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CARING, INTERACTION, AND ACTIVE TEACHING STRATEGIES: FACTORS THAT CONTRIBUTE TO THE SUCCESS OF THE ASSOCIATE DEGREE NURSING STUDENT

A Dissertation
Presented to
The Faculty of the Educational Leadership Doctoral Program
Western Kentucky University
Bowling Green, Kentucky

In Partial Fulfillment
of the Requirements for the Degree
Doctor of Education

By Penelope Sue Logsdon

December 2011

CARING, INTERACTION, AND ACTIVE TEACHING STRATEGIES: FACTORS THAT CONTRIBUTE TO THE SUCCESS OF THE ASSOCIATE DEGREE NURSING STUDENT

Date Recommended ///2///
Barbare Burch
Barbara Burch, Ed.D., Director of Dissertation
Deil V. Bird
Keith Bird, PhD.
Inda Thomas Along
Linda Thomas-Glover, PhD.
Shirry M. List
Sherry Reid, PhD.

Turchel Choerner 28-Nov-2011 Dean, Graduate Studies and Research Date I dedicate this dissertation to my wonderful support group that without them I could have never accomplished this dream. My wonderful supportive husband, David has provided me with strength, understanding, patience, and stalwart belief in what I could accomplish when at times I questioned this journey. Taylor, my youngest son has been that person to give me a hug while I sat at the computer struggling for the right words, I will never forget those hugs. Jeremy, my oldest son, who as an attorney has demonstrated to me that perseverance, is one of the strongest attributes anyone can possess in this world. Then I am so lucky to have had the assistance of my awesome daughter-in-law, Dr. Melissa Mathews whose kind words and help through statistics made us laugh and share the closeness we have in our relationship. My friend and co-worker, Rosemary who has covered for me at work and been that friend who would always listen, that is what a true friend is meant to be. Finally, I must praise my parents, Rex and Phyllis Williams who always instilled the importance of higher education to me, even though they never had the opportunity for that experience, they made sure that I did.

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CARING, INTERACTION, AND ACTIVE TEACHING STRATEGIES: FACTORS

THAT CONTRIBUTE TO THE SUCCESS OF THE ASSOCIATE DEGREE NURSING

STUDENT

Penelope Logsdon December 2011 97 Pages

Directed by: Dr. Barbara Burch, Dr. Keith Bird, Dr. Linda Thomas-Glover, and Dr. Sherry Reid

Educational Leadership Doctoral Program Western Kentucky University

This exploratory study examined successful associate degree nursing students' perceptions regarding the importance of caring by the nursing faculty, nursing faculty/student interaction, and faculty use of active teaching strategies. Participants completed a researcher developed survey instrument that measured both the importance and frequency of the caring, interaction, and active teaching strategies. The survey instrument measured six demographic factors and 30 statements regarding caring, interaction, and active teaching. Participants rated the statements for both importance and frequency on a four-point Likert scale. Five community and technical college associate degree nursing programs participated in the research with a total of 270 successful associate degree nursing student candidates completing the survey.

Data analysis revealed that successful nursing students value caring, faculty/student interaction, and active teaching by their nursing faculty. Additionally, the students rated their nursing faculty as providing the care, interaction, and active teaching as *often* to *almost always*.

CHAPTER I: INTRODUCTION

The need for new registered nurses (RN) is projected to grow to more than 581,500 positions by 2018 (Bureau of Labor Statistics, 2011). Even during the recent recession of December 2007 through June 2009 the healthcare industry added 428,000 jobs with the largest segment of those jobs being RN positions (Bureau of Labor Statistics, 2011). As we look at the future growth of RN's it becomes imperative to examine where this supply of new RN's will originate. Currently many RN's gain their education and training in associate degree programs based in community and technical colleges as well as universities. A disturbing fact about these educational programs is the high level of attrition. Currently, associate degree nursing programs in Kentucky have a 25% attrition rate based on a four year average of all associate degree nursing programs (Kentucky Board of Nursing, 2011). Retention of nursing students in associate degree programs is vital and must increase in order to meet the current and future demand for nurses.

Nursing student retention in selective admission programs poses a critical concern for nursing program coordinators and college administration. Limitations of clinical practicum sites combined with limitations in the number of students who can be accommodated in those clinical groups restrict enrollment capacity, thus requiring the use of a selective admissions process for program selection. After thorough evaluation of nursing applications that include consideration of GPA, completion of general education coursework, and completion of the Kentucky Nurse Aid certificate course, a specified number of students are selected for the Associate Degree Nursing (ADN) programs in the Kentucky Community and Technical College System (KCTCS). While one would expect

very little attrition from this highly qualified group of students, it is an unfortunate matter that considerable attrition occurs. A student in a selective admission program is not easily replaced and retention to reduce attrition rates becomes even more important in impacting the nurse workforce. As economic forces continue to influence the operation and management of community colleges, attention to ways in which to increase retention rates for associate degree nursing students is worthy of research.

There is a primary need to identify workable solutions that are important in helping students to be successful in their programs. While scarce resources have been allocated to address this challenge it is timely and critically important to consider ways that faculty members can influence retention. This study's importance is relevant in regard to Career Guide to Industries; 2010-11 Edition that highlights nursing as one of the 10 fastest growing occupations in health care (Bureau of Labor Statistics, 2011). Additionally, with the median age of registered nurses increasing and not enough younger workers available to replace them, each entering nursing student becomes a valuable commodity to the healthcare workforce. Losing any nursing student represents a loss to the healthcare team. A study that would highlight the factors that lead to successful completion of the nursing program would provide insight into developing strategies to increase retention within this very important career.

Significance of the Problem

The nursing shortage has been a national issue for the last 50 years. In 1954,
Roberta Spoon, Assistant Executive Secretary of the American Nurses' Association,
Research and Statistics Unit indicated that although manpower shortages were identified in many fields, nursing had the distinction of continually suffering from a shortage (Fox

& Abrahamson, 2008). In the early 1980's when Prospective Payment System (PPS) was implemented, a resulting reduction in hospital staffing was the impact as a way to offset the loss of revenue under the PPS system. The PPS payment amount for a particular service is derived, based on the classification system of that service (for example, diagnosis-related groups for inpatient hospital services). The Centers for Medicare and Medicaid provide separate PPS for reimbursement to acute inpatient hospitals, home health agencies, hospice, hospital outpatient, inpatient psychiatric facilities, inpatient rehabilitation facilities, long-term care hospitals, and skilled nursing facilities (https://www.cms.gov/ProspMedicareFeeSvcPmtGen/). Although the system is still in place, hospitals found that reducing staff did not prove to be financially as beneficial as first thought as many nurses left the profession due to burnout and fatigue.

During the 1990's the nursing shortage proved to be cyclic but by 2001 the national average hospital RN vacancy was at 13%. Fox and Abrahamson (2008) found that unlike shortages of the past, this shortage has not receded and remains a topic of current policy discussion. This phenomenon has occurred even with qualified applicants being turned away from nursing programs. Nursing programs are faced with a lack of faculty, clinical practicum sites, and reduction of financial resources. This has resulted in programs developing a selective placement admissions policy. Selective placement admissions policies seek to identify the applicants with the strongest qualifications to take a "seat" in the program. This system would be ideal if it could be assured that students admitted would remain in the program to completion.

As we view the nursing shortage of today several factors are influencing the shortage of nurses. The American Association of Colleges of Nursing (AACN) published

in 2008 the National Sample of Registered nurses that describes the average age of the RN population as 46 years of age; this is up from 45.2 years of age in 2000. As the average age of RN's is projected to be 44.5 years of age by 2012, nurses in their 50's are expected to become the largest segment of the nursing workforce accounting for almost one quarter of the RN population.

The Baby Boomers born between 1946-1964 have the largest population. There are 77 million Baby Boomers compared to 44 million of the next generation. This creates an imbalance as a large number of people will be seeking healthcare. An increase in anticipated retirement of the nursing workforce, which is not being replaced in adequate numbers by younger nurses, will result in a greater future shortage (Fox & Abrahamson, 2008).

An additional issue that will influence the shortage of nurses is the Patient Protection and Affordable Care Act of 2010, often termed "healthcare reform" by many. This Act will result in more than 32 million more Americans that will soon gain access to healthcare services including those provided by RN's and Advanced Practice Registered Nurses (AMN Healthcare, 2011). A review of the background of nursing reveals that nursing shortages have been an issue that once was cyclic in nature but now is a continuous chronic threat to the profession and how it affects those needing the services of the nursing profession.

Problem Statement

ADN programs in KCTCS provide a majority of the registered nurses in the healthcare workforce in Kentucky. These same programs have a collective attrition rate that is approximately 25%. This attrition occurs after the students have been thoroughly

assessed for typical success factors such as GPA, ACT scores, completion of prerequisite course work and other objective factors. As important as it is to understand the attrition, it is just as crucial to understand why other students in the same selective admissions cohort are successful.

Nursing faculty are a valuable resource to nursing student success and can influence this success without the expenditure of additional funds. Commercial retention packages or similar products require additional funding, and often they are of limited value to the unique situation of the selective admission nursing student. The often unnoticed value of the faculty-student interaction within the nursing program is an overlooked asset that could be capitalized on during this time of financial uncertainty for colleges. The problem is finding out how caring faculty make a difference in enhancing student success. Emphasizing the strategies that promote student success that are faculty led has the potential to be of great value.

The perception of a caring instructor by the nursing student may play a key role in retention. Peter (2005) found that nursing students who perceived that faculty cared about them and helped them learn persisted in the nursing program at a higher rate than those who did not. The relationship between nursing student retention and student perceptions of the support provided by nursing faculty is significant (Shelton, 2003).

When a nursing student leaves the program it is not only a loss to the college and profession but a cause of distress for the student leaving. Students who leave nursing programs experience considerable emotional distress (O'Donnell, 2009). Caring professors provided comfort, safety, and a secure base from which students could explore new ideas (Rossiter, 1999).

Active teaching strategies have been demonstrated in literature to improve student learning. Nursing programs typically do not use active teaching strategies as much as some programs (Popkess & McDaniel, 2011). Braxton, Jones, Hirschy and Hartley (2008) found that student perceptions of faculty use of active learning practices have a positive and statistically significant impact on how students perceive their institution's commitment to the welfare of students. By measuring students' perceptions of faculty who are caring, provide personal interaction, and active teaching strategies, this study may reveal factors in nursing student retention that have received minimal emphasis, but have the potential to make a notable difference for students.

Significance of Study

The issue of nursing student retention is so important that in recent years two states have initiated inquiries into combating nursing student attrition. In 2001, the Governor of California signed SB 644 (Poochigian), Chapter 443, Statutes of 2001, which required the California Postsecondary Education Commission to conduct an analysis of community college admission procedures and attrition rates for their associate degree Registered Nursing (RN) programs (Seago & Spetz, 2003). The ensuing recommendations were standardizing admission policies, prioritizing admissions, developing consistent unit requirements, providing additional financial aid to nursing students, and better informing students about program requirements (Seago & Spetz, 2003). California is still scrambling to impact of the nursing shortage and, in the 2008-2009 academic year saw a decrease in enrollments (Caine, 2011). The North Carolina Institute of Medicine and the state of North Carolina initiated a series of strategies to increase the number of graduates from pre-licensure RN programs (Fraher, Belsky,

Carpenter, & Gaul, 2008). Although this resulted in a 28.6% increase in RN graduates in North Carolina between 2003 and 2006, the attrition rates from Associate Degree Nursing Programs remained high. According to internal estimates, only 58% of students entering the North Carolina Community College System ADN programs completed the degree (Fraher et al., 2008).

Not only are states and healthcare communities concerned about the losses when a nursing student leaves a program but one must consider the impact on the student.

Sheffler (1997) found that a student that leaves the nursing program faces the risk for potential financial consequences of early repayment of student loans and the psychological effect of failure to achieve an educational goal (as cited in Wells, 2007).

Wells (2007) pointed out that institutions realize the financial consequences of student attrition in terms of lost tuition dollars and the loss of investment for nursing programs that have enrolled but failed to graduate a student. The nursing profession loses a potential available nurse to meet the healthcare needs of society.

Peter (2005) identifies the National League for Nursing Accrediting

Commission's acceptable retention rate as 80% for the bachelors and associate degree

nursing programs. As the nation faces an aging population of working nurses, an aging
population in general, and the Patient Protection and Affordable Care Act of 2010, the

loss of any nursing student in a program is a loss to everyone.

Research Questions

Student success in an associate degree nursing program is affected by the extent to which students place importance on faculty demonstrating caring, student interaction,

and active teaching strategies and the extent to which these characteristics/traits are demonstrated in the classroom environment.

- 1. To what extent do successful associate degree nursing students perceive the components of caring in education as important and how often have these behaviors been demonstrated by nursing faculty?
- 2. To what extent do successful associate degree nursing students perceive faculty/student interactions as important and how often have these interactions been demonstrated by nursing faculty?
- 3. To what extent do successful associate degree nursing students perceive faculty led active teaching strategies as important and how often have these strategies been demonstrated by nursing faculty?
- 4. To what extent do student age, gender, acceptance level, entrance GPA, employment, and first generation college student characteristics affect the perception of the importance of the components of caring, faculty/student interaction, and active teaching strategies?

Definition of Terms

Student Success: An associate degree nursing student enrolled in the third or fourth

semester.

Active Learning: Any activity that involves students learning by doing, this may

involve critical thinking exercises, group assignments, student

presentations and various other learning tasks (Silberman &

Auerbach, 1998).

Caring: Caring in education was described by Noddings (1992) as the

teacher receiving the student fully and respectfully for the duration

of each encounter (as cited in Rossiter, 1999).

Faculty/Student Interaction:

Activities and communication between faculty and students that

may occur both in and out of the classroom (Tinto, 1993).

KANS: Kentucky Association of Nursing Students; a professional

organization of student nurses (www.kans.org).

