R., & Wortman, P. M. (1996). A meta-analysis of the impact of academic and social integration of persistence of community college students. *Journal of Applied Research in the Community College, 4*(1), 5-21.
- Napoli, A. R., & Wortman, P. M. (1998). Psychosocial factors related to retention and early departure of two-year community college students. *Research in Higher Education, 39*(4), 419-455.
- Neisler, O. (1992). Access and retention strategies in higher education: An introductory overview. In M. Lang & C. Ford (Eds.), *Strategies for retaining minority students in higher education.* Springfield, IL: Charles C. Thomas.
- Nora, A. (1987). Determinants of retention among Chicano college students: A structural model. *Research in Higher Education, 36*, 31-59.
- Nora, A. (1990). Campus-based aid programs as determinants of retention among Hispanic community college students. *Journal of Higher Education, 61*(3), 312-328.
- Okun, M. A., Benin, M., & Brandt-Williams, A. (1996). Staying in college: Moderators of the relation between intention and institutional departure. *Journal of Higher Education, 67*(5), 577-596.
- Olivas, M. A. (1986). *Latino college students.* New York: Teachers College Press.
- Padilla, R., & Trevino, J. (1997). Developing local models of minority student success in college. *Journal of College Student Development, 38*(2), 125-135.
- Pascarella, E., & Chapman, D. (1983). Validation of a theoretical model of college withdrawal: Interaction effects in a multi-institutional sample. *Research in Higher Education, 19*(1), 25-48.

- Pascarella, E., & Terenzini, P. (1991). *How college affects students*. San Francisco: Jossey-Bass.
- Pearson, NCS. Survey Tool Kit (No Date). Sample size and confidence interval calculator; Retrieved on 11-16-06 at: <http://survey.pearsonnccs.com/sample-calc.htm>.
- Rendon, L. (1995) *Facilitating retention and transfer for first generation students in community colleges*. Paper presented at the New Mexico Institute, Rural Community College Initiative, Espanola, NM. (ERIC Document Reproduction Service NO. ED 383367)
- Rendon, L. (1996). Life on the border. *About Campus*, 1(5), 14-19.
- Risher, P., & Applebaum, S. (2002). What nurses say: National survey of registered nurses. *Nurse Week*. Mountain West: BPA International.
- Ross, B., Nice, A., May, F., & Billings, D. (1996). Assisting students at risk: Using computer NCLEX-RN review software. *Nurse Educator*, 21(2), 39-43.
- Sandiford, J.R., & Jackson, D.K. (2003, April). *Predictors of first semester attrition and their relation to retention of generic associate degree nursing students*. Paper presented at the Annual Meeting of the Council for the Study of Community Colleges, Dallas, TX.
- Siktberg, L., & Dillard, N. (2001). Assisting at-risk students in preparing for the NLEX-RN. *Nurse Educator*, 26(3), 150-153.
- Spady, W. G. (1970). Dropouts from higher education: An interdisciplinary review and synthesis. *Interchange*, 1, 64-85.
- Stage, A. (1999). Social and academic integration and college success: Similarities and differences as a function of ethnicity and family educational background. *College Student Journal*, 33(2), 198-205.
- Strauss, L. C., & Volkwein, J. F. (2004). Predictors of student commitment at two-year and four-year institutions. *Journal of Higher Education*, 75(2), 203-227.
- Summers, M. (2003). ERIC review: Attrition research at community colleges. *Community College Review*, 30(4), 64-85.
- Suskie, L. A. (1996). *Questionnaire survey research: What works* (2<sup>nd</sup> ed.). Tallahassee, FL: Florida State University, Association for Institutional Research.



