A STUDY OF LEADERSHIP FACTORS, RETENTION STRATEGIES, AND RETENTION RATES IN ASSOCIATE DEGREE NURSING PROGRAMS

by

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ABSTRACT

JANET BOGGS ARTHURS. A study of leadership factors, retention strategies, and retention rates in associate degree nursing programs. (Under the direction of DR. CLAUDIA P. FLOWERS)

The purpose of this study was to examine transformational leadership practices of Associate Degree Nursing (ADN) directors, the relationship to student retention rates, and retention strategies used. The Leadership Practices Inventory-Self (LPI-Self) was used to measure the five practices of Kouzes and Posner's transformational leadership model: modeling the way, inspiring a shared vision, challenging the process, enabling others to act, and encouraging the heart. Forty-nine ADN directors completed the LPI-Self with most participants reporting high to moderate scores. Directors most frequently reported behaviors related to enabling others to act. The lowest mean score was in inspiring a shared vision while the highest percentage of low scores was in challenging the process. A standard multiple regression was conducted to predict student retention rates from scores on the five leadership practices. Data analysis revealed no statistically significant relationship.

Qualitative data revealed several themes regarding the use of strategies to enhance ADN student success: selective admission criteria, academic assistance, remediation, faculty-student interaction, and college resources. Directors from the top ten programs with the highest retention rates emphasized the importance of faculty-student relationships. Administrators from the ten programs with lowest retention rates reported using college resources to assist students more often than respondents from programs with high retention. Findings suggest faculty interaction with students may be more

effective in retaining nursing students than using college support services. Implications for nursing education and recommendations for further study are discussed.

DEDICATION

This project is dedicated to my colleagues in nursing education and to the nursing students who inspired my interest in student retention.

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CHAPTER 1: INTRODUCTION

Retention of students admitted to Associate Degree Nursing (ADN) programs is important because of a critical need for registered nurses. According to the United States Bureau of Labor Statistics, more than one million new and replacement nurses will be needed by 2012 and the federal government predicts a shortage of 800,000 registered nurses by 2020 (American Association of Colleges of Nursing, 2004, 2005). Associate degree programs have a pivotal role in meeting this demand making up 59% of basic RN programs and producing 63% of RN graduates (National League for Nursing [NLN], 2006). The need for registered nurses emphasizes the importance of retaining students admitted to nursing schools.

A shortage of nursing faculty complicates the issue of graduating more nurses. Nursing schools are rejecting qualified applicants at record levels due to lack of qualified nursing faculty. The National League for Nursing (NLN) reports schools across the nation are accepting fewer than 38% of applications received (NLN, 2006). In North Carolina, entry-level RN ADN programs offered admission to only 48% of qualified applicants in 2006-2007 (Lacey & McNoldy, 2008). Limited numbers of qualified nurse educators, shortages of nurses, and increasing health care demands of an aging population add to the need to examine strategies to reduce the number of students leaving nursing schools prior to graduation.

The majority of ADN programs are located within community colleges; therefore, retention rates within two year public institutions are relevant to an exploration of student attrition. Completion rates defined as achieving an associate degree in three years or less were reported as 27.1% within two year public colleges nationwide (American College Testing, 2008). In North Carolina, about 48% of all first year students in community colleges returned for their second year (National Center for Public Policy and Higher Education, 2006). Although results are mixed, empirical evidence supports the widely held belief that persistence among community college students is impacted by a wide range of complex personal factors such as employment, family responsibilities, ethnicity, age, and cognitive, behavioral, and affective traits (Armstrong, 2000; Butters, 2003; Castellanos & Fujitsubo, 1997; Cofer & Somers, 2001; Conklin, 1997; Fralick, 1993; Napoli & Wortman, 1998; Summers, 2003; Sydow & Sandel, 1998). Academic predictors of student success in general community college coursework include placement tests and high school grades (Armstrong, 2000; Hickman, 2005; Pengitore, 2000; Summers, 2003). Attrition of pre-nursing students in general education courses within community colleges impacts the applicant pool for competitive admission to ADN programs (Perin, 2006).

Voluntary and involuntary departure of students admitted to ADN programs is relevant to the nursing profession. The average three year on-time completion rate of ADN students in North Carolina was 57% for 2005-2007 (Lacey & McNoldy, 2008). Many factors account for nursing students leaving school and the literature is replete with studies suggesting factors that predict or enhance student success. Findings related to preadmission test scores in reading, writing, English, math, and science present mixed

results in predicting nursing student success (Ethridge, 2000; Gallagher, Bomba, & Crane, 2001; Gilmore, 2006; Hickman, 2005; Manifold & Rambur, 2001; Rubino, 1998; Samra, 2007; Sandiford & Jackson, 2003; Sayles, Shelton & Powell, 2003; Simmons, Haupt & Davis, 2005; Thompson, 2007). Prenursing grade point average (GPA) and grades in prerequisite science courses have also been linked to program completion (Campbell & Dickson, 1996; Higgins, 2005; Jeffreys, 2007b; McCarey, 2007; Potolsky, Cohen & Saylor 2003; Rooyen, Dixon, Dixon & Wells, 2006; Spahr, 1995; Wong & Wong, 1999). Among minority nursing students with English as a second language (ESL), Manifold and Rambur (2001) found preadmission language scores, math scores, and increased age predicted completion of an ADN program. Sims-Giddens (2002) found no difference in completion rates among ESL Mexican-American students and English as first language students. Demographic, environmental, personal, cognitive, and affective factors impact nursing student persistence and may be helpful in identifying students at risk for failure (Butters, 2003; Campbell & Dickson, 1996; Dreary, Watson, Hogston, 2003; Ehrenfeld, Roenberg, Sharon, Bergman, 1997; Ehrenfeld & Tabak, 2000; Glossop, 2002; Harvey & McMurray, 1997; Jeffreys, 2007a; Sadler, 2003; Samra, 2007).

Models of college student retention incorporating the multidimensional aspects of student departure are the foundation for retention research. Tinto's longitudinal model of institutional departure includes pre-entry student characteristics such as academic abilities, personal characteristics, student goals, and commitments (Tinto, 1975, 1993). The foundation of Tinto's model, however, is based on institutional experiences and the premise that students are more likely to stay in college when integrated in the social and academic life of the institution (Summers, 2003; Tinto; 1975). Tinto's early work was

conducted within four year colleges with traditional residential students. Bean and Metzer (1985) developed a model of nontraditional student retention based on Tinto's concepts that omits social integration as a factor in attrition of nontraditional students. Pascarella and Chapman (1983) found social and academic integration have minimal effect on persistence for commuter students. Residential students demonstrated greater persistence than commuters, suggesting educational leaders should consider developing strategies to meet the need for social and academic integration for students who do not live on campus (Pascarella & Chapman).

Jeffreys (2007a) found that institutional interaction and integration correlated with self-reported course grades among nursing students. The impact of academic and social integration is consistent with Tinto's model of institutional departure. Tinto contends that interaction with peers and faculty is within the domain of social integration that may impact academic integration and student persistence. Jeffreys (2004) incorporates a new perspective on social integration that identifies professional integration factors that enhance nursing student interaction with the social environment of the college. Jeffreys (2004) integrates concepts from Tinto's model in the Nursing Undergraduate Retention and Success (NURS) model developed to address nontraditional nursing students often found in associate degree programs. Results from Jeffreys's work consistently identify factors such as nursing faculty advisement, helpfulness and development of academic enhancement programs as beneficial to student retention (Jeffreys, 2001, 2002, 2004, 2007a).

A substantial body of research on college student retention suggests supportive faculty behaviors enhance student success and persistence (Reason, Terenzini & Domingo, 2006;

Shelton, 2003; Simcox, 1998). Student-faculty relationships that foster academic integration may have a significant relationship to student GPA, intellectual, and personal development (Terenzini & Pascarella, 1980; see also Halawah, 2006; Zeitlin-Ophir, Melitz, Miller, Podoshin & Mesh, 2004). The amount of informal contact between faculty and students relates positively to persistent enrollment in the second semester of college (Pascarella & Terenzini, 1977; Pascarella & Chapman, 1983).

Nursing students identify caring faculty behaviors as important to success in a very demanding curriculum (Beck, 2001; Evans, 2004; McGregor, 2005). Positive faculty characteristics cited by students include respect, trust, genuineness, optimism, friendliness, empathy, sharing, acceptance of individuality, connectedness, appreciation, and competence (Bankert & Kozel, 2005; Cook, 2005; Gardner, 2005; Redmond & Sorrell, 1996). Students appreciate teachers who know their names, take time to listen, implement collaborative teaching strategies, give encouragement, provide accurate advisement, and offer practical assistance (McClenney & Waiwaiole, 2005; Simcox, 1998; Shelton, 2003; Stevenson, Buchanan & Sharpe, 2006). Consistent with Tinto's integration model of retention, faculty validation predicts students' intent to persist (Barnett, 2007). Supportive faculty behaviors have been empirically examined in only one study found on nursing student retention (Shelton, 2003).

Positive faculty behaviors that encourage students to succeed are consistent with transformational leadership behaviors. Transformational leadership embodies an interaction style that elevates others to higher levels of motivation and morality (Burns, 1978). Studies conducted within secondary schools have suggested that transformational leadership contributes to teacher efficacy, commitment to institutional mission, and

positive student outcomes (Pounder, 2006; Ross & Gray, 2006). In postsecondary education, transformational leadership qualities of nursing deans and directors had a positive influence on faculty job satisfaction (Chen, Beck & Amos, 2005; Chen & Baron, 2006). A transformational leadership model used to examine the relationship between departmental leadership practices and student retention was not identified in the literature.

Kouzes and Posner (2003a) describe leadership as a relationship and an effective transformational leader as someone who is a positive role model, inspires a shared vision, challenges the way things are done, empowers others to act, and encourages the heart. This leadership model incorporates institutional factors identified in Tinto's Integration Model of Student Retention and Jeffreys's NURS model that further establishes the importance of faculty-student interaction and relationships.

In questioning over 75,000 people around the world, Kouzes and Posner (2003a) found that people are responsive to leaders who are honest, competent, and inspiring. Honest, caring, supportive faculty behaviors that inspire success are also important to nursing students (Bankert & Kozel, 2005; Beck, 2001; Cook, 2005; Evans, 2004; McGregor, 2005). Caring faculty relationships are particularly important for minority nursing students who voice a sense of isolation and loneliness (Evans, 2004). Positive relationships are central to Kouzes and Posner's transformational leadership model.

Kouzes and Posner's five leadership practices correlate with the nursing student retention literature. Being a positive *role model* and *sharing a vision* of success are supportive behaviors identified by nursing students (Beck 2001; Evans, 2004). Beck found nursing students believe faculty who exhibited competence in nursing and teaching

positively influenced their academic success. *Enabling others to act* embodies concepts of strengthening others with trust, respect, connecting, and listening (Bankert & Kozel, 2005; Barnett, 2007; Diekelmann & Mikol, 2003; Evans, 2004; Redmond & Sorrell, 1996). The use of teaching strategies that address individual learning styles is supported in the literature and incorporates the leadership practice of helping others perform to their highest potential (Johnson & Mighten, 2005; Pratt, Boll & Collins, 2007). *Challenging the process* represents the willingness of educational leaders to challenge the assumptions that guide educational practices within nursing programs that value conformity to traditional teaching strategies and policies that discourage student individuality (Diekelmann, & Mikol, 2003; Evans, 2004; McLaughlin, 2008; Schell, 2006). The fact that nursing students have consistently cited caring faculty behaviors as important for persisting in challenging nursing courses supports the leadership practice of *encouraging the heart* (Bankert & Kozel, 2005; Beck, 2001; Cook, 2005; McGregor, 2005).

A transformational leadership model may be effective in creating an institutional climate that fosters student success. Transformational leaders are more likely to challenge the process leading to development of innovative and effective retention strategies in the educational setting. Leaders who develop positive relationships inspire faculty and students to realize extraordinary achievement, according to Kouzes and Posner (2003a). Nursing directors represent departmental leadership with the potential to influence faculty behaviors and ultimately student success. Directors retain teaching responsibilities, therefore embodying faculty and leadership roles. The role of leadership practices of nursing program directors has not been examined in relation to student retention.

Problem Statement

The need for nurses, the shortage of nursing faculty, and the high cost of operating a nursing program make retention of admitted students important to the nursing profession as well as to college administrators. The financial and psychological costs associated with student attrition justify the continued search for strategies designed to improve retention (Summers, 2003). The body of research investigating predictors of student success has provided insight into the complex interrelated factors that contribute to student departure. A shift is needed from investigation of students to investigation of educator behaviors and the effectiveness of actions taken to improve retention (Glossop, 2001; Tinto, 2006).

Purpose of the Research

The primary goal of this research study was to describe leadership factors and retention strategies in relation to student retention rates in ADN programs. Kouzes and Posner's leadership model was selected because the five practices incorporate concepts apparent in the retention literature. The researcher examined relationships between leadership practices of ADN directors, retention strategies used, and student retention rates. This study informed ADN nurse educators of current transformational leadership practices among program directors and the relationship between transformational leadership and retention rates. Analysis of retention strategies used within programs with high student retention provided data to suggest the effectiveness of interventions designed to improve student success.

Research Questions

1. What are the transformational leadership practices of ADN program directors as measured by the Leadership Practices Inventory (LPI-Self)?

2. Is there a relationship between leadership practices of program directors and student retention rates?
3. What retention strategies have been implemented within associate degree programs with high retention rates?

Definition of Terms

Associate Degree Nursing

Associate degree nursing programs are offered by a community college, university, or hospital-affiliated school that awards associate and/or applied science degrees. The two year curriculum that varies among schools is designed to prepare graduates for registered nursing practice in a variety of healthcare settings. Graduates are eligible to take the National Council Licensure Exam required for practice as a registered nurse (RN). An RN license is awarded only after successfully completing the licensure exam and satisfaction of other licensure requirements.

Retention Rate

Retention rates used in this study are on-time completion rates defined as "the percent of an entering cohort of new students that graduate when expected, given the curriculum length and sequence of their program" (Lacey & McNoldy, 2008, p. 3).

Nursing Directors

Nursing directors are administrators of nursing programs who may or may not retain teaching responsibilities. The organizational structure and administrator titles vary among schools. Participants in this study will be program directors identified by the North Carolina (NC) Board of Nursing.

Transformational Leadership

Transformational leadership practices are skills that build and sustain human relationships that empower others to accomplish extraordinary things on a regular basis (Kouzes & Posner, 2002a). Transformational leadership embodies an interaction style that elevates others to higher levels of motivation and morality (Burns, 1978).

Delimitations

1. Only ADN programs and their directors were included to represent structures and leadership roles most likely to include teaching while assuming administrative responsibilities.
2. Only directors of ADN programs in North Carolina were surveyed.
3. Retention strategies identified in the study only apply to students in ADN programs in North Carolina.
4. Leadership practices of ADN directors were measured by the Leadership Practices Inventory-Self (LPI-Self), an instrument designed to assess transformational leadership behaviors among leaders of any discipline.

Limitations

1. The study did not control for extraneous variables that may impact attrition within specific programs.
2. The self-report instrument had the inherent risk of eliciting socially acceptable answers that may not represent true behaviors.
3. Participants from programs with high attrition rates may be less likely to complete the survey.

Overview of Method

Survey research methods were used to collect data for this study. All directors of Associate Degree Nursing programs in North Carolina were asked to complete the Leadership Practices Inventory (LPI-Self) to measure transformational leadership practices. Evidence supports the technical adequacy of the instrument (Leong, 2004; Lewis, 2004). The LPI has been widely used in educational and business management research (Lewis, 2004). Internal reliabilities for the five leadership practices are good and the reliability over time is strong (Leong, 2004; Posner, 2008; Posner & Kouzes, 1993).

Directors were also asked to complete a demographic questionnaire that included an open-ended question regarding retention strategies implemented within their ADN nursing program between 2003-2007. Program leaders were asked their opinions on the most effective strategy. Retention strategies among programs with high retention rates were compared to those strategies of programs with low retention rates. Retention rates were obtained from the North Carolina Board of Nursing website.

Summary

In this chapter, the researcher provided an introduction explaining the topic to be studied, the problem to be addressed, the purpose of the research study, and an overview of the methodology based on the identified research questions. Delimitations, limitations, and definitions of key words were delineated. The context explained the importance of the problem of nursing student attrition and the significance of a study that represents a departure from previous approaches exploring student attrition.

Chapter Two includes a review of prior research related to the major constructs that underlie the study. In Chapter Three, the researcher describes the study's methodology in

detail, including the research design, hypotheses, study population and sample, data collection procedures, and data analysis procedures. Chapter Four of the dissertation will provide a report of the study's results in relation to the identified research questions. In Chapter Five of the dissertation, the researcher discusses and interprets statistical results, draws conclusions, and identifies implications for further research and future practice in nursing education.