Organization of Study

Chapter one provides an introduction to the study, identifies the problem and purpose, discusses the significance of the research and rational quantitative methods, list research questions, and defines terms. Chapter two reviews the literature on caring in education, faculty/student interaction, and active teaching strategies. Chapter three provides detailed information on the research methodology including participant selection, research instrument, data collection, and analysis. Chapter four presents the research findings. Chapter five contains a discussion of the findings, conclusions, recommendations and identifies future research.

Chapter Two: Review of Literature

Caring, interaction, and active learning have been identified as relevant aspects of faculty-student interaction/involvement and as key issues in student success and retention in higher education (Tinto, 1993; Noddings, 1984, 1992; Braxton, et al., 2008). A review of the literature on caring, faculty-student interaction, and active teaching strategies demonstrates the significance of faculty impact on student success.

The review of literature incorporates student's perceptions of the significance of interaction with faculty and how they interact with faculty. In addition, this review of literature will explore the aspect of caring in relationship to faculty members and active teaching in the classroom.

Faculty/Student Relationships

Academic success in college has been positively associated with classroom engagement as well as other forms of involvement in college (Chaves, 2006). Tinto's (1993) theory serves to highlight the value of a classroom experience in which students and their teachers can achieve intellectual synergy (Chaves, 2006). Tinto's interactionalist theory on student retention and persistence assumes that students arrive at college with different life and academic skills sets that are unique to their backgrounds. How well students become integrated, both socially and academically, on campus helps determine their level of commitment to remain on campus (Tinto, 1993). For Tinto, student persistence hinges on the construction of educational communities in college, program, and classroom levels which integrate students into the ongoing social and intellectual life of the institution (as cited in Chaves, 2006). For community college

students that commute to campus the classroom experience may be the only thing they share with faculty and peers (Chaves, 2006).

Astin (1984) defined involvement as what the student provides in terms of self to the academic experience. Five categories of involvement were identified by Astin. The five categories are academic involvement, faculty involvement, involvement with peers, involvement in work, and involvement elsewhere. According to Astin, faculty-student involvement is the most important category, as faculty have the greatest ability to influence what students actually accomplish. Astin's work on student involvement has been primarily focused on residential students attending four year colleges. Astin (1984) believed that involvement had both a level of commitment and time devoted components. Student learning and development are proportional to the quantity and quality of student involvement in their college environment. The effectiveness of any educational policy or program should be correlated to that program's ability to increase the level of student involvement (Astin, 1984).

It is well documented that faculty-student interactions are significant in a student's success at college. Anderson & Carta-Falsa (2002), in their qualitative analyses of narratives of what students wanted in their relationships with faculty, revealed three themes. Teaching/learning environment, exchange of information, and mentor-peer association were identified as the themes. This study used a representative sample of 400 students and 24 instructors from four learning sites of a southern regional university. Three schools were sampled: the school of arts and sciences, school of education and human services, and the school of management and technology. The researchers organized a phenomenological analysis of classroom dynamics in order to avoid any

researcher bias about the data set. The participants were free to respond to the questions in any way they desired. Narratives were generated from the written responses and then used for thematic analysis. The open response questions used in the survey were: What kinds of relationships would you most like to have with your fellow students in your class? What kinds of relationships would you most like to have with your instructor in your class? In order to avoid bias in the student-faculty relationships the surveys were administered to students and instructors on the first night of class (Anderson, & Carta-Falsa, 2002). The 400 student responses provided a problem for thematic analysis using phenomenological methods due to the response size. This was solved by randomly selecting fifty responses to question one and fifty responses to question two. All twentyfour of the instructor's surveys were analyzed separately from the students. A thematic analysis protocol was applied to the collected data. Commonalities in the patterns from all of the readers were identified, reduced, refined, and named with inter-rater reliability estimated to be in the 90-95 percent range (Anderson & Carta-Falsa, 2002). The study revealed that a use of a variety of instructional processes, including things such as presentations, role-playing, debates, discussions, storytelling, and demonstrations that allowed for multiple learning styles to be addressed, was identified by students as positive classroom teaching practices desired. Anderson & Carta-Falsa (2002) also identified that students desired an open, supportive, comfortable, respectful, safe or nonthreatening and enjoyable interpersonal climate in the classroom.

Miller (2007) examined college students who persisted and graduated, to determine some of the specific characteristics of meaningful relationships. The study had two goals. The first goal was to determine the extent to which students indicated that at

least one significant faculty relationship had made a difference in their ability to persist in college. The second goal was to determine the extent to which the 13 dimensions of caring are identified as characteristics of the relationship. Miller's (2007) research used a validated researcher- developed Likert type survey that was administered to students who would be receiving their bachelor's degree. The survey included 203 students. Results of the survey revealed that 69 students indicated that there was no significant faculty member that made a difference in their ability to graduate. Sixty-six percent of the pool of graduating students indicated that there was at least one faculty member that made a difference in their ability to graduate. Students significantly agreed that the individual that made a difference in their ability to graduate demonstrated characteristics along the dimensions of caring. Specific behaviors identified by students, of that one special faculty, included: role modeling, availability outside of class, willing to listen to student, empathy, respect, reinforcing, helpful, flexible, prepared for class, open-minded, sincere desire to see the student succeed in the class, made students want to learn, made students feel comfortable, was not sarcastic, gave timely feedback on work submitted, and took time for student (Miller, 2007). Miller indicated the importance of this research supported the need for faculty to understand the impact of their interactions with students. Miller (2007) and Anderson & Carta-Falsa (2002) both described faculty that were caring and provided positive classroom experiences as being important to students.

In Shelton's 2003 study of the relationship between nursing student retention and students' perceptions of the support provided by nursing faculty, the importance of teacher–student interaction is found to be significant. A sample of 458 students who were categorized according to their persistence was obtained from nine ADN programs that

were accredited by National League for Nursing Accrediting Commission, Inc (NLNAC) in Pennsylvania and New York. Eight of the programs were in community colleges and one was in a liberal arts college with both an ADN and baccalaureate nursing program.

The sample consisted of all students in the selected programs who were either currently enrolled in their final semester nursing course or who had withdrawn from a program sometime during the nine months leading up to data collection. A Perceived Faculty Support Scale was developed by Shelton based on self-efficacy theory and a review of the literature on teacher effectiveness and students' perceptions of caring behaviors by faculty.

Content validity for the Perceived Faculty Support Scale was established through the review of the instrument by three nurse educators who each had more than 20 years of experience in nursing education. Factor analysis of the instrument revealed two factors through Varimax rotation: psychological support and functional support. The internal consistency reliability for the instrument was .92 as measured by Cronbach's alpha coefficient in a pilot study of 22 nontraditional ADN students. The entire survey had an internal consistency of .96 as measured by Cronbach's alpha. All items demonstrated correlations that were all positive and acceptable with a range from .52-.79. The return rate was 96% for currently enrolled students and 42% for formerly enrolled students. The high response rate for currently enrolled students was due to the researcher personally describing the study to students and distributing questionnaires, which were returned to the researcher in sealed envelopes immediately after completion.

The results of the survey revealed psychologically supportive faculty behaviors identified by students that are as follows:

- include caring and understanding;
- being approachable;
- encouraging students;
- demonstrating interest in students;
- having realistic expectations;
- listening;
- conveying confidence in and respect for student;
- being non-judgmental;
- being honest and direct;
- being open to differing points of view and wanting students to succeed.

The survey also revealed functionally supportive faculty behaviors identified by students as being available to students, helping in new situations without taking over, communicating clear and reasonable expectations, presenting information clearly, providing helpful feedback, using fair evaluation methods, helping with problem identification and resolution, serving as role models, and helping in planning the future. Shelton (2003) indicated a difference between students who had been continuously enrolled and those who had been withdrawn from the program at some time prior to the last semester.

Umbach and Wawrzynski (2005) used two national data sets to explore the relationship between faculty practices and student engagement. The national data sets consisted of the National Survey of Student Engagement (NSSE) and a second data base from a parallel study examining attitudes and behaviors of faculty at institutions participating in NSSE. The sample consisted of 20,226 senior students and 20,033 first

year students who completed NSSE in spring 2003. Umbach and Wawrzynski (2005) found that course related interactions appear to be positively related to student engagement. On college campuses where faculty frequently interact with students related to courses, both first year and senior students reported greater gains in personal/social development and general education knowledge. Out of class interactions appeared to have less of an effect. Additionally, college campuses where faculty employ active and collaborative learning techniques have students who are more engaged. Umbach and Wawrzynski (2005) suggested that a positive relationship between college environments where faculty used active and collaborative learning techniques resulted in student success.

To investigate how students' characteristics and experiences affect satisfaction,
Thomas and Galambos (2004) used regression and decision tree analysis with the CHAID
algorithm to analyze student-opinion data. Data for this analysis was drawn from a
student opinion survey at a public research university in spring 2000. The sample size of
1,698 was more ethnically diverse than many public universities. Faculty preparedness,
which has a well known relationship to student achievement, emerged as a principal
determinant of satisfaction. Teacher organization and preparation were the two
dimensions of teacher behavior consistently related to student achievement. The
importance of faculty-preparedness also focused attention on student-faculty interaction
in the classroom.

Johnson (1997) completed a longitudinal study using multivariate statistical procedures to investigate what factors distinguished between students who persisted and those who dropped out of a university which served mainly commuter students. The

sample consisted of 171 undergraduates from a university in northeast region of the U.S. The university mainly served commuter students. At the end of the six year study, 46% of the sample had completed a bachelor's degree, 9.4% completed an associate's degree, 10% were continuing students, and 35 % had dropped out sometime in the 6 years. A combination of survey data and data from the university's Integrated Student Information System (ISIS) was used for this study. The significant findings were that more retained students agreed more strongly than dropout students with the following statements:

- I got to know the faculty.
- It was easy to get answers to questions I had about things related to my education at this institution.
- This institution has a well educated faculty.
- I had adequate opportunity to interact with faculty.

Hagedorn, Maxwell, Rodriguez, Hocevar, and Filpot (2000) investigated the student-faculty relationships according to gender. The study was conducted at a medium sized community college with approximately 22,000 students located in a middle class, predominantly blue collar, suburban community on the West Coast. The sample size consisted of 448 students, 179 male and 269 female. Students addressed questions such as: How often have you discussed career plans with faculty? How easy is it to develop close relations with faculty? Is the faculty sensitive to student needs? Hagedorn et al. (2000) results revealed a pattern of generally low rates of contact with faculty members outside the classroom for most students within the study. This study demonstrated the importance of faculty-student interaction within the classroom. Community colleges

students have low rates of interaction with faculty outside of the classroom (Hagedorn et al., 2000).

Cole (2007) examined students' interracial interactions on 119 predominantly white college campuses and the related impact on student-faculty data from students' first and fourth years of college. Data was collected from the Cooperative Institutional Research Program (CIRP) located at the University of California. A random unweighted sample of the 1994 freshman survey data and the 1998 follow up data was obtained for this purpose. The researcher grouped faculty-student interactions into three categories through factor analysis: course related faculty contact, advice and criticism from faculty, and establishing a mentoring relationship with faculty. In class experiences, accessibility cues were also important to the outcome variables of this study. The findings suggested that accessibility cues not only reflected faculty desires for non-classroom contact with students but also reveal students' desirability for non-classroom faculty contact. Cole discovered the components of classroom environments that enhance student active learning, student-faculty interactions, and intellectual self-concept were as follows:

- Enthusiastically engaging students in the learning process
- Valuing students and their comments
- Strategically creating racially/ethnically structure student groups
- Looking out of the class for social events related to in class content
- Allowing students opportunity to constructively challenge professors' ideas

Cole's research demonstrated that regardless of race or ethnicity all students respond to active learning and a positive in class environment.

Chang's (2005) study used data gathered from the Transfer and Retention or Urban Community College Students (TRUCCS) Community College Student Survey to examine the faculty-student interaction at the community college with a focus on students of color. The survey was administered to a representative sample of 5000 students on nine campuses of the Los Angeles Community College district during the spring of 2001. The response rate was close to 100% because surveys were hand-distributed, completed, and returned in the classroom setting. The study sample consisted of 779 African-American students, 112 American Indian students, 797 Asian American/Pacific Islander students, 2830 Latino students, and 730 White Caucasian students. The American Indian students were not included in the analyses due to the small number of responders in that group. Chang found that regardless of racial subgroup, students most frequently interacted with faculty by speaking up and engaging during class discussion. Students also commonly asked instructors questions or spoke with them before or after class. Across all racial subgroups, African American students tend to show the greatest participation in each form of faculty student interaction followed by Caucasian and then Latino and Asian American/Pacific Islander students. Chang reported that consistent with the limited literature that existed on top of student involvement at these campuses, community college students generally showed low levels of engagement with faculty. Students were more inclined to interact with faculty in class and around topics specific to the course they were taking and less likely to meet with their instructors outside of class.

Cotton and Wilson's (2006) qualitative study of student-faculty interactions utilized nine focus groups in 2002 with undergraduate students at a mid-sized public research university in the mid-Atlantic region of the United States. A total of 49 students

participated in the study. Most students reported some interaction with faculty; however, they were infrequent and not routine, and several students indicated they had never interacted with a faculty member outside of the classroom. The few interactions students reported generally occurred when a student was experiencing difficulty with a course or needed help with a specific assignment. While students generally perceived interactions with faculty to be beneficial, they also indicated that bad experiences could occur. Students noted that faculty members that showed a sense of humor or disclosed something personal about themselves allowed students to feel more comfortable approaching and interacting with the faculty. Students also noted that active engagement and more interactive teaching styles contributed to interaction within the classroom and to their willingness to approach faculty. Cotton and Wilson found that the more comfortable a student is with faculty inside the classroom, the more likely they were to approach them outside the classroom.

