

THE EFFECTS OF CAREER COMMITMENT, DISTRESS, AND PERSISTENCE ON  
ACADEMIC SUCCESS AMONG UNDERGRADUATE BACCALAUREATE  
NURSING STUDENTS

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by  
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University of Missouri-Kansas City, 2018

ABSTRACT

The ability of students, specifically in higher education environments, to persist is a critical determinant of academic success. Student success is especially precarious within programs of nursing, where curricula include clinical, laboratory, and didactic content. Identifying and describing the barriers and facilitators to nursing student persistence provides a blueprint to appropriately use financial and human resources as well as determine the effect student demographic variables has on desiring, attending, or benefiting from persistence interventions. The outcome of this study can guide the deployment of institutional resources to provide persistence-based interventions that are evidence-based. Framed by Tinto's Theory of Student Departure, this study assessed the effects of career commitment, distress, and persistence on academic success among undergraduate baccalaureate nursing students. Findings indicated a significant relationship between persistence, emotional concerns (a subscale of distress), and the outcome variable of academic success.

## APPROVAL PAGE

The faculty listed below, appointed by the Dean of the School of Graduate Studies, have examined a dissertation titled “The Effects of Career Commitment, Distress, and Persistence on Academic Success among Undergraduate Baccalaureate Nursing Students,” presented by Kimberly D. Kennel, candidate for the Doctor of Philosophy degree, and hereby certify that in their opinion it is worthy of acceptance.

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I love you! "Never underestimate the power of persistence."

# CHAPTER 1

## INTRODUCTION

The ability of students, specifically in higher education environments, to persist is a critical determinant of academic success (Jeffreys, 2002). Student success is especially precarious within programs of nursing, where curricula include clinical, laboratory, and didactic content. The clinical application of didactic content results in a need to persist in both classroom and clinical settings. Thus, barriers and facilitators for the undergraduate nursing student related to persistence may be unique. Using the results of a 2010 student retention survey, Habley, Bloom, and Robbins (2012) summarized the causes of attrition and identify retention strategies. Arendale (2002) identified academic-specific interventions such as supplemental instruction, the benefits of which are described by Malm, Bryngfors, and Mörner (2011). Other academic-specific interventions include remediation (Reinhardt, Keller, Ochart Summers, & Schultz, 2012) and tutoring interventions (Hendriksen, Yang, Love, & Hall, 2005; Jeffreys, 2002), which are recommended to align with student academic need and include enhancing overall persistence. Academic support programs, including those which enhance persistence, were developed to support didactic classroom deficiencies. Their ability to enhance persistence in clinical settings was not a research focus. Within programs of nursing there are blended courses that have a didactic and clinical component, with successful completion dependent upon demonstrating competence in both areas. Because previous research has been focused on didactic-only interventions, it is unknown whether these interventions are appropriate to improve persistence among nursing students.

The ability of students to persist academically is an important area to explore in education research, especially within nursing programs. Identifying and describing the

barriers and facilitators to nursing student persistence provides a blueprint to appropriately use financial and human resources as well as determine the effect of student demographic variables on desiring, attending, or benefiting from persistence interventions. The outcome of this study can guide the deployment of institutional resources to provide persistence-based interventions that are evidence-based. When interventions are based on research evidence, the potential for academic success is improved. Other resources for academic success may include the financially-based resources of the institution (use of facilities and labs, use of college personnel, and faculty time), the student (finances associated with the education, and loss of income associated with unemployment), and society, which include taxpayer dollars spent on higher education (Fleming, 2010). While education of any sort is expensive, Fleming (2010) states that, because of the technical nature of nursing programs and the necessity of maintaining learning laboratories in addition to the use of faculty time, academic costs that are passed on to students are more of a fiscal barrier in programs of nursing.

Career commitment has been identified by Blustein, Ellis, and Devenis (1989) as a potential facilitator to persistence. Career commitment, in this instance, is the process of developing self-generated goals by psychologically attaching to a career and identifying oneself with the career (Blustein et al., 1989). The concept of career commitment describes being certain and self-confident about the individual's choice and experiencing positive feelings regarding vocational future as well as being aware of potential obstacles (Blustein, et al., 1989). Enrollment in a specialized curriculum such as nursing, where course credits will not transfer to other disciplines, may suggest even greater commitment to a specific career choice or occupation (Zanardelli, Shivy, & Perrone-McGovern, 2016). Individuals

with a high degree of commitment would likely be prepared to implement their career choice and begin to meet whatever obstacles may impede their attempt to realize their goal (Wang, Jome, Haase, & Bruch, 2006). While persistence and career commitment, as singular concepts, are known variables that influence student success, there is a paucity of research focused on the relationship between persistence and career commitment. No research included the impact of specific demographic variables. Thus, the results of the study will provide new data to inform a novel approach in assessing this phenomenon.

Distress, operationalized for the study as an external cause of physical or mental strain, has been identified by Murff (2005) as a student-specific barrier to persistence. Murff (2005) described unique stressors encountered by college students and how these prevent successful fulfillment of academic goals. Strategies to improve the ability to complete a program of study must focus on barriers. Identifying non-academic distress is important for development and implementation of appropriate interventions. Data obtained in this study included self-assessment of distress, in an effort to delineate variables that cannot and should not be the focus of any academic intervention. The purpose of assessing distress is to understand the role of distress as a barrier to academic success and to identify non-academic interventions.

Alden (2008) and Jeffreys (2012) identified a unique combination of cognitive, noncognitive, and social factors that influence the academic success and persistence of students in nursing education programs. Awareness and understanding of these factors and how much and what types of distress students encounter can enable faculty to identify at-risk students early in the program, when interventions have a greater chance of succeeding.

External, non-academic factors may include personal, financial, health, work, or family situations that result in distresses.

Distress has been described as “a mix of anxiety and depressive symptoms and may cause sleeplessness, lack of appetite, trouble concentrating, and difficulty carrying on regular activities” (National Comprehensive Cancer Network [NCCN], 2018, para. 1). Ridner (2004) defined distress as “as a non-specific biological or emotional response to a demand or stressor that is harmful to the individual” (p. 539). Distress, for this study, was operationalized using the constructs of emotional, spiritual/religious, physical, practical, and family problems. The NCCN’s Clinical Practice Guidelines in Oncology for Distress Management (NCCN Guidelines<sup>®</sup>, 2015) suggested the use of a distress management screening instrument, which consists of a Distress Thermometer (DT) and a problem checklist (Roth, Kornblith, Batel-Copel, Peabody, Scher, & Holland, 1998).

Ongoing and pervasive concerns about attrition, delayed graduation, and the nursing shortage support the need for research focused on the effect these concepts have on persistence and career commitment of nursing students. Ultimately these factors contribute to academic success. The purpose of this descriptive study was to examine the relationship of the independent variables of self-assessed career commitment, distress, and academic persistence to academic success among undergraduate nursing students in a required blended course. The results of the study can be used to identify a measurement model and a theoretical model that encompass measured and latent variables (Kellar & Kelvin, 2013). The researcher posits that persistence is central in the model, with career commitment and distress contributors to both persistence and academic success. Thus, persistence, career commitment, and distress provide possible positive, negative, or neutral appraisals of the

situation. Academic success is the outcome of persistence, career commitment, and the ability of the student to manage distress.

## **Definition of Terms**

### **Academic/Student Success**

Academic/student success has been traditionally measured using academic achievement outcomes. These include scores on standardized college entry exams, college grades, and credit hours earned in consecutive terms, which represent progress toward the degree (Kuh, Kinzie, Buckley, Bridges, & Hayek, 2011). For the purpose of this study, academic success was defined as successful completion of an undergraduate blended nursing course and operationalized as the student passing both the didactic and clinical/lab component per the institution's grading scales. These data were defined as a pass/fail for the course.

### **Blended Course**

A blended course is an undergraduate nursing course that contains a didactic and clinical/lab component. The blended course of interest in this study was a two-credit hour class and two-credit hour clinical/lab (90 hours) titled "Basic Skills of Nursing." This course had didactic, lab and clinical components, and a student must be successful in each component to pass the course.

### **Career Commitment**

Career commitment has been described as the process of developing self-generated goals by self-attachment to a career and identifying oneself with the career (Blustein et al., 1989). Career commitment, for this study, was self-assessed using the Commitment to

Career Choices Scale (CCCS) to measure progress or level as a continuum in attaining commitment to career choices (Blustein et al., 1989).

### **Distress**

Distress has been defined as “a non-specific biological or emotional response to a demand or stressor that is harmful to the individual” (Ridner, 2004, p. 539). The NCCN described and operationalized distress as “A mix of anxiety and depressive symptoms and may cause sleeplessness, lack of appetite, trouble concentrating and difficulty carrying on regular activities” (2018, para. 1). Data from this study described distress from the participant’s perspective.

### **Persister**

An academic persister has been defined by Habley and associates (2012) as a person who “goes on resolutely or stubbornly despite opposition, importunity, or warning: one who continues firmly or obstinately” (p. 13). Persister, in this study was defined as someone who displayed the characteristics of persistence as measured in the persistence instrument. The Student Persistence Questionnaire in Associate Degree Programs (SPQADNP) (Fleming, 2010) was used to describe the characteristics of a persister in this study.

### **Persistence**

Persistence, specifically academic persistence, has been defined as sustained involvement in an activity (Constantin, Holman & Hojbotă, 2012), renewal of commitment (Raman, 2013), and intensification of effort when facing obstacles (Lufi & Cohen, 1987). Hart (2012) and Ward-Smith, Schmer, Peterson and Hart (2013) operationally defined persistence as a student characteristic or attitude. This allows persistence to be measured, which was done in this study using the Student Persistence Questionnaire in Associate

Degree Nursing Programs (SPQADNP) (Fleming, 2010). Items within the SPQADNP are not specific to the academic program, but to the constructs associated with persistence. The instrument was validated using data from students enrolled in an Associate Degree program, thus the specificity of the title. While students enrolled in a Baccalaureate Degree Nursing Program were the intended population of the study, the persistence needed to successfully complete a required course were similar in these students.

### **NCCN Distress Thermometer**

The NCCN Distress Thermometer is a management screening survey. The survey consists of a Distress Thermometer (DT) that allows the individual to rank their level of distress from 0 (none) to 10 (highest). The DT also includes a 39-item problem checklist. The study participants self-assessed their distress with this instrument via paper/pencil.

### **Nursing Student**

A nursing student for the purpose of this study was defined as a baccalaureate nursing student enrolled in a required initial blended course.

CHAPTER 2  
REVIEW OF THE LITERATURE

**Purpose**

The purpose of this descriptive study was to examine the relationship that the independent variables of self-assessed career commitment, distress, and persistence have on the dependent variable of academic success among undergraduate nursing students enrolled in a required blended course.

**Aims**

The specific aim of the research study was to determine the strength of the relationship between the variables of career commitment, distress, persistence, and academic success to identify a student at risk for being a non-persister and to propose a theoretical explanation. The results of this study describe the relationship between the three independent variables of career commitment, distress, and persistence. These data provide evidence describing where and how an intervention would be appropriate and have the greatest influence on student success.

**Research Questions**

1. What is the relationship of career commitment to academic success in a blended course among undergraduate nursing students in a baccalaureate program?
2. What is the relationship of distress to academic success in a blended course among undergraduate nursing students in a baccalaureate program?
3. What is the relationship of persistence to academic success in a blended course among undergraduate nursing students in a baccalaureate program?

4. What is the relationship between the concepts of career commitment, distress, and persistence in a blended course among undergraduate nursing students in a baccalaureate program?

### **Significance**

Nursing student success and persistence is a complex, dynamic, multidimensional phenomenon influenced by the interaction of personal, academic, and environmental factors (Jeffreys, 2002). The ability of a student to persist in higher education is a critical academic issue, and it is important to determine barriers and facilitators to success as nurse educators attempt to develop and provide interventions aimed at increasing persistence among students. The findings of this study will have implications for targeting academic and non-academic support services in the future and can serve as a template for other schools of nursing. Study findings may add to the body of knowledge that already exists regarding student retention/persistence in schools of nursing; may add to policy making at the institution and local levels; and may help students, faculty, and stakeholders implement academic support programs. The results are relevant to nurse educators and institutional support service personnel, who can use this information to assess, guide, and provide academic and non-academic support. Insight into the students' perceptions of their academic experience becomes critical if nurse educators and institutions are to optimally facilitate persistence.

Academic failure among nursing students is a phenomenon of growing international concern, not only because of its economic impact but also because it negatively affects the availability of future nurses in the healthcare system (Lancia, Petrucci, Giorgi, Dante, &

Cifone, 2013). Many faculty members may view academic failure as the responsibility of the learner (Ooms, Fergy, Marks-Maran, Burke, & Sheehy, 2013).

In the United States, some nursing programs report attrition rates as high as 50% (Abele, Penprase, & Ternes, 2013). Attrition affects both academic institutions and the health care industry. Nursing programs are evaluated by accreditors through outcome measures including attrition and retention rates and National Council Licensure Examination-Registered Nurse (NCLEX-RN) pass rates, which are based on the success of the first attempt to achieve a passing score on the licensure examination (Commission on Collegiate Nursing Education [CCNE], 2013). While there is no established benchmark for attrition from nursing programs (Abele et al. 2013; Robertson, Canary, Orr, Herberg, & Rutledge, 2010; Starck, Love & McPherson, 2008), many institutions recommend that an attrition rate of 20% or lower should be a goal for all nursing programs (Brown & Marshall, 2008). The Standards for Accreditation of Baccalaureate Nursing Programs recommends a completion rate of 70% or higher (CCNE, 2013). When the completion rate falls below the metric, the school must provide an analysis and explanation of the variance.