- Swail, W., Redd, K., & Perna, L. (2003). *ASHE-ERIC higher education report: Retaining minority students in higher education* (Vol. 30, No. 2). Hoboken, NJ: Wiley Periodicals.
- Terenzini, P.T., Springer, L., Yeager, P.M., Pascarella, E.T., & Nora, A. (1996). First generation college student: Characteristics, experiences, and cognitive development. *Research in Higher Education*, 37(1), 1-23.
- Tierney, W. (1991). Native voices in academe. *Change*, 23(2), 36-44.
- Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research. *Review of Higher Education*, 63(6), 603-618.
- Tinto, V. (1982). Limits of theory and practice in student attrition. *Journal of Higher Education*, 53(6), 687-700.
- Tinto, V. (1987). *Leaving college: Rethinking the causes and cures of student attrition*. Chicago: University of Chicago Press.
- Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition* (2<sup>nd</sup> ed.). Chicago: University of Chicago Press.
- Tinto, V. (1997). Classrooms as communities: Exploring the educational character of student persistence. *Journal of Higher Education*, 68(6), 599-623.
- Tucker-Allen, S., & Long, E. (1999). *Recruitment and retention of minority nursing Students*. Lisle, IL: Tucker.
- Thomas, S. (2000). Ties that bind: A social network approach to understanding student integration and persistence. *Journal of Higher Education*, 75(5), 591-615.
- U.S. Department of Health and Human Services. (2002). *Projected supply, demand, and shortages of registered nurses: 2000-2020*. Washington, DC: Health Resources and Services Administration, Bureau of Health Professions, National Center for Health Workforce Analysis.
- Voorhees, R. A. (1985). Student finances and campus-based financial aid: A structural model analysis of the persistence of high need freshmen. *Research in Higher Education*, 22, 65-92.
- Voorhees, R. A. (1997). Student learning and cognitive development in the community college. In J. C. Smart (Ed.), *Higher education handbook of theory and research* (7<sup>th</sup> ed., pp. 313-370). New York: Agathon.

- Walter, K. (2000). *Staying or leaving: A multilevel approach to explaining variations in persistence rates among Christian college undergraduates*. Unpublished doctoral dissertation, University of Arizona, Tucson.
- Wilson, T. (1999). A student selection method and predictors of success in a graduate nursing program. *Journal of Nursing Education*, 38(4), 183-187.
- Windham, P. (1995). *The importance of work and other factors to attrition: A comparison of significance and odds ratios for different outcomes*. Paper presented at the Annual Conference of the Southeastern Association for Community College Research, Asheville, NC. (ERIC Document Reproduction Service No. ED 385312)
- Wolfe, N. (1998). *The impact of matriculation on students at City College of San Francisco*. San Francisco: City College of San Francisco Office of Matriculation and Assessment. (ERIC Document Reproduction Service No. ED 445744)
- Yin, T. & Burger, C. (2003). Predictors of NCLEX-RN success of associate degree nursing graduates. *Nurse Educator*, 28(5), 232-236.
- Yurkovich, E. E. (2001). Working with American Indians toward educational success. *Journal of Nursing Education*, 40(6), 259-269.
- Yates, P., Cunningham, J., Moyle, W., & Wolin, J. (1997). Mentorship in clinical education: Outcomes of a pilot program for first year students. *Nurse Educ Today*, 7(6), 508-514.
- Zhai, L. & Monzon, R. (2001). *Community college student retention: Student characteristics and withdrawal reasons*. (ERIC Document Reproduction Service No. ED473 676), U.S. Department of Education.
- Zhao, J. (1999). *Factors affecting academic outcomes of underprepared community college students*. Paper presented at the Annual Forum of the Association for Institutional Research, Seattle, WA. (ERIC Document Reproduction Service No. ED 433762).

APPENDICES

APPENDIX A

MSU-BOZEMAN REVIEW BOARD PERMISSION

## MSU-Bozeman Review Board Permission


**INSTITUTIONAL REVIEW BOARD**  
 For the Protection of Human Subjects

960 Technology Blvd. Room 127  
 c/o Veterinary Molecular Biology  
 Montana State University  
 Bozeman, MT 59718  
 Telephone: 406-994-6783  
 FAX: 406-994-4303  
 E-mail: cherylj@montana.edu

*Chair:* Mark Quinn  
 406-994-5721  
 mquinn@montana.edu  
*Administrator:*  
 Cheryl Johnson  
 406-994-6783  
 cherylj@montana.edu