CHAPTER 2: REVIEW OF LITERATURE

A significant number of students voluntarily leave or experience academic failure in nursing programs even after meeting competitive admission criteria. Nurse educators and healthcare providers are concerned with the attrition of nursing students because of the need for new nurses. A shortage of qualified nursing faculty limits enrollment, making the retention of qualified applicants critical to graduating adequate numbers of nurses to provide care for an aging population with complex healthcare needs. The personal, educational, and economic cost of students leaving prior to graduation is high. The goal of this research was to describe leadership factors related to student retention within Associate Degree Nursing (ADN) programs. The researcher examined relationships among leadership practices of program directors, retention strategies used, and student retention.

The review of literature began with an overview of theoretical models of college student departure that provided a framework for reviewing retention studies conducted among community college and nursing students. Tinto's model of student retention and Jeffreys's nursing undergraduate retention and success (NURS) model provided a theoretical framework for examination of leadership practices and retention strategies that may contribute to institutional factors impacting student persistence. Retention studies within nursing education included samples of primarily ADN students although relevant

studies in Bachelor of Science in Nursing (BSN) and diploma programs were also discussed. Studies were categorized according to the following variables: academic skills and abilities, psychosocial and demographic predictors, and faculty-student interaction. A brief overview of nursing education will describe the historical context affecting faculty-student interactions that may influence student persistence or departure. Studies relating to leadership styles in healthcare and education will precede a description of Kouzes and Posner's transformational leadership model. A review of studies and articles describing best practices in college student retention strategies will conclude this chapter.

The purpose of the literature review was to provide an examination of what is known about nursing student retention, transformational leadership and retention strategies. Kouzes and Posner's transformational leadership practices are described in detail and linked to constructs identified in the retention literature.

Theoretical Models of College Student Retention

A theoretical model of college student retention provides a conceptual framework for understanding the multiple variables that impact a student's decision to remain in or leave college. One of the most influential theoretical contributions was made by Vincent Tinto who developed the most widely recognized and tested model of student retention (Summers, 2003).

Tinto's Model of Institutional Departure

Tinto's original model focused primarily on student factors related to institutional departure, but the model was later expanded to include the institutional environment of academic and social systems as important to students' intent to persist (Tinto, 1975, 1993,

2006). Institutional integration that includes interaction between students and college faculty and staff became central to Tinto's model.

According to Tinto (1993), student characteristics such as academic skills, family background, and pre-college experiences impact intent to persist and commitment to achieve educational goals. Experiences within the college environment also affect academic and social integration, influencing intent to persist and commitment (Tinto). Positive student experiences strengthen commitment to persist while negative experiences weaken intent to persist (Tinto). Tinto contends that student success hinges on interventions to integrate students into the social and academic life of the college while recognizing the importance of external commitments and values that alter educational plans and are unrelated to the institutional experience (see Table 1).

Table 1

Tinto's Model of Factors Influencing Institutional Departure

Pre-Entry Characteristics	External Commitments	Institutional Experiences
Family background	Employment	Academic performance
Skills and abilities	Family	Faculty/staff interactions (formal and informal)
Prior schooling	Values	Extracurricular activities
		Peer group interactions (formal and informal)

Note. Adapted from *Leaving College*, (Tinto, 1993, p. 114)

Relevant Studies Based on Tinto's Model

Pascarella and Terenzini (1977) examined the relationship between faculty-student interaction and persistence, finding that the frequency of informal interaction with faculty discriminated between university students who dropped out voluntarily at the end of the first year and those who persisted to the second year. Discussions about student career concerns and academics had the greatest influence. Terenzini and Pascarella (1980) later found faculty-student informal communication in and outside class had a positive influence on academic development among university students. The frequency of conversations that related to academic and career issues had a relationship to academic achievement. Pascarella and Chapman (1983) tested the predictive validity of Tinto's model among 2,326 first year commuter students from 11 postsecondary schools. Academic integration had more effect on persistence than social integration for the commuter students, and the amount of informal contact with faculty was positively related to persistence to the second semester (Pascarella & Chapman). These findings are consistent with Tinto's theory of the importance of faculty interactions in relation to integrating students within the institution.

In 1985, Bean and Metzer expanded upon the work of Tinto and Pascarella by developing a model applicable to the nontraditional student defined as a commuting, part-time student over the age of 24. Academic advising was the only variable included in this model that related to faculty-student interaction. Psychological outcomes such as satisfaction, goal commitment, and stress were included in this model and could be indirectly related to faculty-student interaction assuming the interaction had an impact on student satisfaction, commitment, or stress level. Butters (2003) used Bean and Metzner's

theoretical model in a retention study of 268 ADN students and found that environmental and academic variables predicted students who discontinued the program.

Other researchers have applied Tinto's model of retention to community college students (Barnett, 2007; Napoli & Wortman, 1996; Sandiford & Jackson, 2003). Napoli and Wortman (1996) conducted a meta-analysis to assess the application of Tinto's model to the study of community college students. Results suggest that "academic integration has significant and beneficial effects on both term-to-term and year-to-year measures of persistence" (Napoli & Wortman, p. 5). Social integration, however, appeared to be related only to term-to-term persistence (Napoli & Wortman). Sandiford and Jackson integrated Tinto's model in a study that examined academic, socioeconomic, and motivational factors among ADN students and found nonacademic variables were not correlated with first semester course grades. Barnett (2007) targeted the faculty interaction component of Tinto's model and found faculty validation strongly predicted community college students' sense of integration and their intent to persist.

Finding ways to connect students and faculty in a community college setting can be challenging because commuter students spend limited time on campus. According to Tinto (2006), the challenge of reforming institutional practice has yet to be fully explored. Leaders in ADN education are in a position to spearhead the implementation of research-based strategies that may improve student retention. Program directors are charged with allocation of resources and development of departmental structure and policy that link institutional practice to student satisfaction and success. Educational leaders are also in a position to reward faculty who support student retention efforts.

Jeffreys' Nursing Undergraduate Retention and Success Model

Jeffreys developed a retention model specific for undergraduate nursing students incorporating aspects of Tinto's model along with factors addressed by Bean and Metzner and Pascarella. Jeffreys examined the influence of personal, academic and environmental variables on academic achievement and retention among nontraditional nursing students using Bean and Metzner's model of nontraditional undergraduate student attrition (Jeffreys, 1998, 2001, 2002, 2003).

> Results from these studies confirmed that nontraditional students often juggled multiple roles such as student, parent, financial provider, and/or employee, and therefore were more influenced by environmental variables than academic variables. Additionally, students perceived family, faculty, friends, tutoring, and an enrichment program as greatly supportive (Jeffreys, 2004, p. 5).

Jeffreys (2004) believes nursing students have distinctive characteristics that limit the application of previously tested retention models to this student population. She developed the Nursing Undergraduate Retention and Success (NURS) model as a framework for examining the wide range of factors that influences retention among undergraduate nursing students in order to guide research and to help educators identify at-risk students and develop effective retention strategies. "Academic outcomes interact with psychological outcomes whereby good academic performance results in retention only when accompanied by positive psychological outcomes for the nursing program and profession" (Jeffreys, 2004, p.11).

The distinguishing aspect of Jeffreys's model is the professional integration factors central to the model. Faculty behaviors that incorporate students into the profession of

nursing enhance the students' interaction with the social system of the college environment. Behaviors that facilitate professional integration for students include nursing faculty advisement and helpfulness, involvement in professional groups, encouragement from peers, professional events, peer mentoring-tutoring, and enhancement programs (Jeffreys, 1998, 2003, 2004). Diekelmann and Mikol (2003) also identified faculty-student relationships as beneficial in students' professional socialization. The retention models developed by Tinto and Jeffreys provide a useful framework for examination of factors influencing retention of ADN students. The models support the assumption that institutional policies, faculty behaviors, and retention strategies influence nursing student persistence and success.

Student Departure within Community Colleges

Most ADN programs are offered within community colleges and many nursing students take pre-requisite courses in these two year institutions. Community college students are three to four times more likely to have risk factors for dropping out of college than students in four year universities (McClenney & Waiwaiole, 2005; National Center for Education Statistics, n. d.). Nontraditional students defined as being over age 24, living off campus, and enrolled part-time are typically more affected by the external environment than traditional students (Bean & Metzner, 1985). The average age of a community college student is 29, with most balancing work and family responsibilities (Community College Survey of Student Engagement, 2006). Thirty-one percent of community college students are caring for children in the home with 57% working more than 20 hours per week, living independently of parental support, and 44% reporting

financial problems as a potential cause of academic departure (Community College Survey of Student Engagement).

Empirical evidence supports a complex interplay of personal factors that influence student persistence. Employment is widely recognized as a factor impacting departure among community college students (Cofer & Somers, 2001; Conklin, 1997; Fralick, 1993; Sydow & Sandel, 1998). Armstrong (2000) found situational factors such as employment, income, financial aid, psychosocial support, family responsibility, and number of credit courses as better predictors of student success than standardized test scores often used to predict academic achievement in college. In Armstrong's study, placement scores correlated with college English grades but were less influential than the situational factors.

Among female Mexican-American students psychosocial factors such as acculturation, depression, well-being, and aptitude had no significant bearing on academic performance (Castellanos & Fujitsubo, 1997). In contrast, Napoli and Wortman (1998) found among 1,011 first time freshman students that psychosocial variables such as goal setting, commitment, personality, external commitments, life events, social support, self-esteem, and satisfaction with college had direct and indirect effects on academic persistence. Faculty support may be helpful in meeting psychological needs of community college students as evidenced by Barnett's (2007) finding that students who persist value mentoring and being known and appreciated by faculty.

In a review of the retention literature, Summers (2003) summarized personal factors leading to higher community college departure as working fulltime, registering late, poor grades, lack of involvement in student support services, and lack of educational goals.

Fralick (1993) noted that unsuccessful community college students were not satisfied with their overall college experience and were less likely to have a definite goal or major. Students in pre-nursing courses have identified a major and are more likely to persist than other community college students when retention statistics reported by American College Testing (2008) are compared to ADN student retention reported from the NC Center for Nursing (Lacey & McNoldy, 2008). Attrition among community college students enrolled in general education courses impacts the applicant pool for nursing programs; however, departure of students admitted to nursing programs is most relevant to the current study.

Nursing Student Departure

The study of nursing student attrition has spanned more than 40 years (Campbell & Dickson, 1996; as cited in Manifold & Rambur, 2001). Personal and academic factors that impact voluntary or involuntary departure from nursing programs have been widely explored.

Academic Skills and Abilities

The use of competitive admission criteria to identify students most likely to succeed academically is one approach to improving retention although research findings related to the predictive value admission test scores are mixed. The Registered Nurse Entrance Exam (RNEE) was a good predictor of success in the first nursing course of an ADN curriculum in a study by Gallagher, Bomba, and Crane (2001) while Gilmore (2006) found the American College Test (ACT) English score alone predicted ADN course grades. The ACT composite score, and ACT reading, math, science, and English sub-scores along with Anatomy and Physiology I and II grades were predictive of academic

success when used together (Gilmore, 2006). Hickman (2005) found college placement scores that measured numerical, reading, and writing ability predicted grades in ADN courses. Studies using the Nurse Entrance Test (NET) showed mixed results in predicting academic success (Gallagher, Bomba, & Crane, 2001; Hopkins, 2008; Rubino, 1998; Sayles, Shelton, & Powell, 2003; Simmons, Haupt, & Davis, 2005; Thompson, 2007).

Several authors found admission GPA important in predicting nursing school success (Campbell & Dickson, 1996; Gilmore, 2006; Hickman, 2005; Hopkins, 2008; Jeffreys, 2007b; Sandiford & Jackson, 2003; Samra, 2007; Spahr, 1995). One study of baccalaureate nursing students found no relationship between admission GPA and student success (Sadler, 2003). The predictive value of preadmission science course grades such as anatomy and physiology and microbiology has been well documented (Campbell & Dickson, 1996; Higgins, 2005; Jeffreys, 2007b; Potolsky, Cohen, & Saylor, 2003; Rooyen, Dixon, Dixon, & Wells, 2006; Samra, 2007; Wong & Wong, 1999). Some students have identified the depth of science knowledge required in nursing as a factor in not completing coursework (Harvey & McMurray, 1997). In addition to science grades, English course grades and English and reading scores on preadmission tests may predict academic success (Ethridge, 2000; Gilmore, 2006; Hickman, 2005; Sandiford & Jackson, 2003; Samra, 2007; Simmons, Haupt, & Davis, 2005; Thompson, 2007).

Students with solid academic qualifications are generally more likely to succeed (Potolsky, Cohen, & Saylor, 2003). Mixed findings relating to specific academic factors suggest nurse educators should consider using a combination of predictor variables when developing admission criteria (Gilmore, 2006). Competitive admission improves the likelihood of academic success although attrition of qualified students suggests other

factors influence persistence. Educational leaders must be alert to psychosocial variables indicative of risk for early departure.

Psychosocial and Demographic Predictors

Nursing courses are challenging due to the amount of content students are expected to retain along with numerous hours of clinical labs requiring extensive preparation. Nursing school can be all-consuming, taking time away from family and friends (Simcox, 1998). According to Jeffreys (2007a), Rudel (2006), and Simcox (1998), family and friend support is important to academic success in nursing programs. The time needed to fulfill course requirements along with work and family responsibilities suggests stress and personal problems may be a factor in student departure (Ehrenfeld, Roenberg, Sharon, & Bergman, 1997; Ehrenfeld & Tabak, 2000; Jeffreys, 1998, 2002; Rubino, 1998). A more recent study found personal factors such as psychological stress, personality, cognitive ability, coping, and burnout were not significant in predicting attrition (Deary, Watson, & Hogston, 2003). Harvey and McMurray (1997) found no evidence that stress was a factor for students who left school but noted that successful students sought assistance with studying and time management.

Family responsibilities, time management, and financial problems are themes in qualitative studies involving nursing students (Butters, 2003; Evans, 2004; Glossop, 2002). Working tends to make school more difficult, according to Sims-Giddens (2002) although Sandiford and Jackson (2003) found employment and level of financial difficulty were not significantly correlated with first semester nursing course outcomes.

Environmental variables have more influence on attrition of non-traditional students than other factors (Jeffreys, 1998, 2001, 2002, 2007a). Jeffreys (2004) defined the non-

traditional student as meeting one or more of the following criteria: 25 years of age or greater, commuting to college, enrolled part-time, male, ethnic or racial minority, English as second language, having dependent children, a general equivalency diploma (GED), or requiring remedial classes. The influence of demographic factors such as age and ethnicity is also unclear. Hopkins (2008) found demographic variables were only predictive of first semester success in combination with other factors such as learning style, commitment, and anxiety. Jeffreys (2007a) found demographic variables of age, gender, marital status, and ethnicity had no relationship to nursing course grades. In contrast, several authors found age was a factor in student success identifying nursing students over the age of 25 in two year and four year institutions performed better academically than younger students (Glossop, 2001; Manifold & Rambur, 2001; McCarey, 2007; Rooyen, Dixon, Dixon, & Wells, 2006; Samra, 2007; Spitzer, 2000).

Retention of minority nursing students is a special area of concern because this student population is less likely to graduate (Dowell, 1996; Jeffreys, 2007b; Samra, 2007). Manifold and Rambur (2001) found that preadmission language and math test scores correlated with completion of a nursing program in American Indian nursing students. Sims-Giddens (2002) noted no difference between ADN program completion for Mexican-American students with English as a second language and students with English as the first language. Academic variables such as study skills, academic advising and absenteeism may influence program completion among minority students (Butters, 2003).

Although researchers have found mixed results regarding the influence of pre-entry characteristics and other non-academic factors on student attrition, the multidimensional nature of student variables impacting persistence is evident. Many student factors that

impact attrition are outside the control of educators. Tinto (2006) suggests new areas of research should focus on institutional factors such as retention strategies and interventions to improve student learning. Effective education is central to student retention, making the role of departmental leaders and faculty important factors for researchers to explore (Tinto, 2006)

Faculty-Student Interaction

Considerable evidence suggests that college students view faculty support as important to their college experience (Amaro, Abriam-Yago & Yoder, 2006; Gardner, 2005; Jeffreys, 1998, 2002, 2007a; Lockie & Burke, 1999; McClenney & Waiwaiole, 2005; Reason, Teenzini & Domingo, 2006; Rudel, 2004). Several authors have found that positive faculty-student relationships can influence persistence and academic success (Evans, 2004; Halawah, 2006; Lee, 2007; McClenney & Waiwaiole, 2005; Reason, Terenzini & Domingo, 2006; Zeitlin-Ophir, Melitz, Miller, Podoshin, & Mesh, 2004). Faculty traits that influenced ADN students' sense of empowerment were trust, caring, mutual respect, diplomacy, and affect (Gardner, 2005; Rudel, 2004). Offering self, openness, and positive feedback are also qualities identified by students as caring and supportive (Redmond & Sorrell, 1996).