Strauss and Volkwein (2004) examined the predictors of institutional commitment for first-year students at 28 two-year and 23 four year public institutions. Since institutional commitment is a precursor or predictor of student-persistence behavior, institutional commitment itself became an important object of study. For this study a cross-sectional research design was used and data from a 1997 multi-campus database aggregated from 51 public institutions was used. The sample size was 8,217 responses from first year students in which 2,499 were at four-year institutions and 5,718 were at two-year institutions. The study was a secondary analysis of data gathered from the Higher Education Directory and the 1997 Integrated Post-secondary Education Database System (IPEDS). Strauss and Volkwein found that the impact of the classroom

experiences on commitment was one of the strongest in the study. The researchers also discovered that classroom experience may be a better predictor of institutional commitment at two-year institutions than at four-year institutions. Strauss and Volkwein reported that students, who described greater satisfaction with faculty interaction, or greater intellectual growth, also reported greater institutional-commitment scores.

Caring in Education

Caring in education was described by Noddings (1992) as the teacher receiving the student fully and respectfully for the duration of each encounter (as cited in Rossiter,1999). Thayer-Bacon and Bacon (1996) posited that caring teachers had a significant impact on their student's lives, including students of different cultural backgrounds and different genders. Peter (2005) found that nursing students who perceived that faculty cared about them and helped them learn, persisted in the nursing program at a higher rate than those who did not. Faculty mentoring and support of students were positively related to retention (Dorsey & Baker, 2004). O'Donnell (2009) concluded that nurse educators wishing to nurture caring values in students should demonstrate similar characteristics towards those they hope to influence.

In a 1997 study of an undergraduate biology course, Straits (2007) researched the student's views of teacher caring and its impact on learning within the context of a large lecture based course. The course studied was a single semester-long section of a sophomore level biology course with an enrollment of 183 students. Straits employed the naturalistic inquiry method for the study. Fifteen students participated in the study with a total of one to three interviews held with each participant. E-mail dialogue was also established with each participant. E-mail and interview transcripts were coded and sorted

with constant comparative methods. Data generation ended when additional inputs of data failed to result in additional insights. A recurring theme within the data was the role of instructor caring and how the instructor influenced their learning.

Students in Straits' (2007) study described the instructor as someone who wanted the students to learn, who was open, available, and responsive to students. The instructor was viewed as dedicated, genuinely interested in the students, respectful of the students not just as learners but also as individuals, and welcomed interaction both in and out of class (Straits, 2007). The instructor was also described as willing to do whatever it took for the students to grasp the information of the class. Active learning experiences were abundant in the instructor's class. Questioning, group activities, resources such as handouts, lecture outlines and online materials were identified as common active learning methods used (Straits, 2007). Higher cognitive—level thinking skills were encouraged within the class with problem solving, critical and evaluative thinking, and questioning as a part of the class. Students identified the instructor's enthusiasm about concepts being taught, teaching, and encouraging questions both in and out of class as being positive aspects of the course (Straits, 2007).

Thayer-Bacon, Arnold, and Stoots (1998) developed a method of identifying caring teacher/professors who can then be further studied as part of research on caring. Student nominations of caring instructors and teacher evaluation scores for questions on caring were compared. For three semesters nominations from students in their last semester at Bowling Green State University were gathered. The nomination forms provided descriptors which were generated by college students to help define caring. Additionally, nominations of caring professors were made by the faculty of the College

of Education and Human Development and from department chairs in the college in order to receive administrative nominations as well (Thayer-Bacon et al., 1998). Of the nominations received one out of the seven administrative personnel returned a nomination for a 14% return rate. The person nominated by administration was not nominated by any of the students. Twenty-three out of 247 (9% return) faculty returned nominations and of these nominations four were not nominated by any of the students. The student return rate of nominations was 42% with 417 out of 1000 submitted faculty nominations.

The teacher evaluation scores were gathered with questions related to caring and then tabulated. The scores were then compared and contrasted with the nomination of caring faculty. Once this comparison had been completed, it was determined that some faculty with very high evaluation scores was not nominated as caring faculty. However, there was no faculty who were nominated by students who had low teacher evaluations. Of the two methods, identification of caring faculty was easiest by seeking student nominations (Thayer-Bacon et al., 1998). Thayer-Bacon et al. (1998) proposed that given that researchers found no nominated faculty who had low teacher scores, they thought it was safe to assume researchers would find educators who were perceived by their students as caring through a nomination process that involved student nominations of caring faculty.

Rossiter (1999) explored and explicated the experience of caring as it related to graduate education from the perspective of the adult learner. What were the essential caring components of a caring relationship that affected on the educational experience from the graduate student's point of view? How was caring experienced by adult students

in a graduate school setting? How did the experience of caring affect or relate to the graduate school experience from the learners point of view? Rossiter took an existential phenomenological approach to guide the study. Nine female graduate students participated, ranging in age from 27-52 years and from various fields of study. Participants were asked to think of a relationship which one would characterize as caring and to write a detailed description of that experience. Once this was accomplished, the participants were divided into three small groups and each group met three to four times. In group meetings they read their descriptions to one another, discussed elements of meaning within each description and identified common themes within their small groups. Rossiter conducted individual interviews with each participant.

The results of Rossiter's (1999) study found that six of nine participants identified professors as their partners in caring relationships. For all participants caring relationships pertinent to their education were experienced from the perspective of being care recipients. Components of caring identified by the participants were as follows: being noticed (not being preoccupied or oblivious), being understood, unselfish, and helping students find one's best self, trust, and respect.

Rossiter (1999) discovered that while expression of emotion may be one indicator of the caring connection, it is neither a sufficient nor necessary condition of caring.

Caring professors provided comfort, safety, and a secure base from which students could explore new ideas

Miller (2007) produced a study that looked at college students who persisted and graduated to determine some of the specific characteristics of meaningful relationships.

Webber (1999) determined that as many as 90% of graduating students indicated that

their school success could be attributed to a relationship with a significant other that influenced them to remain in school (as cited in Miller, 2007). Of these graduates, over half of these significant relationships were with college faculty and staff. Miller's study had two goals, the first of which was to determine the extent to which students indicated that at least one significant faculty relationship had made a difference in their ability to persist in school. The second goal was to determine the extent to which the 13 dimensions of caring were identified as characteristics of the relationships. Students who succeeded knew clearly what made success possible for them. In many cases it was the academic climate and relationships with staff and faculty that created a sense of connection (Johnson, 1997). A survey was administered to students who would be receiving their bachelor's degrees that same spring semester. Ninety-three courses were surveyed, from those courses 203 respondents were scheduled to graduate in spring or summer. Of the total, 69 indicated no significant faculty member made a difference in their ability to graduate. There were 134 students which indicated a faculty member who made a difference.

Wells (2007), in a qualitative study of a Bachelors Degree (BS) nursing program, interviewed a sample of 11 students who had left the program which was located in an urban area of a southeastern state. The participants left between fall 1998 and spring 2000. The interview questions consisted of seven open ended questions that focused on overall experiences, reasons for departures, relationships with faculty, staff, and peers, and family and personal issues. The study documented some positive aspects of the participants' experiences that included relationships with faculty and classmates. Study participants reported that they had experienced faculty who were helpful, caring, and

supportive (Wells, 2007). Regarding departure themes, study participants revealed disillusionment about nursing program practices and the nursing profession, perceived lack of support from faculty and/or nursing staff for the achievement of the students' educational goals (Wells, 2007). While there were positive and rewarding experiences with some faculty members, study participants indicated experiences where faculty demonstrated a lack of support and caring.

McEnroe-Petitte (2011) stated "as issues with retention and overall success of nursing students develop, nursing faculty must be aware of the need to offer caring in innovative ways to meet these needs and promote success. Without caring, nursing would not be successful in providing support not only to patients and their families but also to the needs of nursing students." In her review of literature regarding the impact of faculty caring on student retention, McEnroe-Petitte revealed that nursing faculty needed to portray caring to nursing students in many different ways such as through support, counseling, trust, respect, mentoring, formation of a cohesive relationship between nursing faculty and nursing students, approaching student to offer assistance and helping with instilling self confidence in students.

Amaro, Abriam-Yago, and Yoder (2006) in their qualitative research study examined the barriers and factors that hindered or facilitated ethnically diverse students' completing their nursing education. Seventeen recent ethnic minority graduates of at Central Coastal California College were interviewed using an open ended questionnaire. Many participants reported that teachers had a greater effect on their potential success than their families. Teachers who encouraged, mentored, had an open-door policy, were motivational, and had patience with them provided the support they needed to succeed.

Active Learning

Active learning had been demonstrated to increase student course learning (Braxton et al., 2008). Kleiman (2003) proposed that the best way in which students could be helped to construct knowledge was through active engagement with the curriculum (as cited in Taylor, 2005). Research on the practice of active learning strategies suggested that when students are actively involved in thinking about what they do, improved student outcomes resulted (Braxton, Milem, & Sullivan, 2000). Faculty use of active learning practices directly and indirectly affected college student departure decisions. Chickering and Gamson. (1987) identified seven principles for good practice in undergraduate education that have been the basis for active learning advocates still today. Chickering's seven principles include:

- 1. Encourage contacts between students and faculty.
- 2. Develop reciprocity and cooperation among students.
- 3. Use active learning techniques.
- 4. Give prompt feedback.
- 5. Emphasize time on task.
- 6. Communicate high expectations.
- 7. Respect diverse talents and ways of learning.

Frequent student-faculty contact in and out of classes was the most important factor in student motivation and involvement (Chickering & Gamson, 1987). The use of active learning techniques required the student to participate in their learning. Active learning techniques discussed by Chickering and Gamson include structured exercises,

discussions, team projects, peer critiques, internships, independent study, mastery learning, contract learning, and computer assisted instruction.

Braxton et al. (2000) used a longitudinal design composed of 718 first-time, first-year students from a highly selective private research university to study initial institutional commitments, active learning classroom behaviors, social integration, and subsequent institutional commitment and departure decisions. The four composite measures used for student learning consisted of class discussion, higher order thinking activities, exams, and group work. The authors determined that these four composite measures represented faculty active learning behaviors. The study findings indicated that class discussions and higher order thinking activities positively influenced social integration (Braxton et al., 2000). Braxton et al. (2000) determined from study results that faculty classroom behaviors played a role in the student departure process. The patterns of findings of this inquiry indicated that faculty classroom behaviors in general and active learning in particular may constitute an empirically reliable source of influence on social integration, subsequent institutional commitment, and departure decisions (Braxton et al., 2000).

A project carried in New Zealand out by Kane, Sanretto, and Heath (2004) sought to theorize the attributes of excellent tertiary teachers and relationships among those attributes in a university setting. The research was limited to lectures in science and used the heads of departments to nominate academic staff who were recognized as excellent teachers within their departments and who had demonstrated interest in exploring their teaching practices. Seventeen nominations were accepted of which ten were male and seven female. Their teaching experience ranged from 6 to 34 years, with an average

teaching experience of 18 years. Through a series of observations and self assessments, the researchers found the following as instrumental to excellent teaching: subject knowledge, clarity, real world connections, organization, ability to inspire or stimulate interest, being prepared, establishing relationships, respect and fondness for students, empathy, trust, and ability to understand.

Horan (1991) in his review of literature regarding attributes of exemplary community college teachers found that they were highly organized, planned carefully, set unambiguous goals and had high expectations of their students. In Horan's literature review it was discovered that exemplary community college teachers expressed positive regard for their students, encouraged student participation, and provided students with regular feedback regarding their progress in the course and made specific study recommendations. Community college teachers typically made course content relevant by relating their experiences, giving examples, and connecting course goals to the real world expectations and experiences of their students (Horan, 1991).

Braxton et al. (2008) produced research that centered on the influence of faculty use of active learning practices on social integration. The study used an actual measure of student persistence and a sample of students enrolled in eight religiously affiliated, residential, private colleges and universities. A longitudinal panel design of 408 first-time, full-time, first-year students was evaluated. The data collection consisted of *The Fall Collegiate Experiences Survey* in fall 2002 and *The Spring Collegiate Experiences Survey* in spring 2003. The aggregate response rate was 28.4 percent across the eight participating colleges and universities. Five items of the survey measured faculty use of

active learning practices. Braxton et al. identified the following as their measurement statements:

- Instructor engaging in classroom discussion or debate of course ideas and concepts
- Ask me to point out any fallacies in basic ideas, principles or points of view presented in the course.
- Ask me to argue for or against a particular point of view
- Require me to argue for or against a particular point of view and defend
 my argument in a course paper or research project
- Require me to propose a plan for a research project or experiment for a course paper

The results indicated that after controlling for a student's demographic information and initial institutional commitment, student perceptions of faculty use of active learning practices had a positive and statistically significant impact on how students perceived their institution's dedication to the welfare of students.

Taylor (2005) described the introduction of an Enquiry Based Learning (EBL) strand to the curriculum of one pre-registration nursing program in the United Kingdom. The intent of this curriculum change was to address some of the reasons for student attrition in nursing programs. Lack of support, poor academic performance, lack of study skills, disillusionment and low motivation, lack of confidence, and the theory-practice gap resulting in stressful practice experiences, where all factors that led to the curriculum change. In the selected pre-registration program, the curriculum has been developed in such a way that students were part or a small EBL group for the duration of their

programs. Students were assigned a facilitator trained in the EBL method. The facilitator became the personal tutor to the students. The facilitators helped students learn through lectures, seminars, tutorials, skills practice and guided study. Taylor surmised that the development of a close relationship between the lecture and student was seen as one of the primary aims of the EBL strategy and the ways in which student interacted in practice was key to good nursing in their futures.

Popkess and McDaniel (2011) in their study of active and collaborative learning discovered that active learning was utilized significantly less for nursing programs than in education majors but use was not significant from other health majors. Using data from the National Survey of Student Engagement (NSSE) 2003 survey it was determined that educators in nursing and other health profession continue to predominately employ traditional centered methods of instruction. The traditional method of instruction typically consisted of lecture without use of class activities. NSSE results indicated that nursing students saw themselves as more academically challenged than education and other health majors and less engaged in active and collaborative learning than education majors.