**MEMORANDUM**

TO: Mary Pappas

FROM: Mark Quinn, Ph.D. Chair *Mark Quinn Ch.*  
 Institutional Review Board for the Protection of Human Subjects

DATE: April 11, 2006

SUBJECT: *The Nursing Student Experience: Student Perceptions Concerning Factors Leading to Success in an Associate of Science in Nursing Program at Montana State University-Northern*

The above research, described in your submission of April 3, 2006, is exempt from the requirement of review by the Institutional Review Board in accordance with the Code of Federal Regulations, Part 46, section 101. The specific paragraph which applies to your research is:

- (b)(1) Research conducted in established or commonly accepted educational settings, involving normal educational practices such as (i) research on regular and special education instructional strategies, or (ii) research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.
- (b)(2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability, or be damaging to the subjects' financial standing, employability, or reputation.
- (b)(3) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior that is not exempt under paragraph (b)(2) of this section, if: (i) the human subjects are elected or appointed public officials or candidates for public office; or (ii) federal statute(s) without exception that the confidentiality of the personally identifiable information will be maintained throughout the research and thereafter.
- (b)(4) Research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available, or if the information is recorded by the investigator in such a manner that the subjects cannot be identified, directly or through identifiers linked to the subjects.
- (b)(5) Research and demonstration projects, which are conducted by or subject to the approval of department or agency heads, and which are designed to study, evaluate, or otherwise examine: (i) public benefit or service programs; (ii) procedures for obtaining benefits or services under those programs; (iii) possible changes in or alternatives to those programs or procedures; or (iv) possible changes in methods or levels of payment for benefits or services under those programs.
- (b)(6) Taste and food quality evaluation and consumer acceptance studies, (i) if wholesome foods without additives are consumed, or (ii) if a food is consumed that contains a food ingredient at or below the level and for a use found to be safe, or agricultural chemical or environmental contaminant at or below the level found to be safe, by the FDA, or approved by the EPA, or the Food Safety and Inspection Service of the USDA.

Although review by the Institutional Review Board is not required for the above research, the Committee will be glad to review it. If you wish a review and committee approval, please submit 3 copies of the usual application form and it will be processed by expedited review.

APPENDIX B

LETTERS TO PARTICIPANTS

## Letter to Potential Participants

Date: < >

Address < >  
< >

Dear < >

I am conducting a research study to help determine reasons that some nursing students drop out of the Associate of Science nursing program at MSU-Northern while other students persist and achieve their goal of graduation. I would like to understand the rationale for program departure so that I can assist students in the program to be successful.

The first part of the study will require completion of a questionnaire that is included with this letter. Completion of the questionnaire and its return to me will constitute permission for your information to be used in the first part of this study.

The second part of this study will consist of interviews with current students, students who have graduated, and students who have dropped out of the nursing program. I will choose samples of students who are willing to participate in the research study by agreeing to an interview with me. If you are willing to be interviewed for this research project, please sign your name at the end of the questionnaire.

Information obtained from the questionnaire and from the interviews will remain confidential. Participants who chose to consent to be in the study can withdraw at any time.

Thank you for your consideration. If you have any questions concerning this research project, please contact me at 406-265-3748.

Sincerely:

Mary Pappas APRN, MS,

## Second Letter to Potential Participants

Date: &lt; &gt;

Name &lt; &gt;

Address &lt; &gt;

&lt; &gt;

Dear &lt; &gt;

I am asking for your help. I mailed you a questionnaire earlier this spring as I was attempting to determine reasons that some nursing students drop out of the Associate of Science in nursing program at MSU-Northern. I am doing this research as part of the requirements for my dissertation, in order to obtain my doctoral degree.

I have not received responses from everyone and I would like to have more graduates included in the findings. I am again requesting that you return this questionnaire in the enclosed self stamped and self addressed envelope. If you did return the questionnaire from the previous mailing, please do not send this one back to me as I have your information already.

Completion of the questionnaire and its return to me will constitute permission for your information to be used in this study. Information obtained from the questionnaire will remain confidential.

Thank you for your consideration and I really appreciate your help in this matter. If you have any questions concerning this research project, please contact me at 406-265-3748.