It has been well documented that nursing students believe caring faculty behaviors are important to persistence in a challenging nursing program (Bankert & Kozel, 2005; Courage & Godbey, 1992; Evans, 2004; Poorman, Webb, & Mastorovich, 2002; Redmond & Sorrell, 1996). According to Beck (2001) and Watson (2000, 2002), caring behaviors facilitate connecting between faculty and students. Connectedness constitutes "genuine respect, kindness and positive regard" (McGregor, 2005, p. 94). "Being open

and authentic, communicating an interest in the students and their unique personal and academic needs is important" (Redmond & Sorrell, 1996, p. 25). Aspects of connectedness and caring were noted in Cook's study (2005) that identified inviting teaching behaviors as having an influence on anxiety in the clinical setting. Inviting behaviors were described as respect, trust, caring, optimism, expressions of pleasure with students, and friendliness. Anxiety can be a barrier to learning and performance, jeopardizing success in a nursing course. According to students interviewed by Redmond and Sorrell (1996), a caring learning environment was fostered when faculty sensed when a student felt overwhelmed and conveyed empathy in stressful situations. Students generally want to know faculty are available, approachable, and interested in them (Poorman, Webb, & Mastorovish, 2002).

Nursing students who experience caring faculty behaviors such as attention, active listening, and sharing reported feeling empowered, hopeful, energized, respected, and confident with a sense of belonging (Beck, 2001; Evans, 2004). A sense of belonging is consistent with Tinto's concept of integration that supports persistence in college. Jeffreys (2007a) found a relationship between student integration and course grades using the Student Perception Appraisal (SPA) tool to assess nursing student perceptions related to academic success.

Minority students have identified feelings of loneliness and isolation among students and faculty who are insensitive to their culture (Gardner, 2005). Faculty behaviors such as availability, emotional support, listening, respect, mentoring, patience, and friendliness were important to the success of minority students according to several authors (Amaro, Abriam-Yago, & Yoder, 2006; Evans, 2004; Gardner, 2005; Sims-Giddens, 2002). Some

minority students value faculty who show interest in their personal lives and recognize their individuality (Gardner, 2005).

Only one study was found that empirically measured faculty support as a factor in nursing retention. Shelton (2003) developed a quantitative, descriptive, causal-comparative study with a cross-sectional design. Three pre-existing groups of ADN students were compared in regard to their perception of faculty support: 1) students enrolled in the final course of a nursing program 2) students who had withdrawn from the program and 3) students who had failed academically. Shelton developed an instrument to measure faculty support based on Bandura's theory of self-efficacy, Tinto's theory of student retention, and a review of relevant literature regarding instructor effectiveness and student perception of caring faculty behaviors. A weakness of this study was the use of a tool that lacked established reliability and validity. Strengths of the study were appropriate use of design and operational definitions of variables that reflected the theoretical foundation and research question. A large sample size of 458 ADN students and detailed demographic data lend validity to this study. Findings suggested that students who reported higher levels of perceived faculty support were more likely to persist through a nursing program than students who withdrew either by choice or because of academic failure.

The use of an instrument that is widely used and tested for reliability and validity would improve the strength of a study designed to measure faculty support. The retention literature supports constructs found in the transformational leadership model developed by Kouzes and Posner. In this study, the Leadership Practices Inventory (LPI) was used to measure leadership and faculty behaviors that may relate to nursing student success.

Faculty interaction with students is entrenched in the broader context of the history of nursing education. The culture of leadership within healthcare and nursing has contributed to faculty behaviors that may inadvertently impede student success.

Nursing Education

Florence Nightingale is recognized as the first leader within the nursing profession and her autocratic leadership style has permeated the field for decades (Murphy, 2005). Nightingale was subservient to medical dominance, contributing to her view of hierarchical control (Murphy, 2005). Conventional nurse managers continue to endorse task-oriented, mechanistic, routine, and habitual nursing practice (Murphy). This type of managerial environment infiltrates educational institutions because nurse educators have worked as nurses in clinical practice. Until the mid 20th century, the focus of nursing education was on character development with a focus on self-discipline enforced with rigid rules that discouraged individuality (Widerquist, 2000). Some nurse educators working today were trained in settings managed by religious orders that valued control and authority (Widerquist). Nurses have struggled in overcoming oppressive leadership approaches historically found in education and practice leading to a perpetuation of this style in contemporary nursing education.

Traditional teaching methodologies can be traced back to Nightingale (Royse & Newton, 2007). Nurse educators tend to teach how they were taught, perpetuating a traditional, pedagogical teaching model with teachers as experts who impart knowledge to students who passively accept (Bankert & Kozel, 2005; Evans, 2004). Redmond and Sorrell (1996) interviewed nursing students who said they were “shot down” for asking

questions, reinforcing the concept of the nursing instructor as the authority who is quick to criticize and judge.

Traditional nursing education values conformity to established norms (Bankert & Kozel, 2005; Lee, 2007; McGregor, 2005). One nursing student described how a nursing instructor tried to coerce her into submitting to rigid departmental rules by threatening failure (McGregor, 2005). The student felt a lack of administrative support when she sought help from the director (McGregor). Nursing faculty sometimes avoid seeking creative solutions and fail to recognize student differences by resisting students who challenge institutional culture. Educators' steadfast reliance on established behavioral objectives prohibits acceptance of student differences (McGregor). Students of color in particular struggle with rigid, stagnant, inflexible educational environments based on the many rules and regulations imposed in nursing programs (Dowell, 1996).

Distancing and detachment strategies used to maintain objectivity and control in difficult nursing care situations often carry over into the educational setting making students perceive faculty as cold and uncaring (Evans, 2004). The evaluator role of faculty also discourages the development of faculty-student relationships (Redmond & Sorrel, 1996). In contrast, nursing students have repeatedly expressed the importance of caring, positive faculty-student interaction (Beck, 2001; Bankert & Kozel, 2005; Courage & Godbey, 1992; Evans, 2004; Poorman, Webb, & Mastorovich, 2002; Redmond & Sorrell, 1996).

Poorman, Webb, and Mastorovich (2002) interviewed nursing students who described faculty behaviors that helped or hindered success at times when they were struggling academically. Helpful behaviors were providing time and attention along with portraying

belief in their ability to succeed. Faculty actions that inhibited academic success were insensitivity such as embarrassing students in front of others, dominating the classroom, rushing through class content, and watching too closely in the clinical setting (Poorman, Webb & Mastorovich).

More recently, McGregor (2005) identified a global trend in educational processes based on the concept of humanism that values therapeutic, energizing faculty-student relationships. Nursing directors can take the lead in promoting and rewarding positive faculty-student relationships. Within a transformational, caring environment, educators can be encouraged to challenge the assumptions that have guided traditional educational practices within nursing programs (Evans, 2004).

Transformational versus Transactional Leadership

Transformational leadership values engagement "with others in such a way that leaders and followers raise one another to higher levels of motivation and morality" (Burns, 1978, p. 20). Transformational leaders move others to rise above their own self-interest for the benefit of the group or organization (Bass, 1985). High standards of performance and accomplishment inspire followers to reach their greatest potential (Bass). Central to the concept of transformational leadership is the importance of developing relationships that motivate and inspire others to reach a common goal (Bass, 1985; Burns, 1978; Kouzes & Posner, 2002a).

Burns (1978) defined a transactional leader as one who interacts with others by bargaining for the exchange of valued services. "The leader and follower agree on what the follower needs to do to be rewarded or to avoid punishment" (Bass, 1985, p. 121). A transactional leader may closely monitor the follower's performance and intercedes

before corrective measures are needed (Bass). Contingent rewards take the form of praise, bonuses, promotions, public recognition, or honors. Punishment for deviating from established performance criteria may include a reprimand with instructions on how to improve or some other type of negative consequence such as a fine, loss of support or termination (Bass). A transactional leader focuses on efficiency and task management. According to Bass, if processes are going smoothly, the transactional leader sees no need for intervention, the status quo is maintained, and little value is placed on organizational or cultural change (see Table 2).

Table 2

Comparison of Transformational and Transactional Leadership

Transformational Leadership	Transactional Leadership
Empowers others	Discourages autonomy
Values vision and innovation	Maintains status quo
Motivates	Controls
Energizes	Frustrates
Looks to the future for solutions	Offers prompt solutions
Collaborates and shares governance	Excludes others from decision-making
Inspires outstanding performance	Punishes or rewards to elicit performance
Fosters commitment to organization goals	Directs accomplishment of organizational goals
Coaches and mentors	Monitors work performance
Encourages growth	Corrects errors

Adapted from (Bass, 1985; Burns, 1978; McGuire & Kennerly, 2006; Murphy, 2005; Kouzes & Posner, 2002a)

Leadership in Healthcare

The nursing profession is immersed in a hierarchical healthcare system accustomed to authoritarian and transactional leadership (Chen, Beck & Amos, 2005, McGuire &

Kennerly, 2006; Thyer, 2003). An institutional culture founded on a medical model controlled and dominated by male physicians working within a bureaucratic organization contributes to nurse leadership style (Reese, 2004; Thyer, 2003). Kleinman (2004) found that transactional leadership was a deterrent to retention of staff nurses in an acute care setting. Transactional practices tend to disperse throughout an organization, impacting everyone within the agency (Murphy, 2005).

Based on a single case study of a hospital nursing unit in Australia, Thyer (2003) advocated a transformational approach that she believes fosters team building, communication, vision, creativity, decision-making, and nurse empowerment needed to transform healthcare in the 21st century. In a review of literature, Kleinman (2004) found well documented support for a relationship between transformational leadership styles used by nurse managers and staff nurse job satisfaction. Behaviors described as beneficial to job satisfaction were open discussion, listening, supporting high performance standards, and promoting positive relationships (Kleinman). McGuire and Kennerly (2006) also found transformational leadership may have a positive influence on organizational commitment within an acute care setting.

Leadership in Education

Transformational leadership within educational settings can contribute to positive outcomes for faculty and students. Pounder (2006) conducted a review of literature that suggested transformational leadership among teachers and university faculty related to outstanding classroom instruction and that helpful, friendly, and understanding teachers were associated with positive student attitudes, achievement, extra effort, and student satisfaction. Researchers recently examined leadership style of community college

faculty members using the Teaching as Leading Inventory (Yim & Baker, 2002; Yim, 2005). Findings suggested female faculty members were more sensitive to the needs of others and those with more experience were more likely to use an "others-oriented" approach to teaching (Yim & Baker). Although these studies by Yim and Baker did not use transformational leadership as a framework, sensitivity to the needs of others is consistent with transformational behaviors.

Three studies were found that examined leadership practices of nursing program directors using Bass's Multifactor Leadership Questionnaire (MLQ) to assess transformational leadership qualities. Shieh (1996) surveyed administrators of nursing programs in Tiawan and analyzed data using ANCOVA and hierarchical multiple regression to control for personal and environmental factors in assessing the relationship between leadership style of nursing department administrators and faculty job satisfaction. Shieh found that deans and directors used transformational and transactional practices, but faculty who perceived their deans/directors as transformational reported the highest degree of satisfaction with leadership. Reese (2004) assessed leadership qualities among ADN program directors and also found most used transformational and transactional practices. Nursing faculty rated program directors as slightly more transactional than transformational in their leadership behaviors and expressed satisfaction with this type of leadership. Reese reported descriptive statistics and did not perform data analysis to correlate leadership style with job satisfaction. Reese and Shieh did not examine the influence of leadership style on nursing students.

Chen, Beck, and Amos (2005) used the MLQ to assess leadership style among nursing deans and directors in Taiwan in relation to faculty job satisfaction. Chen et al. found the

administrators had more transformational qualities than transactional characteristics. Faculty members were more satisfied with their jobs when program administrators engaged in the transactional practice of contingent reward and the transformational practices of considering individual needs and leading with conviction (Chen, et al.).

Kleinman (2004) reviewed the leadership literature and found the MLQ had been widely used in studies of nursing management within the hospital setting. The MLQ has also been used as a measurement tool for transformational leadership among nursing faculty (Chen & Baron, 2006; Chen, Beck, & Amos, 2005; Kleinman, 2004; Reese, 2004; Shieh, 1996). The MLQ is different from the LPI in that it was designed to measure transformational, transactional, and laissez-faire leadership styles (Reese, 2004). The MLQ measures the transformational leadership qualities of charisma, individualized consideration, intellectual stimulation, and the transactional leadership qualities of contingent reward, management-by-exception, and laissez-faire (Bass, 1985; Reese).

Important in the selection of the LPI versus the MLQ for the current study is that leadership behaviors measured by the MLQ do not relate conceptually to behaviors identified as supportive to nursing students. The LPI measures behaviors that represent role modeling, inspiring others, challenging the status quo, empowering, and encouraging others. These behaviors have been identified in the literature as being helpful in educational settings to enhance student success (Alger, 2008; Beck, 2001; Chen, 2007; Cook, 2005; Diekelmann & Mikol, 2003; Lee, 2007; Stout-Stewart, 2005). Researchers have recommended that instruments other than the MLQ be used in relation to nursing (Kleinmen, 2004; Tourangeau & Mcgilton, 2004). Kouzes and Posner's (2002a) model of

transformational leadership was selected to assess behaviors of nursing program directors in this study.

Kouzes and Posner's Transformational Leadership Model

Kouzes and Posner conducted research for over 20 years on personal-best leadership experiences and ultimately described five leadership practices found to bring about outstanding results within organizations (Kouzes & Posner, 2002a). In their research beginning in 1983, Kouzes and Posner found that individuals within business, educational, and community organizations used distinct practices to motivate others to perform at their best with extraordinary results. Kouzes and Posner also surveyed 75,000 constituents around the world about their expectations of effective leaders. Respondents consistently believed leaders should be honest, forward-looking, competent, and inspiring.

Americans consistently rank nurses at or near the top of the Gallop poll that ranks professionals as being honest and ethical (Dunbar, 2003; Quan, 2007). Public perception of nurses facilitates an image of honesty among nurse educators and administrators. Lee's (2007) review of education research cites the importance of honesty and genuineness in showing commitment to helping nursing students. In a metasynthesis of 14 qualitative studies, Beck (2001) found faculty competence in nursing knowledge, clinical skills, and classroom teaching was important to students, noting that caring behaviors without competence were of little value. Nurse leaders, however, may struggle with inspiring others and moving forward with a clear plan for innovation in nursing education because of the value placed on established educational norms (Bankert & Kozel, 2005; Lee,

2007; McGregor, 2005) and transactional leadership (Chen, Beck, & Amos, 2005, McGuire & Kennerly, 2006; Thyer, 2003).

According to Kouzes and Posner (2003a), leadership is a relationship between the person in charge and those individuals who choose to follow. The complexity and comprehensive nature of nursing education makes the development of faculty-student relationships important (Redmond & Sorrell, 1996). An institutional culture that values caring faculty-student relationships is vital to student success (Lee, 2007). Administrators who develop positive relationships with faculty and students also have a role in examining policies that promote or inhibit faculty engagement with students (Lee). Organizational structure, policies, and procedures along with faculty culture impact student learning and persistence (Reason, Terenzini, & Domingo, 2006).

Concepts of a caring curriculum parallel Kouzes and Posner's practices of effective leadership. Comparable concepts include caring, commitment, modeling, confirmation, enhancing self-esteem, and connectedness. In a caring educational environment, teachers act as learners alongside students and recognize different perspectives that encompass the needs of minority students (Evans, 2004).

Kouzes and Posner's five transformational leadership practices further correlate with faculty behaviors identified in the retention literature suggesting that nurse educators who exhibit these behaviors may have a positive influence on nursing student success either by interacting with students or with other faculty members. The practices can also be used to describe effective retention strategies identified in the literature. Table 3 summarizes the conceptual links between concepts in the retention literature and Kouzes

and Posner's leadership practices comparing the roles of departmental leadership and faculty.

Table 3

Conceptual Links: Transformational Leadership and Retention Strategies

Leadership Practice	Administrative Role of Directors	Faculty Role of Directors
Modeling the Way	Model professional behaviors Affirm shared values for student success Project positive image of nursing	Model professional behaviors Maintain competence in nursing and education skills Mentor
Inspiring a Shared Vision	Instill a common goal of student success Engage faculty and students in professional nursing practice Define departmental culture	Integrate self and students into the nursing profession Express genuine interest in student success Personally engage with faculty and students
Challenging the Process	Encourage faculty-student engagement Reward faculty for innovative ideas and teaching strategies Develop programs that integrate students within the program and the profession Expand academic enrichment programs and faculty advisement Challenge assumptions that guide educational practices	Accept individuality of students Explore new ways of teaching Experiment with innovative teaching strategies
Enabling Others to Act	Connect with faculty and students Allocate resources that support faculty development Collaborate with and empower faculty and students Create a student-friendly environment	Connect with students Build confidence and sense of capability Provide practical assistance Advise students Collaborate with faculty team and students
Encouraging the Heart	Establish caring relationships Uplift and motivate Recognize faculty and student achievements	Listen Praise Build confidence Uplift and motivate Provide positive feedback

Table 3 (continued)

Encouraging the Heart	Portray genuine respect, kindness, and positive regard Support and encourage Offer time and presence

Modeling the Way

"Exemplary leaders know that if they want to gain commitment and achieve the highest standards, they must be models of the behavior they expect of others" (Kouzes & Posner, 2002a, p. 14). Leadership titles can be assigned but individual behavior is what wins the respect of students and faculty. Effective leadership experiences discovered by Kouzes and Posner in thousands of interviews revealed "the power of spending time with someone, working side by side with colleagues, of telling stories that made values come alive, of being highly visible during times of uncertainty, and of asking questions to get people to think about values and priorities" (Kouzes & Posner, pp. 14-15).