Successful strategies to improve student retention in nursing programs by developing active learners yielded greater academic success (Peter, 2005). Peter (2005) and a core group of faculty and staff in the Department of Nursing at the University of Southern California developed a learning assistance program know as Learn for Success (LFS). The program was comprised of learning strategies, motivational strategies, and self management. LFS offered a comprehensive range of retention strategies consisting of early identification and tracking of at-risk students, study skills workshops, study groups,

peer tutors and the core faculty coaching component. Faculty coaches completed a three hour orientation with an additional faculty coach orientation packet and other materials to facilitate their role as a faculty coach. Students demonstrated significant improvement on motivation to accept responsibility for studying, anxiety management, concentration, selecting the main idea, and test taking skills.

In summary the literature review revealed that interaction with faculty members enhances student success. Interestingly, the literature revealed the importance of the issue of "caring" by the faculty member as a significant factor of student success. Active learning methods utilized by faculty members also led to a student perception of positive learning, thus student success. This study's survey will address questions relating to interaction, caring, and active learning.

CHAPTER III: Method

The problem addressed in this study is discovering the successful associate degree nursing students' perceptions of the importance of faculty caring, interaction, and active learning and the presence of these factors within their nursing program. As the nursing shortage continues it becomes imperative to graduate more nurses in order to meet the current and future needs. As the Baby Boomers age the current nursing workforce is aging. This alone will increase the demand for nurses as this generational group begins to retire. Additionally, the Patient Protection and Affordable Care Act of 2010, often termed "healthcare reform" by many will result in more than 32 million more Americans gaining access to healthcare services.

Currently, in associate degree nursing programs in Kentucky approximately 25% of the entering students leave their programs before completion (Kentucky Board of Nursing, 2011). The loss of each student represents a loss of a potential nurse for the healthcare workforce and a loss to the student in terms of emotional and financial distress if early loan payback is necessary. While each of the associate degree programs surveyed follow a selective admissions process, it is increasingly imperative to retain and graduate a higher percentage of those admitted to the program.

This chapter provides information regarding the research methods utilized to investigate the perceptions of successful associate degree nursing students in relationship to their perceptions of the importance of nursing faculty members regarding caring, interaction, and active learning teaching and how often they see evidence of these factors within their program. Also incorporated in the chapter is an explanation of how research

based on faculty/student interaction, caring, and active teaching strategies directly addresses the variables in the research questions:

- 1. To what extent do successful associate degree nursing students perceive the components of caring in education as important and how often have these behaviors been demonstrated by nursing faculty?
- 2. To what extent do successful associate degree nursing students perceive faculty/student interactions as important and how often have these interactions been demonstrated by nursing faculty?
- 3. To what extent do successful associate degree nursing students perceive faculty led active teaching strategies as important and how often have these strategies been demonstrated by nursing faculty?
- 4. To what extent do student age, gender, acceptance level, entrance GPA, employment, and first time generation college student characteristics affect the perception of the importance of the components of caring, faculty/student interaction, and active teaching strategies?

A description of the participants and the manner in which they were selected is also included. An explanation of the research design, along with a timeline of participant notification, and survey distribution, is included in this chapter. Finally, procedures for testing and analysis of data are incorporated along with explanation for selection tests and how each relates to the research questions guiding the study.

Survey

The survey was adapted from Shelton's (2003) Perceived Faculty Support Scale Survey. Internal consistency reliability for the Perceived Faculty Support Scale was .92

as measured by Cronbach's alpha coefficient (Shelton, 2003). Thirteen statements from Shelton's survey were used in the researcher's 30 item survey. Additional survey items were identified by the researcher from the literature review.

The researcher's survey was named the ADN Nursing Faculty Characteristics of Support. Content validity for the survey was established through a review of the instrument by four senior nursing educators with an average of twenty years of experience in nursing education. Only one suggestion was given by one of the faculty reviewers. The faculty member indicated the importance of student understanding in answering the survey while considering their overall experience in the nursing program and not focusing on just nursing instructors. Following this input the directions to the survey were modified to ensure clearer instructions to the student participants.

Following the faculty review of the survey, content validity was also established through a review by KANS officers and committee leaders. This resulted in a review by nine nursing students. After having the students respond to the survey, they were questioned on their understanding of the items, the construction of the survey, and the scope of the survey with a specific focus on areas that may have been overlooked. Student reviewers identified two statement items as being the same or very similar to other items in the survey. One student commented, "It's well organized, not too long, and asked questions that put things into focus."

After evaluation and revision the survey instrument consisted of 30 statements that were classified under one of three domains; caring, faculty-student interaction, and active teaching strategies. Each statement was attached to two, four point Likert scoring scales. Part 1 required the student to rate each statement on how important it was to the

student with responses ranging from *not important* to *extremely important*. Part 2 required the student to rate each statement on how often the student observed the characteristic or behavior exhibited while in the program with responses ranging from *rarely* to *almost always*. Additionally, six demographic items were included. Student age, gender, when they were accepted into the program, GPA upon acceptance to the program, employment status, and first generation college student were the demographic questions asked of the participants. The research survey is in Appendix A.

Ethical Considerations

Exempt status for institutional research was submitted to the KCTCS systems office. Exempt status was determined based upon the minimal and reasonable risk to the participants and the research procedures were consistent with a sound research design and did not expose the participants to unnecessary risk (http://www.wku.edu/compliance/). The review at the KCTCS required presidential approval from each college participating in the research. Once the KCTCS IRB was completed then the researcher's university Institutional Review Board reviewed and approved the research proposal. Materials submitted to each IRB included the nature and purpose of the project, an explanation of procedures that included the confidentiality aspect of the research and the opt-out option of the research. The survey instrument, letter of invitation to participate, and IRB approvals are found in Appendix B.

Participants

Participants included third and fourth semester associate degree nursing students at five community and technical colleges within the state of Kentucky. Associate degree nursing students were seated in the class by way of selective admissions. Selective

admissions are used due to limitations of clinical practicum sites and limitations in the number of students who can be accommodated in clinical groups. Enrollment is then restricted to those students meeting particular requirements in order to gain a "seat" in the program. Selection of students into the ADN programs surveyed was based on the following program criteria:

- Candidates who demonstrate above average standing in high school or on the General Education Development Examination (GED);
- Applicants with an ACT composite score of 20 or its equivalent on a
 nationally normed RN Preadmission Exam. Examples include, but are not
 limited to the NLN Preadmission RN Examination or the C-NET PreNursing Assessment RN; and
- 3. Applicants who have completed 12 or more credit hours in the approved curriculum with a cumulative GPA of 3.0 or better from any regionally accredited college.

Once students have been selected into the program they are responsible for maintaining a grade of "C" or better in each biological science, nursing, and mathematics course and a maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale) (KCTCS Rules of Senate, 2011-2012).

Procedure

Participants in their third and fourth semesters during the fall of 2011at the five community and technical colleges were visited by the researcher at predetermined dates and times scheduled in conjunction with their program coordinators. Paper and pencil surveys were delivered and administered by the researcher. The potential for close to a

100% return rate was a consideration as evidenced by the research of Chang (2005) because surveys were hand-distributed, completed, and returned in the classroom setting. This method was chosen over online survey tools because of limitations of online survey methods. Potential pitfalls of online surveys are the uncontrolled environment (e.g., respondents might be affected by random factors and events, including distractions at home or the presence of family or coworkers), a potential lack on anonymity and data security, layout differences of Internet-based surveys due to low-end technology and different Web browser programs and settings, and accessibility issues that call into question the generalize ability of data (Wharton, Hampl, Hall, & Winham, 2003). Handwerk, Carson, and Blackwell (2000) in their study of College Selection found the overall response rate for the paper and pencil sample of 33% significantly greater than the 26.2% response rate for the online sample. The two samples in Handwerk et al.'s study were similar to each other with respect to sex, race, class, and housing status but, differed with respect to age. The online sample had a significantly higher proportion of "traditional" students, age 18 to 24. Rather than burden ADN nursing coordinators with survey distribution and administration the researcher determined that self delivery and administration would be beneficial for and increase a prompt response to the survey.

During the late summer, early fall of 2011 nine ADN program coordinators were contacted via e-mail with a request to participate in the proposed research. The e-mail presented an explanation of the purpose of the research, timeline and procedure of the study. Of this number five program coordinators consented to the research. At that time the coordinators were instructed that participation for the students was voluntary and that a donation of \$50.00 for the graduation/pinning ceremonies would be given to the classes

that participated. Dates and times for the researcher to administer the survey were determined at the time of consent. Visits to the consenting colleges occurred within a one week time period in September 2011 with a participation rate of 100% from 270 student participants.

Research Design

This study is exploratory research since it was designed to examine, analyze, and investigate a particular area in the social sciences (Stebbins, 2001). One purpose of this exploratory study was to determine the successful ADN student perceptions of how important faculty characteristics/behaviors of caring, interaction, and active learning were to them. In addition, student perceptions of how often these faculty characteristics/behaviors were evident in the program were evaluated to reveal any significant relationships.

Data Analysis

The data analysis for this paper was generated using SAS software, Version 9.2 of the SAS System for Windows. First, descriptive statistics were calculated to provide statistical information regarding sample demographic characteristics (e.g., gender, age) and to describe the sample in terms of their distribution on the independent variables of age, GPA, entrance level to the nursing program, employment status, and first generation college status. The descriptive statistics yielded means, standard deviations, and ranges. Then an Analysis of Variance (ANOVA) regarding whether each independent variable (e.g., age, GPA, entrance level to the nursing program, employment status, and first generation college status) was related to each dependent variable (e.g., perceived importance and perceived observation of each domain) was conducted. If the omnibus

was significant, Tukey's HSD tests were conducted to further determine which levels of the IV (e.g., age groups, GPA group) displayed significant mean differences.

Limitations

A limitation of this research study was the focus on students who were in their second and last year of the nursing program. Research data on students who were not retained into the second year may have different perceptions on the nursing program in regard to caring, interaction, and active teaching.

Summary

Although studies exist that report the importance of faculty/student interaction, caring, and active learning very few address the population of associate degree nursing students. The importance of retaining each and every nursing student is imperative to our nation's healthcare system. Identifying any faculty related interaction may provide an overlooked impetus for change in higher education that is economical and utilizes all the qualities of each faculty member. Measuring the perceptions of successful nursing students will help us determine the significance of these support measures.

Chapter IV: Data Analysis

This study was designed to explore the perceptions of successful ADN students in relationship to the importance to their success and faculty characteristics/behaviors of caring, faculty-student interaction, and active teaching strategies. As a nationwide nursing shortage continues and the Kentucky average attrition rate for all of the associate degree nursing programs is 25% an examination of what faculty characteristics/behaviors lead to successful ADN graduates is an important research topic. This research examined five ADN programs in the KCTCS system. Two hundred and seventy nursing students participated in the research survey.

The ADN Nursing Faculty Characteristics of Support survey instrument was used to measure the perceptions of the successful ADN students. The survey consisted of six demographic items and thirty statements that the students rated. Each statement was attached to two, four- point Likert scoring scales. Part 1 required the student to rate each statement on how important it was to the student with responses ranging from *not important* to *extremely important*. Part 2 required the student to rate each statement on how often the student observed the characteristic or behavior exhibited while in the program, with responses ranging from *rarely* to *almost always*.

The five community and technical college ADN programs that participated represented a large geographical area of Kentucky. Information about the student population and the number of nursing student participants are listed in Table 1.

Table 1

Descriptive Data of Participating Colleges

College	Nursing student participation	Percent of participation
1	34	12
2	80	30
3	86	32
4	37	14
5	33	12

Two hundred and seventy successful ADN students from five community and technical colleges in Kentucky were surveyed to discover the extent to which they felt caring, faculty-student interaction, and active teaching strategies were important to them. Survey participants were also asked to indicate how often they saw nursing faculty demonstrate caring, interaction, and active teaching strategies. Demographics and background data were collected based on student self- report on the survey instrument. This data included the participant's age, gender, GPA upon acceptance, employment status, and first generation college status.

Participants ranged in age from 19 to 64. The mean age of the 269 participants that responded to the age question was 29.8. The age ranges for each level are found in Table 2.

Table 2
Survey Participants Age

Level	Age	n	Percentage
1	≤ 23	68	25
2	24-28	70	26
3	29-35	68	25
4	36≥	64	24

Thirty-four (13%) of the participants were male and 236 (87%) were female. The acceptance level into the nursing program listed three options from which the participants made their selection. The three options were as follows:

- Level 1: Immediately after high school graduation.
- Level 2: After taking required pre-college courses to remedy deficiencies in reading, writing, or math and the nursing pre-requisites.
- Level 3: After one semester or more of college general education.

Two hundred sixty-five students responded to the question regarding acceptance into the program. Twelve (4.53%) were admitted immediately after high school graduation, 89 (33.58%) were admitted after taking pre-college courses and nursing pre-requisites, and 164 (61.89%) were admitted after one semester or more of college general education.

Table 3

Acceptance Level Categories into Nursing Programs

Level	n	Percentage
1	12	5
2	89	33
3	164	62

The GPA upon acceptance to the program was the fourth question offered to the participant. Two hundred sixty-four participants responded with 3.59 as the mean of the GPA upon acceptance to the program. This was not unexpected because the ADN programs surveyed were selective admission programs that have specific rigorous criteria for acceptance. Selection of students into the ADN programs surveyed was based on the following program criteria:

- Candidates who demonstrate above average standing in high school or on the General Education Development Examination (GED);
- Applicants with an ACT composite score of 20 or its equivalent on a
 nationally normed RN Preadmission Exam. Examples include, but are not
 limited to the NLN Preadmission RN Examination or the C-NET PreNursing Assessment RN; and
- 3. Applicants who have completed 12 or more credit hours in the approved curriculum with a cumulative GPA of 3.0 or better from any regionally accredited college.

The GPA distributions are displayed in Table 4.