Sincerely:

Mary Pappas APRN, MS  
Doctoral student-MSU-Bozeman



APPENDIX C  
QUESTIONNAIRES

## Questionnaire for Current ASN Students at MSU-Northern

I am requesting your assistance in helping me understand factors leading to success in the nursing program at MSU-Northern. Your answers will remain anonymous. It will take you about 15 minutes to complete this questionnaire.

Please circle the one answer that best describes your experiences as a nursing student at MSU-Northern. After you have completed the questionnaire, return it to Mary Pappas, Director of Nursing. Completion of the questionnaire implies consent to participate in the study.

Please rate your level of agreement with the following factors using the following scale:						
<i>Strongly Agree</i>	<i>Agree</i>	<i>Disagree</i>	<i>Strongly Disagree</i>	<i>Not Applicable</i>		
<i>4</i>	<i>3</i>	<i>2</i>	<i>1</i>	<i>0</i>	<i>0</i>	
1.	I am satisfied with the clinical experiences in the nursing program.	4	3	2	1	0
2.	I am satisfied with the theory courses in the nursing program.	4	3	2	1	0
3.	My financial resources are adequate while attending nursing school at MSU-Northern.	4	3	2	1	0
4.	I am worried about expenses that are required to attend nursing school.	4	3	2	1	0
5.	I had sufficient academic preparation to succeed in the nursing program at MSU-Northern.	4	3	2	1	0
6.	I found the transition to college difficult.	4	3	2	1	0
7.	I wish I would have attended another nursing program.	4	3	2	1	0
8.	While in nursing school I give a higher priority to studying than anything else.	4	3	2	1	0
9.	I experience difficulty coping with the stresses of attending nursing school.	4	3	2	1	0
10.	I am confident in my ability to complete the nursing program at MSU-Northern.	4	3	2	1	0
11.	I am committed to the goal of becoming a registered nurse.	4	3	2	1	0
12.	I do not function well during nursing examinations.	4	3	2	1	0

- |  |   |   |   |   |   |
|--|---|---|---|---|---|
| 13. I am not efficient in the use of study time while I was in nursing school.                           | 4 | 3 | 2 | 1 | 0 |
| 14. Lonesomeness is a problem for me while in nursing school.  | 4 | 3 | 2 | 1 | 0 |
| 15. I have developed strong friendships with peer nursing students.                                      | 4 | 3 | 2 | 1 | 0 |
| 16. It is difficult for me to make friends with other nursing students.                                  | 4 | 3 | 2 | 1 | 0 |
| 17. I am able to interact with faculty outside of the classroom.   | 4 | 3 | 2 | 1 | 0 |
| 18. My interactions with the nursing faculty have a positive effect on my professional growth.           | 4 | 3 | 2 | 1 | 0 |
| 19. I take the initiative to contact faculty when I have questions concerning coursework.                | 4 | 3 | 2 | 1 | 0 |
| 20. I collaborate with other students in the classroom.  | 4 | 3 | 2 | 1 | 0 |
| 21. My family is supportive of my attending the nursing program at MSU-Northern                          | 4 | 3 | 2 | 1 | 0 |
| 22. My significant other is supportive of my attending the nursing program at MSU-Northern               | 4 | 3 | 2 | 1 | 0 |
| 23. Personal counseling by student support services has been helpful to me while in the nursing program. | 4 | 3 | 2 | 1 | 0 |
| 24. Tutoring by student support services has been helpful to me while in the nursing program.            | 4 | 3 | 2 | 1 | 0 |
| 25. What is your gender?   |   |   |   |   |   |
| a. Male  |   |   |   |   |   |
| b. Female  |   |   |   |   |   |
| 26. Which cultural group do you identify with?   |   |   |   |   |   |
| a. Caucasian   |   |   |   |   |   |
| b. Native American   |   |   |   |   |   |
| c. Black American  |   |   |   |   |   |
| d. Hispanic  |   |   |   |   |   |
| e. Asian   |   |   |   |   |   |
| f. Bi/multi racial   |   |   |   |   |   |
| 27. What was your age at the time you entered the nursing program at MSU-Northern?                       |   |   |   |   |   |
| a. less than 25 years  |   |   |   |   |   |
| b. 25-40   |   |   |   |   |   |
| c. 41-55   |   |   |   |   |   |
| d. over 55 years of age  |   |   |   |   |   |