Time, presence, and offering self are faculty behaviors viewed as supportive when students are stressed and struggling with the academic rigor of nursing school (Poorman, Webb, & Mastorovich, 2002; Redmond & Sorrell, 1996). Mentors are especially important in promoting the success of minority nursing students who value nursing instructors who share their own success stories and spend time with them (Amaro, Abriam-Yago, & Yoder, 2006; Ehrenfeld, Roenberg, Sharon, & Bergman, 1997; Gardner, 2005; Gilchrist & Rector, 2007; Stokes, 2003). The use of transformational practices may reduce some of the barriers faced by students of color by encouraging nurse educators to be positive role models while developing faculty-student relationships.

Faculty can also model the way by setting an example for students and colleagues based on a shared understanding of what is expected (Kouzes & Posner, 2003a). To be

effective, educational leaders and faculty members must clearly articulate professional nursing values and work to inspire those same values within students (Kouzes & Posner). Failure to instill professional values can contribute to attrition. In one study researchers reviewed 2,102 student records and found that 16% of the nursing students were dismissed for inappropriate professional behavior (Ehren, Roenberg, Sharon, & Bergman, 1997). Jeffreys's (2004) nursing student retention model places value on professional integration of students into the profession of nursing, reinforcing the concept of role modeling as important to student success.

Inspiring a Shared Vision

Leaders look to the future by visualizing positive, exciting, and attractive results (Kouzes & Posner, 2003a). "People must believe that leaders understand their needs and have their interests at heart. Leadership is a dialogue, not a monologue. To enlist support, leaders must have intimate knowledge of people's dreams, hopes, aspirations, visions, and values" (Kouzes & Posner, 2002a, p. 15). Nursing students convey that faculty who openly communicate a genuine interest in their unique needs are important to their success (Redmond & Sorrell, 1996). Educators who engage personally with students may inspire a shared vision for their success (Beck, 2001; Cook, 2005; Halawah, 2006; McClenney & Waiwaiole, 2005). According to Kouzes and Posner (2002a), good leaders develop a shared destiny by listening attentively to others, being enthusiastic, and communicating optimism.

Effective leaders articulate a mission they believe in while creating an environment where others will want to contribute to the same purpose (Kouzes & Posner, 2002a). In the case of nursing education, the common departmental vision may be to retain admitted

students by facilitating their success. On an individual level, working toward a common goal involves engaging students within the academic environment, which is consistent with Tinto's (1993) concept of student integration. Positive faculty-student interaction and integration within the nursing profession may indeed influence nursing student success (Jeffreys, 2007a).

Challenging the Process

In every single personal best leadership experience, Kouzes and Posner (2002a) found that leaders were faced with a challenge that involved deviating from the status quo. Effective leaders recognize and implement new ideas with a willingness to take risks (Kouzes & Posner). Innovation is approached with an understanding of the potential for failure and good leaders recognize the importance of proceeding carefully with small steps designed to produce small victories (Kouzes & Posner).

Diekelmann and Mikol (2003) advocate reform in nursing education that incorporates knowing and connecting with students. In the context of the nursing profession that values traditional educational approaches and transactional leadership, effective nurse leaders must be willing to support a collaborative environment where faculty and students work together (McLaughlin, 2008). The need for creative, innovative teaching strategies that emphasize active student learning is well documented (Bankert & Kozel, 2005; Schell, 2006; Chaves, 2003).

Enabling Others to Act

Effective leaders empower constituents by building trust, confidence, and collaboration (Kouzes & Posner, 2002a). "Leaders make it possible for others to do good work. They know that those who are expected to produce the results must feel a sense of

personal power and ownership" (Kouzes & Posner, 2002a, p. 18). Transformational leaders delegate power that instills a sense of strength, ownership, and capability in others. As a result others feel empowered to perform to their greatest potential with the possibility of producing exceptional results (Kouzes & Posner).

Based on a review of nursing education literature, Lee (2007) developed strategies to promote academic success based on the idea that faculty-student relationships can influence success by encouraging help seeking by nursing students. Lee's model is consistent with the practice of enabling others to act, suggesting educators should take steps to build confidence and a sense of capability among students. Faculty helpfulness, tutoring, and advisement are valued by nursing students, representing the importance of educators enabling students to do their best (Jeffreys, 1998, 2002). An engaging, supportive environment that focuses on learning and self-improvement encompasses Kouzes and Posner's leadership practice that empowers others.

Encouraging the Heart

Educators and students are often faced with challenges that can be discouraging, frustrating, and disheartening. Good leaders will encourage others to continue on by performing genuine caring acts designed to uplift and motivate (Kouzes & Posner, 2002a). Transformational leaders appreciate individual contributions and recognize group efforts with recognition, celebration, and praise. Acknowledging accomplishments creates a positive environment that encourages the hearts of individuals working hard to achieve personal and organizational goals. Consistent with this transformational practice, nursing directors are in a position to reward and recognize faculty who are committed to

student persistence and who implement strategies to enhance academic success (Stevenson, Buchanan, & Sharpe, 2006).

Nursing students have consistently expressed their need for supportive, caring, encouraging behaviors from faculty to be able to persist in school (Bankert & Kozel, 2005; Courage & Godbey, 1992; Evans, 2004; Poorman, Webb, & Mastorovich, 2002; Redmond & Sorrell, 1996). Specific behaviors identified in the nursing literature that encourage students include positive feedback, genuine respect, kindness, positive regard, and expressions of pleasure (Cook, 2005; McGregor, 2005; Redmond & Sorrell, 1996). Minority students in particular benefit from personal encouragement and emotional support from faculty (Amaro, Abriam-Yago, & Yoder, 2006; Evans, 2004; Gardner, 2005). Students not only benefit from transformational leadership, but the literature supports the five practices as beneficial to meeting organizational goals by inspiring good work among faculty and staff in educational institutions (Kouzes & Posner, 2003a).

The Leadership Practices Inventory in Education and Nursing

Several researchers have examined the leadership practices of secondary school principals and teachers using Kouzes and Posner's Leadership Practices Inventory (LPI) (Chen, 2007; Leech & Fulton, 2002; Taylor, Martin, Hutchinson, & Jinks, 2007). Findings suggest that principals with higher LPI scores had a positive impact on student academics and school improvement (Chen). Alger (2008) noted that teacher leaders scored above average in challenging the process and enabling others to act. The educational level of teachers predicted all five transformational practices and teachers with less teaching experience reported higher scores on the practices. Based on his study, Alger suggests that transformational leadership is an effective style for school leaders

involved in improvement efforts and that Kouzes and Posner's practices enhance the value placed on organizational goals and strategies to meet those goals.

One objective of an educational leader is to foster an organizational culture that emphasizes continual improvement of educational programs, teacher capabilities, and student learning. Research suggests transformational practices appear to empower teachers by motivating and inspiring improvement of classroom teaching and positively impacting student success (Alger, 2008). Transformational school principals also score higher on servant leadership with a focus on service to others and relationships (Taylor, Martin, Hutchinson, & Jinks, 2007).

Stout-Stewart (2005) used the LPI to assess leadership practices of female community college presidents and found that presidents who scored high on inspiring a shared vision, enabling others to act, and encouraging the heart had significantly more full-time students than other colleges with presidents having lower LPI scores. This finding suggests that leadership practices impact the institutional environment that affects student persistence. Presidents with doctorates also had higher scores on all practices but especially on encouraging the heart. Dikeman (2007) examined the leadership style of community college presidents finding participants scored higher on challenging the process, enabling others to act, and modeling the way.

Only one study was located that used the LPI in nursing education. Adams (2007) examined the relationship between modeling the way and enabling others to act to faculty career aspiration toward an administrative position and found no significant correlation. No study was found that used the LPI to assess all five leadership practices of nurse educators; however, researchers have used the LPI to examine the leadership style of

nurse managers in acute care settings (Bowles & Bowles, 2000; George, Burke, Rodgers, Duthie, Hoffmann, Koceja, Kramer, Maro, Minzlaff, Pelczynski, Schmidt, Westen, Zielke, Brukwitzki, & Gehring, 2002; Loke, 2001). Nurse leaders working on a unit known for excellence and innovation had higher LPI scores than nursing management on a typical acute care unit (Bowles & Bowles). Loke found a positive significant correlation between the leadership practices of the LPI and productivity, job satisfaction, and organizational commitment among nurses.

The LPI has a long, solid history of use in educational research and across many disciplines but little information exists in relation to nurses. Tourangeau and McGilton (2004) recommend more research regarding the use of the LPI in the nursing context. Studies using the LPI to assess educators and nurses suggest the LPI is an appropriate instrument to use in assessing leadership skills of nurses in an educational setting where the organizational goal is to develop strategies to enhance academic success.

Retention Strategies

The American College Testing (ACT) organization reported in 2004 that institutional interventions to improve retention in two year colleges have increased. Habley and McClanahan (2004, p. 6) report that in spite of the visibility gained in regard to community college student retention,

- Only 40.7% of campuses have identified an individual responsible for coordinating retention strategies.
- Only 27.2% of campuses have established an improvement goal for retention of students from the first to second year.
- Only 19.9% of campuses have established a goal for improved degree completion.

Strategies making the greatest impact on retention in two-year public colleges include academic advising, learning support, and assessment (Habley & McClanahan). Colleges with the highest retention rates report implementing the use of mathematics, writing, reading and foreign language labs, selective advising of at-risk students, learning communities and programs targeted for minority students (Habley & McClanahan).

Nurse educators have a key role in the development of theoretical and empirically supported retention strategies designed to promote success of nontraditional, community college students within ADN programs. Incorporating the complex interaction of factors influencing retention and knowledge of the students' perspective relative to persistence is central to designing effective retention strategies (Harvey & McMurray, 1997; Jeffreys, 2001). Early identification of risk factors facilitates incorporation of student success approaches before voluntary or involuntary departure occurs.

The importance of the first semester of a collegiate program of study has been well documented (Ehrenfeld, Roenberg, Sharon, & Bergman, 1997; Jeffreys, 2007b; McLaughlin, 2008; Reason, Terenzini, & Domingo, 2006; Rubino, 1998; Sandiford & Jackson, 2003; Simmons, Haupt, & Davis, 2005; Terenzini & Pascarella, 1980; Tinto, 2006). Jeffreys (2007b) noted the lowest nursing grades were found in the first two nursing courses, suggesting the importance of early identification of at-risk students and implementation of a success plan.

Student Support Interventions

Interventions designed to provide student support cover a wide range of strategies to address personal and academic variables. One mode of student support is financial assistance to address the number of hours students must devote to working. The amount

of financial aid available to students and student employment opportunities were the top two factors contributing to attrition in public two-year colleges (Habley & McClanahan, 2004).

Other supportive interventions focus on academic assistance. Symes, Tart, Travis, and Toombs (2002) developed a student success program that addressed academic factors focusing on study skills, test taking, time management, coping with stress, writing and oral skills, and critical thinking skills. Scores on the Nurse Entrance Test were used to identify students at risk and retention rates improved following implementation of the program (Symes, et al.).

Consistent with Tinto's model that stresses the importance of student integration into the social and academic life of an institution, freshman orientation seminars, learning assistance centers, and learning communities facilitate integration of students in a community college setting (Chaves, 2003; Habley & McClanahan, 2004). Lockie and Burke (1999) found that a study skills seminar taught by nursing faculty helped at-risk students avoid academic probation. Faculty-student interaction was a component of the seminar that was identified as important to student success particularly among the commuter students in this study (Lockie & Burke). Nursing students value faculty who are available to offer practical assistance and support (Redmond & Sorrell, 1996; Shelton, 2003).

Student advisement is one way to support student success (Habley & McClanahan, 2004; Stevenson, Buchanan, & Sharpe, 2006). McArthur (2005) suggested that when faculty are persistent in contacting and advising students, perception of faculty caring

increased. Another study noted that community college students contacted and visited by a college counselor were more likely to persist (Willett, 2002).

Higgins (2004) examined the impact of a peer tutoring program on academic success in a medical-surgical nursing course and found that attrition in the course decreased from 12% to 3%. Tutoring had no relationship to nursing course grades in another study but students gave positive feedback about helpfulness of the sessions (Potolsky, Cohen, & Saylor, 2003). Jeffreys (2001) found ADN students who participated in peer mentor/tutor study groups reported positive psychological benefits, higher grades, and greater retention in nursing courses.

Graduation rates for African-American and Hispanic students from entering community college to graduating from an ADN program have been reported as low as 4.6% (Perin, 2006). The healthcare industry is seeking to increase the number of ethnic minorities entering the nursing profession, thus making strategies to enhance their success particularly significant (Institute of Medicine, 2004). Minority nursing students need support services based on cultural awareness and knowledge of their special needs (Wells, 2003). In a review of literature, Gilchrist and Rector (2007) documented the need for a multifaceted range of support services for minority students. Best practices identified were academic assistance with reading, testing and study skills, group tutoring, the use of varied teaching strategies, and personal contact with faculty and peers that creates a sense of inclusiveness (Gilchrist & Rector). The importance of psychological support and encouragement to minority students is well supported (Gardner, 2005; Stokes, 2003; Symes, Tart, Travis, & Toombs, 2002)

Teaching Strategies

An important role of faculty according to Tinto (2006) is effective teaching which is central to student retention. Pratt, Boll and Collins (2007) reviewed the literature regarding perspectives on teaching and learning among nursing faculty and concluded that educators often have multiple perspectives regarding the educational process and that students may benefit from a variety of views toward student learning. Exposing students to multiple teaching modalities may improve student success and retention (Pratt, et al.).

The benefits of engaging students in collaborative, interactive approaches to learning are widely recognized (Diekelmann & Mikol, 2003; Habley & McClanahan, 2004; McLaughlin, 2008; Royse & Newton, 2007; Schell, 2006). Incorporating student engagement via group discussion may improve grades, according to a study by Johnson and Mighten (2005). Best practices in student retention include the following key aspects of student engagement: active, collaborative learning, faculty-student interaction, and support (McClenney & Waiwaiole, 2005). The importance of classroom involvement is particularly evident in community colleges where student integration in the college takes place.

Evans (2004) suggests tutoring, accommodation of different learning styles, cooperative teaching, and holistic teaching-learning environments may facilitate the academic success of minority students. Orientation, tutoring, advisement, continued assessment, achievement awards, and stress management are other academic services that can be developed by nurse educators to improve the chance of student success (Courage & Godbey, 1992). In their meta-analysis of student retention, Campbell and Dickson

(1996) identified support groups, computer-assisted instruction, personalized instruction, and an integrated curriculum as effective strategies in promoting student success.

Faculty Development

Faculty need to understand their role in student retention (McLaughlin, 2008). Faculty development programs that educate instructors on how to implement retention strategies and teach effectively for student success have contributed to improvement in student success (Courage & Godbey, 1992; McShannon, Hynes, Nirmalakhandan, Venkataramana, Ricketts, Ulery, & Steiner, 2006). Administrators are in a position to allocate resources for faculty development, adjusting work assignment and creating incentives for faculty members to become more committed to creative teaching modalities and strategies to promote retention (Schell, 2006). Department chairs can also take a leadership role in developing retention strategies supported in the literature. Faculty support from educational leaders is central to fostering a caring, student-friendly environment where instructors are encouraged to create innovative ways to promote student success.

Statement of the Problem

The link between the need for new nurses and retention of students enrolled in nursing programs is apparent. The number of qualified students accepted into ADN programs is limited, making successful completion of the course of study important in meeting the nursing employment needs of health care agencies. Associate degree programs produce the majority of registered nurses in the United States, making investigation into retention factors in this type of institution significant. Student retention is a priority for college administrators because of the high cost of operating a nursing program. Financial as well

as psychological costs associated with student attrition justify the continued search for strategies that may improve graduation rates in ADN programs.

Summary

Educational research is replete with studies examining factors related to college student retention. The literature review addressed studies using samples of community college students and nursing students in baccalaureate, associate degree, or diploma programs. A wide array of factors has guided research to examine student variables impacting voluntary or involuntary departure. Pre-entry academic predictors of student success have been widely investigated with results suggesting the importance of high school grades, pre-nursing general education course grades, and preadmission test scores in predicting student success. In particular, science course grades and English scores on preadmission tests relate to academic success among nursing students.