The Assessing Progress on the Institute of Medicine (IOM) Report on the Future of Nursing (National Academies of Sciences, Engineering, and Medicine, 2016) recommends an increase in the number of nurses with baccalaureate (BSN) degrees, a greater emphasis on increasing workforce diversity, and greater funding for nursing education. The American Association of Colleges of Nursing (AACN) (2014) recognizes a strong connection between a culturally diverse nursing workforce and the ability to provide quality, culturally competent patient care. Due to the ongoing nursing shortage and societal changes, faculty need to examine how nursing students persist and what can be done to enhance their

persistence. Persistence has been an ongoing problem in nursing and in earlier years has been attributed to the problems of individual students (Fleming, 2010). Despite the effort by institutions of higher learning to provide academic support programs, it remains a challenge to design strategies, practices, and interventions to enhance success as measured by students' persistence (Fleming, 2010).

### **Academic/Student Success**

Academic/student success has been defined using traditional measures of academic achievement, such as scores on standardized college entry exams, college grades, and credit hours earned in consecutive terms, which represent progress toward the degree (Kuh et al., 2011). Assessment of student outcomes or success is an integral part of program evaluation for schools of nursing (Reinhardt et al., 2012). The literature identifies many variables or factors that contribute to student success and interventions that may or may not have an effect on success (Raman, 2013).

Educators use a variety of academic and non-academic support programs, strategies, practices, and interventions designed to influence persistence (Fleming, 2010). These interventions may include first year transition programs, academic advising, counseling services, academic support programs, enrichment programs, tutoring, financial aid, and Supplemental Instruction (SI) (Habley et al., 2012). Individual institutions need to examine their own student populations for potential barriers to persistence and success. In addition, it is important that increasing numbers of institutions conduct research on student success and persistence so patterns and trends might be recognized across similar institutions (Alden, 2008). The transformation of nursing education requires a paradigm shift that embraces collegiality, collaboration, caring, and competence for students and faculty (Del Prato,

Bankert, Grust, & Joseph, 2011). Once admitted to programs of nursing, students must be provided with resources that facilitate their choice to persist. Several studies conducted on persistence in higher education suggest that these variables should be examined as potential risk factors: age (Hopkins, 2008), ethnicity (Hopkins, 2008; Wells, 2003), gender (Hopkins, 2008; Jeffreys, 2007; Shelton, 2012), previous high school and college coursework (Glynn, Sauer, & Miller, 2003), past grade point average (Seago, Wong, Keane, & Grumbach, 2008), standardized test scores (Sayles, Shelton, & Powell, 2003), financial resources (Bowden, 2008), family educational level (Shelton, 2012), family responsibilities (Shelton, 2012), employment (Jeffreys, 2007; Shelton, 2012), and emotional and physical health (Deasy, Coughlan, Pironom, Jourdan, & Mannix-McNamara, 2014) These factors can either positively or negatively affect persistence, depending on the circumstance (Hart, 2012).

### **Persistence**

Habley et al. (2012) defined a persister as a person who “goes on resolutely or stubbornly despite opposition, importunity, or warning: one who continues firmly or obstinately” (p. 13). Someone who persists may be described as having grit, determination, or commitment. There is inconsistent terminology within the research literature when addressing persistence, attrition, and success (Burrus et al., 2013; Hart, 2014). For example, persistence is sometimes referred to as an outcome to measure, while other times it is presented as a student characteristic that leads to the completion of a course or program. The antonym of persistence is attrition (Urwin, Stanley, Jones, Gallagher, Wainwright, & Perkins, 2010). A definition of attrition is a loss of students from a program of nursing resulting in the difference between the number of students beginning a program and the number of students finishing the program (Urwin et al., 2010). The term persistence often

evokes the reflection of an adversity that an individual overcomes during the pursuit of a goal or dream (“Persistence,” 2015). The discipline of psychology defines persistence as an admirable striving against opposition and links the term perseverance as a behavioral tendency to persevere or persist (Reber & Reber, 2009).

Nursing education research has defined persistence as the ability of the student to overcome obstacles and successfully complete a course or program of study (Demaris & Kritsonis, 2008). Persistence has been defined in online nursing education as the ability of the student to overcome obstacles or hardships in completing a course, and leads to the ability to successfully complete an online education program (Hart, 2012; Ward-Smith et al., 2013). Technological advances and online delivery of baccalaureate completion and graduate nursing courses led to the development of a psychometric instrument to evaluate online persistence. Hart’s (2012) development of an online persistence measurement tool provides an understanding of individualized, evidence-based persistence interventions in the online learning environment.

Persistence can be described as a process of interactions between students and faculty, staff, and peers in academic and social settings (Tinto, 1975, 1993, 2006). Educators may consider persistence and retention interchangeable when discussing academic success. However, these terms are different in that retention is an institutional measure and persistence is a student measure (Bronstein, 2008). A student who persists or has the quality of persistence is one who continues to enroll and continuously pursue a degree with expectations of graduation. Persistence in the student’s major can be indicated by academic success through graduation (Bronstein, 2008).

Nursing student retention is based on two outcomes: persistence or choosing to remain in an academic program, and successful academic performance, or achieving the academic standards that are required to continue in a program and ultimately to graduate (Shelton, 2012). However, other aspects of persistence have been evaluated in the literature, including the student who is defined as a “stop out” (Burrus, et al., 2013, p. 14). The student takes courses on a flexible basis. This temporary withdrawal may be another factor that can affect overall program and course outcomes.

A student who exhibits persistence has acquired the characteristics of academic aptitude, commitment, readiness, motivation, engagement, and self-regulation (Habley et al., 2012; Habley, Valiga, McClanahan, & Burkum, 2010). There are five conditions that will facilitate persistence: expectations, support, feedback, involvement, and learning (Tinto, 1975, 1993, 2006). Persistence, viewed through this paradigm, is an antecedent to academic success. Hart (2012) posited that social connectedness, perceived stress and support, self-motivation, and goal attachment contribute to persistence. These four constructs serve as modifiable attributes and antecedents to course completion. Specifically, these constructs are alterable, with educational interventions (Hart, 2012).

Persistence has been correlated with self-efficacy, self-concept, resiliency, motivation, commitment, and engagement (Garza, Bain, & Kupczynski, 2014; Rose, 2011; Shelton, 2012). A randomized control trial of counseling interventions after the academic failure of a nursing student and mentoring/tutoring programs that support persistence demonstrated with a sample of 42 students that there were improvements in the mean grades in the experimental group. There were also significant improvements in the mean grades in basic and special courses of male students in the experimental group, compared with those

of male students in the control group (0.27 against  $-1.43$ ,  $p= 0.014$ ; and  $1.87$  against  $-0.40$ ,  $p= 0.009$ ; respectively) indicating that male students may benefit from this type of intervention (Kim, Oliveri, Riingen, Taylor, & Rankin, 2013; Peyrovi, Parvizy, & Haghani, 2009). No specific study was found to describe career commitment or distress and identify the relationship it has with persistence in a nursing student population, and no specific study utilized a clinical tool to measure the variable of distress within a nursing student population.

### **Antecedents and Consequences**

Antecedents are those events or incidents that must occur or be in place prior to the occurrence of the concept (Walker & Avant, 2011). Consequences are those events or incidences that occur as a result of the occurrence of the concept; in other words, the outcomes of the concept (Walker & Avant, 2011). There is an understanding that persistence is partially based on goals and commitments established prior to matriculation. There are forms of commitment that are antecedents for persistence: goal commitment and institutional commitment. The core concepts of academic and social integration are noted to have important effects on persistence or on dropping out, and that dropout could occur through a lack of integration in either or both of these systems (Tinto, 1975). A longitudinal mixed method study of 287 students who were enrolled in a coordinated study program that included small groups, field trips and seminars that focused on student involvement indicated that academic and social integration have important direct effects on persistence. Students in the coordinated study program persisted to the next semester at a significantly higher rate than students who were not enrolled in the program. The rates were 66.7% versus 52.0% for the fall quarter and 83.8% versus 80.9% for the spring quarter of that academic

year, which was significant at the .05 level. The qualitative theme of the participant observation that revealed the study program provided a supportive network of peers, bridged the academic social divide, and provided a voice for the students in the construction of knowledge (Tinto & Russo, 1994). What happens to a student after arrival on campus may have greater impact on persistence than either the background characteristics or personal commitments to the institution and the goal of graduation the student brought to college (Burrus et al., 2013; Pascarella & Terenzini 1983; Tinto, 2006). A path validity study on Tinto's model with a cohort of 763 indicated there is predictive power in explaining variance in freshmen year persistence with a variance of .190 overall, .203 for men, and .217 for women. Academic and social integration subscales were used to predict the outcome of the dependent variable of persistence. The classification analyses predicted 80% of the persisters, which suggests good discrimination among the variables of the model (Pascarella & Terenzini 1983).

For example, academic integration may be classroom experiences, and social integration may include clubs or sports. Other concepts that are antecedents are intention and commitment. Intention refers to the goals desired by the individual (Tinto, 1993). The concept of commitment indicates the degree to which individuals are committed to their goals; and commitment from the institution can make the difference between persistence and departure (Tinto, 1975, 1997). Goal commitment refers to an individual's willingness to achieve a particular objective, in this case, a college degree (Tinto, 1975).

In a meta-analysis of 109 studies on the basis of educational persistence and motivation by Robbins and associates (2004), moderate relationships exist between retention

and academic goals, self-efficacy, and skills. The best predictors for Grade Point Average (GPA) were academic self-efficacy and academic motivation ( $p$ s=.496 and .303).

Student background variables are factors that have influenced the student's academic performance in the past, as well as factors within the student's current environment. Glossop (2001) identified reasons that nursing students do not persist to graduation such as personal or family issues, wrong career choice, financial problems, travel difficulties, ill health, poor program management, negative staff attitudes, program pressures, and inadequate preprogram information. Jeffreys (1993, 2012) evaluated the background variables that are of particular note for nursing students which include age, ethnicity, gender, language, prior education, and work experience. Student background variables have a direct effect on persistence, self-efficacy, and motivation (Jeffreys, 1998, 2007, 2012). These variables must be assessed to determine specific needs of a student population. The initial study by Jeffreys (1993) evaluated 97 nursing students to determine the relationship of self-efficacy, academic variables, and environmental variables on academic achievement and retention. The study used four instruments which included a self-efficacy tool, a student perception tool, student demographics, and scholastic inventory. Environmental variables measured on the student perception tool were perceived by students as more influential than academic variables. The environmental variables included transportation, financial status, family financial support, hours of employment, family emotional support, family crisis, employment responsibilities, encouragement of friends, and childcare. However, academic variables (personal study skills, faculty advisement and helpfulness, class schedule, personal study hours, college library, nursing skills labs, computer lab, college counseling and tutoring and financial

aid/scholarship) were moderately able to statistically predict academic achievement (Jeffreys, 1993, 1998).

### **Theoretical Background**

The over-arching theory for this study is Vincent Tinto's (1975) Theory of Student Departure. The theory has been used in higher education for more than 40 years and has nearly reached paradigm status in higher education (Burrus, et al., 2013). The theory is foundational, the concepts are well defined, and this theory has been used with other research involving persistence and attrition in higher education. The literature about persistence is based on conceptual frameworks for understanding student departures and was developed to guide the study of attrition and retention in higher education. The theory is by far the most influential model in persistence used to predict or prescribe educational interventions and has been used with empirical research and testing (Burrus et al., 2013). This theory emphasizes the role of campus-based interactions and integration on persistence and highlights the importance of student experiences on campus (Burrus et al., 2013). The framework is useful for thinking about the dynamic nature of persistence (Tinto, 1993).

The core concepts of this theory, academic and social integration, are noted to have important effects on persistence or dropping out. A student would be at risk for lack of persistence or dropping out if they are unable to integrate in either the academic or the social system (Tinto, 1975). Academic and social integration have important direct effects on persistence. What happens to a student after arrival on a college campus may have greater impact on persistence than either the background characteristics or personal commitments to the institution and the goal of graduation (Burrus et al., 2013; Pascarella & Terenzini, 1983; Tinto, 2006). An interaction of external and attitudinal factors can affect persistence (Burrus

et al., 2013). Tinto (1993) based the model on five variables: background characteristics (family background, individual attributes, and precollege schooling); initial commitments (precollege commitment to the goal of college graduation and commitment to the initial institution attended); academic and social integration; subsequent goal and institutional commitments; and persistence/withdrawal behavior. Tinto (1975) makes the assumption that the college setting is its own social system and provides explicit connections between the environments; in this case, the academic and social systems of the institution and the individuals who shaped those systems. College is viewed as community, and it is the daily interaction of students with members of the college in both formal and informal academic and social domains that determine decisions for the student to stay or leave (Tinto, 1993).

Tinto (1975) asserted that dropout occurs because the individual is insufficiently integrated into different aspects of college or university life. Tinto's (1975) theory attempted to answer the following questions. Why do students leave college? How can the college persistence process be explained? Tinto (1993) developed his theory because he believed that much remained unknown about the nature of the dropout process. Student persistence is vital to the survival of colleges and universities, and his theory attempted to explain the complex process of events leading individuals to withdraw or drop out of college (Tinto, 1988).