28. What is your current marital status?
  - a. Married
  - b. Not married
29. What is the educational level of your parents?
  - a. neither parent completed high school
  - b. one or both parents completed high school
  - c. one parent completed some college
  - d. one or both parents completed college
  - e. one or both parents attended graduate school
30. What was your cumulative Grade Point Average when admitted to the nursing program?
  - a. 3.50-4.00
  - b. 3.00-3.49
  - c. 2.50-2.99
  - d. do not recall
31. Which of the following describes where you reside while attending nursing school?
  - a. MSU-Northern campus dormitory or family housing
  - b. Parent's home
  - c. Off-campus housing, other than with parents
32. How many minor dependants are you responsible for while attending nursing school?
  - a. 0
  - b. 1-2
  - c. 3-5
  - d. more than 5
33. How many hours per week do you work for pay (on average)?
  - a. 0
  - b. 1-10
  - c. 11-20
  - d. more than 20
34. How did you finance your attendance at nursing school?
  - a. Loans
  - b. Grants/scholarships
  - c. I did not receive financial aid
35. What are some personal factors that contribute to your success in the nursing program?
36. What are some program factors that contribute to your success in the nursing program?
37. What suggestions do you have for the institution that could result in your being more successful in the nursing program?

## Questionnaire for Graduates of the ASN Program at MSU-Northern

I am requesting your assistance in helping me understand factors leading to success in the nursing program at MSU-Northern. Your answers will remain anonymous. It will take you about 15 minutes to complete this questionnaire. Please circle the one answer that best describes your experiences as a nursing student at MSU-Northern. After you have completed the questionnaire, return it to Mary Pappas, Director of Nursing. Completion of the questionnaire implies consent to participate in the study.

Please rate your level of agreement with the following factors using the following scale:						
<i>Strongly Agree</i>	<i>Agree</i>	<i>Disagree</i>	<i>Strongly Disagree</i>	<i>Not Applicable</i>		
<i>4</i>	<i>3</i>	<i>2</i>	<i>1</i>	<i>0</i>	<i>0</i>	
1.	I was satisfied with the clinical experiences in the nursing program.	4	3	2	1	0
2.	I was satisfied with the theory courses in the nursing program.	4	3	2	1	0
3.	My financial resources were adequate while attending nursing school at MSU-Northern.	4	3	2	1	0
4.	I was worried about expenses that are required to attend nursing school.	4	3	2	1	0
5.	I had sufficient academic preparation to succeed in the nursing program at MSU-Northern.	4	3	2	1	0
6.	I found the transition to college difficult.	4	3	2	1	0
7.	I wish I would have attended another nursing program.	4	3	2	1	0
8.	While in nursing school I gave a higher priority to studying than anything else.	4	3	2	1	0
9.	I experienced difficulty coping with the stresses of attending nursing school.	4	3	2	1	0
10.	I was confident in my ability to complete the nursing program at MSU-Northern.	4	3	2	1	0
11.	I was committed to the goal of becoming a registered nurse.	4	3	2	1	0
12.	I did not function well during nursing examinations.	4	3	2	1	0

13. I was not efficient in the use of study time while I was in nursing school.	4	3	2	1	0
14. Lonesomeness was a problem for me while in nursing school.	4	3	2	1	0
15. I developed strong friendships with peer nursing students while in the nursing program.	4	3	2	1	0
16. It was difficult for me to make friends with other nursing students while in the nursing program.	4	3	2	1	0
17. I was able to interact with faculty outside of the classroom.	4	3	2	1	0
18. My interactions with the nursing faculty had a positive effect on my professional growth.	4	3	2	1	0
19. I took the initiative to contact faculty when I had questions concerning coursework.	4	3	2	1	0
20. I collaborated with other students in the classroom.	4	3	2	1	0
21. My family was supportive of my attending the nursing program at MSU-Northern.	4	3	2	1	0
22. My significant other was supportive of my attending the nursing program at MSU-Northern.	4	3	2	1	0
23. Personal counseling by student support services was helpful to me while in the nursing program.	4	3	2	1	0
24. Tutoring by student support services was helpful to me while in the nursing program.	4	3	2	1	0
25. What is your gender?					
a. Male					
b. Female					
26. Which cultural group do you identify with?					
a. Caucasian					
b. Native American					
c. Black American					
d. Hispanic					
e. Asian					
f. Bi/multi racial					
27. What was your age at the time you entered the nursing program at MSU-Northern?					
c. less than 25 years					
d. 25-40					
c. 41-55					
d. over 55 years of age					
28. What was your marital status while attending nursing school?					
a. Married					
b. Not married					