Studies addressing other variables such as student demographic data and psychosocial factors have been helpful in assessing student risk for early departure, particularly among community college students. Employment, family responsibilities, time management, stress, and personal problems impact academic success among community college students. Although results are mixed, the majority of research data suggests minority nursing students are less likely to graduate then Caucasian students.

In addition to pre-entry student characteristics, external commitments, and psychological factors, researchers have begun to examine institutional experiences that may affect student attrition. Tinto and Jeffreys have recently advocated more research to be conducted on the institutional factors central to Tinto's model. Tinto (2006) believes

researchers should begin to examine faculty and institutional practices that may be influential in student retention or departure.

The importance of faculty support is well-documented among nursing students although few studies have empirically examined faculty support. Positive feedback, respect, kindness, availability, and approachableness were common themes identified in qualitative studies suggesting positive faculty-student relationships are important to student success in a demanding nursing curriculum. Positive relationships are central to the transformational leadership model espoused by Kouzes and Posner. Transformational leadership in education has been associated with better student performance among secondary school students and increased enrollment in community colleges with more transformational presidents. Among nurse leaders in hospital settings, transformational leadership related positively to departmental goal commitment and job performance. Nursing leaders who practice being positive role models, inspiring a shared vision, enabling others to act, challenging the process, and encouraging others may have a positive influence on faculty-student relationships within a nursing program.

Three studies examined leadership styles of nursing program directors using the Multifactor Leadership Questionnaire (MLQ). No study used Kouzes and Posner's model to examine leadership practices of ADN nursing leaders and no study linked departmental leadership and nursing student retention. Effective leadership is needed within nursing schools to accept the challenge of meeting the complex educational needs of nontraditional community college students. Many nursing program directors accept the position with little leadership experience (Adams, 2007; Chen, Beck, & Amos, 2005). A study designed to assess leadership practices will inform directors of areas for

professional development. Nursing directors play an important role in developing policies and defining a departmental culture that fosters student success. Kouzes and Posner (2002a, 2002b) conducted extensive research to validate five transformational leadership practices that were found to enhance achievement of organizational goals and empower others to perform outstanding work.

Nursing program directors have a leadership role in developing retention strategies supported in the literature. The literature supports Kouzes and Posner's transformational leadership practices as beneficial for leaders who need to challenge the way things have always been done. In the context of nursing education that values tradition dating back to Florence Nightingale, educational leaders may benefit from adopting transformational behaviors that inspire a caring, student-friendly environment where faculty are encouraged to create innovative strategies to promote student success.

Tinto (2006) believes effective education is central to student success. Other authors stress the importance of faculty use of innovative teaching strategies that address student needs; however, little empirical evidence was found that supports specific strategies used among college students. Additional retention strategies identified in the literature were categorized as student support and faculty development. A study that examines retention strategies used in programs with high retention rates will contribute to the evidence base to guide leadership decisions related to development of strategies that may improve nursing student success.

The primary goal of this research study was to describe leadership factors and student success strategies as related to student retention rates in ADN programs. Kouzes and Posner's leadership model was used because the five practices incorporate concepts

apparent in the retention literature. The researcher used a researcher-designed questionnaire and the LPI-Self to examine relationships between leadership practices of ADN directors, retention strategies used, and published student retention rates. Benefits of the study include increased awareness of leadership behaviors among nurse educators and knowledge of the extent of any relationship between transformational leadership behaviors, retention strategies and retention rates. The study also provides data to support or reject retention strategies currently being used within ADN programs. Chapter Three of the dissertation details the method used to implement the study.

CHAPTER 3: METHODOLOGY

The purpose of this research study was to examine faculty and leadership factors related to student retention in Associate Degree Nursing (ADN) programs. In this chapter, the researcher presents the questions and hypotheses that drove the research and describes the participants, procedures, design, and data analysis used in conducting the study.

Research Questions and Hypotheses

The first research question addressed the transformational leadership practices of directors in ADN programs as measured by the Leadership Practice Inventory (LPI-Self) and was primarily descriptive. The second research question addressed the relationship between leadership practices of ADN program directors and student retention rates and tested the following hypotheses:

> Null Hypothesis: There is no relationship between leadership practices of ADN program directors and student retention rates.
>
> Alternate Hypothesis: There is a relationship between leadership practices of ADN program directors and student retention rates.

The third research question focused on retention strategies that have been implemented within ADN programs with high retention rates and is primarily descriptive.

Participants and Setting

Participants were recruited from a population of ADN directors in North Carolina to address the research questions and identified hypotheses. A list of program directors was obtained from the state board of nursing website. Administrative titles vary among colleges with some nursing leaders labeled as deans, department chairs or directors who also retain faculty responsibilities. This researcher used the list of administrators provided on the official state board of nursing website for contact information for each leader of an ADN program. Colleges are required to notify the board of nursing within 20 business days of new leadership; therefore, the list is kept current. Two ADN programs are operated within universities and two are operated by hospitals. Forty-nine ADN programs are offered by community colleges. The total North Carolina ADN program population for this study was 53.

Description of ADN Program Administrators and Faculty

Demographic data related to ADN faculty within community colleges were obtained from a recent study conducted by The Shep Center at UNC-Chapel Hill. The majority of the sample for the Shep Center study was retrieved from the population of interest. The average age of faculty in the community college system ADN programs was 47 during 2002 - 2005 with 67% of full time faculty holding masters degrees (Fraher, Belsky, Carpenter, & Gaul, 2008). The majority of administrators are female (North Carolina Board of Nursing, n. d.). The average number of years ADN faculty worked at their institutions was approximately 10 years with an average turnover of 52% during 2002-2005 (Fraher, et al.). Since faculty members make up the applicant pool for program deans and directors, these statistics are applicable to subjects of this study. Ethnicity was

not available but was included in the demographic questionnaire for this study in order to describe the sample.

Selection Criteria

All program directors were selected from the list of ADN program administrators provided on the state board of nursing website. Program directors were solicited for this study to represent leadership and faculty roles in ADN programs. According to the administrative codes of the state, a program administrator must have at least two years experience as a faculty member. State regulations dictate that administrators of nursing programs must have non-teaching time sufficient to permit program organization, evaluation, and planning, suggesting administrators typically retain some teaching responsibilities (North Carolina Board of Nursing, n. d.).

Sampling

All ADN program directors were recruited. The number of potential subjects was 53 program directors according to the NC Board of Nursing listing. A sample size of 30 is a general guideline for research designed to establish existence or nonexistence of a relationship (Gay, Mills, & Airasian, 2006). The proposed study was designed to examine the extent of any relationship between transformational leadership practices and student retention.

Setting

Subjects in this study reside in a southeastern state in the United States. The racial makeup of the state is predominately white American (70%) with 25% African-American, 1% American Indian, and the remaining Hispanic or Latino (North Carolina, 2008). The state has 100 counties with most residents living in the middle one third of the

landmass that includes urban and suburban areas with several large, diverse, and affluent cities (North Carolina). The community college system is made up of 58 schools with 55 offering the Associate in Applied Science in Nursing degree (North Carolina Community College System, n. d.). Two ADN programs are made up of a consortium of three local community colleges. The system serves all 100 counties with individual colleges serving areas that may include one or more counties (North Carolina Community College System, 2008). Students can apply to any college regardless of their residence.

Procedure

The researcher followed recommended guidelines for the conduct of research with human subjects. Participants completed two questionnaires following typical procedures for survey research.

Demographic Questionnaire

The researcher developed a brief demographic questionnaire using principles of Tailored Design (Dillman, 2000). Measurement error was reduced by writing questions in such a way that the chance of inaccurate or misunderstood answers was decreased. Principles used in developing the questionnaire included using simple, clear terminology with as few words as possible, avoiding vague quantifiers or too much specificity, creating response categories that were mutually exclusive, providing appropriate time referents, and making sure questions were technically accurate (Dillman).

Questions related to gender, age, ethnicity, experience, and education were included to describe the sample allowing generalization to similar populations. This data may also be used to control for variables that may influence results although demographic variables appear to have little influence on self-assessment of leadership style (Alger, 2008;

Kouzes & Posner, 1987, 2002b). Questions relating to the subjects' administrative role reference the years of service because retention rates used in this study were from 2005-2007. Subjects who were not employed during those years must be delineated for accurate interpretation of results. If directors were faculty members between 2003 and 2007, their leadership scores were still used as relating to the retention of students during the years of reported retention rates. The retention literature supports the influence of faculty support and the behaviors measured by the LPI as important to student retention.

Most ADN program directors retain teaching responsibilities; therefore, one question assessed an estimated percent of time spent teaching versus performing administrative duties. Answers indicated time spent by directors in direct contact with students. Specific years were delineated in order to apply the information to the years of reported retention rates. Respondents reported the name of the college where they worked each year in order to match survey results with retention rates listed for each ADN program obtained from the NC Board of Nursing website. The number of ADN directors at each participant's current school was asked because of the reported high turnover among faculty. This data was used to describe the sample.

The last question on the demographic questionnaire asked program directors about retention strategies used within their nursing programs during the years of reported retention rates. An open-ended question was used to avoid leading questions that might suggest a desired answer. Answers to this question provided qualitative data to inform an analysis of strategies used within programs with high retention rates. After completing the demographic questionnaire, subjects were asked to complete the LPI-Self to assess

their transformational leadership behaviors. A copy of the demographic questionnaire is located in Appendix A.

Leadership Practices Inventory (LPI)

The Leadership Practices Inventory (LPI) was developed from extensive quantitative and qualitative studies (Kouzes & Posner, 1987, 2000, 2002b; Leong, 2004; Lewis; 2004). The conceptual model is based on personal-best leadership experiences of thousands of individuals that translated into behavioral statements used in the tool. The LPI contains six statements for each of the five practices of exemplary leaders: modeling the way, inspiring a shared vision, enabling others to act, challenging the process, and encouraging the heart (Kouzes & Posner, 2002b). Each statement was originally evaluated on a 5-point Likert type scale but was changed in 1999 to include a more sensitive 10-point scale (Kouzes & Posner, 2000, 2002b). The Likert scale indicates the frequency of the transformational leadership behaviors: 1 = almost never; 2 = rarely; 3 = seldom; 4 = once in a while; 5 = occasionally; 6 = sometimes; 7 = fairly often; 8 = usually; 9 = very frequently; 10 = almost always (Kouzes & Posner, 2002b). A higher value on the 10-point scale indicates more frequent use of a specific leadership behavior. Each subject had a score on each leadership practice and an overall average score. The range of scores for each practice is a low of 6 to a high of 60. The LPI-Self and the LPI-Observer are identical instruments with the LPI-Self used for self assessment and the LPI-Observer used for assessment of leaders by others. The LPI-Self was used in the current study.

Kouzes and Posner (1987) estimated face validity of the LPI based on discussions with focus group participants who described good leadership experiences. The authors

used expert validity in the initial development of the tool with input from professionals in business, management, psychology, and organizational behavior (Kouzes & Posner, 1987). Empirical validity was determined via factor analysis with five factors extracted with eigenvalues greater than 1.0 and accounting for 60% of the variance (Kouzes & Posner, 2002b). The LPI has been used in multiple studies within a variety of organizational settings reporting consistent validity based on factor analysis (Kouzes & Posner, 1987, 2000; 2002b; Leong, 2004).

Test-retest reliability produced estimates ranging from .93 to .95 (Kouzes and Posner, 2002b; Leong, 2004). Internal consistency values for the LPI self assessment range from .70 to .85 (Leong, 2004; Lewis, 2004). Gender differences and cross-cultural studies with the LPI have found few significant differences across ethnic groups and gender (Leong, 2004; Posner & Kouzes, 1993; Kouzes & Posner, 1987). Lewis (2004) identifies the LPI as "one of the most extensively researched management development tools I have encountered. It is a model of sound research design from initial development and refinement through subsequent concurrent validity studies" (p. 4).

LPI Subscales

Several studies have reported reliability and validity of the LPI subscales of modeling the way, inspiring a shared vision, enabling others to act, challenging the process, and encouraging the heart. Kouzes and Posner (1987) reported internal reliability among the five subscales of the LPI-Self as ranging from .69 to .85. Posner (2008) later reported internal reliability coefficients for the LPI-Self subscales ranging from .73 for enabling others to act, .74 for modeling, .79 for challenging processes, .88 for inspiring, and .86 for encouraging others.

In his review of the LPI, Leong (2004) reported factor analysis of the 30 items resulted in five factors with all loading in the appropriate construct. The five subscales accounted for 60% of the variance. Stability of the five factors also tested across subgroups with factor analyses stable across samples involving 36,000 subjects (Leong, 2004). Tourangeau and McGilton (2004) investigated psychometric properties of the LPI when used to examine leadership practices of nurses. Factor analysis of the 30 items on the LPI suggested a three factor solution instead of the five factors in the original LPI. Findings suggested leadership behaviors relating to vision and taking risks could be grouped into one factor, implementing and achieving a shared vision reflected a new factor two, and supportive leadership behaviors could be reflected in a third new factor. The three factor solution revealed psychometric properties as powerful as the original five factor LPI. Construct validity was estimated with similar structures found with the LPI-Self and the LPI-Observer (Tourangeau & McGilton). Tourangeau and McGilton suggest the three factors would be useful in developing a shorter instrument although they concede that the five subscales may provide more detail regarding specific leadership behaviors. This study will use all five subscales of the LPI for analysis.

Similar to Tourangeau and McGilton's (2004) findings, Zagoresek, Stough, and Jaklic (2006) found some items on the LPI contributed little to the overall precision of the instrument. The LPI subscales performed better for study participants with low to modest levels of transformational leadership. Carless (2001) examined the construct validity of the LPI with a sample of international bankers using confirmatory factor analysis. Carless concluded that the LPI effectively measured overall transformational leadership behaviors but had weak discriminant validity.

Selection of the LPI for measurement of leadership practices of ADN program directors was based on several factors. Reports of high reliability coefficients and evidence of construct validity suggest trustworthiness of the LPI in measuring transformational leadership behaviors. In the review of literature, the five leadership practices were linked conceptually to supportive faculty behaviors that may have a positive influence on student success. The literature also suggests transformational leaders create an institutional climate that supports employee commitment to institutional goals. This researcher selected the LPI-Self as a method to empirically measure behaviors that may relate to nursing student retention. Written consent to use the LPI in the current study was obtained from Dr. Barry Posner (see Appendix B).

Retention Rates

Data regarding retention rates were accessed on the state Board of Nursing website. The report developed by researchers from the North Carolina Center for Nursing entitled North Carolina Trends in Nursing Education: 2003-2007 is located under data requests and statistics. Information in this report is based on data collected from program directors in an annual report submitted each October to the NC Board of Nursing (Lacey & McNoldy, 2008). The survey instrument used by the Board of Nursing was extensively revised in 2002, greatly improving the quality and quantity of information retrieved from nursing programs (Lacey & McNoldy). Retention rates are available for 51 ADN programs.

Retention rates are published annually along with three year completion rates for all types of nursing programs. Use of aggregate three year on-time completion rates allows for yearly fluctuations and is the completion rate used by the Board of Nursing to assess

program success and eligibility for expansion (Lacey & McNoldy, 2008). On-time completion rate used in the Center for Nursing report is defined as "the percent of an entering cohort of new students that graduates when expected, given the curriculum length and sequence of their program" (Lacey & McNoldy, p.3). This strict definition of on-time completion is a conservative measure not including students who may temporarily drop out and eventually graduate.

Data Collection

The researcher developed a survey package that included a cover letter describing the study, the demographic questionnaire, and the LPI-Self. The surveys were mailed or hand delivered to all ADN program directors in the state of North Carolina. Survey completion is a type of social interaction in which researchers should establish trust with participants, provide rewards, and reduce social costs of completing the survey (Dillman, 2000). An e-mail was sent to participants one week prior to data collection regarding the upcoming surveys they would receive in the mail. The e-mail message was designed to "support group values" (Dillman, p. 16) by stating how the study had the potential to provide information about the impact of leadership behaviors and retention efforts on retention rates among ADN programs. The message showed respect for the directors and instilled interest in the upcoming study. One type of reward received from completing surveys is social support and a feeling of being helpful (Dillman). The potential social cost of embarrassment or concern related to leadership practices being associated with student attrition was reduced by not using names and using aggregate data.

The survey package was mailed with a self-addressed stamped return envelope and a request to return the surveys by a designated date. Five dollars was included in the survey

package as a token of appreciation and to help establish trust by rewarding participants before the survey was completed (Dillman, 2000). Dillman supports the use of a small financial incentive as helpful in increasing survey response rate. Follow-up phone calls and e-mails were used as reminders for directors failing to respond by the designated date. Follow-up contact for unreturned surveys is an essential component in improving return rate (Dillman, 2000; Gay, Mills, & Airasian, 2006).

Institutional Review Board Approval

A protocol application was approved by the UNC-Charlotte Institutional Review Board. The application included a summary of the study including purpose, investigator, description and length of participation, risks and benefits of participation, volunteer statement, confidentiality, and fair treatment for study participants. The study application was classified as exempt with no risk to human subjects.