Table 4

Entrance GPA of Nursing Students

Level	GPA	n	Percentage
1	≤3.69	119	45
2	≥3.70	145	55

When asked about current employment status, it was discovered that 35 (13%) of the participants were employed full-time. The employment question was selected because the nursing programs consisted of both didactic and clinical practicum experiences that involved the nursing student in more clock hours of education as compared to the typical undergraduate student. One hundred twenty-two (45%) were employed part-time with 113 (42%) not employed at the time of the survey. The distribution levels of employment status are demonstrated in Table 5.

Table 5

Employment Status of Nursing Students

Employment Category	n	Percentage
Not Employed	113	42
Part time	122	45
Full Time	35	13

Participants were asked if they were a first generation college student. The results for 270 responses indicated that 169 (63%) were not first generation college students while 101 (37%) were first generation college students. Table 6 demonstrates the generational status of the participating students.

Table 6

Generational College Status of Nursing Students

Generational Status	n	Percentage
First Generation College	101	37
Student		
Not First Generation College Student	169	63

Findings Related to Research Question 1

Research Question 1 asks: To what extent do successful associate degree nursing students perceive the components of caring in education as important and how often have these behaviors been demonstrated by nursing faculty?

The caring domain consisted of 15 questions. These 15 questions were assessed with simple statistics of mean, standard deviation and minimum and maximum ranges for scores. The importance of caring for the participants had a mean = 56.18, SD = 4.99, minimum range of 34.00, and a maximum range of 60.00. How often caring was exhibited by the nursing faculty was rated by the students as a mean = 47.08, SD = 8.87, minimum range of 19.00, and a maximum range of 60.00. Figure 1 identifies the mean of each caring statement according to importance and how often it was demonstrated. The Scale for Importance Part 1provided the following selections to the participants, 1 = not important, 2 = somewhat important, 3 = very important, and 4 = extremely important. The Scale for Observed Part 2 provided the following selections to the participants, 1 = rarely, 2 = sometimes, 3 = often, and 4 = almost always.

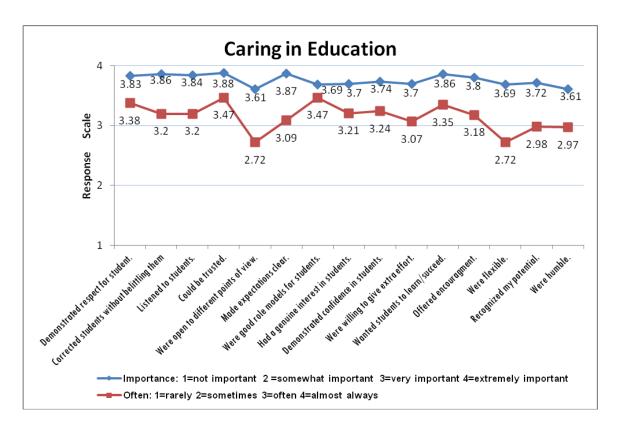


Figure 1. The mean of each statement in terms of importance and observance of caring by nursing faculty as rated by associate degree nursing student participants.

The statements "Were open to different points of view" and "Were Flexible" appear to show the most difference between the preceived importance of caring and how often caring behavior was exhibited. "Were open to different points of view" (M=3.61) for importance and (M=2.72) for how often appear to suggest that students value different viewpoints and that the faculty in this study presented this behavior more *often* than *almost always*. "Were Flexible" (M=3.69) for importance and (M=2.72) for how often appear to suggest that students value flexibility as *very important* and *extremely important* but that faculty in the study demonstrated flexibility as *sometimes* and *often*.

Findings Related to Research Question 2

Research Question 2 asks: To what extent do successful associate degree nursing students perceive faculty/student interactions as important and how often have these interactions been demonstrated by nursing faculty?

The faculty/student interaction domain consisted of 7 questions. These 7 questions were assessed with simple statistics of mean, standard deviation and minimum and maximum ranges for scores. The importance of faculty/student interaction for the participants had a mean = 25.63, SD = 2.88, minimum range of 7.00, and a maximum range of 28.00. How often faculty/student interaction was exhibited by the nursing faculty was rated by the students as a mean = 21.71, SD = 4.31, minimum range of 5.00, and a maximum range of 28.00. Figure 2 identifies the mean of each faculty/student interaction statement according to importance and how often it was demonstrated. The Scale for Importance Part 1provided the following selections to the participants, 1 = not important, 2 = somewhat important, 3 = very important, and 4 = extremely important. The Scale for Observed Part 2 provided the following selections to the participants, 1 = rarely, 2 = sometimes, 3 = often, and 4 = almost always.

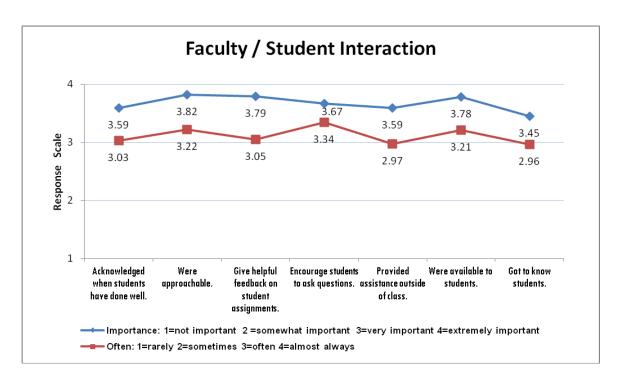


Figure 2. The mean of each statement in terms of importance and observance of faculty/student interaction as rated by associate degree nursing student participants.

The statement "Encourage students to ask questions" seems to indicate that students preceive the importance (M=3.67) and observation (M=3.34) of the interaction as the most similar in value. "Give helpful feedback on student assignments" exhibited the most difference in means for importance (M=3.05) and how often (M=3.79) for faculty/student interaction. The study indicates that students value faculty/student interaction as *very important* and *extremely important* and the faculty in the study demonstrated demonstrate interaction as *often* and *almost always*.

Findings Related to Research Question 3

Research Question 3 asks to what extent do successful associate degree nursing students perceive faculty led active teaching strategies as important and how often have these strategies been demonstrated by nursing faculty? The active teaching domain

consisted of eight questions. These eight questions were assessed with simple statistics of mean, standard deviation and minimum and maximum ranges for scores. The importance of active teaching for the participants had a mean = 24.18, SD = 4.51, minimum range of 12.00, and a maximum range of 32.00. How often active teaching was exhibited by the nursing faculty was rated by the students as a mean =23.20, SD = 4.92, minimum range of 10.00, and a maximum range of 32.00. Figure 3 identifies the mean of each active teaching statement according to importance and how often it was demonstrated. The Scale for Importance Part 1provided the following selections to the participants, 1 = not important, 2 = somewhat important, 3 = very important, and 4 = extremely important. The Scale for Observed Part 2 provided the following selections to the participants, 1 = rarely, 2 = sometimes, 3 = often, and 4 = almost always.

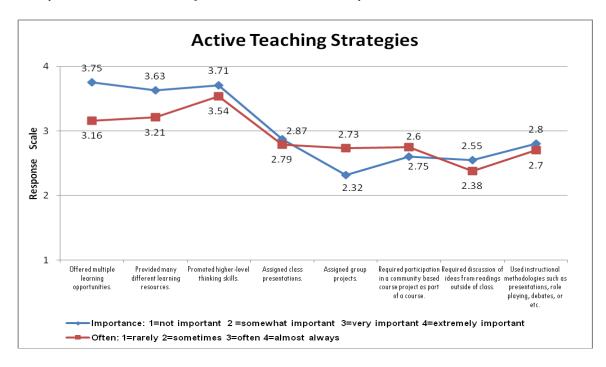


Figure 3. The mean of each statement in terms of importance and observance of active teaching strategies by nursing faculty as rated by associate degree nursing student participants.

The statements that indicate active teaching strategies seem to demonstrate less importance to the participants than caring or faculty/student interaction. "Assigned group project" importance (*M*=2.32) indicates the participants value as *somewhat important* and the observation (*M*=2.73) as *sometimes* and *often*. Although participants do not place a high value on group projects they are observing them on a regular basis. The statement "Offered multiple learning opportunities" received a rating (*M*=3.75) that was highly associated with *extremely important* as a rating in regard to importance to the participants. The observation of this statement (M=3.16) indicated the multiple learning opportunities happened often. Although the statement ratings for active teaching strategies indicate less importance and observation as compared with caring and faculty/student interaction the overall domain is still rated highly by the participants in both importance and observation of activities.

Findings Related to Research Question 4

Research Question 4 asks to what extent do student age, gender, acceptance level, entrance GPA, employment, and first time generation college student characteristics affect the perception of the importance of the components of caring, faculty/student interaction, and active teaching strategies.

The frequency table for age was used to determine the levels for the independent variable of age so that each level contained approximately 25% of all of the participants.

Age levels for the participants were as follows:

- Level $1 = \le 23$
- Level 2 = 24-28
- Level 3 = 29-35

• Level $4 = \ge 36$

The faculty/student interaction domain consisted of seven statements that participants rated on a four-point Likert scale. Each item was chosen to represent meaningful elements of the interaction between faculty and students. Participants rated both the level of importance of faculty/student interactions and the frequency with which faculty student interactions were observed in the program. Each importance item was scaled in the direction of higher scores indicating a greater level of importance. Similarly, each observation item was scaled so that higher scores indicate more frequent observation of faculty/student interactions. The ratings for each importance item were summed into a composite score, as were the ratings for each observation item. Creating composite scores for importance and frequency of observation allowed for each element measuring faculty/student interactions to be aggregated into one score representing the overall importance and the overall frequency with which faculty/student interactions occurs. The minimum score possible for the importance of interaction was 7.00 with a maximum score of 28.00 for the importance of the interaction. The minimum score possible for the observation of interaction was 5.00 with a maximum score of 28.00. The mean and standard deviations for the composite scores representing the overall importance of faculty/student interactions and the overall frequency with which they were observed stratified by age group are found in Table 7.

Table 7

Faculty/Student Interaction and Relationship to Student Age

Age	Importance of	Importance of Interaction		nteraction
	Mean	SD	Mean	SD
≤23	26.10	1.99	20.98	4.34
24-28	25.15	3.73	21.34	4.42
29-35	25.58	2.73	22.03	4.41
≥36	25.28	2.76	22.53	3.96

One-way ANOVA did not reveal any significance between age level and the importance of faculty/student interaction, F(3, 266) = .97, p = .241 for importance and F(3, 266) = 1.72, p = .16 for how often faculty/student interaction was observed.

The caring domain consisted of 15 statements that participants rated on a four point Likert scale. Each item was chosen to represent meaningful elements of caring by faculty. Participants rated both the level of importance of caring and the frequency with which caring was observed in the program. Each importance item was scaled in the direction of higher scores indicating a greater level of importance. Similarly, each observation item was scaled so that higher scores indicated more frequent observation of faculty/student interactions. The ratings for each importance item were summed into a composite score, as were the ratings for each observation item. Creating composite scores for importance and frequency of observation allowed for each element measuring caring to be aggregated into one score representing the overall importance and the overall frequency with which caring occurs. The minimum score possible for the importance of caring was 34.00 with a maximum score of 60.00 for the importance of the interaction.

The minimum score possible for the observation of caring was 19.00 with a maximum score of 60.00. The mean and standard deviations for the composite scores representing the overall importance of caring and the overall frequency with which they were stratified by age group observed are found in Table 8.

Table 8

Caring and the Relationship to Student Age

Age	Importance of Caring		Observed	Caring
	Mean	SD	Mean	SD
≤23	57.47	3.30	46.16	8.47
24-28	56.29	5.94	47.10	8.79
29-35	56.03	4.77	47.28	9.67
≥36	54.88	5.35	47.84	8.64

The importance of caring scores differed significantly by age level. A one-way ANOVA analyzing the relationship between the age level and mean scores on importance of caring was significant, F(3, 266)=3.06, p=.02. Tukey's HSD post-hoc analyses were performed to determine which age groups differed from one another, and it was discovered that participants ≤ 23 years of age (i.e. the youngest group) rated caring as more important (M=57.47, SD=3.30) than participants in the oldest group who were ≥ 36 years of age (M=54.88, SD=5.35).

In other words, nursing students ≤ 23 placed higher value on the importance of caring than those who are ≥ 36 . One-way ANOVA did not reveal any significant differences between age level and how often faculty were perceived to demonstrate care, F(3,266)=0.41, p=.75.

The active teaching domain consisted of eight statements that participants rated on a four-point Likert scale. Each item was chosen to represent meaningful elements of the active teaching strategies. Participants rated both the level of importance of active teaching strategies and the frequency with which active teaching strategies were observed in the program. Each importance item was scaled in the direction of higher scores indicating a greater level of importance. Similarly, each observation item was scaled so that higher scores indicated more frequent observation of active teaching strategies. The ratings for each importance item were summed into a composite score, as were the ratings for each observation item. Creating composite scores for importance and frequency of observation allowed for each element measuring active teaching strategies to be aggregated into one score representing the overall importance and the overall frequency with which active teaching occurs. The minimum score possible for the importance of active teaching was 12.00 with a maximum score of 32.00 for the importance of the active teaching. The minimum score possible for the observation of active teaching was 10.00 with a maximum score of 32.00. The mean and standard deviations for the composite scores representing the overall importance of active teaching strategies and the overall frequency with which they were observed stratified by age group are found in Table 9.

Table 9

Active Teaching and Relationship to Student Age

Age	Importance of A	Importance of Active Teaching		ive Teaching
	Mean	SD	Mean	SD
≤23	23.94	3.97	22.59	4.53
24-28	24.57	4.78	22.74	4.77
29-35	24.07	5.22	23.59	5.62
≥36	24.13	3.98	23.94	4.66

One-way ANOVA did not reveal any significant differences between age level and rated importance of active teaching strategies. F(3, 266) = .25, p = .86 for importance and F(3, 266) = 1.17, p = .31 for how often.