29. What is the educational level of your parents?
  - a. neither parent completed high school
  - b. one or both parents completed high school
  - c. one parent completed some college
  - d. one or both parents completed college
  - e. one or both parents attended graduate school
  
30. What was your cumulative Grade Point Average when admitted to the nursing program?
  - a. 3.50-4.00
  - b. 3.00-3.49
  - c. 2.50-2.99
  - d. do not recall
  
31. Which of the following describes where you resided while attending nursing school?
  - a. MSU-Northern campus dormitory or family housing
  - b. Parent's home
  - c. Off-campus housing, other than with parents
  
32. How many minor dependants were you responsible for while attending nursing school?
  - a. 0
  - b. 1-2
  - c. 3-5
  - d. more than 5
  
33. How many hours per week did you work for pay (on average) while in nursing school?
  - a. 0
  - b. 1-10
  - c. 11-20
  - d. more than 20
  
34. How did you finance your attendance at nursing school?
  - a. Loans
  - b. Grants/scholarships
  - c. I did not receive financial aid
  
35. What are some personal factors that contributed to your success in the nursing program?
  
  
36. What are some program factors that contributed to your success in the nursing program?
  
  
37. What suggestions do you have for the institution that could result in your having been more successful in the nursing program?

## Questionnaire for Previous Students in the ASN Program at MSU-Northern

I am requesting your assistance in helping me understand factors which cause student to leave the nursing program at MSU-Northern. Your answers will remain anonymous. It will take you about 15 minutes to complete this questionnaire. Please circle the one answer that best describes your experiences as a nursing student at MSU-Northern. After you have completed the questionnaire, return it to Mary Pappas, Director of Nursing. Completion of the questionnaire implies consent to participate in the study.

Please rate your level of agreement with the following factors using the following scale:

	<i>Strongly Agree</i> 4	<i>Agree</i> 3	<i>Disagree</i> 2	<i>Strongly Disagree</i> 1	<i>Not Applicable</i> 0
1. I was satisfied with the clinical experiences in the nursing program.	4	3	2	1	0
2. I was satisfied with the theory courses in the nursing program.	4	3	2	1	0
3. My financial resources were adequate while attending nursing school at MSU-Northern.	4	3	2	1	0
4. I was worried about expenses that are required to attend nursing school.	4	3	2	1	0
5. I had sufficient academic preparation to succeed in the nursing program at MSU-Northern.	4	3	2	1	0
6. I found the transition to college difficult.	4	3	2	1	0
7. I wish I would have attended another nursing program.	4	3	2	1	0
8. While in nursing school I gave a higher priority to studying than anything else.	4	3	2	1	0
9. I experienced difficulty coping with the stresses of attending nursing school.	4	3	2	1	0
10. I was confident in my ability to complete the nursing program at MSU-Northern.	4	3	2	1	0
11. I was committed to the goal of becoming a registered nurse.	4	3	2	1	0
12. I did not function well during nursing examinations.	4	3	2	1	0