Seago and associates (Seago, Keane, Chen, Spetz, & Grumbach, 2012) identified that previous academic achievement, as measured by pre-nursing grade point average (GPA) and science GPA, was a positive predictor of graduation. A conceptual model tested with 738 participants specified four general constructs as predictors of students' success in nursing education: dispositional factors, career value factors, situational factors, and

institutional factors (Seago et al., 2012). Career value factors, as described by Seago and colleagues (2012), mimic those used when discussing career commitment. The survey instrument examined students' perceptions and experiences with the constructs (dispositional, career value, situational, institutional) relevant to their success in completing their nursing education. The career values items loaded on five (subscales) factors (titled job characteristics, autonomy, caring, flexibility, and work style). The subscales for job characteristics and work style had factor loadings, cross-loadings, and internal consistency reliability (Seago, et al., 2008). Identifying the commitment a student has to their career may provide educators with the ability to provide appropriate academic support.

Mamiseishvili (2012) utilized Tinto's (1975) Theory of Student Departure by evaluating a data set from the Beginning Postsecondary Students Longitudinal Study with a focus on 200 international students in higher education to examine the factors that influence persistence. Understanding what factors influence international students' persistence would help higher education to more effectively retain and support these students. Internationally diverse students bring valuable educational, cultural, and economic benefits to universities. The results of the study indicated that GPA, degree goals, and academic integration had significant positive effects on persistence of undergraduate international students. Academic integration variables, which included meetings with academic advisors and participation in study groups, were significantly related to persistence with  $\chi^2(2) = 5.974$ ,  $\chi^2(2) = 5.781$  with a  $p < .05$ , respectively. These findings suggested that the academic side of college life is crucial for international students (Mamiseishvili, 2012). Further analysis of Mamiseishvili's (2012) model indicated a persistence prediction for the students; for every .50 increase in GPA, the odds of an international student persisting increased by a factor of 1.471. With an

increase in the level of degree expected (degree goal), the odds of persisting increased by a factor of 1.694. With each one-unit increase in the academic integration measure, the odds of an international student persisting increased by a factor of 1.318 (Mamiseishvili, 2012).

Tinto's model (1997) (see Appendix A) is further divided into academic systems (grade performance and intellectual development) and social systems (peer-group interactions and faculty interactions). The academic system aligns with academic integration and social systems with social integration, which leads to goal and institutional commitments or the decision to drop out (Tinto, 1975). A student's decision to withdraw includes academic difficulty, adjustment problems, indecisive goals, commitments, financial issues, incongruence, and isolation (Tinto, 1997). Tinto and Pusser (2006) identified five conditions that enhance persistence: expectations, support, feedback, involvement, and learning, as noted in the National Post-Secondary Educational Cooperative review, which collects data nationally on post-secondary statistics with yearly updates on college students' progress toward degree completion.

Utilizing Tinto's (1975) framework, Dapremont (2011) identified candid and rich descriptions of barriers and facilitators to academic success for 18 minority students with face-to-face interviews utilizing an 18-item semi-structured questionnaire followed by thematic analysis with deductive apriori templates of codes. The method indicates that a grounded theory approach was used. The qualitative descriptive theme in research by Dapremont (2011) revealed that it "takes a community to create a nurse" (p. 257). Within this community were the variables of peer support, interaction with White students' study groups, family support, and faculty encouragement and support. Results reflect what Black students believed it took to successfully complete nursing school. Eighty-nine percent of the

18 participants indicated that their peers were a necessary support during nursing school (Dapremont, 2011). Positive interactions and involvement in academic and social settings provide students with the ability to integrate within the program and institution, leading to a greater commitment to completion (Tinto, 1975). Many college support programs, both academic and social, have been developed based on this theory; they have been evaluated by their effect on persistence (Burrus et al., 2013).

### **Assessing Persistence**

For the purpose of this study, persistence was measured with an adapted version of the Student Persistence Questionnaire in Associate Degree Nursing Programs (SPQADNP). This questionnaire allows students to self-describe their persistence based on responses to a 30-item, 5-point Likert scales questionnaire. Potential responses range from “strongly agree (5) to strongly disagree (1),” with no neutral response available. The SPQADNP consists of three subscales that include academic integration, environmental variables, and social integration (Fleming, 2010). While this instrument has been used only in an associate degree student population, the persistence needed to complete a blended course in a baccalaureate nursing program would be the same. All nursing students, regardless of program type, must be able to take the NCLEX-RN, and this tool is specific to programs of nursing.

Previous research using the SPQADNP reports a Cronbach’s alpha (CA) for academic factors of .72, for social integration factors as .70, and environmental factors as .39. The environmental results reflect a low degree of internal consistency concerning environmental factors. Although a Cronbach’s alpha of .70 or greater is considered acceptable for reliability, the environmental factor (.39) fell below acceptable levels (Kellar & Kelvin, 2013). The overall Cronbach for the SPQADNP was .81 (Fleming, 2010). A

repeated measure ANOVA (analysis of variance) was conducted with the factors of academic, environmental, and social integration with the criterion variable being student persistence rates. The repeated measures ANOVA was found to be statistically significant ( $F(2,562) = 822.055, p < .001$ ). Gender was also statistically significant (Fleming, 2010).

Fleming (2010) created the SPQADNP by adapting a previously validated instrument, then used this version to explore student persistence with 564 participants in community college Associate Degree Nursing (ADN) programs located in Mississippi. Factors explored in this initial study included the effects of persistence and attrition on various demographics, as well as strategies and programs used to assist students in being successful. Participants were in strong agreement about the benefits of support and encouragement from faculty, and faculty interaction in the classroom was perceived as being a positive factor in their academic success. The students indicated that academic work in the nursing program was as difficult as they anticipated, but teaching methods used were a barrier to their success (Fleming, 2010). Many participants indicated they would like to see study groups, peer groups, and mentoring formalized. Participants' qualitative data, which was obtained by thematic analysis using open-ended questions, described a major need for financial aid. (Fleming, 2010). Other themes included the need for better teaching methods and the need for test review in addition to tutoring.

The SPQADNP was initially developed by Butters (2003) to test a theoretical model with 268 associate nursing degree students. The instrument was developed based on adapted questions from Condon's (1996) survey of 770 culturally diverse baccalaureate nursing students to determine student-identified academic success factors. The instrument is divided into four scales, which include background and defining variables with an overall instrument

reliability of a Cronbach's alpha of .62; academic subscale with a CA of .82; environmental subscale with a CA of .65; and social integration subscale with a CA of .49. The environmental and academic scales distinguished between students who stopped out of the program and students who stayed in the program; the scales were useful in predicting students who would stop out of a program. The *t*-test was not significant for the social integration scale or for the background and defining variables scale when comparing the groups who stopped out of and did not stop out of the program (Butters, 2003). Social integration results were not consistent with Tinto's (1975) theory, and it was noted by Butters (2003) that it was due to a larger number of non-traditional students who view social integration not as them taking the initiative to integrate but when someone takes an active role in assisting them.

Persistence among students enrolled in higher education or programs of nursing has also been measured, or self-assessed, using a variety of Likert-type instruments. Higher education has measured persistence and/or retention using the National Survey of Student Engagement and the Noel Levitz College Student Inventory, which provide engagement indicators and associations with student learning. These national surveys routinely assess construct and predictive validity (Habley et al., 2012). Hart (2012) measured the self-assessed persistence of online baccalaureate completion nursing students with a psychometric tool called the Persistence Scale for Online Education (PSOE), which has a reliability testing of a CA of .799. The PSOE was used in a subsequent study by Ward-Smith and associates (2013) to evaluate the persistence of online graduate students. Unfortunately, there is agreement neither on the definition of academic persistence, nor on the method used to assess academic persistence, which varies from study to study. The

national surveys that are used in higher education are not specific to the barriers and facilitators to persistence in the nursing student population.

Although persistence is very important in academic achievement and in the general development of personality, other persistence instruments have been developed for specific populations, such as a scale for measuring persistence in children ages 7-13 with a 40-item survey with a CA of .66, and a test-retest reliability after six months of .77 (Lufi & Cohen, 1987). Persistence has also been measured in psychology research with specific scales or components of multiphasic questionnaires such as the Temperament and Character Inventory (Cloninger, Svrakic, & Przybeck, 1993) and the Self-Control Measure (Tangney, Baumeister, & Boone, 2004). Other instruments which measure or assess persistence emphasize sustained involvement in an activity (Constantin et al., 2012), renewal of commitment (Raman, 2013), and intensification of effort when facing obstacles (Lufi & Cohen, 1987). The Adult Education Persistence Scale (AEPS), developed by educators, has demonstrated reliability with a CA of .82 in predicting persistence in those enrolled in adult literacy courses (Ziegler, Bain, Bell, McCallum, & Brian, 2006). In an attempt to define persistent behaviors, Constantin and associates (2011) developed a motivational persistence scale that evaluates long and short-term commitments to measure the psychological construct of persistence. A total of 667 participants from the general population in Europe were assessed on the dimensions of persistence: long-term purposes pursuing, current purposes pursuing, and recurrence of unattained purposes. The overall Cronbach's alpha for the tool is .79.

## **Career Commitment**

Within Tinto's (1975) Theory of Student Departure, the term commitment or goal commitment is identified. Blustein and associates (1989) asserted that by obtaining high levels of commitment, an individual would overcome obstacles and prepare specific objectives to achieve their goals. Career is a term that many individuals use to describe their occupation or job. Career has also been defined as a profession that one trains for and is undertaken as a permanent calling (Career, 2015).

Career selection may be considered a commitment process (Blustein, Walbridge, Friedlander, & Palladino, 1991). Career commitment, as a construct, can be defined as a process of developing self-generated goals by psychologically attaching to a career and identifying oneself with the career. "The extent to which one is committed to a career will be reflected by his or her persistence in pursuing career goals despite obstacles and setbacks that are encountered" (Colarelli & Bishop, 1990, p. 159). The concept of career commitment used in this study refers to being certain and self-confident about the individual's choice and experiencing positive feelings regarding vocational future as well as being aware of potential obstacles as measured by the Commitment to Career Choices Scale (CCCS) instrument (Blustein et al., 1989).

Students who perceive the career of nursing as a calling, or having a higher purpose than just a career, may in fact feel such a commitment to their vocational choice that they will make goals to overcome the obstacles or barriers they encounter. The formation of an attachment to a career or vocation derives its theoretical underpinnings from psychological attachment theories developed by John Bowlby (as described by Blustein et al., 1991). Choosing nursing as a career is a commitment process that brings with it very strong

feelings, as sometimes the career commitment process may seem to be guided by family, friends, and/or even spiritual beliefs. Students may in fact believe they were “called” to the career.

The Commitment to Career Choices Scale instrument was used to self-assess progress or level in attaining commitment to career choices. Due to the importance of commitment in career development theory, the CCCS was developed to define, assess, and explore the sequence, constructs, and means by which a person commits to a career choice (Blustein et al., 1989). The CCCS was developed based on theory and validated with a combination of confirmatory factor analysis and expert raters. Blustein and associates (1989) utilized the instrument in two construct validation studies. The constructs within the CCCS include The Vocational Exploration and Commitment (VEC), which is a dimension that ranges from an uncommitted, exploratory phase to a highly-committed phase of career exploration and the individual’s approach to the commitment process. Tendency to Foreclose (TTF) as a construct explains the individual prematurely committing to a choice without true exploration of potential career options (Blustein et al., 1989). The CCCS has 19 items that measure VEC and 9 items that measure TTF on a 7-point Likert scale with a Kuder Richardson coefficient of .76 and a correlated  $r = .93$  (Blustein et al., 1989).

The CCCS has been used in multiple studies to assess individuals as they approach the career decision-making process (Wang et al., 2006). This process of career commitment is a task for all college students as they identify how they will meet their career goals (Zanardelli et al., 2016). Wang and associates (2006) used the CCCS to measure career commitment of 184 undergraduate students with a CA of .82 in a study to determine whether self-efficacy could be a mediator for career commitment. The CCCS has also been

used to determine how parental attachment and separation relationships contribute to the career commitment process (Zanardelli et al., 2016).

### **Distress**

Through an extensive literature review, distress was identified as a possible construct to persistence. Distress has been defined as “a mix of anxiety and depressive symptoms and may cause sleeplessness, lack of appetite, trouble concentrating and difficulty carrying on regular activities” (National Comprehensive Cancer Network, 2018, para. 1). Ridner (2004) defined distress as “as a non-specific biological or emotional response to a demand or stressor that is harmful to the individual” (p. 539). One of the most detailed and individualized surveys that assesses individual distress is the Daily Log of Stress-Related Symptoms (Manuso, 1980). Daily completion of this self-assessment tool provides a pictorial view of the cause of stress and the extent to which the stress interferes with life. As a screening tool, this survey provides a method to identify stress and its effects over time and to establish one’s stress level. The author does not recommend the use of this survey as an assessment instrument. It is disconcerting that the survey purports to assess distress, yet uses stress throughout the content. Distress can be framed within the theory of Mishel’s (1988) Uncertainty in Illness Theory. This theory explains how individuals cope with uncertainty or illness (Wright, Afari & Zautra, 2009). Distress can be a barrier to a student’s academic success or persistence.