The gender levels measured by the study consisted of 236 females and 34 males. The faculty/student interaction domain consisted of seven statements that participants rated on a four- point Likert scale. Each item was chosen to represent meaningful elements of the interaction between faculty and students. Participants rated both the level of importance of faculty/student interactions and the frequency with which faculty student interactions were observed in the program. Each importance item was scaled in the direction of higher scores indicating a greater level of importance. Similarly, each observation item was scaled so that higher scores indicated more frequent observation of faculty/student interactions. The ratings for each importance item were summed into a composite score, as were the ratings for each observation item. Creating composite scores for importance and frequency of observation allowed for each element measuring faculty/student interactions to be aggregated into one score representing the overall

importance and the overall frequency with which faculty/student interactions occurs. The minimum score possible for the importance of interaction was 7.00 with a maximum score of 28.00 for the importance of the interaction. The minimum score possible for the observation of interaction was 5.00 with a maximum score of 28.00. The mean and standard deviations for the composite scores representing the overall importance of faculty/student interactions and the overall frequency with which they were observed stratified by gender group are found in Table 10.

Table 10

Faculty/Student Interaction and Relationship to Student Gender

Gender	Importance of Interaction		Observed Interaction	
	Mean	SD	Mean	SD
Female	25.66	2.90	21.57	4.37
Male	25.41	2.72	22.65	3.85

One-way ANOVA did not reveal any significant differences F=(1, 268)= 0.21, p=.64, between gender and the importance of faculty/ student interaction or the frequency of faculty/student interaction they observed F=(1, 268)= 1.85, p=.17.

The caring domain consisted of 15 statements that participants rated on a four-point Likert scale. Each item was chosen to represent meaningful elements of caring by faculty. Participants rated both the level of importance of caring and the frequency with which caring was observed in the program. Each importance item was scaled in the direction of higher scores indicating a greater level of importance. Similarly, each observation item was scaled so that higher scores indicated more frequent observation of faculty/student interactions. The ratings for each importance item were summed into a

composite score, as were the ratings for each observation item. Creating composite scores for importance and frequency of observation allowed for each element measuring caring to be aggregated into one score representing the overall importance and the overall frequency with which caring occurs. The minimum score possible for the importance of caring was 34.00 with a maximum score of 60.00 for the importance of the interaction. The minimum score possible for the observation of caring was 19.00 with a maximum score of 60.00. The mean and standard deviations for the composite scores representing the overall importance of caring and the overall frequency with which they were stratified by gender group observed are found in Table 11.

Table 11

Caring and the Relationship to Student Gender

Gender	Importance of Caring		Observed Caring	
	Mean	SD	Mean	SD
Female	56.22	5.07	47.09	8.85
Male	55.97	4.51	47	9.15

One-way ANOVA did not reveal any significant differences between gender and on importance of caring or the observed caring, F=(1, 268)=0.07, p=.79 or the frequency of observed caring by faculty, F=(1, 268)=0.00, p=.95.

The active teaching domain consisted of eight statements that participants rated on a four point Likert scale. Each item was chosen to represent meaningful elements of the active teaching strategies. Participants rated both the level of importance of active teaching strategies and the frequency with which active teaching strategies were observed in the program. Each importance item was scaled in the direction of higher scores

indicating a greater level of importance. Similarly, each observation item was scaled so that higher scores indicate more frequent observation of active teaching strategies. The ratings for each importance item were summed into a composite score, as were the ratings for each observation item. Creating composite scores for importance and frequency of observation allowed for each element measuring active teaching strategies to be aggregated into one score representing the overall importance and the overall frequency with which active teaching occurs. The minimum score possible for the importance of active teaching was 12.00 with a maximum score of 32.00 for the importance of the active teaching. The minimum score possible for the observation of active teaching was 10.00 with a maximum score of 32.00. The mean and standard deviations for the composite scores representing the overall importance of active teaching strategies and the overall frequency with which they were observed stratified by gender are found in Table 12.

Table 12

Active Teaching Strategies and the Relationship to Student Gender

Gender	Importance of Active Teaching		Observed Active Teaching	
	Mean	SD	Mean	SD
Female	24.15	4.55	23.31	4.85
Male	24.38	4.25	22.44	5.37

One-way ANOVA did not reveal any significant differences between genders and on the importance of active teaching by the faculty, F=(1, 268)=0.08, p=.78 or the frequency with which active teaching was observed F=(1, 268)=0.93, p=.34.

The participants were placed into two GPA groups. The GPAs upon entrance into the nursing program were self-reported by the participants. Two levels of GPA were divided at the 50% level because the GPAs were all relatively high. The high GPAs were expected because the ADN nursing programs that were surveyed are selective admissions programs that have stringent criteria for selection. Level 1 of the GPA is \leq 3.69 with Level 2 being \geq 3.70. The faculty/student interaction domain consisted of seven statements that participants rated on a four point Likert scale. Each item was chosen to represent meaningful elements of the interaction between faculty and students. Participants rated both the level of importance of faculty/student interactions and the frequency with which faculty student interactions were observed in the program. Each importance item was scaled in the direction of higher scores indicating a greater level of importance. Similarly, each observation item was scaled so that higher scores indicate more frequent observation of faculty/student interactions. The ratings for each importance item were summed into a composite score, as were the ratings for each observation item. Creating composite scores for importance and frequency of observation allowed for each element measuring faculty/student interactions to be aggregated into one score representing the overall importance and the overall frequency with which faculty/student interactions occurs. The minimum score possible for the importance of interaction was 7.00 with a maximum score of 28.00 for the importance of the interaction. The minimum score possible for the observation of interaction was 5.00 with a maximum score of 28.00. The mean and standard deviations for the composite scores representing the overall importance of faculty/student interactions and the overall frequency with which they were observed stratified by GPA are found in Table 13.

Table 13

Faculty/Student Interaction and the Relationship to Student Entrance GPA

GPA	Importance of Interaction		Observed Interaction	
	Mean	SD	Mean	SD
≤3.69	25.98	2.61	21.80	4.44
≥3.70	25.25	3.07	21.52	4.21

The importance of faculty/student interaction scores differed significantly by GPA level. A one-way ANOVA analyzing the relationship between the GPA level and the importance of faculty/student interaction revealed significant results, F(1, 262)=4.26, p=.04. Tukey's HSD post-hoc analyses were performed and it was discovered that persons with an entrance GPA of ≤ 3.69 (M=25.98, SD=2.61) tended to place a higher importance on faculty/student interaction than those persons whose entrance GPA was ≥ 3.7 (M=25.25, SD=3.07). There was no significant difference between levels of entrance GPA and the observed faculty/student interaction by faculty members F=(1, 262)=0.28, p=.60.

The caring domain consisted of 15 statements that participants rated on a four point Likert scale. Each item was chosen to represent meaningful elements of caring by faculty. Participants rated both the level of importance of caring and the frequency with which caring was observed in the program. Each importance item was scaled in the direction of higher scores indicating a greater level of importance. Similarly, each observation item was scaled so that higher scores indicate more frequent observation of faculty/student interactions. The ratings for each importance item were summed into a composite score, as were the ratings for each observation item. Creating composite scores

for importance and frequency of observation allowed for each element measuring caring to be aggregated into one score representing the overall importance and the overall frequency with which caring occurs. The minimum score possible for the importance of caring was 34.00 with a maximum score of 60.00 for the importance of the interaction. The minimum score possible for the observation of caring was 19.00 with a maximum score of 60.00. The mean and standard deviations for the composite scores representing the overall importance of caring and the overall frequency with which they were stratified by GPA group observed are found in Table 14.

Table 14

Caring and the Relationship to Student Entrance GPA

GPA	Importance of Caring		Observed Caring	
	Mean	SD	Mean	SD
≤3.69	56.88	4.72	47.17	9.33
≥3.70	55.46	5.19	46.79	8.50

The importance of caring scores differed significantly by GPA level. A one-way ANOVA analyzing the relationship GPA level and importance of caring revealed significant results, F(1, 262)=5.25, p<.02. Tukey's HSD post-hoc analyses were performed and it was discovered that persons with an entrance GPA of \leq 3.69 (M=56.88, SD=4.72) tended to report higher importance of caring than those persons whose entrance GPA was \geq 3.7 (M=55.46, SD=5.19). Observed caring by faculty members did not differ by levels of entrance GPA, F=(1, 262)= 0.12, p=.73.

The active teaching domain consisted of eight statements that participants rated on a four point Likert scale. Each item was chosen to represent meaningful elements of

the active teaching strategies. Participants rated both the level of importance of active teaching strategies and the frequency with which active teaching strategies were observed in the program. Each importance item was scaled in the direction of higher scores indicating a greater level of importance. Similarly, each observation item was scaled so that higher scores indicate more frequent observation of active teaching strategies. The ratings for each importance item were summed into a composite score, as were the ratings for each observation item. Creating composite scores for importance and frequency of observation allowed for each element measuring active teaching strategies to be aggregated into one score representing the overall importance and the overall frequency with which active teaching occurs. The minimum score possible for the importance of active teaching was 12.00 with a maximum score of 32.00 for the importance of the active teaching. The minimum score possible for the observation of active teaching was 10.00 with a maximum score of 32.00. The mean and standard deviations for the composite scores representing the overall importance of active teaching strategies and the overall frequency with which they were observed stratified by GPA are found in Table 15.

Table 15

Active Teaching Strategies and the Relationship to Student Entrance GPA

GPA	Importance of Active Teaching		Observed Active Teaching	
	Mean	SD	Mean	SD
≤3.69	24.99	4.41	23.20	4.98
≥3.70	23.34	4.39	22.97	4.77

The importance of active teaching strategies differed significantly by GPA level. A one-way ANOVA analyzing the relationship between the GPA level and importance of caring revealed significant results, F(1, 262)=9.15, p=.00. Tukey's HSD post-hoc analyses were performed and it was discovered that persons with an entrance GPA of ≤ 3.69 (M=24.99, SD=4.41) tended to place a higher importance on active teaching strategies than those persons whose entrance GPA was ≥ 3.7 (M=23.34, SD=4.39). Observed active teaching strategies used by the faculty members did not vary significantly by entrance GPA, F=(1, 262)=0.15, p=.70.

The level of acceptance on the survey was represented by three levels: immediately after high school graduation, (n=12), after taking required pre-college courses to remedy deficiencies in reading, writing, or math and the nursing pre-requisites (n=89), or after one semester or more of college general education (n=164). The faculty/student interaction domain consisted of seven statements that participants rated on a four-point Likert scale. Each item was chosen to represent meaningful elements of the interaction between faculty and students. Participants rated both the level of importance of faculty/student interactions and the frequency with which faculty student interactions were observed in the program. Each importance item was scaled in the direction of higher scores indicating a greater level of importance. Similarly, each observation item was scaled so that higher scores indicate more frequent observation of faculty/student interactions. The ratings for each importance item were summed into a composite score, as were the ratings for each observation item. Creating composite scores for importance and frequency of observation allowed for each element measuring faculty/student interactions to be aggregated into one score representing the overall importance and the

overall frequency with which faculty/student interactions occurs. The minimum score possible for the importance of interaction was 7.00 with a maximum score of 28.00 for the importance of the interaction. The minimum score possible for the observation of interaction was 5.00 with a maximum score of 28.00. The mean and standard deviations for the composite scores representing the overall importance of faculty/student interactions and the overall frequency with which they were observed stratified by level of acceptance are found in Table 16.

Table 16

Faculty/Student Interaction and the Relationship to the Level of Acceptance

Acceptance	Importance of	f Interaction	Observed Interaction	
	Mean	SD	Mean	SD
1	26.17	1.95	20.17	5.36
2	25.67	2.83	22.38	4.42
3	25.57	3.00	21.45	4.20

One-way ANOVA did not reveal any significant differences between the importance of faculty/student interaction, F=(2, 262)=0.25, p=.78 or the frequency of faculty/staff interaction, F=(2, 262)=2.14, p=.11 based on the level of acceptance into the program.

The caring domain consisted of 15 statements that participants rated on a four point Likert scale. Each item was chosen to represent meaningful elements of caring by faculty. Participants rated both the level of importance of caring and the frequency with which caring was observed in the program. Each importance item was scaled in the direction of higher scores indicating a greater level of importance. Similarly, each

observation item was scaled so that higher scores indicate more frequent observation of faculty/student interactions. The ratings for each importance item were summed into a composite score, as were the ratings for each observation item. Creating composite scores for importance and frequency of observation allowed for each element measuring caring to be aggregated into one score representing the overall importance and the overall frequency with which caring occurs. The minimum score possible for the importance of caring was 34.00 with a maximum score of 60.00 for the importance of the interaction. The minimum score possible for the observation of caring was 19.00 with a maximum score of 60.00. The mean and standard deviations for the composite scores representing the overall importance of caring and the overall frequency with which they were stratified by level of acceptance group observed are found in Table 17.

Table 17

Caring and the Relationship to the Level of Acceptance

Acceptance	Importance of Caring		Observed Caring	
	Mean	SD	Mean	SD
1	56.50	3.58	46.58	8.92
2	56.39	4.84	48.59	9.9
3	56.08	5.22	46.35	8.31

One-way ANOVA did not reveal any differences in importance of caring, F=(2, 262)= 0.13, p=.87, or observation of caring, F=(2, 262)= 1.86, p=.16, based on level of acceptance into the program.

The active teaching domain consisted of eight statements that participants rated on a four point Likert scale. Each item was chosen to represent meaningful elements of

the active teaching strategies. Participants rated both the level of importance of active teaching strategies and the frequency with which active teaching strategies were observed in the program. Each importance item was scaled in the direction of higher scores indicating a greater level of importance. Similarly, each observation item was scaled so that higher scores indicate more frequent observation of active teaching strategies. The ratings for each importance item were summed into a composite score, as were the ratings for each observation item. Creating composite scores for importance and frequency of observation allowed for each element measuring active teaching strategies to be aggregated into one score representing the overall importance and the overall frequency with which active teaching occurs. The minimum score possible for the importance of active teaching was 12.00 with a maximum score of 32.00 for the importance of the active teaching. The minimum score possible for the observation of active teaching was 10.00 with a maximum score of 32.00. The mean and standard deviations for the composite scores representing the overall importance of active teaching strategies and the overall frequency with which they were observed stratified by level of acceptance are found in Table 18.