A cover letter included the following information to assure informed consent and protection of human subjects: purpose of study, investigator, description and length of participation, risks and benefits, volunteer statement, confidentiality, and fair treatment statement. A copy of the cover letter given to each subject is located in Appendix C. Informed consent was implied if subjects completed the questionnaires.

Design and Data Analysis

Survey research was the method used to collect data for this study. Survey research describes areas of interest by asking questions of study participants and is one of the most important areas of measurement in applied social research (Gay, Mills, & Airasian, 2006; Trochim, 2006). Descriptive data was collected via self-report in the demographic portion of the survey. Independent variables related to transformational leadership style were

used to predict the dependent variable of retention rate. Leadership practices were empirically measured with the Leadership Practices Inventory-Self. Retention strategies were identified via an open-ended question on the demographic questionnaire. Strategies were categorized and coded to quantify the data.

Leadership Practices of ADN Program Directors

The strength of transformational leadership practices was measured by scores on the LPI-Self. The average score for all respondents was reported for each practice: modeling the way, inspiring a shared vision, challenging the process, enabling others to act, and encouraging the heart. Distribution of LPI-Self scores was reported for all respondents including minimum score, maximum score, mean, and standard deviation for each of the five practices. Kouzes and Posner consider a high transformational leadership score to be at or above the 70th percentile, a low score to be at or below the 30th percentile, and a moderate score in the 31 to 69 percentile range (Kouzes & Posner, 2003b).

Relationship Between Leadership Practices and Student Retention Rates

Multiple regression analysis was used to determine the extent to which leadership practices predict student retention. Multiple regression has been used in similar studies designed to examine the relationship between leadership practices using the LPI-Self and identified outcomes (Alger, 2008; Mosbaker, 2005). Multiple regression is a prediction equation that includes more than one predictor and can be used to analyze results of correlational studies (Gay, Mills, & Airasian, 2006). Multiple regression indicates the amount of variance accounted for by the regression equation (Gravetter & Willnau, 2007). Use of multiple regression will suggest which of the five leadership practices has more influence on retention rates. The level of significance was set at $p = .05$.

Bivariate correlation was used to assess relationships between the five subscales of the LPI-Self and retention rates. Dikeman (2007) used the LPI-Self in a similar study and used correlation and regression analysis to explore a relationship between transformational leadership and ethics among community college presidents.

Retention Strategies

Qualitative data obtained from the questionnaire were analyzed and coded according to commonalities, differences, and patterns resulting in identification of themes or categories of retention strategies (Esterberg, 2002). Open coding avoids the use of predetermined codes and decreases researcher bias based on expectations of what should be in the data (Esterberg). Codes were written at the bottom of the questionnaires with colored highlights used to designate common themes. To reduce bias in data analysis, a nurse educator with 20 years of teaching experience in an ADN program was asked to review the researcher's themes and categories. After themes were established, the researcher made a comparison of the retention strategies of the ten programs with the highest retention rates and ten programs with the lowest retention rates.

Summary

The purpose of this research study was to examine faculty and leadership factors related to student retention in Associate Degree Nursing (ADN) programs. The following hypotheses were examined: the existence of no relationship between leadership practices of ADN program directors and student retention rates or the existence of a relationship between leadership practices of ADN program directors and student retention rates. Subjects were recruited from a population of ADN nurse educators in North Carolina to address the research questions and identified hypotheses.

A survey method was used to quantify data for the study. A demographic questionnaire designed by the researcher provided data regarding age, ethnicity, education, years of experience, employment, and administrative and teaching roles. Included in the questionnaire was a question designed to collect information about retention strategies used within the nursing programs. This data was coded for analysis. The LPI-Self, a widely used and tested instrument designed to measure transformational leadership behaviors, was used to quantify transformational leadership. The questionnaires were sent to ADN program directors via United States mail. Descriptive statistics, correlation, and multiple regression were used to analyze data relevant to each research question. Chapter Four contains descriptive statistics concerning transformational leadership practices of the ADN program directors. The extent of the relationship between leadership style and retention rates was examined using bivariate correlation and multiple regression with results reported in Chapter Four.

CHAPTER 4: FINDINGS AND ANALYSIS

The purpose of the study was to describe leadership practices and retention strategies in relation to student retention rates in ADN programs. The Leadership Practices Inventory-Self was used to measure transformational leadership practices of ADN program directors. Relationships between leadership practices of ADN directors and student retention rates were examined along with retention strategies used in nursing programs. This chapter describes the participants followed by a report of the statistical findings relating to the transformational leadership practices of ADN program directors, the relationship between leadership practices and student retention rates, and retention strategies used within ADN programs.

Participants

A survey packet containing a cover letter, demographic questionnaire, and the LPI-Self was mailed to 50 ADN program directors in North Carolina. Two directors who retired within the last year and one who left her position in 2008 were asked to complete surveys because they were directors between 2003 and 2007. Survey packets were hand delivered to these three participants. Data from current directors of these three programs were not solicited so that each program would be represented only once. Of the 53 surveys delivered, 49 surveys were returned for a response rate of 92%. One subject who did not respond is listed as an interim director on the NC Board of Nursing website.

Of the 49 study participants, the majority were middle aged (M = 51, SD = 8.46), 90% Caucasian, 96% female, and 80% had a Master of Science in Nursing. African Americans made up 8% of the sample with 2% Hispanic or Asian ethnicity. Twelve percent of directors had doctorates, 4% had a Masters in Education, and 4% had other types of masters degrees. Administrative experience, measured as number of years as an administrator of an ADN program, ranged from less than 1 year to 28 years with an average of 6.7 years experience. Twenty-nine percent had 1 to 2 years of experience. Turnover among ADN program directors was represented by the number of directors at each school between 2003-2007 (M = 1.6, SD = 1.0). Fifty-three percent of ADN programs had the same director and 35% had two directors during the designated years. The mean number of years a participant was an administrator at his or her current school between 2003-2007 was 2.2 years with all but one serving in a faculty role during that time. Forty-three percent served all four years as directors and 12% were faculty members all four years with no administrative responsibility reported. Program directors spend the majority of their time in an administrative role (M = 62.7%, SD = 37.9); however, this varies widely among schools (see Table 4). Time spent in administrative and teaching roles reported in Table 4 did not equal 100% because one participant reported working in a hospital during the targeted years. The large standard deviation reflects a range of zero administrative responsibility by 16% of participants who were faculty members during the four designated years to 100% administrative work by 22% of participants.

Table 4

Age, Experience, Administrative, and Teaching Roles (N = 49)

Variable	*M*	*SD*
Age	51.10	8.46
Years as Administrator	6.74	6.77
Percent Time in Administration	62.71	37.88
Percent Time Teaching	35.24	37.11

Research Question One: Leadership Practices of ADN Directors

Results of Data Analysis

The first research question was the following: What are the leadership practices of directors in ADN programs as measured by the Leadership Practice Inventory (LPI-Self)? This research question was answered by analyzing participant answers to 30 questions on the LPI-Self. Software included in the *Leadership Practices Inventory Facilitator's Guide* (2003c) was used to calculate scores for each leadership practice resulting in five scores on the following: Model the Way, Inspire a Shared Vision, Challenge the Process, Enable Other to Act, and Encourage the Heart (see Table 5).

Table 5

Descriptives of Leadership Practices (N = 49)

	Min	Max	*M*	*SD*
Model the Way	33.00	60.00	49.73	5.75
Inspire Shared Vision	28.00	59.00	46.85	8.01
Challenge the Process	30.00	60.00	47.16	6.48
Enable Others to Act	37.00	60.00	52.14	4.65
Encourage the Heart	35.00	60.00	49.85	6.24
Average of Five Scores	36.00	59.80	48.92	5.50

Kouzes and Posner (2003c) have published percentile rankings that were used to compare the scores of ADN program directors in North Carolina to others who have taken the LPI-Self. The database includes over 250,000 LPI surveys and is updated often with the most recent data retrieved from 2500 to 5000 respondents (Kouzes & Posner). Percentile rankings provide benchmarking numbers based on a ". . . relatively normal bell-shaped distribution of scores" (2003c, p. 114). A "high" transformational leadership score is defined at or above the 70th percentile, a "moderate" score falls between 31 and 69 percent and a "low" score is one at the 30th percentile or below (2003c). Raw scores vary for each leadership practice in relation to percentile rank. The scores in Table 5 are based on a sample from Kouzes and Posner (2003b) and were used to interpret program director scores on each transformational leadership practice (see Table 6).

Table 6

LPI Raw Scores and Percentile Rankings

	Model	Inspire	Challenge	Enable	Encourage
High	51 - 60	50-60	50 - 60	53 - 60	52 - 60
Moderate	44 - 50	40 - 49	43 - 49	47 - 52	43 - 51
Low	22 - 43	18 - 39	24 - 42	24 - 46	22 - 42

Adapted from Kouzes and Posner (2003b)

Mean participant scores for each leadership practice can be interpreted as moderate based on percentile rankings published by Kouzes and Posner (2003b, 2003c). Scores ranged from the highest (M = 52.14, SD = 4.65) on the leadership practice of enabling others to act to the lowest on inspiring a shared vision (M = 46.85, SD = 8.01). Challenging the process had the highest percentage of low scores (22.4%) and the next lowest mean (M = 47.16, SD = 6.48). The average of all five transformational leadership practice scores was in the moderate range (M = 48.92, SD = 5.50). The percentage of respondents who scored at the low, moderate, and high levels for each transitional leadership practice is reported in Table 7.

Table 7

Percent of Directors with Scores for Level and Practice

	Model	Inspire	Challenge	Enable	Encourage
Low	14.3 %	18.4 %	22.4 %	2.0%	14.3 %
Moderate	44.9 %	32.6 %	34.7 %	51.1 %	40.8%
High	40.8 %	49.0%	42.9 %	46.9 %	44.9 %

Research Question Two: Leadership Practices and Retention Rates

Results of Data Analysis

The second research question was as follows: Is there is a relationship between leadership practices of program directors and student retention rates? A standard multiple regression was conducted to predict student retention rates from scores on five transformational leadership practices defined by Kouzes and Posner: modeling the way, inspiring a shared vision, challenging the process, enabling others to act, and encouraging the heart. Prior to analysis, data were screened for missing data, outliers, and assumptions. There were no missing data. Two outliers were noted for model the way and inspire a shared vision, one for challenge the process and enable others to act, and none for encouraging the heart. Data analysis was conducted with and without outliers noting no difference in results. The decision was made to include outliers in data analysis with the knowledge that outliers may impact data interpretation.

Leadership practice means, standard deviations, and sample size are reported in Table 8. Means and sample size differ from those reported previously because two participants were excluded due to no reported retention rates. Visual inspection of histograms and skewness coefficients with absolute values less than one indicated no serious departure for normality. Visual inspection of residuals indicated the assumption of homoscedasticity was satisfied. No significant correlation was noted between any of the leadership practices and student retention although the five independent variables had high intercorrelation coefficients (see Table 9). The decision was made to continue with data analysis due to the exploratory nature of this study and the possibility of some influence on the dependent variable.

High correlation coefficients among the independent variables along with variance inflation factors (VIF) ranging from 2.13 – 5.03 suggest a problem with collinearity.

Table 8

Descriptives for Variables (N = 47)

	Min	Max	*M*	*SD*
Retention Rate	15.9	86.7	58.30	13.71
Model the Way	33	60	40.64	5.80
Inspire Shared Vision	28	59	46.72	8.16
Challenge the Process	30	60	47.09	6.59
Enable Others to Act	37	60	52.02	4.67
Encourage the Heart	35	60	49.62	6.20

Table 9

Correlation Coefficients for LPI Subscales and Retention Rates (N = 47)

	Inspire Vision	Challenge Process	Enable Others	Encourage Heart	Retention Rate
Model the Way	.813**	.716**	.651**	.698**	-.047
Inspired Shared Vision	__	.855**	.569**	.695**	.203
Challenge Process		__	.658**	.715**	.114
Enable Others			__	.633**	.002
Encourage Heart				__	.162
Retention Rate					__

**correlation is significant at the .01 level

The decision was made to proceed with data analysis despite regression coefficients that were not well estimated with the understanding that results must be interpreted with caution. Regression analysis was conducted on the dependent variable, student retention rate. A total of 47 subjects were included in the analysis. Two participants were not included because their nursing programs are new and have no reported retention rates during the designated years.

The unstandardized regression coefficients (*B*), standard error, and standardized regression coefficients (β) are reported in Table 10 despite a nonsignificant R^2. The variance accounted for (R^2) equaled .22, which was not significantly different from zero ($F = 2.28$, $p = .064$). Two of the five leadership practices, modeling the way and inspiring a shared vision, may have contributed significantly to the prediction of retention rates. Inspiring a shared vision had the largest positive standardized beta. Modeling the way was significant with the next highest standardized beta that was negative, suggesting that

when scores on modeling the way increased, retention rates decreased. Regression results should be interpreted with caution due to no statistically significant relationship between subscales and high intercorrelation between the leadership practices. The overall regression model supports the null hypothesis of no relationship between leadership practices and student retention rates.

Table 10

Regression Analysis for Variables Predicting Retention Rates

Variable	*B*	SE *B*	β
Model the Way	-1.72	.63	-.725*
Inspire Shared Vision	1.41	.55	.839*
Challenge the Process	-.625	.62	-.300
Enable Others to Act	.023	.60	.008
Encourage the Heart	.654	.49	.295

*$p<.05$

Research Question Three: Retention Strategies

The third research question was as follows: What retention strategies have been implemented within ADN programs with high retention rates? Participants answered two open-ended questions on the demographic questionnaire relating to what retention strategies have been used within ADN programs. The first question asked participants to list any strategies used to enhance student success and retain students in their nursing department between 2003 and 2007. A second question asked the director's opinion about the most effective retention strategy for ADN students. Of the 49 responses, two

were from directors of nursing programs that did not exist during the designated years. Their responses are not included in the discussion of findings. The researcher used colored highlights and note cards to analyze the participant responses and code the data according to commonalities, differences, and patterns. Themes relating to selective admission criteria, academic assistance and remediation, faculty-student interaction, and college resources were identified. A nurse educator with 20 years experience in ADN education in North Carolina reviewed the data and verified the themes and sub-themes for accuracy. Subthemes are identified by italics within the text. A discussion of themes extracted from qualitative data from all program directors will be followed by an analysis of strategies used within programs with high retention rates to address research question three.

Selective Admission Criteria

Directors identified competitive admission criteria as a method for selecting students most likely to succeed in their nursing programs. Respondents used words like "strict," "competitive," "selective," "strong," and "appropriate" in describing their admission standards. *Standardized pre-admission tests* were used to evaluate academic qualifications of potential students with some schools ranking applicants based on test scores and others designating cut-scores to narrow the applicant pool. The standardized admission test mentioned most often has four academic components: reading, math, English and science. One director "initiated the use of reading scores" in her admission criteria during the designated years. She feels the most effective retention strategy involves assessment of academic preparedness prior to acceptance stating, "Most of our initiatives are based on making sure students are adequately prepared *before* they enter

the ADN program. If they can't read, write, or do math before coming into the program they will not be successful." Another respondent summarized the sentiment of many directors with this statement, "Strengthening admission criteria to ensure the student has the ability to be successful" is the most effective retention strategy for ADN students.

Another indication of preparedness for a nursing program is *pre-admission coursework.* Three directors added completion of a certified nurse assistant course to their admission criteria during the designated years. Several administrators mentioned the importance of students completing general education courses, particularly science courses, prior to admission into nursing programs. Only one person mentioned GPA in pre-admission courses. Some strongly encouraged completion of required co-requisite courses; others award points in their admission formula for required courses taken. One director from a school with a retention rate within the top eleven in the state wrote, "So many of our students must work while in school so their success in school is better if they have completed the general education courses. We really encourage students to get as many of those courses done as possible before they apply."

Academic Assistance and Remediation

The need for *early identification of "at risk" students and "prompt, early remediation*" was a common thread in the area of academic assistance. Several directors mentioned the importance of faculty meeting individually with students who have an average below 80 after one or two tests. One respondent wrote that she "assigned an instructor advisor/mentor the first semester to assist students with study techniques, testing techniques, and transition into the program." Another administrator wrote that students are identified as "at risk" after instructors meet one-on-one with students to

review study habits and identify weaknesses in reading comprehension and math based on standardized test scores. These at-risk students are then guided to the appropriate resources for academic assistance. One director uses an "academic counselor" who issues grade warnings aimed to permit early intervention to improve chances of success.

Another method of early intervention repeatedly cited was the inclusion of a preparatory session with accepted students during the semester prior to entrance into the nursing program. Directors labeled these sessions with a variety of phrases such as "orientation/success workshops," "pre-program workshop on test-taking skills," or "summer orientation and success workshop." Several directors incorporated a study skills course prior to or early within the nursing curriculum.