Distress is an umbrella word used to represent the range of emotional concerns and does not carry the stigma of other words sometimes used for emotional symptoms. Students in health education such as nursing and medicine are highly focused, and this is a concern due to the high burdens of distress reported in these groups of students (Rustøen, Helge

Rønnestad, & Nerdrum, 2009). A majority of the research with nursing students examining distress levels uses the General Health Questionnaire (GHQ) (Goldberg, 1978), which examines only general psychological responses. Jensen (2007) posited that student nurses in particular experience a significant amount of distress due to clinical assignments, underdeveloped coping processes, and lack of social support. Psychological distress has been reported in higher education, and students in general have also reported that psychological distress plays a role in academic performance and adjustment. Nurse educators need to be aware of how student experiences during classroom (high stakes examinations) and clinical placements (development of clinical skills) may contribute to potential distress (Gibbons, Dempster, & Moutray, 2011).

Deasey and associates (2014) identified study, financial, living, and social pressures as factors that contribute to distress among students in higher education. Clinical distress in cancer patients has been evaluated with the Distress Management Scale (NCCN Guidelines<sup>®</sup>, 2015). This instrument assesses pre-defined, validated variables that contribute to distress: practical problems, emotional problems, family problems, spiritual/religious concerns, and physical problems. Warbah (2007) and associates noted that in some students this may result in significant psychiatric concerns and even withdrawal from the course. Psychological distress, personality and adjustment were measured in nursing students by Warbah (2007) and associates, who determined that those students with higher levels of psychological distress had personality traits of introversion and neuroticism which led to poor adjustment and coping strategies. Increased psychological distress among healthcare students may contribute to impaired academic performance, attrition, cynicism, and a lack of empathy when working with patients (Dyrbye, Thomas, & Shanafelt, 2005). Educators may

not fully be aware of the extent of the distress and the impact it has on students' lives and learning (Chernomas & Shapiro, 2013). Moreover, the support of the institution and faculty may be significant in ameliorating students' experiences of distress.

To improve patient care through monitoring distress, Clinical Practice Guidelines in Oncology (NCCN Guidelines<sup>®</sup>) for Distress Management (NCCN Guidelines<sup>®</sup>, 2015) suggests the use of a distress management screening measure, which consists of a Distress Thermometer (DT) and a problem checklist. The DT and problem list was used as a survey tool to allow study participants to self-describe and measure their distress. The DT had not been previously normed or piloted on a student population. Students encounter distress for a variety of reasons. Academics, family problems, social situations, work, and financial concerns are just some sources of distress. While most students cope successfully with the demands of college life, for some the pressures become overwhelming and unmanageable. Distress—a mix of anxiety and depressive symptoms—may cause sleeplessness, lack of appetite, trouble concentrating, and difficulty carrying on regular activities (Dyrbye, Schwartz, Downing, Szydlo, Sloan, & Shanafelt, 2011).

Although some distress is normal, when excessive it may affect students and their ability to achieve academic success. Recognizing the need for a means to screen rapidly for distress in cancer patients, Roth (1998) and colleagues developed the single-item “Distress Thermometer” (DT) and problem list. The DT measures distress on a zero to ten scale with zero being no distress and ten being extreme distress. The problem checklist identifies additional distress etiologies (such as emotional, spiritual/religious, physical, practical, and family problems). The DT has been used in oncology research across the world and is recommended as a tool to detect clinically significant distress. An attribute of the DT is that

it is short and relatively easy to understand (Donovan, Grassi, McGinty, & Jacobsen, 2014). The DT and problem checklist was adapted for use in patients who have experienced a stroke to determine initial interventions (Gillespie & Caden, 2013). The advantage of this adapted DT was that healthcare providers could rapidly screen in busy settings, open up communication, and provide appropriate interventions quickly.

Distress has been described as consisting of the psychosocial constructs associated with a range of emotional concerns (NCCN Guidelines<sup>®</sup>, 2015). Several studies (Jacobsen et al., 2005; Roth et al., 1998) have identified achieving a score of 2.3 or higher as needing assistance. The NCCN Guidelines<sup>®</sup> suggests that assessing emotional distress provides the ability to identify generalized anxiety, panic, isolation, and depression. Students at risk for academic failure are also at risk for these health conditions. Including an assessment of distress provides a method for faculty to intervene early and proactively, thus able to provide an academic support intervention at an appropriate time, enhancing the probability that it will be successful. While this tool has not been normed on a physically healthy or a student population, it does provide variables that can be beneficial to educators to determine what particular type of distress the nursing students are encountering. A general health questionnaire is unable to provide specific distress etiologies. The purpose of using the DT and problem checklist with this study was to identify level of distress and the etiology.

Evidence suggests the DT is effective in distinguishing distressed from non-distressed patients using a cut-off score of 4, which yielded optimal sensitivity of 0.77 and specificity of 0.68 (Jacobsen et al., 2005). The use of this cutoff score identified patients with a range of problems that were likely to reflect psychological distress. Moretz (2002) identified the internal consistency and reliability of the DT with a CA of .87.

The review identified that career commitment and distress may have an impact on the persistence and subsequent academic success of nursing students. Persistence has been correlated to various constructs in previous studies such as self-efficacy and motivation. The review of the literature determined that career commitment and distress has potential constructs that have not been explored in regard to persistence or within the population of nursing students. The literature supports career commitment as being a potential facilitator to persistence and distress as being a potential barrier.

Early assessment and intervention of potential barriers and facilitators to success can enhance a student's chances of achieving academic success in the nursing education program, completing the program on schedule, passing NCLEX-RN on their first attempt, and entering the nursing workforce (Abele et al., 2013). The expectation after entry into practice is that nurses must be able to critically think and recognize quality and patient safety as complex issues that involve all health care providers and systems (AACN, 2014).

## CHAPTER 3

### METHODS

#### **Study Method**

The purpose of this descriptive study was to examine the relationship between the independent variables of self-assessed career commitment, distress, and persistence and the dependent variable of academic success among undergraduate nursing students enrolled in a required blended course in a baccalaureate program. Polit and Beck (2012) noted that descriptive research describes relationships or associations between variables. In such studies, independent variables are interpreted but not adjusted in any way by the researcher. While descriptive research cannot determine a cause and effect relationship between variables, it can determine if a relationship exists between two or more variables. The variables under investigation in this study were career commitment, distress, persistence, and academic success. The three variables treated as independent variables included career commitment, distress, and persistence. Academic success was the dependent variable. This study aimed to provide data describing where and what evidenced-based interventions would be effective.

Data describing the concept of career commitment were obtained by self-assessing the constructs of Vocational Exploration and Commitment (VEC) and Tendency to Foreclose (TTF) (Blustein et al., 1989). The Commitment to Career Choices Scale (CCCS) instrument was used to self-assess progress or level in attaining commitment to career choices (VEC) and the individual's approach to the commitment process (TTF) (Blustein et al., 1989). Data self-assessing distress was self-reported and included each participant's assessment of their emotional, spiritual/religious, physical, practical, and family problems.

These five psychosocial constructs are associated with a range of emotional concerns as described in the National Comprehensive Cancer Network (NCCN) Clinical Practice Guidelines in Oncology (NCCN Guidelines<sup>®</sup>) for Distress Management. Environmental variables were assessed using the Distress Thermometer (DT). Persistence was self-assessed using a revised version of the Student Persistence Questionnaire in Associate Degree Nursing Programs (SPQADNP) instrument, which assessed the constructs of academic integration (study hours, absenteeism, academic advising) and social integration (memberships, faculty contact, school friends) (Fleming, 2010). Academic integration and social integration were measured within the subscales of the SPQADNP.

Academic success, as the dependent variable, was defined as successful completion of an undergraduate blended nursing course and operationalized as the student passing both the didactic and clinical/lab component per the institution's grading scales. The data were gathered from each participant as a pass/fail result of the course at the end of the term.

Structural modeling was to be used if it was supported by the data set to test theoretical models and analyze covariances if data obtained supported this analysis. The results of the study can be used to identify a measurement model and a theoretical model that encompasses measured and latent variables (Kellar & Kelvin, 2013). The researcher posited that persistence was central in the model, with career commitment and distress contributing to both persistence and academic success. Thus, persistence, career commitment, and distress provided possible positive, negative, or neutral appraisals of the situation (see Appendix B). Academic success is the outcome of persistence and career commitment as well as the ability to manage distress.

## **Aims**

The specific aim of the research study was to determine the strength of the relationship between the variables of career commitment, distress, persistence, and academic success to identify what variables a student exhibits that determine whether they are a persister or non-persister and thus propose a theoretical explanation. The results of this study describe the relationship between the three independent variables of career commitment, distress, and persistence. These data provide evidence describing where an intervention would be appropriate and have the greatest potential of success.

## **Research Questions**

1. What is the relationship of career commitment to academic success in a blended course among undergraduate nursing students in a baccalaureate program?
2. What is the relationship of distress to academic success in a blended course among undergraduate nursing students in a baccalaureate program?
3. What is the relationship of persistence to academic success in a blended course among undergraduate nursing students in a baccalaureate program?
4. What is the relationship between the concepts of career commitment, distress, and persistence in a blended course among undergraduate nursing students in a baccalaureate program?

The hypotheses are:

1. Career commitment will have a positive significant effect on academic success.
2. Distress will have a negative significant effect on academic success.
3. Persistence will have a positive significant effect on academic success.

4. Career commitment, distress, and persistence will have a significant relationship to each other.

### **Assumptions**

1. Participants will willingly take part in the study.
2. Participants will respond truthfully to questions on the study instruments.
3. Participants will comprehend the questions on the study instruments.
4. Participants will be representative of the population at their institution.

### **Study Location and Study Population**

The study population consisted of volunteer, consented nursing students enrolled in a required blended undergraduate nursing course within the baccalaureate nursing program of a faith-based private college that serves commuter and residential students within an urban setting in the Mid-South. The college offers undergraduate baccalaureate degrees in nine health care majors: biomedical sciences, diagnostic medical sonography, health care management, medical laboratory science, medical radiography, nuclear medicine technology, nursing, radiation therapy, and respiratory care.

The nursing program at the study site is a pre-licensure program that holds national accreditation from the National League for Nursing Accrediting Commission and the Commission on Collegiate Nursing Education. The study site has an undergraduate enrollment of 1,200 students. Demographically, the students at the institution are 57% Caucasian and 91% female. This college is affiliated with a nationally recognized hospital system that supports research opportunities within the hospital and the college setting.

### **Recruitment, Sample Procedure, and Size**

Convenience sampling was utilized to recruit participants for this study. Each student attending class on recruitment days had an equal opportunity to participate. Convenience sampling can introduce bias into studies, since those who choose to participate may do so based on a particular set of personal characteristics (Polit & Beck, 2012). However, convenience sampling is an effective way to enhance participation and was considered appropriate for this study. Study participation was limited to nursing students enrolled in a required blended nursing course. This blended course has a laboratory/clinical component in addition to the didactic content. The laboratory/clinical component requires each student to provide patient care in addition to completing didactic assignments. The additional required laboratory/clinical activities increase in complexity over the term, which results in the requirements for this course being academically heavy and burdensome. There are 300 students in the nursing program, with 70 students available for recruitment from the selected class. There were 68 students in class on recruitment day, with two students being absent. When completing *t*-test analyses, a sample size of 64 participants was required for a power coefficient of .80 and a large effect of .50 at a significance level (alpha) of .05. When completing ANOVA (analysis of variance) for this study, a sample size of 42 participants with a coefficient of .80 and a large effect size of .50 was necessary for a significance level of (alpha) of .05 (Faul, Erdfelder, Lang, & Buchner, 2007; Polit & Beck, 2012). Participation by 68 students was sufficient to meet the requirements of power and effect size.

### **Institutional Review Board**

Institutional Review Board (IRB) approvals were secured prior to retrieval of study data from the Social Science IRB at the University of Missouri-Kansas City (UMKC), where the researcher is a doctoral candidate, and the study site. This research study underwent an expedited full board review from the UMKC IRB in collaboration with an exempt review from the study site. These IRBs review nursing research to ensure the ethical treatment of human subjects. The researcher received CITI© (CITI Program, 2012) training as required by the IRB process at both institutions. The CITI program is an agency which provides online training to investigators in biomedical and social sciences research.

### **Human Subjects Considerations**

The researcher is obligated to ensure that the participants' rights are protected. Institutional Review Board (IRB) approvals ensure that this occurs. The risk for participating in this study was minimal. The potential risks included breaches of privacy and confidentiality, as well as potential emotional discomfort and social desirability to please the faculty. While completing the study survey tools, the participant may have encountered material that made them uncomfortable or created a negative emotional state. If this occurred, the participant was instructed to notify the researcher immediately, and study participation would be discontinued if desired. If needed, the participant would be referred to counseling resources available at the college or to a primary care physician for a counseling referral to the appropriate institutional resource. The college counselor's name and contact information was provided on a separate form for each student. Consent forms (see Appendix C) were provided to all students, which included a benefit explanation regarding the importance of obtaining data regarding student's types of distress, career

commitment, persistence and the ability to provide data that may allow faculty to develop and implement interventions to assist future students.

### **Study Instruments and Data**

Study data consisted of three previously validated instruments, course outcome data, and self-disclosed demographic information. The instruments were specific to career commitment (Blustein et al., 1989), distress (DT) (NCCN Guidelines®, 2015) and persistence (Fleming, 2010); the demographic information allowed a description of the study population to determine generalizability of the results and provided the ability to describe responses to individuals of a specific demographic, if possible. These instruments were administered in writing to student participants. Academic success data were collected from final course grade outcomes at the completion of the course.