- |   |   |   |   |   |   |
|---|---|---|---|---|---|
| 13. I was not efficient in the use of study time while I was in nursing school.                       | 4 | 3 | 2 | 1 | 0 |
| 14. Lonesomeness was a problem for me while in nursing school.  | 4 | 3 | 2 | 1 | 0 |
| 15. I developed strong friendships with peer nursing students while in the nursing program.           | 4 | 3 | 2 | 1 | 0 |
| 16. It was difficult for me to make friends with other nursing students while in the nursing program. | 4 | 3 | 2 | 1 | 0 |
| 17. I was able to interact with faculty outside of the classroom.                                     | 4 | 3 | 2 | 1 | 0 |
| 18. My interactions with the nursing faculty had a positive effect on my professional growth.         | 4 | 3 | 2 | 1 | 0 |
| 19. I took the initiative to contact faculty when I had questions concerning coursework.              | 4 | 3 | 2 | 1 | 0 |
| 20. I collaborated with other students in the classroom.  | 4 | 3 | 2 | 1 | 0 |
| 21. My family was supportive of my attending the nursing program at MSU-Northern.                     | 4 | 3 | 2 | 1 | 0 |
| 22. My significant other was supportive of my attending the nursing program at MSU-Northern.          | 4 | 3 | 2 | 1 | 0 |
| 23. Personal counseling by student support services was helpful to me while in the nursing program.   | 4 | 3 | 2 | 1 | 0 |
| 24. Tutoring by student support services was helpful to me while in the nursing program.              | 4 | 3 | 2 | 1 | 0 |
| 25. What is your gender?  |   |   |   |   |   |
| a. Male   |   |   |   |   |   |
| b. Female   |   |   |   |   |   |
| 26. Which cultural group do you identify with?  |   |   |   |   |   |
| a. Caucasian  |   |   |   |   |   |
| b. Native American  |   |   |   |   |   |
| c. Black American   |   |   |   |   |   |
| d. Hispanic   |   |   |   |   |   |
| e. Asian  |   |   |   |   |   |
| f. Bi/multi racial  |   |   |   |   |   |
| 27. What was your age at the time you entered the nursing program at MSU-Northern?                    |   |   |   |   |   |
| a. less than 25 years   |   |   |   |   |   |
| b. 25-40  |   |   |   |   |   |
| c. 41-55  |   |   |   |   |   |
| d. over 55 years of age   |   |   |   |   |   |

28. What was your marital status while attending nursing school?
  - a. Married
  - b. Not married
  
29. What is the educational level of your parents?
  - a. neither parent completed high school
  - b. one or both parents completed high school
  - c. one parent completed some college
  - d. one or both parents completed college
  - e. one or both parents attended graduate school
  
30. What was your cumulative Grade Point Average when admitted to the nursing program?
  - a. 3.50-4.00
  - b. 3.00-3.49
  - c. 2.50-2.99
  - d. do not recall
  
31. Which of the following describes where you resided while attending nursing school?
  - a. MSU-Northern campus dormitory or family housing
  - b. Parent's home
  - c. Off-campus housing, other than with parents
  
32. How many minor dependants were you responsible for while attending nursing school?
  - a. 0
  - b. 1-2
  - c. 3-5
  - d. more than 5
  
33. How many hours per week did you work for pay (on average) while in nursing school?
  - a. 0
  - b. 1-10
  - c. 11-20
  - d. more than 20
  
34. How did you finance your attendance at nursing school?
  - a. Loans
  - b. Grants/scholarships
  - c. I did not receive financial aid
  
35. What are some personal factors that contributed to your leaving the nursing program?
  
36. What are some program factors that contributed to your leaving the nursing program?
  
37. What suggestions do you have for the institution that could result in your having been more successful in the nursing program?

Questions for Faculty Members in the MSU-Northern  
Associate of Science in Nursing Program

Department of Nursing Faculty  
MSU-Northern

I am asking for your assistance by sharing some information that I can use to make my dissertation stronger. I am required to provide triangulation or verification of information from multiple sources. As you know, my study focuses on what can help students become more successful in the nursing program. I am asking if you will complete the three questions on this page and return (or mail) the form to Sharon as this information needs to remain anonymous. Please return this form by May 15. Thank you for your help.

1. What do you perceive to be some student' **personal** factors (characteristics) that contribute to their success in the nursing program?
2. What do you perceive to be some **program** factors that lead to nursing student success?
3. In your career working with nursing students, what have been some reasons that students have dropped out of the nursing program at MSU-Northern?