Directors identified *remediation* as important to retention of nursing students. One suggested the need for remediation following all tests with scores less than 80%. Remediation can take the form of a referral to the nursing lab where students can practice nursing skills or the computer lab where electronic media can provide opportunities for students to practice testing skills and decision-making with the use of case studies. Several directors reported the use of "open labs" for remediation with an instructor available as a resource. Remediation was cited often in relation to standardized computer testing integrated throughout the curriculum with students "required to remediate" based on their scores. Remediation can encompass many of the other strategies identified by the program directors.

An example of a commonly used retention strategy was to provide academic assistance through *tutoring* described as "peer tutoring," "student-student mentoring," or "one-on-one tutoring by full-time or part-time faculty." One school used a practicing RN

as a tutor while most directors just wrote the word "tutors" providing no details. Some directors suggested that faculty meet individually with students for test review in the case of poor test grades. A "mentoring and coaching lab" was another form of tutoring used at one school during the designated years. One respondent mentioned "learning groups" and several said they encouraged study groups.

In addition to tutoring and study groups, many program administrators have incorporated the use of *standardized computerized testing* throughout the curriculum with the goal of *improving test-taking skills* along with identifying academic deficiencies in need of remediation. Standardized computer tests are typically not used for test grades but are used as a method of assessing student knowledge in relation to nursing students nationwide. Students receive test results that suggest areas of study and remediation. Other strategies designed to improve test-taking skills include test-taking skills workshops and instructor-led sessions designed to improve study skills, critical thinking, test taking, and time management that allows for adequate study time for tests. A few programs have implemented "collaborative testing" where students review tests in groups immediately following administration of a test.

Directors have also incorporated *technology* in the form of computerized assisted instruction (CAI), simulation, web-enhanced courses, and computerized testing similar to that used for the RN licensure examination. These strategies were identified as retention strategies in that they appeal to different "learning styles" and improve "clinical skills and critical thinking."

Faculty-Student Interaction

Program directors reported many strategies or interventions that emphasize the role of faculty in retaining students. *Individual academic counseling* was referred to as "one-on-one" conferences or meetings with students who were not performing well. Other references to individual counseling included "tutoring with faculty," "faculty mentoring and advisement," "one-on-one test review with faculty and student," "nursing faculty advising," "academic advising," "mentoring," and "one-on-one remediation with faculty." One person simply stated, "faculty support."

Others alluded to the importance of *caring faculty behaviors* in nursing student retention. One director wrote about how a "caring, non-threatening environment" is important to student success. Another felt a "true spirit of a helping relationship between faculty and students" was one of the most important retention strategies for ADN students. One administrator stressed the importance of "treating students as adults" and "respecting students." Other comments indicative of caring behaviors included "student friendly policies," "flexibility for non-traditional students," an "open-door policy and accessibility" by faculty, and an "invitational atmosphere" within the department. One director named "student engagement" as the most effective retention strategy and elaborated with this comment, "Truly make your students the priority and make them accountable as learners".

College Resources

Program directors listed a variety of college-wide services not specific to nursing students but used to enhance student success within their nursing programs. Examples of such resources include a "math tutoring lab," a "success center," "center for learning

excellence," and "financial aid" services. Several respondents mentioned referring students to college counselors for issues such as "stress, time management, and learning styles." One school has a "dedicated nursing counselor". Several colleges have retention specialists with two specified for "allied health" and a "health science recruitment and retention coordinator."

Program directors were also asked their opinions about what they believe is the most effective strategy for student retention. Responses were evenly distributed among selective admission criteria, academic assistance and remediation, and positive faculty/student interaction. Only one participant mentioned utilization of college-wide resources as most effective in retaining nursing students.

Strategies Used in Programs with High and Low Retention Rates

Directors from 9 of the 10 programs with the highest three year average on-time completion rate between 2005 and 2007 participated in this study. The top ten schools included in the data analysis included the school with the eleventh highest retention rate in the state. Aggregate three year on-time completion rates for the top eleven programs ranged from 68.7% to 86.7% (Lacey & McNoldy, 2008). The overall on-time completion rate aggregated across all ADN programs was 57% as reported by the North Carolina Center for Nursing (Lacey & McNoldy). Reported rates for the ten programs with the lowest retention ranged from 15.9% to 44.4%.

Six of the top 10 programs included in this study mentioned the importance of *competitive admission criteria* (see Table 11). One included the nurse assistant requirement and one mentioned completion of general education courses prior to

admission. Another respondent wrote, ". . . we award points toward admission with completion of non-nursing courses, encouraging the sciences should be completed first." Nine of the ten schools with lower retention rates also mentioned competitive admission criteria as important. One director in the lower group believes admission criteria are the most important strategy stating that most of their retention initiatives are aimed at "making sure students are adequately prepared before they enter the ADN program." The assumption cannot be made that other programs in the top or bottom group do not have competitive admission criteria. The directors, however, did not comment on admissions in responding to the questionnaire.

Nine of the ten top and bottom programs in retention reported using a variety of the strategies designed to provide academic assistance. Fifty percent of the top programs and 60% of those with low retention stated they integrated standardized computer testing in their curriculum. Primary differences in the high retention group and the low retention group were in relation to faculty-student interaction and the use of college resources. Directors from high retention programs focused more on the importance of faculty-student relationships and less on the use of college resources designed to assist all students.

Eight of the top ten program directors made statements suggesting the importance of faculty engagement with students whereas only three directors from schools with low retention mentioned faculty-student relationships. Examples from directors of the top ten programs include statements such as "respect for students," "accessibility," "open door policy," "mentoring" by faculty, "student advisement," and "awesome faculty support for students." Another director cited "faculty participation in student success" as one of the

most effective retention strategies. Another director from a program with high retention wrote this response to the question about what she thought was the most effective retention strategy:

> Personal connection with faculty. Someone who really relates to them. We team teach all courses and students get to know all the faculty, as well as changing faculty/student advisors each semester – then students find the right person with whom they can connect – even as they move from semester to semester they will return to that person who is their motivator. Also, I think our college mission of invitational education is also our byword and faculty do practice this well – thus the nursing faculty mentoring – one student at a time!

These comments from another respondent express the sentiment of many of the programs with the highest student retention rates:

> I believe the most effective strategy we have is a caring, non-threatening environment. Nursing school is difficult enough without intimidating instructors. Using transformational leadership skills, instructors can "imitate" behaviors for students that are required. Our students respect the instructors. They conduct themselves in a manner that commands respect and they *earn* the respect of students because of that. Students realize that they can approach the instructors with problems they have and the instructor will help the student with solutions.

Table 11

Comparison of Retention Strategies

	Programs with Highest Retention Rates (n = 10)	Programs with Lowest Retention Rates (n = 10)
Selective Admissions	6	6
Academic Assistance	9	9
Faculty/Student Interaction	8	3
College Resources	1	6

A few participants expressed the importance of using a wide range of interventions to improve retention. Overall responses suggest that schools have implemented a variety of strategies with definite themes emerging relating to admission criteria, academic assistance, faculty-student interaction, and the use of general college resources. Although data suggest a difference in approach in relation to faculty-student interaction and the use of college resources between schools with high and low retention, results should be interpreted with caution. Factors such as time spent answering the questions, work distractions, and interpretation of the study question may have influenced responses.

Summary

Findings suggest ADN program directors in North Carolina engage in transformational leadership behaviors fairly often as evidenced by moderate scores on the LPI-Self. The highest overall mean related to enabling others to act with participants reporting behaviors consistent with strengthening others by sharing authority, promoting collaboration, and treating others with dignity and respect. Data indicated no statistically

significant relationship between transformational leadership practices and student retention rates.

Qualitative data in response to the question asking participants to list strategies used within their nursing programs to enhance student success revealed practices related to selective admission criteria, academic assistance and remediation, faculty-student interaction, and use of college resources. Admission criteria used included standardized pre-admission tests and pre-admission coursework. Comments related to academic assistance and remediation suggested the importance of early identification of "at risk" students and early intervention to facilitate success. Remediation was mentioned often in the form of test review, open labs, test-taking skills workshops, and the common practice of using standardizing computer testing to assess areas of weakness. Other ways to provide academic assistance included peer tutoring, one-on-one faculty tutoring, study groups, computer-assisted instruction, and simulation. The importance of faculty-student interaction was indicated with comments related to individual student counseling and caring behaviors. Examples of college resources included campus counselors, student success centers, and financial aid advisors. Data suggest program directors use a multidimensional approach to address the complex problem of student attrition. Responses to the question about "the most effective" strategy were evenly divided among the different approaches except for use of college resources.

Analysis of data reported by directors from programs with high versus low retention rates revealed consistent use of selective admissions and academic assistance. In contrast to schools with low retention rates, those with high retention stressed the importance of positive faculty-student relationships and placed little value on using college resources to

facilitate student success. Chapter Five will include a discussion of findings in relation to previous research, implications for ADN nurse educators, and recommendations for future study.

CHAPTER 5: DISCUSSION, IMPLICATIONS, AND RECOMMENDATIONS

A significant number of ADN students voluntarily leave or experience academic failure despite efforts to admit the most qualified applicants. Nurse educators are concerned with the attrition of nursing students because of the need for new nurses and the personal, educational, and economic cost of early student departure. Effective leadership within nursing programs is paramount as educators strive to offer quality nursing education that promotes student success. The goal of this research study was to describe leadership practices of ADN directors and assess the relationship between leadership and student retention within ADN programs. Retention strategies implemented by ADN directors were identified and analyzed with a focus on strategies used within programs with the highest retention. In this chapter, the researcher discusses study findings in relation to previous literature, implications for ADN educators, and recommendations for future study.

Leadership Practices of ADN Program Directors

Findings of this study suggest ADN program directors in North Carolina often practice transformational leadership. The majority of average LPI-Self scores on the subscales of modeling the way, inspiring a shared vision, challenging the process, enabling others to act, and encouraging the heart were in the moderate to high range although no mean scores reported for each practice were in the high range of raw scores.

Most program directors reported high or moderate scores on LPI-Self questions related to modeling the way. Behaviors reflective of modeling the way include setting an example for others, spending time promoting standards the group believes in, following through on promises and commitments, and projecting a clear philosophy of leadership consistent with professional values (Kouzes and Posner, 2002a). A concept central to Jeffreys's (2004) model of nursing student retention is the concept of integrating students into the nursing profession. According to Jeffreys, nurse educators who model professional behaviors for faculty and students contribute in a positive way to student success.

Approximately half of the ADN directors reported high scores on the practice of inspiring a shared vision and 33% reported moderate scores. Kouzes and Posner (2002a) report that leaders who inspire vision effectively project a positive image of the future and speak with genuine conviction about organizational purpose. Responses from leaders in ADN programs in North Carolina suggest they create an environment conducive to creating a common vision within their departments.

Program directors expressed the least confidence in behaviors related to challenging the process in comparison to the other four subscales. This finding is consistent with the value nurse educators place on traditional values related to leadership and educational practices (Bankert & Kozel, 2005; Evans, 2004; Lee, 2007; Murphy, 2005; Royse & Newton, 2007; Widerquist, 2000). Guidelines set by regulatory bodies such as the state board of nursing and the national accrediting body may contribute to the directors' need to adhere to established norms and avoid risk taking. Evans (2004), however, contends that "within a transformational, caring environment, educators may be encouraged to

challenge the assumptions that have guided traditional educational practices within nursing programs. . .” (p. 222).

Directors reported enabling others to act most often in comparison to the other transformational leadership practices. Examples of these behaviors include developing cooperative relationships, listening to diverse opinions, treating others with dignity and respect, promoting independent decision-making, and encouraging professional growth (Kouzes & Posner, 2002a). Nurse leaders who encourage faculty to perform to the best of their ability will enhance student success. Tinto (2006) states, “We must stop talking to faculty about student retention and focus instead on the ways their actions can enhance student education. If faculty attend to that task, increased student retention will follow of its own accord” (p. 9). Most program directors are classroom instructors who may also use the leadership practice of enabling others to act in finding ways to empower students to succeed academically.

Nursing education leaders in North Carolina reported frequent behaviors that encourage others with praise, confidence, rewards, recognition, sincere appreciation and support for contributions. Kouzes and Posner (2002a) have found that genuine appreciation for the work of others will “. . . build a strong sense of collective identity and community spirit that can carry a group through extraordinarily tough times” (p. 20). Nursing education presents serious challenges for faculty and students due to the importance of acquired competency needed to ensure the safety of patients, making encouragement important for faculty and student success.

The overall finding that directors reported moderate transformational leadership scores is consistent with findings of Shieh (1996), Reese (2004), Chen and Baron (2006),

and Chen, Beck, and Amos (2005), who found nursing deans and directors reported transformational leadership in combination with transactional leadership styles. A mix of leadership behaviors may have contributed to the moderate transformational leadership scores reported in this study. Reese found that ADN directors in North Carolina were slightly more transactional than transformational and suggested that the nature of nursing education sometimes requires leadership behaviors inconsistent with transformational behaviors. Budget restrictions may limit directors' ability to enable others by prohibiting use of educational technology and limiting funds for professional development opportunities for faculty. Legal mandates from licensing and clinical agencies also require leaders to be diligent in enforcing regulations that discourage challenging the process of nursing education. Departmental leaders must be creative in developing strategies to help faculty maintain expertise and enhance services for students within a highly regulated environment with limited financial resources.

Interpretation of study results is limited by the use of a self-report instrument that has the inherent risk of eliciting socially acceptable answers. Research offers some credibility to self assessment using the LPI. Early research on the LPI-Self compared means for the LPI-Self and the LPI-Other completed by leader observers. "Frequency scores tended to be higher on the LPI-Self than on the LPI-Other, but only two were statistically significant" (Kouzes & Posner, 1987, p. 313). The significant differences between managers and constituents were on the practices of enabling others to act and challenging the process (Kouzes & Posner, 1987). Alger (2008) found that teacher leaders who completed the LPI-Self and principals who completed the LPI-Observer differed significantly on their perceptions of how often they practiced four of the five leadership

practices. The principals consistently rated the teachers higher, suggesting the participants' self analysis may be more critical than that of observers. Bowles and Bowles (2000) found that self-assessment scores were also lower than observer assessment scores among nurses working in medical centers known for excellence and innovation. In contrast, Loke (2001) noted that observer scores by nurses in an acute care setting were slightly lower than self-assessment scores of nurse managers. Kouzes and Posner (2002b) report that empirical tests of differences between leaders' self-assessment with the LPI-Self and their constituents' LPI-Observer scores suggest no statistically significant differences between the two groups on modeling the way and challenging the process. Mean differences between the two groups on inspiring vision, enabling and encouraging others have minimal practical significance (Kouzes and Posner, 2002b).

Transformational Leadership Practices and Retention Rates

No statistically significant relationship was found between ADN program directors' leadership practices and student retention rates. The statistical significance of the overall regression model was only slightly higher than the level of significance of .05 predetermined in the study design ($R^2 = .22$, $p = .06$). Multiple regression was conducted despite no significant correlation noted between scores on LPI subscales and student retention; therefore, results should be interpreted with caution.

On the basis of this study alone, it is difficult to be certain that no relationship exists between transformational leadership practices of ADN program directors and student retention rates. Uncontrolled extraneous variables that impact retention most likely influenced results. The multidimensional phenomenon of student retention and academic success is well documented in Tinto and Jeffreys's theoretical models of retention.

Student variables such as demographic, academic, environmental, and psychological factors certainly have an impact on nursing student retention (Jeffreys, 2004, 2007a; Tinto, 1993).

In addition to the impact of extraneous variables, instrumentation used to measure leadership behaviors may have influenced results. Dikeman (2007) used the LPI-Self to assess leadership practices of community college presidents in North Carolina (N = 42), examining the relationship between transformational leadership and ethical perspectives. Dikeman also found no significant correlation between transformational leadership practices and ethical perspectives prohibiting use of multiple regression as planned. Dikeman did not report correlation coefficients among the five leadership factor subscales.

High intercorrelation coefficients between subscales of the LPI limited the use of multiple regression in the current study. Zagoresek, Stough, and Jaklic (2006) examined psychometric properties of the LPI and reported that the LPI subscales performed better when study participants report low to modest levels of transformational leadership. Participants in the current study reported high to moderate scores on the LPI-Self.

Kouzes and Posner (2002b) have reported various analyses that support the five leadership practices measured by the LPI finding ". . . items within each factor corresponding more among themselves than they do with the other factors" (p. 14). Carless (2001) conducted a study that assessed discriminant validity of the LPI finding a lack of evidence to support five distinct leadership behaviors stating, ". . . the high correlation between the constructs suggest the LPI has weak discriminant validity" (p. 238). Carless concluded that the LPI may be better suited for assessment of overall

transformational leadership but recommends further empirical research on measurement of transformational leadership.