#### **Commitment to Career Choices Scale (CCCS)**

The Commitment to Career Choices Scale (CCCS) (see Appendix D) is a 28-item paper/pencil instrument which uses summed 7-point Likert scale responses to evaluate commitment to a career as a continuum that ranges from uncommitted to highly committed (Blustein et al., 1989). The CCCS has two subscales: vocational exploration and commitment and tendency to foreclose. According to the instrument developers, each construct details an independent dimension or aspect of the commitment process (Blustein et al., 1989). Potential responses range from “never true about me (1)” to “always true about me (7)” with a neutral “no opinion/not sure” response (4). Possible scores range from 28 to 196.

### **Distress Thermometer (DT) and Problem Checklist**

To improve care through monitoring distress, Clinical Practice Guidelines in Oncology (NCCN Guidelines<sup>®</sup>) for Distress Management (NCCN Guidelines<sup>®</sup>, 2015) developed the Distress Thermometer (DT). This 39-item scored paper/pencil instrument allows the individual to rank their level of distress from 0 (none) to 10 (highest). The DT includes a problem checklist, which is a dichotomous listing of variables previously linked to distress (see Appendix E). The scale and problem list, separated into five constructs, was initially developed to assess distress among cancer patients, although the constructs and items within the scale are generalizable to many situations. Summing of responses to each variable within the DT is not permissible, so analysis is limited to descriptive statistics. Responses to the number of items on the problem checklist are noted and reported using descriptive statistics. Statistics are described for each study participant and for the total study population. This study utilized the DT in a new population, nursing students, to measure distress specifically.

### **Student Persistence Questionnaire in Associate Degree Nursing Programs**

The Student Persistence Questionnaire in Associate Degree Nursing Programs (SPQADNP) is a paper/pencil 30-item instrument which assesses persistence on a 5-point Likert scale response (see Appendix F). Potential responses range from “strongly agree (5)” to “strongly disagree (1)” with no neutral response available. Possible scores range from 30 to 150. The SPQADNP consists of three subscales which include academic integration (study hours, absenteeism, and academic advising), environmental variables (finances, outside employment, and family responsibilities), and social integration (memberships, faculty contact, and student friends) (Fleming, 2010). Responses on the SPQADNP may be

summed, with higher scores indicative of a higher degree of persistence. This instrument (Fleming, 2010) has been validated in research with associate degree nursing students, so its applicability to baccalaureate students has yet to be determined. For the purpose of this study, the instrument was adapted to include only 13 items since some question items were duplicated on the DT. The adaptation of the instrument included adding a social desirability item. This item was selected from a list of such items from Crowne and Marlow (1960) and was considered appropriate for its content. The social desirability item read, “On occasions I have had doubts about my ability to succeed,” and participants were asked to reply with the same 5-point Likert scale as the instrument.

### **Academic Success**

Academic success data were obtained from the course faculty at the end of the term with an Excel spreadsheet that included the student identification numbers of the participants and their course outcome. The course outcome was listed as pass or fail only. The academic success/course outcome data as passed would indicate the student passed the didactic, clinical, and lab components as outlined in a blended course. The course outcome failed would indicate the student had failed one or more of the components of a blended course, which would be an overall course grade as fail. No letter grades were obtained.

### **Demographics**

Student background variables were recorded in a demographic form by the students in a written format and included demographic responses regarding gender, age, culture/ethnicity, first generation college student, birth order, financial aid status, and whether a member of the immediate family was a nurse or other healthcare professional (see

Appendix G). The three instruments and the demographic form were combined to provide each student with one packet of surveys.

### **Data Collection Procedures**

Data collection commenced once IRB approvals were secured. Study participants were recruited from a junior level required blended baccalaureate, pre-licensure nursing course. Limiting study participation to this course was based on program attributes and availability and the desire to maximize homogeneity in class level among participants. Participants were recruited by the researcher, who had no responsibility for course content or grade determinations.

The initial recruitment occurred during a regularly scheduled class. The researcher chose a date to attend the scheduled class period that was in the middle of the term when students had become fully engaged in coursework. To avoid coercion of the students, the researcher described the aim of the study with a recruitment script to the potential participants, noting that participation was voluntary and no consequences would occur to those not wishing to participate. Each student was provided a packet with a consent form (two copies), three study instruments, demographic form, contact information for college counseling services, and a crossword puzzle. If study participation was desired, participants were instructed to sign a consent form, keep one copy, and then complete all study materials. All students in the class were provided a snack/treat, and those not wishing to participate in completing the surveys were instructed to use the time to work on the crossword puzzle. This was done to ensure that students did not know who was and who was not participating. Instructions for completion, a blank for the student ID number, and the purpose of the research were printed on the first page of the instrument. The ID number was

requested so that course completion (pass/fail) information could be retrieved at the end of the term.

The researcher remained with all students during the 30 minutes that was allotted for study participation. The researcher collected all returned consent forms, survey instruments, and crossword puzzles in a manila envelope, which was labeled with the researcher's name and contact information. The researcher secured the envelope in a locked filing cabinet in her locked office. At the end of the term the course instructor provided a list of student identification numbers with course pass/fail data. Only the students who signed a consent to be a participant were included in the list. No academic data were collected from any student who did not sign a consent form. A passing result indicated the student had passed the didactic, clinical, and lab components of the blended course. A fail result indicated the student failed one or more components of the course, and the overall outcome was a failure.

### **Data Management**

Statistical Package for Social Sciences (SPSS) (IBM, 2013) is a software package designed to assist researchers in planning research, collecting and analyzing data, and developing reports related to statistical procedures. An electronic database using SPSS version 25 was created by the researcher to organize the data. Safeguards were implemented to prevent the participants' loss of confidentiality. Survey data from students were assigned identification numbers, and their student identification numbers were removed within 48 hours of obtaining data. The student blank key to identifiers was kept in a physical/electronic folder separate from study data. All study data were electronic password protected and encrypted in a computer database. Coding, which is a systematic approach,

was used to organize data for this study. Kellar and Kelvin (2013) describe coding as converting information into numerical data from the paper copies before it is analyzed.

Data were analyzed via SPSS with a list of code numbers referencing each student. All study data is reported as aggregate data. In an attempt to prevent threats to the validity of the study, steps were taken during the data entry process to help ensure accuracy (Kellar & Kelvin, 2013). To enhance data management, empirical data were hand entered into a computer file in SPSS, and this software was also used to analyze the study data. The researcher inspected and edited data for coding and transfer errors, and all data were triple checked for accuracy during entry into the electronic file. These data, together with the demographic items, were entered into SPSS version 25. Final pass/fail course data were retrieved via student identification numbers and course faculty to determine the dependent variable of academic success. Once all data were entered, the paper copies of the survey instruments were secured in a locked cabinet in the researcher's locked office. These documents will be shredded and destroyed in seven years, in compliance with IRB policies at UMKC. Information related to the study will remain in a password-protected, encrypted computer in the researcher's secured office for seven years. After seven years, all computer files and documentation related to this study will be erased and shredded by the researcher.

## CHAPTER 4

### DATA ANALYSIS

The purpose of this descriptive study was to examine the relationship between the independent variables of self-assessed career commitment, distress, and persistence and the dependent variable of academic success among undergraduate nursing students enrolled in a required blended course. All study data were hand entered into a study-specific SPSS 25 (IBM, 2013) program by the researcher and triple checked for accuracy. Each variable was then checked for normal distribution, and missing data were identified. A total of 68 participants consented to the study and participated. However, one participant filled out only the career commitment instrument, and two did not complete the demographics. The researcher believed since it was a small amount of partial data and the data were still important to the study, it was included in the analyses. However, it should be noted that any incomplete data may strengthen or weaken the relationships between the variables.

Items from the Commitment to Career Choices (CCCS), Distress Thermometer (DT), and the Student Persistence Questionnaire in Associate Degree Nursing Programs (SPQADNP) were scored according to the author's instructions. The CCCS instrument had six items that were reversed scored. The reversed scored items are as follows: Items #3, 6, 7, 15, 21, and 24. The DT instrument assessed "overall distress" if participants rated their distress level as four or higher, then a yes was recorded in the study data set. Summed scores for individual responses to items in the categories on the DT problem list—practical, family, emotional, spiritual/religious and physical problems—were calculated and added to the overall data set. There were not enough participants in the study to create a statistical model with the data set.

## Descriptive Statistics

Descriptive and frequency statistics are used to describe a study population (Kellar & Kelvin, 2013; Polit & Beck, 2012). The researcher analyzed descriptive statistical information to describe the study population. Study participants were primarily female (95.4%), with age ranges of 18-22 (41.5%), 23-28 (33.8%), 29-33 (7.7%), 34-40 (9.2%), and 41-50 (7.7%). The ethnicity of the population was Asian (1.5%), Black or African American (52.3%), Hispanic (3.1%), White (36.9%), and two or more ethnicities (6.2%) (see Table 1). The birth order in the family included youngest (29.2%), middle (33.8%), oldest (26.2%), and other (10.8%). There are missing data for three students who did not complete the demographic information.

Table 1

*Ethnicity*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Asian	1	1.5	1.5	1.5
	Black or African American	34	50.0	52.3	53.8
	Hispanic	2	2.9	3.1	56.9
	White	24	35.3	36.9	93.8
	Two or more	4	5.9	6.2	100.0
	Total	65	95.6	100.0	
Missing	System	3	4.4		
Total		68	100.0		

The population included 53.8% first generation college students, and 89.2% of the participants received financial assistance for their education (see Table 2). The students

indicated that 50.8% of them have a family member who is a nurse, and 38.5% have a family member who is a healthcare professional other than a nurse.

Table 2

*Financial Assistance*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	58	85.3	89.2	89.2
	No	7	10.3	10.8	100.0
	Total	65	95.6	100.0	
Missing	System	3	4.4		
Total		68	100.0		

**Instrument Reliability**

To measure internal consistency for the instruments, Cronbach’s alphas were calculated. Commitment to Career Choices (CCCS) has 19 items that measure Vocational Exploration and Commitment (VEC) and 9 items that measure Tendency to Foreclose (TTF) on a 7-point Likert scale (Blustein et al., 1989). The CCCS had an overall reliability with a .557 Cronbach’s alpha score (see Table 3). Individual item reliability scores range from .511 to .589 (see Table 4). This demonstrates a variance of -.46 to +.32. These are all within one Standard Deviation (SD) (which would be .55), demonstrating a remarkably stable survey.

Table 3

*Commitment to Career Choices (CCCS) Instrument Reliability*

Cronbach’s Alpha	N of Items
.557	28

Table 4

*CCCS Individual Item Reliability*

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I believe that a sign of maturity is deciding on a single career goal and sticking to it	74.19	139.649	.004	.569
Based on what I know about my interests, I believe that I am suited for only one specific occupation	75.35	135.724	.060	.564
The chances are excellent that I will actually end up doing the kind of work that I most want to do	77.93	137.054	.203	.545
I may need to learn more about myself (i.e., my interests, abilities, values, etc.) before making a commitment to a specific occupation	75.81	126.038	.285	.526
It is hard for me to decide on a career goal because it seems that there are too many possibilities	77.28	125.966	.447	.511
I have a good deal of information about the occupational fields that are most interesting to me.	77.74	135.929	.261	.540
I have thought about how to get around the obstacles that may exist in the occupational field that I am considering.	77.24	144.033	-.095	.574
I think that a wavering or indecisive approach to educational and career choices is a sign of weakness; one should take a stand and follow through with it no matter what.	75.66	137.690	.016	.572

Table continues

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I believe that no matter what others might think, my educational and career decisions will either be right or wrong	74.12	148.284	-.218	.589
Based on what I know about my abilities and talents, I believe that only one specific occupation is right for me.	75.18	136.058	.046	.568
While I am aware of my educational and career options, I do not feel comfortable committing myself to a specific occupation.	77.41	131.201	.285	.531
I feel uneasy about committing myself to a specific occupation because I am not aware of alternative options in related fields.	77.59	130.335	.414	.522
I find myself changing academic majors often because I cannot focus on one specific career goal.	78.03	134.626	.273	.537
I do not know enough about myself (i.e., my interests, abilities, and values) to make a commitment to a specific occupation.	78.07	133.651	.447	.530
I like the openness of considering various possibilities before committing myself to a specific occupation.	76.88	139.956	.016	.564

Table continues

Based on what I know about the world of work (i.e., the nature of various occupations), I do not believe that I should seriously consider more than a single career goal at a time.	75.41	140.126	-.019	.574
It is hard to commit myself to a specific career goal because I am unsure about what the future holds for me.	77.65	128.083	.496	.513
I find it difficult to commit myself to important life decisions.	77.93	129.890	.506	.518
I feel uneasy in committing myself to a career goal because I do not have as much information about the fields that I am considering as I probably should.	77.78	129.369	.436	.519
I have difficulty making decisions when faced with a variety of options.	76.85	134.097	.156	.547
I feel confident in my ability to achieve my career goals.	78.07	136.487	.302	.540
Based on what I know about my values (e.g., the importance of money, job security, etc.), I believe that only one single occupation is right for me.	75.03	139.193	-.014	.577
I feel uneasy in committing myself to a specific career plan.	77.54	130.550	.303	.529
I think that I know enough about the occupations that I am considering to be able to commit myself firmly to a specific career goal.	77.71	137.972	.136	.550

Table continues

I worry about my ability to make effective educational and career decisions.	76.91	133.276	.170	.545
I am not very certain about the kind of work I would like to do	77.66	131.511	.257	.534
I would change my career plans if the field I am considering became more competitive and less accessible due to a decline in available openings.	77.29	131.584	.243	.536
I believe that there is only one specific career goal that is right for me.	75.37	140.027	-.038	.583

Instrument reliability for the 19 items of the Vocational Exploration and Commitment (VEC) scale is .859 (see Table 5), with item to total reliability ranging from .843 to .864 (see Table 6). This calculates to a .06 to +0.5 range. This is well within the one SD goal (which is .85), identifying the VEC subscale of the CCCS as superior.