Table 18

Active Teaching Strategies and the Relationship to the Level of Acceptance

Acceptance	Importance of Active Teaching		Observed Active Teaching	
	Mean	SD	Mean	SD
1	22.58	3.90	22.33	5.35
2	24.69	4.48	24.35	5.22
3	24.00	4.50	22.57	4.65

The frequency of active teaching strategies differed significantly by acceptance level. A one-way ANOVA analyzing the relationship between the acceptance levels and the frequency of active teaching strategies was significant, F(2, 262)=4.00, p=.02. Tukey's HSD post-hoc analyses were performed and it was discovered that persons with a Level 2 acceptance (M=24.35, SD=5.22) reported observation of active teaching strategies more frequently than those persons who were a Level 3 acceptance (M=22.57, SD=4.65). Importance of active teaching strategies used by the faculty members did not differ significantly by level of acceptance, F=(1, 262)=1.47, p=.23.

Employment status on the survey divided into three levels: Level 1 was not employed (n=113), Level 2 was employed part-time (n=122), and Level 3 was employed full time (n=35). The faculty/student interaction domain consisted of 7 statements that participants rated on a four-point Likert scale. Each item was chosen to represent meaningful elements of the interaction between faculty and students. Participants rated both the level of importance of faculty/student interactions and the frequency with which faculty student interactions were observed in the program. Each importance item was scaled in the direction of higher scores indicating a greater level of importance. Similarly, each observation item was scaled so that higher scores indicate more frequent observation of faculty/student interactions. The ratings for each importance item were summed into a composite score, as were the ratings for each observation item. Creating composite scores for importance and frequency of observation allowed for each element measuring faculty/student interactions to be aggregated into one score representing the overall importance and the overall frequency with which faculty/student interactions occurs. The minimum score possible for the importance of interaction was 7.00 with a maximum

score of 28.00 for the importance of the interaction. The minimum score possible for the observation of interaction was 5.00 with a maximum score of 28.00. The mean and standard deviations for the composite scores representing the overall importance of faculty/student interactions and the overall frequency with which they were observed stratified by employment status are found in Table 19.

Table 19

Faculty/Student Interaction and the Relationship to Employment Status

Employment	Importance of Interaction		Observed Interaction	
	Mean	SD	Mean	SD
Not Employed	25.46	2.89	21.44	4.20
Part Time	25.68	2.96	21.52	4.37
Full Time	25.97	2.57	23.20	4.31

One-way ANOVA did not reveal any significant differences in the importance of faculty/student interaction, F(2, 267) = 0.46, p = .63, or the faculty/student interaction they observed F(2, 267) = 2.44, p = .09 as a function of a student's employment status.

The caring domain consisted of 15 statements that participants rated on a four point Likert scale. Each item was chosen to represent meaningful elements of caring by faculty. Participants rated both the level of importance of caring and the frequency with which caring was observed in the program. Each importance item was scaled in the direction of higher scores indicating a greater level of importance. Similarly, each observation item was scaled so that higher scores indicate more frequent observation of faculty/student interactions. The ratings for each importance item were summed into a composite score, as were the ratings for each observation item. Creating composite scores

for importance and frequency of observation allowed for each element measuring caring to be aggregated into one score representing the overall importance and the overall frequency with which caring occurs. The minimum score possible for the importance of caring was 34.00 with a maximum score of 60.00 for the importance of the interaction. The minimum score possible for the observation of caring was 19.00 with a maximum score of 60.00. The mean and standard deviations for the composite scores representing the overall importance of caring and the overall frequency with which they were stratified by employment status observed are found in Table 20.

Table 20

Caring and the Relationship to the Employment Status of the Student

Employment	Importance of Caring		Observed Caring	
	Mean	SD	Mean	SD
Not Employed	55.68	5.25	46.43	8.81
Part Time	56.63	4.78	46.84	8.63
Full Time	56.26	4.89	50.06	9.57

One-way ANOVA did not reveal any significant differences in importance of caring, F(2, 267) = 1.06, p = .35, or frequency of caring observed F = (2, 267) = 2.34, p = .10, based on employment status.

The active teaching domain consisted of eight statements that participants rated on a four point Likert scale. Each item was chosen to represent meaningful elements of the active teaching strategies. Participants rated both the level of importance of active teaching strategies and the frequency with which active teaching strategies were observed in the program. Each importance item was scaled in the direction of higher scores

indicating a greater level of importance. Similarly, each observation item was scaled so that higher scores indicate more frequent observation of active teaching strategies. The ratings for each importance item were summed into a composite score, as were the ratings for each observation item. Creating composite scores for importance and frequency of observation allowed for each element measuring active teaching strategies to be aggregated into one score representing the overall importance and the overall frequency with which active teaching occurs. The minimum score possible for the importance of active teaching was 12.00 with a maximum score of 32.00 for the importance of the active teaching. The minimum score possible for the observation of active teaching was 10.00 with a maximum score of 32.00. The mean and standard deviations for the composite scores representing the overall importance of active teaching strategies and the overall frequency with which they were observed stratified by employment status are found in Table 21.

Table 21

Active Teaching Strategies and the Relationship to the Employment Status of Student

Employment	Importance of Active Teaching		Observed Active Teaching	
	Mean	SD	Mean	SD
Not Employed	23.91	4.65	23.11	4.73
Part Time	24.00	4.36	23.13	4.89
Full Time	25.69	4.41	23.74	5.71

One-way ANOVA did not reveal any significant differences in the rated importance of active teaching, F(2, 267) = 2.27, p = .11, or the frequency with which

active teaching was observed, F(2, 267) = 0.24, p = .78, as a function of employment status.

The demographic question of first generation college student was asked in order to determine any differences based on being the first in their family to attend college. Kentucky's HB1, which relates to secondary and higher education, mandates an improvement in college readiness and attainment. The percentage of Kentuckians, ages 25-44, with an associate's degree and higher was lower than the national average, 32% compared to 39% (Council on Post-Secondary Education). The identification of first generation college students revealed additional avenues and recognition of support that may be needed to succeed. Level 1 indicated the student is a first generation college student (n=101). Level 2 indicated the student is not a first generation college student The faculty/student interaction domain consisted of seven statements that (n=169).participants rated on a four-point Likert scale. Each item was chosen to represent meaningful elements of the interaction between faculty and students. Participants rated both the level of importance of faculty/student interactions and the frequency with which faculty student interactions were observed in the program. Each importance item was scaled in the direction of higher scores indicating a greater level of importance. Similarly, each observation item was scaled so that higher scores indicate more frequent observation of faculty/student interactions. The ratings for each importance item were summed into a composite score, as were the ratings for each observation item. Creating composite scores for importance and frequency of observation allowed for each element measuring faculty/student interactions to be aggregated into one score representing the overall importance and the overall frequency with which faculty/student interactions occurs. The

minimum score possible for the importance of interaction was 7.00 with a maximum score of 28.00 for the importance of the interaction. The minimum score possible for the observation of interaction was 5.00 with a maximum score of 28.00. The mean and standard deviations for the composite scores representing the overall importance of faculty/student interactions and the overall frequency with which they were observed stratified by first generation college attendance group are found in Table 22.

Table 22

Faculty/Student Interaction and Relationship to First Generation College Status

First	Importance of Interaction		Observed Interaction	
Generation	Mean	SD	Mean	SD
Yes	25.80	3.12	21.67	4.54
No	25.52	2.73	21.74	4.19

One-way ANOVA did not reveal any relationship between the generation status of college attendance and the importance of faculty/student interaction, F(1, 268) = 0.60, p=.44,or the frequency of faculty/student interactions they observed, F=(1, 268) = 0.02, p=.88.

The caring domain consisted of 15 statements that participants rated on a four point Likert scale. Each item was chosen to represent meaningful elements of caring by faculty. Participants rated both the level of importance of caring and the frequency with which caring was observed in the program. Each importance item was scaled in the direction of higher scores indicating a greater level of importance. Similarly, each observation item was scaled so that higher scores indicate more frequent observation of faculty/student interactions. The ratings for each importance item were summed into a

composite score, as were the ratings for each observation item. Creating composite scores for importance and frequency of observation allowed for each element measuring caring to be aggregated into one score representing the overall importance and the overall frequency with which caring occurs. The minimum score possible for the importance of caring was 34.00 with a maximum score of 60.00 for the importance of the interaction. The minimum score possible for the observation of caring was 19.00 with a maximum score of 60.00. The mean and standard deviations for the composite scores representing the overall importance of caring and the overall frequency with which they were stratified by first generation college attendance observed are found in Table 23.

Table 23

Caring and Relationship to First Generation College Status

First	Importance of Caring		Observed Caring	
Generation	Mean	SD	Mean	SD
Yes	56.58	4.84	47.37	9.01
No	55.95	5.09	46.92	8.81

One-way ANOVA did not reveal any relationship between the generation status of college attendance and the importance of caring, F(1, 268) = 1.03, p = .31, or the caring they observed F(1, 268) = 0.16, p = .69.

The active teaching domain consisted of eight statements that participants rated on a four point Likert scale. Each item was chosen to represent meaningful elements of the active teaching strategies. Participants rated both the level of importance of active teaching strategies and the frequency with which active teaching strategies were observed in the program. Each importance item was scaled in the direction of higher scores

indicating a greater level of importance. Similarly, each observation item was scaled so that higher scores indicate more frequent observation of active teaching strategies. The ratings for each importance item were summed into a composite score, as were the ratings for each observation item. Creating composite scores for importance and frequency of observation allowed for each element measuring active teaching strategies to be aggregated into one score representing the overall importance and the overall frequency with which active teaching occurs. The minimum score possible for the importance of active teaching was 12.00 with a maximum score of 32.00 for the importance of the active teaching. The minimum score possible for the observation of active teaching was 10.00 with a maximum score of 32.00. The mean and standard deviations for the composite scores representing the overall importance of active teaching strategies and the overall frequency with which they were observed stratified by first generation college status are found in Table 24.

Table 24

Active Teaching Strategies and the Relationship to First Generation College Status

First	Importance of Active Teaching		Observed Active Teaching	
Generation	Mean	SD	Mean	SD
Yes	24.99	4.62	23.53	5.02
No	23.70	4.39	23.00	4.86

The importance of active teaching strategies differed significantly by generational status. A one-way ANOVA analyzing the relationship between the generational levels and active teaching strategies was significant, F(1, 268) = 5.27, p=.02. Tukey's HSD posthoc analyses were performed and it was discovered that persons who were first

generation college attendees (M=24.99, SD=4.62) indicated active teaching strategies as more important than those persons who were not first generation college attendees (M=23.70, SD=4.39). Observation of active teaching strategies did not differ significantly based on generation status, F(1, 268)=0.75, p=.39.

Summary

This research provided a quantitative analysis of faculty behaviors/characteristics of caring, interaction, and active teaching strategies as viewed by successful ADN nursing students. Simple statistics of mean and SD were presented along with one-way ANOVA of the domains and demographics selected in the study. Tukey HSD post-hoc analysis was completed on those items indicating significant difference from the ANOVA testing. In Chapter V findings from the analyses are discussed along with conclusions and recommendations that have evolved from the study.

Chapter V: Evaluation

Introduction

This research study investigated the perceptions of successful students in associate degree nursing programs as to the importance placed on faculty who demonstrated the characteristics/behavior of caring, faculty/student interaction, and active teaching strategies. The previous chapters identified the significance of this research in the context of the nursing shortage that currently exists, the projected continued shortage in the future, and the importance of retaining associate degree nursing students. A literature review in the second chapter provided insight into faculty/student interaction, caring in education, and active teaching. The third chapter presented the research questions along with the methods of data collection and analysis. The fourth chapter contained the analysis results and collected data. This final chapter contains a discussion of the findings, conclusions, and recommendations. The research questions that framed the study were as follows:

- 1. To what extent do successful associate degree nursing students perceive the components of caring in education as important and how often have these behaviors been demonstrated by nursing faculty?
- 2. To what extent do successful associate degree nursing students perceive faculty/student interactions as important and how often have these interactions been demonstrated by nursing faculty?
- 3. To what extent do successful associate degree nursing students perceive faculty led active teaching strategies as important and how often have these strategies been demonstrated by nursing faculty?

4. To what extent do student age, gender, acceptance level, entrance GPA, employment, and first time generation college student characteristics affect the perception of the importance of the components of caring, faculty/student interaction, and active teaching strategies?

The survey instrument for this research was developed from Shelton's (2003) Perceived Faculty Support Scale Survey. Thirteen statements from Shelton's survey were used in the researcher's 30 item survey. Additional survey items were gained from the literature review. The survey consisted of a two part rating scale. Part 1 required the student to rate each statement on how important it was to the student with responses ranging from *not important* to *extremely important*. Part 2 required the student to rate each statement on how often the student observed the characteristic or behavior exhibited while in the program with responses ranging from *rarely* to *almost always*.

Five community and technical college ADN programs participated in the study.

The five programs represented a large cross-section of Kentucky regions. A total of 270 successful ADN students participated in the research.

Findings

Research Question 1: To what extent do successful associate degree nursing student perceive the components of caring in education as important and how often have these behaviors been demonstrated by nursing faculty?

The study indicated that successful ADN nursing students perceived caring as important and that nursing faculty demonstrated caring in the classroom at a high level.

The students rated 15 statements on caring in relationship to the importance of caring.

The composite mean for the importance of caring was 56.18 from a total possible score of

60.00. The participants rated the importance of caring at or near the *extremely important* level of the survey scale. The participants also rated the 15 statements on caring based on the number of occasions they had observed or witnessed caring by a nursing faculty member. The students rated 15 statements on caring in relationship to the importance of caring. The observation composite mean was 47.08 from a total possible score of 60.00. This score indicated that the nursing students rated the faculty nearer to the *often* portion of the scale rather than *almost always*. Comparison of the importance scale to the frequency of occurrence scale, even though not significant, did indicate a potential area of improvement in how often caring was exhibited by faculty.