Stout-Stewart (2005) used the LPI-Self to assess transformational leadership among female community college presidents. Pearson's correlation revealed a statistically significant relationship ($p = .10$) between inspiring a shared vision, challenging the process, enabling others to act, and encouraging the heart and full time student enrollment (Stout-Stewart). In contrast to the current study, Stout-Stewart had a significantly larger sample (N = 126) suggesting the need for further study with a larger sample size.

Quantitative analysis based on data obtained from the LPI-Self somewhat contradicted responses provided by directors to questions about retention strategies. Some directors may have answered questions on the LPI-Self based on their personal leadership style as it relates to their administrative role. The majority of study participants had mixed roles with a wide range of variance in administrative versus teaching responsibilities. As a group, the directors spent 63% of their time on administrative duties and 35% teaching. Twelve percent of the sample served as faculty members during all four of the targeted years. Interpretation of responses to the LPI-Self is difficult without knowing if participants answered from the perspective of administrator or instructor. The open-ended questions relating to student retention strategies were more conducive to eliciting program-centered responses. The apparent disconnect between quantitative and qualitative results may be attributed to the directors' perspectives of administrator or instructor when they completed the LPI-Self. The chain of association between the

influence of directors on faculty and students most likely varied widely among programs because of the variance in administrative and faculty roles.

Retention Strategies in Associate Degree Nursing Programs

Most ADN program directors reported a wide range of strategies designed to enhance student success in nursing programs. A comprehensive approach is consistent with the need to address the multitude of factors reported to influence student departure (Tinto, 1993; Jeffreys, 2004). Directors reported the use of standardized pre-admission tests to measure academic preparedness consistent with research that has provided mixed results relating to the prediction of nursing student success (Gallagher, Bomba, & Crane, 2001; Gilmore, 2006; Hickman, 2005; Hopkins, 2008; Rubino, 1998; Sayles, Shelton, & Powell, 2003; Simmons, Haupt, & Davis, 2005; Thompson, 2007). In a recent report published by the Shep Center in Chapel Hill, NC, Fraher, Belsky, Carpenter, & Gaul (2008) reported that ADN program directors in North Carolina rated admission criteria as "very important". However, results of this study and the Shep Center report indicate no standardized admission criteria for ADN programs in North Carolina. Thirty schools reported using one of five different standardized admission tests in 2002 including the Nurse Entrance Test (NET), Health Occupations Basic Entrance Test (HOBET), Test of Essential Academic Skills (TEAS), Psychological Services Bureau (PSB), and American College Test (ACT), and 34 schools ranked applicants on at least one criterion (Fraher, Belsky, Carpenter, & Gaul). Many North Carolina directors did not report details of their schools' admission criteria but often mentioned the importance of admitting the most qualified applicants. The importance of pre-entry skills and academic ability is supported in Tinto's model of student departure.

Respondents reported the importance of pre-admission coursework with statements related to the completion of nurse assistant courses, general education courses, and most importantly, science courses prior to admission. Non-traditional community college students often juggle multiple roles related to parenting and employment (Jeffreys, 2004). Completion of general education courses required in the nursing curriculum permits students to take fewer hours once admitted into the program, permitting more time for study while meeting the demands of outside responsibilities. Grades in required non-nursing courses, particularly science courses, also provide information about the students' potential for success in the nursing program (Campbell & Dickson, 1996; Higgins, 2005; Jeffreys, 2007b; McCarey, 2007; Potolsky, Cohen & Saylor, 2003; Rooyen, Dixon, Dixon, & Wells, 2006; Spahr, 1995; Wong & Wong, 1999).

Once a student is admitted, directors stressed the importance of early identification of at-risk students and prompt intervention. The importance of the first semester of college in determining student success is well documented (Ehrenfeld, Roenberg, Sharon, & Bergman, 1997; Jeffreys, 2007b; McLaughlin, 2008; Reason, Terenzini, & Domingo, 2006; Rubino, 1998; Sandiford & Jackson, 2003; Simmons, Haupt, & Davis, 2005; Terenzini & Pascarella; 1980; Tinto, 2006). Students in the first year of a nursing program are typically not in their first semester of college. First year nursing students, however, experience a period of transition similar to new college students as they adjust to the rigors of a nursing curriculum that includes clinical and campus lab assignments. Jeffreys (2007b) noted the lowest nursing grades were found in the first two nursing courses, suggesting the need for early identification of at-risk students and implementation of an early plan for academic success.

Program directors identified many interventions designed to promote academic achievement and remediation. Many respondents mentioned peer tutoring, a strategy supported in the literature (Evans, 2004; Gilchrist & Rector, 2007; Higgins, 2004; Jeffreys, 2001). Directors described the use of student success programs, freshman orientation, and study skills sessions that contribute to student success (Chaves, 2003; Gilchrist & Rector, 2007; Lockie & Burke, 1999; Symes, Tart, Travis, & Toombs, 2002). Strategies making the greatest impact on retention in two-year public colleges include academic advising, learning support, and assessment (Habley & McClanahan, 2004). Best practices for minority students include academic assistance with reading, testing, group tutoring, and personal contact with faculty (Gilchrist & Rector, 2007). Nursing director responses included multiple examples of academic assistance, remediation, tutoring, study skills development, study groups, and faculty-student interaction with other references to faculty advisement, individual student instruction, and test review. Assessment of student learning was evident with use of standardized computer testing mentioned by the majority of program leaders.

Standardized tests of specific nursing curricula content facilitate assessment of student learning by providing an individual score and a percentile ranking that compares the score to nursing students nationwide. Test results include a breakdown of topics missed, suggesting areas of weakness that can guide remediation. The tests are typically integrated throughout the curriculum, helping students prepare for instructor-created exams that count toward course grades. Several directors believed this testing has made a big difference in student academic success over the last four years.

In addition to academic factors, environmental variables often influence student departure among non-traditional nursing students (Jeffreys, 2004). Strategies categorized within faculty-student interaction reflect the literature that indicates the importance of supportive, caring faculty behaviors (Bankert & Kozel, 2005; Cook, 2005; Courage & Godbey, 1992; Evans, 2004; Poorman, Webb, & Mastorovich, 2002; Redmond & Sorrell, 1996; Shelton, 2003). Personal and professional growth along with a sense of belonging occurs as a result of nursing students experiencing caring from nursing faculty (Beck, 2001). Program directors from schools with the highest retention rates in North Carolina believe that positive faculty-student relationships are important to nursing student success. Watson's (2000) views on transformative leadership suggest that educational leaders should lead by listening to others, being genuinely present with students, and encouraging faculty connection with students.

Analysis of quantitative data in this study did not support a relationship between transformational leadership and student retention rates; however, qualitative data from directors of programs with high retention did support the concept of positive relationships with students as important to student success. The five leadership practices of Kouzes and Posner's transformational leadership model can be used by nursing program leaders and faculty to develop relationships that encourage outstanding results in others.

Implications for Nursing Education

Associate degree nursing directors in North Carolina are average in practicing transformational leadership when group mean LPI scores are compared to percentile rankings published by Kouzes and Posner. Program directors who wish to practice behaviors more consistent with Kouzes and Posner's transformational leadership model

may want to pursue professional development opportunities designed to develop behaviors in areas of weakness based on their individual self-assessment.

Responses from program directors among schools with high retention suggest the importance of faculty-student relationships in promoting student success. The practices of being a positive role model, inspiring a common vision of success, challenging the status quo, enabling, and encouraging others to succeed are based on the premise of developing positive relationships. Based on their years of research, Kouzes and Posner (2002a) have found that leadership is a relationship. Nurse educators are in a position to influence colleagues and students. Qualitative data from this study suggest that program directors searching for ways to promote student retention may want to consider adopting transformational practices that consistently bring out the best in others. The leadership practices of enabling others to do their best and encouraging the heart link most closely to faculty behaviors valued by nursing students struggling to succeed.

Study results suggest college-wide resources are not consistently used within programs with high retention. Directors from programs with low retention reported using general college resources to help nursing students succeed, suggesting these services may be ineffective for retention of nursing students. Nursing students may need academic support tailored to meet their unique needs. Program directors may consider working with campus staff to develop resources relevant to the academic and psychosocial needs of nursing students in a community college setting. Faculty involvement with campus support services may also be beneficial in developing more relevant resources for nursing students. For example, most community colleges have math lab tutors who could

collaborate with nursing faculty in helping nursing students with drug calculations – a common area of weakness among nursing students.

Program directors should continue to encourage positive faculty-student relationships reported by directors from schools with high retention. These strategies encompassed one-one counseling, advisement, tutoring, mentoring, support, engagement, availability, respect, flexibility and a true spirit of helpfulness. Study results suggest faculty-student interaction may be more effective than the use of college resources for ADN students.

Only 3 of the 49 program directors identified teaching strategies as a technique to promote student success. Adhering to the traditional methods of nursing education is consistent with the lower LPI scores on challenging the process. The benefits of engaging students in innovative, collaborative, interactive approaches to learning is widely documented (Diekelmann & Mikol, 2003; Evans, 2004; Habley & McClanahan, 2004; Johnson & Mighten, 2005; McClenney & Waiwaiole, 2005; McLaughlin, 2008; Pratt, Boll, & Collins, 2007; Royse & Newton, 2007; Schell, 2006). Quality of classroom teaching is central to student success (Tinto, 2006). Faculty development in effective teaching techniques may contribute to improvement in student success (McShannon, Hynes, Nirmalakhandan, Venkataramana, Ricketts, Ulery, & Stiener, 2006; Schell, 2006). Study results suggest program directors should add faculty development in the area of effective teaching approaches to the repertoire of strategies to enhance student engagement in the learning process with the goal of academic success.

Recommendations for Further Study

The limited scope of this study suggests the need for further study. The sample was limited to program directors with a 92% response rate producing a small sample size of

49 participants. Although most ADN program directors retain teaching responsibilities, future researchers may want to ask faculty members to complete the LPI-Self. Instructions for the instrument could be revised to ask respondents to answer questions in relation to how they interact with students. The retention literature conceptually supports transformational practices as potentially helpful in promoting student success. Faculty members are classroom leaders who are in a position to use these practices to influence students directly.

Study findings related to strategies used to enhance study success revealed little emphasis on teaching strategies. The North Carolina Board of Nursing recently added a rule that requires all faculty members to have nine semester hours of coursework or 45 hours of continuing education by December 31, 2010, that relates to educational concepts including teaching and learning principles of adult learners, curriculum development, implementation, and evaluation. Repetition of this study after implementation of the new rule would be helpful in determining a shift from the apparent focus on admission criteria, remediation, and student support to an emphasis on classroom and clinical instructional techniques that may also facilitate academic success in nursing coursework as well as first time success on the National Council Licensure Examination for Registered Nurses (NCLEX-RN). In 2009, the North Carolina community college ADN programs will implement a standardized statewide curriculum that includes incorporation of interactive teaching strategies designed to promote active student engagement in the learning process. A follow-up study after implementation of the new curriculum is recommended to examine how the new curriculum and teaching strategies impact

retention rates. Researchers may also consider repeating this study within baccalaureate nursing programs.

An unanticipated finding of this study was that half of the top ten schools with the highest retention rates were on warning status for poor first time NCLEX-RN passing rates while none of the lowest ten programs were on warning status. Future studies should be developed to examine the relationship between retention strategies and first time NCLEX-RN pass rates.

Empirical evidence related to the efficacy of retention strategies must continue. This study provided valuable information about strategies ADN program directors believe are beneficial in retaining students. Future research could provide quantifiable evidence of the effectiveness of individual strategies by comparing retention rates among programs that implement selected strategies such as the certified nurse assistant requirement, use of preadmission tests, orientation sessions, study groups, peer tutoring, or test taking workshops to those who do not have the strategy. Strategy effectiveness may be program specific based upon the mix of curriculum, applicant pool, and resources. The complexity of student retention provides a rich supply of factors in need of further study as nurse educators seek data to support their efforts to facilitate student success.

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APPENDIX A: DEMOGRAPHIC SURVEY

1. State the name of the college where you are currently an administrator:
   _____

2. Please state the name of your college where you were working and your position during the following academic years indicating whether you retained teaching responsibilities if employed as a director.

Year	College	Position (check all that apply)	Administration Percent	Teaching Percent
2003-2004	_____	□ Faculty □ Director	___%	___%
2004-2005	_____	□ Faculty □ Director	___%	___%
2005-2006	_____	□ Faculty □ Director	___%	___%
2006-2007	_____	□ Faculty □ Director	___%	___%

3. How many total years have you been an administrator of an ADN program?
   _____ (years)

4. How many ADN directors have you had at your current school from 2003 to 2007?
   _____

5. What is your current age? _____

6. Gender? Female____ Male____

7. What is your ethnicity? Caucasian____ African-American____ Other_____

8. What is your highest earned degree? _____

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9. Please list any strategies used to enhance student success and retain students in your nursing department where you were employed between the years of 2003-2007 (feel free to use the back of this form)**:**

10. In your opinion what is the most <u>effective</u> retention strategy(ies) for ADN students (feel free to use the back of this form)**?**

Thank you for participating in this study.

APPENDIX B: PERMISSION TO USE THE LPI-SELF

KOUZES POSNER INTERNATIONAL
15419 Banyan Lane
Monte Sereno, California 95030
FAX: (408) 354-9170

June 24, 2008

Ms. Janet Arthurs
1232 Lochshire Lane
Gastonia, North Carolina 28054

Dear Janet:

Thank you for your request to use the Leadership Practices Inventory (LPI) in your dissertation. We are willing to allow you to ***reproduce*** the instrument in written form, as outlined in your letter, at no charge, with the following understandings:

(1) That the LPI is used only for research purposes and is not sold or used in conjunction with any compensated management development activities;
(2) That copyright of the LPI, or any derivation of the instrument, is retained by Kouzes Posner International, and that the following copyright statement is included on all copies of the instrument: "Copyright © 2003 James M. Kouzes and Barry Z. Posner. All rights reserved. Used with permission.";
(3) That one (1) **electronic** copy of your dissertation and one (1) copy of **all** papers, reports, articles, and the like which make use of the LPI data be sent **promptly** to our attention; and,
(4) That you agree to allow us to include an abstract of your study and any other published papers utilizing the LPI on our various websites.

If the terms outlined above are acceptable, would you indicate so by signing one (1) copy of this letter and returning it to us. Best wishes for every success with your research project.

Cordially,

Barry Z. Posner, Ph.D.
Managing Partner

I understand and agree to abide by these conditions:

(Signed) Janet B Arthurs Date: 11/7/08

APPENDIX C: COVER LETTER

UNC CHARLOTTE
College of Education
Department of Educational Leadership
9201 University City Blvd., Charlotte, NC 28223-0001
(704) 687-8858 , www.uncc.edu

A Study of Leadership Factors, Retention Strategies and Retention Rates in Associate Degree Nursing Programs

Project Title and Purpose

You are being invited to participate in a research study entitled "A Study of Leadership Factors, Retention Strategies and Retention Rates in Associate Degree Nursing Programs". The purpose of this study is to explore leadership factors related to student retention in Associate Degree Nursing (ADN) programs. The researcher will examine relationships between leadership practices of ADN program directors, retention strategies used and student retention rates reported by the NC Board of Nursing.

Investigator

This study is being conducted by Janet B. Arthurs, Department of Educational Leadership as part of the requirements for the degree of Doctor of Education in Educational Leadership. The responsible faculty member is Dr. Claudia Flowers.

Eligibility

You are eligible to participate in this project if you are the administrator or a faculty member in an ADN program anytime between 2003 – 2007.

Overall Description of Participation

If you agree to participate in this study, you will be asked to complete a brief demographic questionnaire and a 30 question survey regarding leadership behaviors.

Length of Participation

Completion of both forms will take approximately 10 – 15 minutes. If you decide to participate, you will be one of 54 participants in the study.

Risks and Benefits of Participation

There is no known risk associated with this study. Through data gathered during this study, I hope to add to the evidence base for the effectiveness of retention strategies being used and to help nursing educators identify leadership behaviors that may influence student success.

Volunteer Statement

You are a volunteer. The decision to participate in this study is completely up to you. If you decide to be in the study, you may stop at any time. You will not be treated any differently if you decide not to participate in the study or if you stop once you have started.

Confidentiality Statement

Any information about your participation, including your identity, is completely confidential. The following steps will be taken to ensure this confidentiality:

- No names will be requested on either questionnaire.
- The name of the college where you work must be included on the surveys in order to match departmental leaders with college retention rates.
- The name of the college will later be coded and matched eliminating identification of leadership practices and retention rates of individual schools.
- Surveys with college names will be stored in a locked file cabinet only accessible to the investigator and immediate research staff.

Statement of Fair Treatment and Respect

UNC Charlotte wants to make sure that you are treated in a fair and respectful manner. Contact the university's Research Compliance Office (704-687-3309) if you have questions about how you are treated as a study participant. If you have any questions about the actual project or study, please contact Dr. Claudia Flowers at 704-687-8862 or cpflower@uncc.edu.

Approval Date

This form was approved for use on December 10, 2008 for use for one year.