Table 5

*Vocational Exploration Commitment (VEC) Reliability*

Cronbach's Alpha	N of Items
.859	19

Table 6

*VEC Individual Item Reliability*

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
The chances are excellent that I will actually end up doing the kind of work that I most want to do	38.56	168.877	.367	.855
I may need to learn more about myself (i.e., my interests, abilities, values, etc.) before making a commitment to a specific occupation	36.44	160.370	.298	.864
It is hard for me to decide on a career goal because it seems that there are too many possibilities	37.91	153.664	.651	.843
I have a good deal of information about the occupational fields that are most interesting to me.	38.37	167.311	.444	.853
I have thought about how to get around the obstacles that may exist in the occupational field that I am considering.	37.87	171.102	.185	.863
While I am aware of my educational and career options, I do not feel comfortable committing myself to a specific occupation.	38.04	163.028	.385	.855
I feel uneasy about committing myself to a specific occupation because I am not aware of alternative options in related fields.	38.22	158.742	.653	.845

Table continues

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I find myself changing academic majors often because I cannot focus on one specific career goal.	38.66	165.033	.467	.852
I do not know enough about myself (i.e., my interests, abilities, and values) to make a commitment to a specific occupation.	38.71	165.017	.652	.848
It is hard to commit myself to a specific career goal because I am unsure about what the future holds for me.	38.28	157.995	.671	.844
I find it difficult to commit myself to important life decisions.	38.56	161.653	.639	.846
I feel uneasy in committing myself to a career goal because I do not have as much information about the fields that I am considering as I probably should.	38.41	159.350	.611	.846
I have difficulty making decisions when faced with a variety of options.	37.49	157.925	.452	.853
I feel confident in my ability to achieve my career goals.	38.71	169.733	.432	.854
I feel uneasy in committing myself to a specific career plan.	38.18	157.282	.546	.848
I think that I know enough about the occupations that I am considering to be able to commit myself firmly to a specific career goal.	38.34	166.287	.412	.854

Table continues

I worry about my ability to make effective educational and career decisions.	37.54	162.849	.316	.860
I am not very certain about the kind of work I would like to do	38.29	157.166	.522	.849
I would change my career plans if the field I am considering became more competitive and less accessible due to a decline in available openings.	37.93	159.621	.436	.853

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Instrument reliability for the TTF (Tendency to Foreclose) subscale was calculated as .748 (see Table 7), with item to total reliabilities ranging from .666 to .783 (see Table 8). This represents a range of -.72 to +.35. While wider than the scale, or the VEC subscale, this still falls within the one (SD) range indicative of a stable, reliable survey (which would be .74).

Table 7

*Tendency to Foreclose (TTF) Reliability*

Cronbach's Alpha	N of Items
.748	9

Table 8

*TTF Individual Item Reliability*

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I believe that a sign of maturity is deciding on a single career goal and sticking to it	33.94	78.892	.514	.712
Based on what I know about my interests, I believe that I am suited for only one specific occupation	35.10	68.512	.733	.668
I think that a wavering or indecisive approach to educational and career choices is a sign of weakness; one should take a stand and follow through with it no matter what.	35.41	83.410	.260	.754
I believe that no matter what others might think, my educational and career decisions will either be right or wrong	33.87	89.579	.223	.752
I like the openness of considering various possibilities before committing myself to a specific occupation.	36.63	96.624	-.044	.783
Based on what I know about the world of work (i.e., the nature of various occupations), I do not believe that I should seriously consider more than a single career goal at a time.	35.16	91.153	.082	.777

Table continues

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I believe that there is only one specific career goal that is right for me.	35.12	69.986	.629	.686
Based on what I know about my values (e.g., the importance of money, job security, etc.), I believe that only one single occupation is right for me.	34.78	69.936	.679	.678
Based on what I know about my abilities and talents, I believe that only one specific occupation is right for me.	34.93	67.651	.733	.666

Comparing the means of responses to this survey, one sample *t*-test failed to achieve a statistical difference between the two subscales (see Table 9).

Table 9

*One Sample t-test for the CCCS*

	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
TTFS summed scores	48.250	67	.000	31.824	30.51	33.14
VECS summed scores	29.082	67	.000	40.63235	37.8436	43.4211

The participants who indicated overall distress measured by the Distress Thermometer (DT) were 77.9% of the population (see Table 10). The DT items were summed to provide the ability to complete a one-way ANOVA to compare to the overall

Table 10

*Percentage of Overall Distress*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	53	77.9	79.1	79.1
	No	14	20.6	20.9	100.0
	Total	67	98.5	100.0	
Missing	System	1	1.5		
Total		68	100.0		

distress score. The one-way ANOVA between group differences are significant ( $p < .05$ ) for emotional at .000 (see Table 11). A pie chart and a bar chart depicted in Figure 1 and Figure 2 provide the information on the distribution of the summed scores of practical, family, emotional, spiritual/religious, and physical problems.

Table 11

*One-way ANOVA for Distress*

		Sum of Squares	df	Mean Square	F	Sig.
Practical summed scores	Between Groups	.243	1	.243	.028	.867
	Within Groups	555.876	65	8.552		
	Total	556.119	66			
Emotional concerns summed	Between Groups	38.697	1	38.697	14.753	.000
	Within Groups	170.497	65	2.623		
	Total	209.194	66			
Spiritual / Religious concerns	Between Groups	.107	1	.107	.829	.366
	Within Groups	8.400	65	.129		
	Total	8.507	66			
Physical scores summed	Between Groups	2.177	1	2.177	.313	.578
	Within Groups	452.330	65	6.959		
	Total	454.507	66			
Family concerns summed	Between Groups	2.521	1	2.521	3.417	.069
	Within Groups	47.957	65	.738		
	Total	50.478	66			

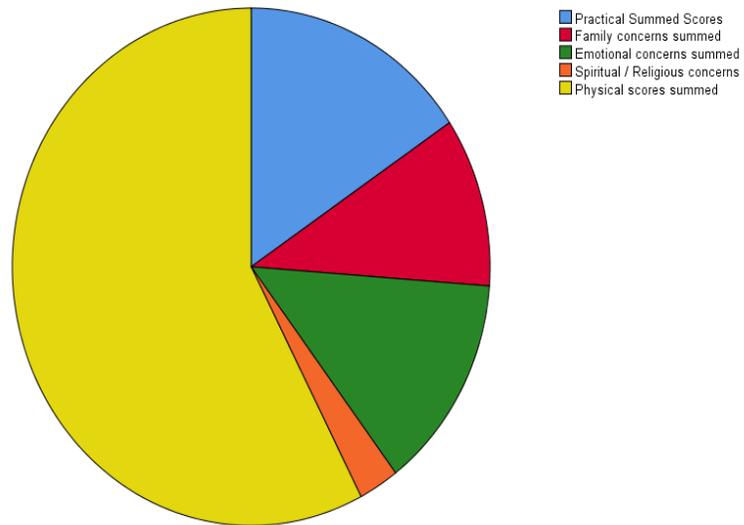


Figure 1. Overall Distress Pie Chart

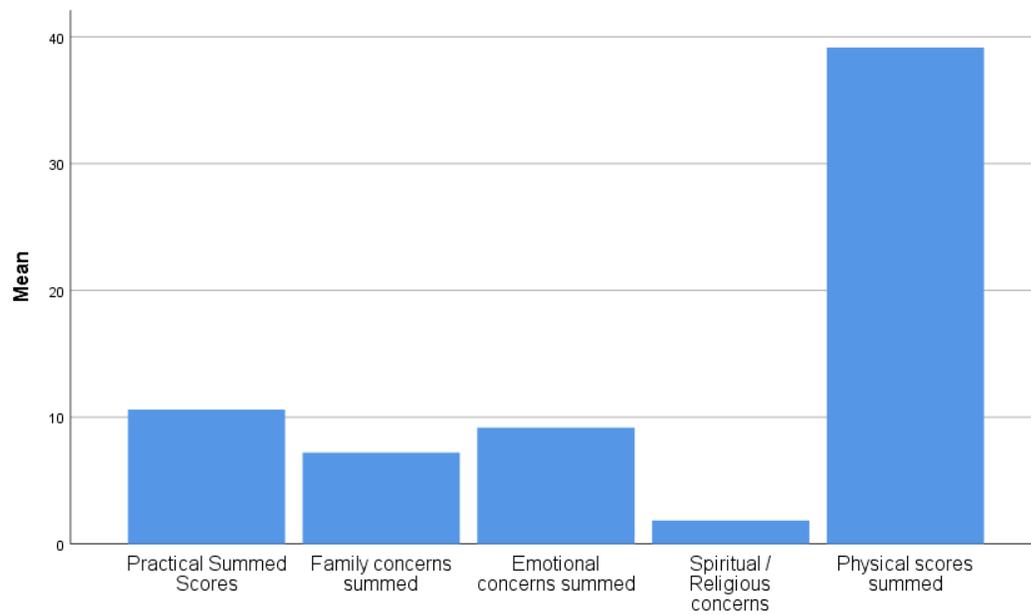


Figure 2. Overall Distress Bar Chart

The Student Persistence Questionnaire in Associate Degree Nursing Programs (SPQADNP) had an overall reliability of with a .621 Cronbach's alpha score (see Table 12). Item individual reliability ranged from .532 to .684 (see Table 13). Responses to this questionnaire vary beyond the one SD goal (they are -.99 to +.63; the 1SD would be .62). Regression techniques were used to determine the source of the variability. There were four components achieving an Eigen value of greater than one (see Table 14).

Table 12

*Instrument Reliability for the Student Persistence Questionnaire in Associate Degree Nursing Programs (SPQADNP)*

Cronbach's Alpha	N of Items
.621	13

Table 13

*Individual Item Reliability for SPQADNP*

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I participate in study groups	29.24	25.336	.344	.586
I participate in campus social activities.	28.34	24.380	.424	.570
I participate in peer support group activities.	28.42	24.186	.410	.571
Faculty provide the support and encouragement I need to be successful in my program	29.72	23.843	.617	.543
My interaction with faculty outside the classroom has been helpful.	29.42	23.398	.560	.544
Faculty value and care for me as a person.	29.81	23.401	.681	.532
Teaching methods in this program have helped me to be successful academically.	29.67	24.072	.595	.547
I attend nursing classes on a regular basis.	30.46	29.858	-.028	.632
On occasions I have had doubts about my ability to succeed.	29.12	30.410	-.141	.677
My work time interferes with my study time.	28.30	29.819	-.106	.680

Table continues

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
The amount of time spent taking care of my family interferes with my study time.	28.45	30.221	-.134	.684
I have adequate social support during my role as a nursing student.	29.60	27.305	.164	.619
I receive support, friendship, and encouragement from my classmates.	29.88	25.531	.437	.576

Table 14

*Total Variance for SPQADNP*

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.074	31.341	31.341	4.074	31.341	31.341
2	1.758	13.522	44.863	1.758	13.522	44.863
3	1.472	11.326	56.189	1.472	11.326	56.189
4	1.085	8.348	64.538	1.085	8.348	64.538
5	.956	7.351	71.889			
6	.781	6.004	77.893			
7	.630	4.848	82.741			
8	.571	4.391	87.132			
9	.500	3.846	90.979			
10	.385	2.961	93.940			
11	.353	2.718	96.658			
12	.267	2.055	98.713			
13	.167	1.287	100.000			

Note. Extraction Method: Principal Component Analysis

Results from the component matrix provide information with respect to describing the participants, based on their responses to this questionnaire. The variability of responses, within an acceptable reliability ( $r=.621$ ), requires that any applicability of these results should be done with caution (see Table 15). This may be due to removing the environmental subscale when revising the instrument for this study.

Table 15

*Component Matrix for SPQADNP*

	Component			
	1	2	3	4
I participate in study groups	.540	.119	-.528	.055
I participate in campus social activities.	.573	.468	-.424	-.118
I participate in peer support group activities.	.586	.294	-.513	-.022
Faculty provide the support and encouragement I need to be successful in my program	.785	-.012	.312	.139
My interaction with faculty outside the classroom has been helpful.	.685	.154	.408	-.095
Faculty value and care for me as a person.	.830	.163	.281	.080
Teaching methods in this program have helped me to be successful academically.	.781	-.089	.202	.047
I attend nursing classes on a regular basis.	.207	-.669	-.159	.156
On occasions I have had doubts about my ability to succeed.	-.320	.523	.192	-.269
My work time interferes with my study time.	-.120	.220	.132	.873

Table continues

The amount of time spent taking care of my family interferes with my study time.	-.234	.572	.406	-.053
I have adequate social support during my role as a nursing student.	.409	-.492	.290	-.298

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Note. Extraction Method: Principal Component Analysis  
a. 4 components extracted.

An analysis of variance (ANOVA) was performed to compare the effect of persistence on the variables of Tendency to Foreclose (TTF) summed, Vocational Exploration (VEC) summed, overall distress, and five summed scales of practical, emotional, family, spiritual/religious, and physical problems (see Table 16). When an ANOVA has a statistically significant  $p$  value, this indicates there is a difference in the mean scores between groups on the instruments. No significance is found between the groups with  $p < .05$ .