APPENDIX D

PARTICIPANT CONSENT FORM

SUBJECT CONSENT FORM FOR PARTICIPATION IN HUMAN RESEARCH AT  
MONTANA STATE UNIVERSITY

“The Nursing Student Experience: Student Perceptions Concerning Factors Leading to  
Success in an Associate of Science in Nursing Program at Montana State University”

Thank you for completing the questionnaire. The information you provided remains anonymous, however, I am requesting volunteers who would be willing to be interviewed for the next phase of this study. If you are willing to be interviewed by myself, please sign and return the following permission. As a reward for being interviewed, I will either take you out to lunch or dinner during the interview or I will provide you with a \$5.00 gift certificate to the bookstore of your choice.

If you agree to be interviewed, you will need to donate about one hour of your time to discuss your experiences with me. Risks are minimal. The purpose of the research is to learn more about factors that cause students to depart from the Associate of Science in Nursing program at MSU-Northern. This information will assist in making improvements in the nursing program.

If you have questions regarding this study, you can contact me at 406-265-3748 or email me at ‘pappas@msun.edu’. Additional questions about the rights of human subjects can be answered by the Chairman of the Institutional Review Board, Mark Quinn at 406-994-5721.

---

AUTHORIZATION: I have read the above and understand the discomforts, inconvenience, and risk of this study. I, \_\_\_\_\_ agree to participate in this research. I understand that I may later refuse to participate, and that I may withdraw from the study at any time. I have received a copy of this consent form for my own records.

Participants Signature: \_\_\_\_\_

Participants Printed Name: \_\_\_\_\_

Witness: \_\_\_\_\_

Investigator: \_\_\_\_\_

Date: \_\_\_\_\_

Participants Phone Number and email address: \_\_\_\_\_

Please return this permission form to: Mary Pappas

Thank You!

APPENDIX E

INTERVIEW FORMS

### Interview Questions for Current Successful Students

1. What personal factors/characteristics do you have that are contributing to your success in the nursing program? (e.g., attendance at all classes, time management, stress management and coping skills, study skills, enjoyment of the college experience, motivation, self-efficacy, family support, commitment to receiving a nursing degree from MSU-Northern, previous experience in educational settings)
  
2. Which program factors contribute to your success in the nursing program? (e.g., amount and type of faculty-student interaction, peer support, satisfaction with courses, satisfaction with out-of-classroom assignments, enjoyment of clinical experiences, financial aid)
  
3. What are the personal barriers to success while in the nursing program?
  
4. What are the program barriers to success while in the nursing program?
  
5. What are your recommendations for increasing the success of the nursing students at MSU-Northern?

Interview Questions for Graduates of the MSU-Northern Nursing Program

1. What personal factors/characteristics do you have that contributed to your success in the nursing program? (e.g., attendance at all classes, time management, stress management and coping skills, commitment to receiving a nursing degree from MSU-Northern, study skills, motivation, self-efficacy, family support, enjoyment of the college experience, previous experiences in an educational setting)
  
2. Which program factors contributed to your success in the nursing program? (e.g., amount and type of faculty-student interaction, peer support, satisfaction with courses, financial aid)
  
3. What were the personal barriers to success while in the nursing program?
  
4. What were the program barriers to success while in the nursing program?
  
5. What are your recommendations for increasing the success of the nursing students at MSU-Northern?



Interview Questions for Previous Nonpersistent Students in the  
MSU-Northern ASN Nursing Program

1. Describe factors which resulted in your not persisting to graduation in the nursing program. (e.g., grades on examinations and care plans, test anxiety, health problems, personal problems, financial problems, transportation).
2. What were the personal barriers to success while in the nursing program?
3. What were the program barriers to success while in the nursing program?
4. Did you have other responsibilities that prevented you from studying? (e.g., parental responsibilities, work responsibilities)
5. Tell me about your support system. (e.g., significant others and family, peers)

6. Tell me about your relationships with nursing faculty. How much time out of the classroom did you spend with faculty? Was faculty approachable?

7. What could have helped you be successful?

8. What are some recommendations that you have to help students be successful?