Research Question 2: To what extent do successful associate degree nursing students perceive faculty/student interactions as important and how often have these interactions been demonstrated by nursing faculty?

The students rated seven statements related to faculty/student interactions that revealed those exchanges were important to them. The composite mean for the importance of interaction was 25.63 from a total possible score of 28. This measurement indicated that the participants rated the importance nearest to the *extremely important* rating. The survey revealed the strength of students perceptions related to the importance of faculty/student interactions.

The seven statements on faculty/student interaction were based on the number of occasions they had observed or witnessed interaction with a nursing faculty member. The observation composite mean was 21.71 from a total possible score of 28.00. This score indicated that the nursing students rated the faculty nearer to the *often* portion of the scale rather than *almost always*. Comparison of the importance scale to the frequency of

occurrence scale does indicate areas for improvement in how often faculty/student interaction was exhibited.

Research Question 3: To what extent do successful associate degree nursing students perceive faculty led active teaching strategies as important and how often have these strategies been demonstrated by nursing faculty?

Nursing students identified active teaching strategies as important characteristics/behaviors of their faculty in the nursing program. Participants rated eight statements for importance as they related to active teaching. The rating for the composite mean for importance of active teaching was 24.18 from a total possible score of 32. This data indicated that the participants rated the importance at *very important* rather than *extremely important*.

A student perception composite mean of 23.2 from a total possible score of 32 was the observed measurement for active teaching. This score indicated that the participants rated the observations near the *often* range rather than the *almost always* range. Interestingly, the active teaching statements were rated more closely in regard to importance and occurrence than with caring or faculty/student interaction. It would appear that students have some regard for active teaching and that faculty more closely met that expectation than with the other domains.

Research Question 4: To what extent do student age, gender, acceptance level, entrance GPA, employment, and first generation college student characteristics affect the perception of the importance of the components of caring, faculty/student interaction, and active teaching strategies?

Analysis of six demographic variables revealed some significant differences. Data revealed that younger students (less than 23) placed more value on the importance of faculty caring as compared to older students (36 or older). Participants in this study with a lower entrance GPA (3.69 or lower) reported a higher importance value on caring as compared to those participants with a higher entrance GPA (3.7 or higher). The entrance into the selective admissions programs garners higher GPA level students. The lowest entrance GPA reported was 2.0 so future research with more discrete levels of GPA may provide additional information on this finding.

Many students entered KCTCS colleges and declared nursing as their major. These pre-nursing students may or may not have needed pre-college courses in order to remedy deficiencies in reading, writing, or math. Participants in this study were identified by their acceptance level. Acceptance immediately after high school graduation, after taking pre-college courses and nursing perquisites, or after taking one or more semesters of nursing pre-requisites were the acceptance level categories. Students who completed pre-college course work indicated a higher observation of active teaching by the nursing faculty as compared to those who were accepted after one semester or more of college general education.

Interestingly, employment status had no significant differences in the domains of caring, faculty/student interaction or active teaching strategies. It was noteworthy that only 35 students out of 270 participants worked full-time while participating in the nursing program. This may be attributed to the curriculum of the nursing program that requires clinical assignments, nursing laboratory experiences, and lecture as part of the typical students' weekly schedule, thus providing less time for outside work hours.

Students who were first generation college attendees indicated that active teaching strategies were more important than those persons who were not first generation college attendees. An interesting aspect of this data was the number of students who were not first generations college students. Increasing the number of students attending college has been a major initiative in Kentucky for the last 14 years. This data may be an indication of success of this initiative.

Conclusions

This research provided a baseline of data that describes the suggested effects of caring, interaction, and active teaching in ADN programs. From this information the following conclusions were drawn:

- Student success for ADN students cannot be fully attributed to caring, interaction,
 and active learning without a full investigation of former nursing students who
 have not been retained. The programs in Kentucky as an aggregate have an
 average 25% attrition rate. A study of the former students is necessary to
 understand all the factors in their departure.
- Faculty behaviors and characteristics of caring, interaction, and active teaching
 were identified as positive attributes from the surveyed students in the five ADN
 programs that chose to participate in the research.

Recommendations

The following recommendations are based on study results and reflection on the results:

 Faculty and college administrators' recognition and support of the impact of caring, interaction, and active teaching in the development of a successful student could have far reaching effect on student retention in community colleges and should be considered as factors for use in evaluation of teaching effectiveness.

- Ways should be explored to encourage the development of these characteristics/behaviors in faculty, recognizing that this is a cost-effective way of developing existing human resources.
- Professional development based on this research may be beneficial to nursing faculty in order to provide them with insights into their important role of influencing success of their nursing students.
- Surveying other program disciplines and their students to determine their perceptions of caring, faculty/student interaction, and active teaching strategies would expand the data base for literature on these important issues.
- Faculty members interested in assessing their classroom environment may benefit
 from using this survey. Assessing student perception and values would provide
 faculty members with useful information on which to consider changes in their
 teaching actions and behaviors with students.

Future Research

This study examined successful ADN students who had been retained into the second year of the nursing program. While this provides valuable baseline data, to more fully understand the effect of caring, interaction, and active teaching strategies, more research on students who have left the nursing program is required. Reasons for leaving a nursing program are wide and varied and research to determine if caring, interaction, or active teaching strategies would make a difference in the retention of these students could

be valuable in developing plans and strategies to increase student success in these programs. This is a particularly valuable avenue to pursue for enhancing student retention in light of the scarcity of resources to devote to student retention efforts, and in recognizing that the potential to develop these attributes would hopefully reside within each teacher.

Summary

Participants in this study rated caring, faculty/student interaction and active teaching as important aspects of their nursing programs. The faculty at the participating colleges displayed the characteristics and behaviors of caring, positive faculty/student interaction, and active teaching at levels that were very close to the level of importance identified by the students. ADN students who have been retained in the program into the second year, recognized the importance of caring behaviors and attributes on the part of their teachers. The very important role of the faculty in contributing to student success has been demonstrated by this research. These behaviors and characteristics of caring, interaction, and active teaching displayed by the nursing faculty come from the commitment of these faculty and offer a cost effective way of contributing to student success.

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Appendix A

ADN Nursing Faculty Characteristics of Support

Part I: Tell us a little about yourself.

Please complete the following questions/statements that best describe you.

	1. What is your Age?	_								
	2. Gender	Female	Male							
	3. When were you	u accepted into the nu	rsing program? (Select one)							
-	Immediately a	after high school gradu	ation.							
_	After taking required pre-college courses to remedy deficiencies in reading, writing, or math (courses such as ENC, RDG, or MAT (MT) 55, 65, or 120) and the nursing pre-requisites.									
_	After one sem	nester or more of colle	ge general education.							
	4. What was your	approximate GPA upo	n acceptance into the nursing program?							
-	5. Employment St No Yes, part-time Yes, full-time	ratus: Are you employe	d? (Select one)							
_	6. Are you the firs Yes	et one in your family to	attend college? (Select one)							

ADN Nursing Faculty Characteristics of Support

As a student in your second year of the associate degree nursing program I ask that you think of your time in the nursing program and consider each statement below in relationship to characteristics/behaviors of your nursing faculty.

In Part 1 please tell me how important the specific characteristic/behavior is to

you.
In Part 2 please tell me how often you have seen your nursing faculty demonstrate the characteristic/behavior.

	Part 1					Part 2		
Not	Somewhat	Very	Extremely		Rarely	Sometimes	Often	Almost
Important	Important	Important	Important					Always
1	2	3	4	Demonstrated respect for students.	1	2	3	4
1	2	3	4	Acknowledged when students have done well.	1	2	3	4
1	2	3	4	Were approachable.	1	2	3	4
1	2	3	4	Corrected students without belittling them.	1	2	3	4
1	2	3	4	Listened to students.	1	2	3	4
1	2	3	4	Could be trusted.	1	2	3	4
1	2	3	4	Gave helpful feedback on student assignments.	1	2	3	4
1	2	3	4	Were open to different points of view.	1	2	3	4
1	2	3	4	Encouraged students to ask questions.	1	2	3	4
1	2	3	4	Provided assistance outside of class.	1	2	3	4
1	2	3	4	Made expectations clear.	1	2	3	4

	Part 1					Part 2		
Not	Somewhat	Very	Extremely		Rarely	Sometimes	Often	Almost
Important	Important	Important	Important					Always
1	2	3	4	Were good role models for students.	1	2	3	4
1	2	3	4	Had a genuine interest in students.	1	2	3	4
1	2	3	4	Demonstrated confidence in students.	1	2	3	4
1	2	3	4	Were available to students.	1	2	3	4
1	2	3	4	Were willing to give extra effort.	1	2	3	4
1	2	3	4	Got to know students.	1	2	3	4
1	2	3	4	Wanted students to learn/succeed.	1	2	3	4
1	2	3	4	Offered multiple learning opportunities.	1	2	3	4
1	2	3	4	Provided many different learning resources.	1	2	3	4
1	2	3	4	Promoted higher-level thinking skills.	1	2	3	4
1	2	3	4	Offered encouragement.	1	2	3	4
1	2	3	4	Were flexible.	1	2	3	4
1	2	3	4	Recognized my potential	1	2	3	4
1	2	3	4	Were humble.	1	2	3	4
1	2	3	4	Assigned class presentations.	1	2	3	4

	Part 1					Part 2		
Not Important	Somewhat Important	Very Important	Extremely Important		Rarely	Sometimes	Often	Almost Always
1	2	3	4	Assigned group projects.	1	2	3	4
1	2	3	4	Required participation in a community-based project as part of a course.	1	2	3	4
1	2	3	4	Required discussion of ideas from readings outside of class.	1	2	3	4
1	2	3	4	Used instructional methodologies such as presentations, role playing, debates or etc.	1	2	3	4

Appendix B

WESTERN KENTUCKY UNIVERSITY

Institutional Review Board
Office of Research
301 Potter Hall
270-745-4652; Fax 270-745-4211
E-mail: Paul.Mooney@wku.edu

In future correspondence, please refer to HS12-031, August 25, 2011

Penelope Logsdon c/o Dr. Burch Educational Leadership WKU

Penelope Logsdon:

Your research project, Caring, Interaction, and Active Learning: Factors that Contribute to the Success of the Associate Degree Nursing Students, was reviewed by the IRB and it has been determined that risks to subjects are: (1) minimized and reasonable; and that (2) research procedures are consistent with a sound research design and do not expose the subjects to unnecessary risk. Reviewers determined that: (1) benefits to subjects are considered along with the importance of the topic and that outcomes are reasonable; (2) selection of subjects is equitable; and (3) the purposes of the research and the research setting is amenable to subjects' welfare and producing desired outcomes; that indications of coercion or prejudice are absent, and that participation is clearly voluntary.

1. In addition, the IRB found that you need to orient participants as follows: (1) signed informed consent is not required; (2) Provision is made for collecting, using and storing data in a manner that protects the safety and privacy of the subjects and the confidentiality of the data. (3) Appropriate safeguards are included to protect the rights and welfare of the subjects.

This project is therefore approved at the Exempt from Full Board Review Level.

2. Please note that the institution is not responsible for any actions regarding this protocol before approval. If you expand the project at a later date to use other instruments please re-apply. Copies of your request for human subjects review, your application, and this approval, are maintained in the Office of Sponsored Programs at the above address. Please report any changes to this approved protocol to this office. A Continuing Review protocol will be sent to you in the future to determine the status of the project. Also, please use the stamped approval forms to assure participants of compliance with The Office of Human Research Protections regulations.

Sincerely,

Paul J. Mooney, M.S.T.M. Compliance Manager Office of Research Western Kentucky University

cc: HS file number Logsdon HS12-031

300 North Main Street Versailles. KY 40383 **Telephone.-** (859) 856-3100

August 9, 2011

Penelope Logsdon Elizabethtown Community and Technical College 610 College Street Road Elizabethtown, KY 42701

Dear Ms. Logsdon:

After careful consideration of your application to the KCTCS Human Subjects Review Board, I have determined that you are eligible for exemption from federal regulations regarding the protection of human subjects based on your research using a procedure that meets the exemption criteria section 7(1).

Thank you for your cooperation in meeting the federal requirements for conducting research that utilizes human subjects. We appreciate your notification, to this board and we will keep your information on file.

Sincerely,

Jay K Box, Ed.D,

Chancellor

Chair, KCTCS Human Subjects Review Board

cc: Christina Whitfield, Ph.D.

System Director of Research and Policy Analysis

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Dear Student,

I am Penelope Logsdon a doctoral candidate at Western Kentucky University. My dissertation research is tentatively titled Caring, interaction, and Active Learning Factors that Contribute to the Success of the Associate Degree Nursing Student. The purpose of this study is to identify the perceptions of second year nursing students in an associate degree program on the effect of caring, interaction, and active learning by faculty in their success within the program.

You are being invited to participate in this research because you are currently in your second year of an associate degree nursing program. You will have the opportunity to complete a survey-that should only take about 10 minutes.

Your participation in this research is strictly voluntary. If you do not want to participate in the study simply leave the survey form blank. If you choose to participate, the information you provide will be confidential. No personally identifying information will be reported in the study.

If you have any questions about your rights as a research participant or any concerns about the research process, or if you would like to discuss an unanticipated problem related to the research, please contact Christina Whitfield, director of Institutional Research KCTCS at christiiia.whitfield@kctcs.edu or 859 256 3184 or Paul Mooney, Compliance Manager, Office of Research, Western Kentucky University at ElOJ^JOjOjonej^wkji^du or 270 745 2129. Your identity, questions, and concerns will be kept confidential.

Feel free to contact me with questions or concerns about the survey or research at penek)peJogsdon@kctcs.edu or 270 230 3138.

Your continued cooperation with the following survey implies your consent. Your cooperation will be greatly appreciated.

Sincerely,

Penelope Logsdon Doctoral Candidate Western Kentucky University