Table 16

ANOVA: TTF, VEC, Distress (Practical, Emotional, Family, Spiritual/Religious, Physical)

		Sum of Squares	df	Mean Square	F	Sig.
TTFS summed scores	Between Groups	431.000	19	22.684	.705	.795
	Within Groups	1512.164	47	32.174		
	Total	1943.164	66			
VECS summed scores	Between Groups	2630.643	19	138.455	1.048	.430
	Within Groups	6208.074	47	132.087		
	Total	8838.716	66			
Overall distress	Between Groups	2.979	19	.157	.910	.574
	Within Groups	8.095	47	.172		
	Total	11.075	66			
Practical summed scores	Between Groups	175.438	19	9.234	1.140	.346
	Within Groups	380.681	47	8.100		
	Total	556.119	66			
Emotional concerns summed	Between Groups	59.815	19	3.148	.991	.488
	Within Groups	149.379	47	3.178		
	Total	209.194	66			
Family concerns summed	Between Groups	14.097	19	.742	.958	.522
	Within Groups	36.381	47	.774		
	Total	50.478	66			
Spiritual/Religious concerns	Between Groups	2.357	19	.124	.948	.533
	Within Groups	6.150	47	.131		
	Total	8.507	66			
Physical scores summed	Between Groups	142.677	19	7.509	1.132	.353
	Within Groups	311.831	47	6.635		
	Total	454.507	66			

## Academic Success

Data obtained at the end of the term for the variable academic success included 52 students who had passed the course (persister) and 16 students who had failed (non-persister). These data were then used to create two groups for comparison as displayed in Table 17.

Table 17

### *Study Variables with Means and Significance for Passing and Failing Populations*

Study variable	Total population	Passing (persister) population (n=52)	Failure (non-persister) population (n=16)	Significance
TTF total score	19-43 (mean 31.82; SD 5.43)	19-43 (mean 31.54; SD 5.70)	25-40 (mean 32.75; SD 4.50)	.440
VEC total score	24-72 (mean 40.63; SD 11.52)	24-72 (mean 41.59; SD 11.49)	24-66 (mean 37.50; SD 11.39)	.217
SPQADNP total score	17-42 (mean 31.70; SD 5.46)	24-42 (mean 32.48; SD 5.00)	17-40 (mean 29; SD 6.29)	.025
Practical summed	7-32 (mean 10.60; SD 2.90)	8-32 (mean 10.73; SD 3.17)	7-12 (mean 10.13; SD 1.64)	.471
Family summed	5-8 (mean 7.19; SD .87)	5-8 (mean 10.73; SD .88)	6-8 (mean 7.40; SD .82)	.280
Emotional summed	6-12 (mean 9.16; SD 1.78)	6-12 (mean 8.92; SD 1.81)	8-12 (mean 10.00; SD 1.41)	.032
Spiritual summed	1-2 (mean 1.85; SD .35)	1-2 (mean 1.83; SD .38)	1-2 (mean 1.93; SD .25)	.328
Physical summed	33-42 (mean 39.15; SD 2.62)	33-43 (mean 39.17; SD 2.51)	33-42 (mean 39.07; SD 3.05)	.895
Overall distress summed	1-2 (mean 1.21; SD .41)	1-2 (mean 1.17; SD .38)	1-2 (mean 1.33; SD .48)	.172

The passing population (M=31.54) did not differ significantly from the failure population (M=32.75) on Tendency to Foreclose (TTF) ( $p=.440$ ). The 95% confidence level with zero between the lower (-4.264) and upper (+1.844) limits indicates there would be no difference (see Tables 18, 19, and 20).

Table 18

*TTF Summary Data*

	N	Mean	Std. Deviation	Std. Error Mean
Sample 1	52.000	31.540	5.700	.790
Sample 2	16.000	32.750	4.500	1.125

Table 19

*TTF Independent t- test*

	Mean Difference	Std. Error Difference	t	df	Sig. (2-tailed)
Equal variances assumed	-1.210	1.558	-.777	66.000	.440
Equal variances not assumed	-1.210	1.375	-.880	31.228	.386

Note. Hartley test for equal variance:  $F = 1.604$ , Sig. = 0.1496

Table 20

*TTF Confidence Intervals*

	Lower Limit	Upper Limit
Asymptotic (equal variance)	-4.264	1.844
Asymptotic (unequal variance)	-3.905	1.485
Exact (equal variance)	-4.321	1.901
Exact (unequal variance)	-4.013	1.593

The passing population (M=41.59) did not differ significantly from the failure population (M=37.50) on Vocational Exploration Commitment (VEC) ( $p=.217$ ). The 95% confidence level with zero between the lower (-2.335) and upper (+10.515) limits indicates there would be no difference (see Tables 21, 22, and 23).

Table 21

*VEC Summary Data*

	N	Mean	Std. Deviation	Std. Error Mean
Sample 1	52.000	41.590	11.490	1.593
Sample 2	16.000	37.500	11.390	2.848

Table 22

*VEC Independent t-test*

	Mean Difference	Std. Error Difference	t	df	Sig. (2-tailed)
Equal variances assumed	4.090	3.278	1.248	66.000	.217
Equal variances not assumed	4.090	3.263	1.253	25.139	.222

Note. Hartley test for equal variance:  $F = 1.018$ ,  $Sig. = 0.5115$

Table 23

*VEC Confidence Intervals*

	Lower Limit	Upper Limit
Asymptotic (equal variance)	-2.335	10.515
Asymptotic (unequal variance)	-2.305	10.485
Exact (equal variance)	-2.455	10.635
Exact (unequal variance)	-2.628	10.808

The passing population (M=32.48) was significantly different from the failure population (M=29) on SPQADNP ( $p=.025$ ). The 95% confidence level with the lower (+.499) and upper (+6.461) limits indicates that the null finding of zero difference lies outside of the confidence interval (see Tables 24, 25, and 26).

Table 24

*SPQADNP Summary Data*

	N	Mean	Std. Deviation	Std. Error Mean
Sample 1	52.000	32.480	5.000	.693
Sample 2	16.000	29.000	6.290	1.573

Table 25

*SPQADNP Independent t-test*

	Mean Difference	Std. Error Difference	t	df	Sig. (2-tailed)
Equal variances assumed	3.480	1.521	2.288	66.000	.025
Equal variances not assumed	3.480	1.719	2.025	21.165	.056

Hartley test for equal variance:  $F = 1.583$ ,  $Sig. = 0.1074$

Table 26

*SPQADNP Confidence Intervals*

	Lower Limit	Upper Limit
Asymptotic (equal variance)	.499	6.461
Asymptotic (unequal variance)	.112	6.848
Exact (equal variance)	.443	6.517
Exact (unequal variance)	-.092	7.052

The passing population (M=10.73) did not differ significantly from the failure population (M=10.13) on Practical problems ( $p=.471$ ). The 95% confidence level with zero between the lower (-1.022) and upper (2.222) limits indicates there would be no difference (see Tables 27, 28, and 29).

Table 27

*Practical Summary Data*

	N	Mean	Std. Deviation	Std. Error Mean
Sample 1	52.000	10.730	3.170	.440
Sample 2	16.000	10.130	1.640	.410

Table 28

*Practical Independent t-test*

	Mean Difference	Std. Error Difference	t	df	Sig. (2-tailed)
Equal variances assumed	.600	.827	.725	66.000	.471
Equal variances not assumed	.600	.601	.998	49.911	.323

Note. Hartley test for equal variance:  $F = 3.736$ ,  $\text{Sig.} = 0.0028$

Table 29

*Practical Confidence Intervals*

	Lower Limit	Upper Limit
Asymptotic (equal variance)	-1.022	2.222
Asymptotic (unequal variance)	-.578	1.778
Exact (equal variance)	-1.052	2.252
Exact (unequal variance)	-.607	1.807

The passing population (M=7.130) did not differ significantly from the failure population (M=7.400) on Family problems ( $p=.280$ ). The 95% confidence level with zero between the lower (-.756) and upper (+2.16) limits indicates there would be no difference (see Tables 30, 31, and 32).

Table 30

*Family Summary Data*

	N	Mean	Std. Deviation	Std. Error Mean
Sample 1	52.000	7.130	.880	.122
Sample 2	16.000	7.400	.820	.205

Table 31

*Family Independent t-test*

	Mean Difference	Std. Error Difference	t	df	Sig. (2-tailed)
Equal variances assumed	-.270	.248	-1.090	66.000	.280
Equal variances not assumed	-.270	.239	-1.132	26.535	.268

Note. Hartley test for equal variance:  $F = 1.152$ , Sig. = 0.3935

Table 32

*Family Confidence Intervals*

	Lower Limit	Upper Limit
Asymptotic (equal variance)	-.756	.216
Asymptotic (unequal variance)	-.738	.198
Exact (equal variance)	-.765	.225
Exact (unequal variance)	-.760	.220

The passing population (M=8.92) was significantly different from the failure population (M=10) on Emotional problems ( $p=.032$ ). The 95% confidence level with the lower (-2.048) and upper (-.112) limits indicates that the null finding of zero difference lies outside of the confidence interval (see Tables 33, 34, and 35).

Table 33

*Emotional Summary Data*

	N	Mean	Std. Deviation	Std. Error Mean
Sample 1	52.000	8.920	1.810	.251
Sample 2	16.000	10.000	1.410	.353

Table 34

*Emotional Independent t-test*

	Mean Difference	Std. Error Difference	t	df	Sig. (2-tailed)
Equal variances assumed	-1.080	.494	-2.187	66.000	.032
Equal variances not assumed	-1.080	.433	-2.496	31.672	.018

Note. Hartley test for equal variance:  $F = 1.648$ ,  $Sig. = 0.1361$

Table 35

*Emotional Confidence Intervals*

	Lower Limit	Upper Limit
Asymptotic (equal variance)	-2.048	-.112
Asymptotic (unequal variance)	-1.928	-.232
Exact (equal variance)	-2.066	-.094
Exact (unequal variance)	-1.962	-.198

The passing population (M=1.83) did not differ significantly from the failure population (M=1.93) on Spiritual problems ( $p=.328$ ). The 95% confidence level with zero between the lower (-.299) and upper (+.099) limits indicates there would be no difference (see Tables 36, 37, and 38).

Table 36

*Spiritual/Religious Summary Data*

	N	Mean	Std. Deviation	Std. Error Mean
Sample 1	52.000	1.830	.380	.053
Sample 2	16.000	1.930	.250	.063

Table 37

*Spiritual/Religious Independent t-test*

	Mean Difference	Std. Error Difference	t	df	Sig. (2-tailed)
Equal variances assumed	-.100	.101	-.986	66.000	.328
Equal variances not assumed	-.100	.082	-1.223	38.226	.229

Note. Hartley test for equal variance:  $F = 2.310$ ,  $\text{Sig.} = 0.0340$

Table 38

*Spiritual/Religious Confidence Intervals*

	Lower Limit	Upper Limit
Asymptotic (equal variance)	-.299	.099
Asymptotic (unequal variance)	-.260	.060
Exact (equal variance)	-.302	.102
Exact (unequal variance)	-.265	.065

The passing population (M=39.17) did not differ significantly from the failure population (M=39.07) on Physical problems ( $p=.895$ ). The 95% confidence level with zero between the lower (-1.381) and upper (+1.581) limits indicates there would be no difference (see Tables 39, 40, and 41).

Table 39

*Physical Summary Data*

	N	Mean	Std. Deviation	Std. Error Mean
Sample 1	52.000	39.170	2.510	.348
Sample 2	16.000	39.070	3.050	.763

Table 40

*Physical Independent t-test*

	Mean Difference	Std. Error Difference	t	df	Sig. (2-tailed)
Equal variances assumed	.100	.755	.132	66.000	.895
Equal variances not assumed	.100	.838	.119	21.627	.906

Note. Hartley test for equal variance:  $F = 1.477$ ,  $Sig. = 0.1448$

Table 41

*Physical Confidence Intervals*

	Lower Limit	Upper Limit
Asymptotic (equal variance)	-1.381	1.581
Asymptotic (unequal variance)	-1.543	1.743
Exact (equal variance)	-1.408	1.608
Exact (unequal variance)	-1.640	1.840

The passing population (M=1.170) did not differ significantly from the failure population (M=1.330) on Overall Distress ( $p=.172$ ). The 95% confidence level with zero between the lower (-.387) and upper (+.067) limits indicates there would be no difference (see Tables 43, 44, and 45).

Table 42

*Overall Distress Summary Data*

	N	Mean	Std. Deviation	Std. Error Mean
Sample 1	52.000	1.170	.380	.053
Sample 2	16.000	1.330	.480	.120

Table 43

*Overall Distress Independent t-test*

	Mean Difference	Std. Error Difference	t	df	Sig. (2-tailed)
Equal variances assumed	-.160	.116	-1.382	66.000	.172
Equal variances not assumed	-.160	.131	-1.221	21.112	.236

Note. Hartley test for equal variance:  $F = 1.596$ ,  $\text{Sig.} = 0.1034$

Table 44

*Overall Distress Confidence Intervals*

	Lower Limit	Upper Limit
Asymptotic (equal variance)	-.387	.067
Asymptotic (unequal variance)	-.417	.097
Exact (equal variance)	-.391	.071
Exact (unequal variance)	-.432	.112

The means of the study variables and demographics were used to complete summary independent *t*-tests to evaluate the difference in the passing (persister) and the failure (non-persister) populations (Table 45). This test was chosen since the population sizes were unequal. The ethnicity variable was significant at  $p=.000$ . An odds ratio table describes the difference between Black/African Americans and non-Black/African Americans in terms of passing or failing the course as depicted in Table 46.

Table 45

*Demographic Study Variables with Means and Significance for Passing and Failing Populations*

Demographic variable	Total population	Passing (persister) population (n=52)	Failure (non-persister) population (n=16)	Significance
Gender	1-2 (mean 1.95; SD .21)	1-2 (mean 1.98; SD .14)	1-2 (mean 1.86; SD .36)	.051
Age in years	1-5 (mean 2.08; SD 1.25)	1-5 (mean 2.04; SD 1.19)	1-5 (mean 2.21; SD 1.47)	.638
Ethnicity	2-11 (mean 4.62; SD 2.18)	2-11 (mean 4.61; SD 1.98)	3-11 (mean 2.21; SD 1.47)	.000
First generation student	1-2 (mean 1.46; SD .50)	1-2 (mean 1.49; SD .50)	1-2 (mean 1.36; SD .49)	.364
Birth order	1-4 (mean 2.18; SD .98)	1-4 (mean 2.16; SD .94)	1-4 (mean 2.29; SD 1.13)	.646
Financial Assistance	1-2 (mean 1.11; SD .31)	1-2 (mean 1.10; SD .30)	1-2 (mean 1.14; SD .36)	.658
Family member who is an RN	1-2 (mean 1.49; SD .50)	1-2 (mean 1.47; SD .50)	1-2 (mean 1.57; SD .51)	.489
Family member who is a HCP	1-2 (mean 1.62; SD .49)	1-2 (mean 1.59; SD .49)	1-2 (1.71; SD .46)	.388

Table 46

<i>Odds/Ratio Table of Pass or Fail</i>	Pass	Fail
Non-Black/African Americans	86% (.86)	14% (.14)
Black/African Americans	73.5% (.735)	26.4% (.264)

### Research Question 1

What is the relationship of career commitment to academic success in a blended course among undergraduate nursing students in a baccalaureate program?

To answer research question 1, study specific subgroups were developed. The two subgroups were based on the variable academic success which included two groups: the group that passed the course and the group that failed the course. Since the subgroups had unequal numbers of participants, the means of the TTF and the VEC variables were used to complete summary independent *t*-tests to evaluate the difference in the passing (persister) and the failure (non-persister) populations. The significance of TTF ( $p=.440$ ) and VEC was ( $p=.217$ ) which would indicate there is not a statistically significant relationship between career commitment to academic success in a blended course among undergraduate nursing students in a baccalaureate program.

Despite no statistical significance between career commitment and academic success, it should be noted that the failures had a higher mean score of TTF (Tendency to Foreclose)  $M=32.75$  than the passing population  $M=31.54$ , which would indicate if the finding was significant that those students who failed may tend to prematurely commit to nursing as a career choice without a true exploration of possible career choices. The VEC (Vocational Exploration Commitment)  $M=41.59$  was higher in the passing population than

the failures with a  $M=37.50$ , which may indicate those that passed had explored all career options before committing to nursing as a career choice.

### **Research Question 2**

What is the relationship of distress to academic success in a blended course among undergraduate nursing students in a baccalaureate program?

To answer research question 2, study specific subgroups were developed. The two subgroups were based on the variable academic success which included two groups: the group that passed the course and the group that failed the course. Since the subgroups had unequal numbers of participants, the means of the variables for the summed scores of overall distress, practical, family, emotional, spiritual, and physical were used to complete summary independent *t*-tests to evaluate the difference in the passing (persister) and the failure (non-persister) populations. The passing population ( $M=1.170$ ) did not differ significantly from the failure population ( $M=1.330$ ) on Overall Distress ( $p=.172$ ). The 95% confidence level with zero between the lower ( $-.387$ ) and upper ( $+.067$ ) limits indicates there would be no difference. However, with the summed Emotional Problems variable, the passing population ( $M=8.92$ ) was significantly different from the failure population ( $M=10$ ) ( $p=.032$ ). The 95% confidence level with the lower ( $-2.048$ ) and upper ( $-.112$ ) limits indicates that the null finding of zero difference lies outside of the confidence interval. The summed variables of practical, family, spiritual, and physical did not show statistical significance.

### **Research Question 3**

What is the relationship of persistence to academic success in a blended course among undergraduate nursing students in a baccalaureate program?

To answer research question 3, study specific subgroups were developed. The two subgroups were based on the variable academic success, which included two groups: the group that passed the course and the group that failed the course. Since the subgroups had unequal numbers of participants, the means of the variables for the summed scores of persistence were used to complete summary independent *t*-tests to evaluate the difference in the passing (persister) and the failure (non-persister) populations. The passing population ( $M=32.48$ ) was significantly different from the failure population ( $M=29$ ) on SPQADNP ( $p=.025$ ). The 95% confidence level with the lower (+.499) and upper (+6.461) limits indicates that the null finding of zero difference lies outside of the confidence interval.

#### **Research Question 4**

What is the relationship between the concepts of career commitment, distress, and persistence in a blended course among undergraduate nursing students in a baccalaureate program?

To answer research question 4, an analysis of variance (ANOVA) was performed to compare the effect of persistence on the variables of Tendency to Foreclose (TTF) summed, Vocational Exploration (VEC) summed, Overall Distress, and five summed scales of practical, emotional, family, spiritual/religious, and physical problems. When an ANOVA has a statistically significant *p* value, this indicates there is a difference in the mean scores between groups. There was not a significant effect with TTF ( $p=.795$ ), VEC ( $p=.430$ ), Overall Distress ( $p=.574$ ), practical summed ( $p=.346$ ), emotional summed ( $p=.488$ ), family summed ( $p=.522$ ), spiritual/religious summed ( $p=.533$ ), and physical summed ( $p=.353$ ).

## CHAPTER 5

### CONCLUSIONS

This study examined the concepts of career commitment, distress, and persistence and their relationship to academic success. Nursing student academic success is a complex, dynamic, multidimensional phenomenon influenced by the interaction of personal, academic, and environmental factors (Jeffreys, 2002). Vincent Tinto's (1975) Theory of Student Departure served as the theoretical framework for this study by providing support in addressing the research questions, operationalizing the study variables, and interpreting the results of this study. A theoretical foundation was used to identify potential variables that may or may not influence academic success (Raman, 2013).

The total population was divided into two groups—those that passed the course and those that failed the course—to determine what variables had a relationship to academic success, which was defined as passing or failing the course. Demographic variables were analyzed to identify any statistical significance between the study groups. The demographic variable of ethnicity was significant at ( $p=.000$ ). The total study population included was a majority of Black or African American (52.3%). However, once the population was divided into those that passed and those that failed, Black or African American students' ethnicity was of significance to the outcome (failure) of the course.

Interestingly, these findings are consistent with research by Jeffreys (1993, 2012) who claims that background variables such as age, ethnicity, gender, language, prior education, and work experience can affect achievement outcomes for some nursing students. The aforementioned variables can have direct influences on student persistence, self-efficacy, and motivation (Jeffreys, 1998, 2007, 2012). Although in this study ethnicity

proved to be significant, future studies must expand in scope as ethnicity alone does not determine academic outcomes. Resource disparities in prior schools, homes, neighborhoods and social capital contribute significantly to achievement outcomes for students of color (Gagnon & Mattingly, 2018).

Future research may include identification of other background barriers that may be significant such as prior education and work experience since those data were not collected with this study.

National League of Nursing (NLN, 2014) provides the following national averages of minorities enrolled in basic RN programs: African American 12.2%, Hispanic 8.1%, Asian or Pacific Islander 5.9%, American Indian 1.5%, Other/Unknown 7.5%, Male 5%. The American Association of Colleges of Nursing (AACN) (2014) recognizes a strong connection between a culturally diverse nursing workforce and the ability to provide quality, culturally competent patient care. Minority and at-risk students often face additional barriers during their educational experience such as inadequate finances and lack of family and technical support (Brown & Marshall, 2008; Loftin, Newman, Dumas, Gilden, & Bond, 2012). In some areas, the high school education for minority and disadvantaged students is of significant lower quality (Brown & Marshall, 2008). The odds ratio describes the difference between Black/African Americans (73.5%) and non-Black/African Americans (86%) in passing the course and Black/African Americans (26.4%) and non-Black/African Americans (14%) in failing the course. There is the possibility of survey bias since the demographics of the sample were majority Black/African American. Many research instruments have been normed with a group of majority Caucasian population or Eurocentric approaches, and researchers should consider whether norms have been established for

Black/African Americans. Bias and fairness are issues of validity and should be taken into consideration when interpreting assessment results (Benuto & Leany, 2014).

Despite the fact that career commitment measured by the constructs of Tendency to Foreclose (TTF) and Vocational Exploration Commitment (VEC) failed to achieve a statistically significant effect [TTF ( $p=.440$ ) and VECS was ( $p=.217$ )] on academic success, there was a difference in the means. The failure population had a higher mean score of TTF (Tendency to Foreclose)  $M=32.75$  than the passing population  $M=31.54$ , which would indicate those students who failed may tend to prematurely commit to nursing as a career choice without a true exploration of possible career choices. The VEC (Vocational Exploration Commitment)  $M=41.59$  was higher in the passing population than in the failure population with a  $M=37.50$ , which may indicate those that passed had explored other career options before committing to nursing as a career choice.

Academic advisors can use these findings to guide students who are exploring college majors. A career in nursing may not be the appropriate choice unless it has been fully explored. Blustein and associates (1989) utilized the instrument in two construct validation studies, and it should be noted that ethnicity was reported in only one study and 83.8% of the students were Caucasian and 4.3% were Black/African American. It is difficult to determine the degree of instrument validity with a racially diverse group.

The process of career commitment is a task for all college students, including those who choose nursing as they identify how they will meet their career goals (Zanardelli et al., 2016). Within Tinto's (1975) Theory of Student Departure, the term commitment or goal commitment is identified. Blustein and associates (1989) asserted that by attaining high levels of commitment, an individual would overcome obstacles and prepare specific

objectives to achieve their goals. Lent, Brown, and Hackett (2000) suggested that a variety of behaviors may enhance career commitment such as shadowing, mentoring, and co-curricular activities. The pre-nursing student may benefit from shadowing a nurse, seeking volunteer activities on a nursing unit, or receiving mentoring from a senior level student. Müller (2008) found that persistent students viewed their education as important to goal attainment and valued the career or financial outcomes of their education. Changing majors can increase time in school and the total expense of education, which creates a need for a better understanding of influences on career commitment (Zanardelli et al., 2016).

While previously published research (Butters, 2003; Fleming 2010) has explored persistence of undergraduate nursing students, this is the first study that examines the variables of academic success and the constructs of career commitment, distress, and persistence as they exist when nursing students are enrolled in the initial blended required course. The ability to identify potential barriers and facilitators to academic success early in the nursing curriculum can assist faculty to provide appropriate academic resources aimed at enhancing academic success. Identifying students enrolled in the initial blended required course, which contains a didactic and clinical/lab component, provides the ability to identify and intervene early in an academic program. Thus, academic failure and the psychological sequelae that are associated with that event can be addressed.

The results of this study demonstrate that persistence is of statistical significance to the ability of a nursing student to succeed academically. The study population was divided into two groups: those that passed the course (persister) and those that failed (non-persister). Analysis identified a statistical significance between the two groups for the summed scores on the Student Persistence Questionnaire in Associate Degree Nursing Programs

(SPQADNP). The adapted SPQADNP assessed the constructs of academic integration (study hours, absenteeism, academic advising) and social integration (memberships, faculty contact, school friends). The passing population ( $M=32.48$ ) was significantly different from the failure population ( $M=29$ ) on SPQADNP ( $p=.025$ ). The analysis did not identify the significance of the subscales of academic and social integration but only the overall persistence since the SPQADNP was adapted for this study. Fleming (2010) utilized the SPQADNP with a sample that included 81% Caucasian students and 16% Black/African Americans, which indicates it had previously been used with a diverse sample of nursing students.

Tinto (2006) noted that institutions need to focus on advising, providing academic support, and student learning since it is tied very heavily to persistence. The SPQADNP tool could be used by faculty to identify the student at risk for failure. Schools of nursing administrators may use these results to justify the appropriateness of academic support programs (for example, tutoring, supplemental instruction) for the nursing student population who typically do not have these types of academic support available after general education courses.

While Overall Distress did not achieve a significant relationship to academic success, it should be noted that 77.9% of the students in the total population indicated a distress level of 4 or greater. This confirms previous assertion by Chernomas and Shapiro (2013), Dyrbye, Thomas, and Shanafelt (2005), and Warbah et al. (2007) that students in nursing courses constituting both didactic and clinical/lab experiences generally have a higher level of distress accompanying their experience and thus must adjust to managing the experiences. The participants were divided into two groups: those that passed the course

(persister) and those that failed (non-persister). The summed Emotional subscale of the Distress Thermometer (DT) indicated that the passing population ( $M=8.92$ ) was significantly different from the failure population ( $M=10$ ) ( $p=.032$ ). The variable of emotional component of distress assessed whether depression, fears, nervousness, sadness, worry, or loss of interest in usual activities were present within the previous week. Gibbons and associates (2010) noted that psychosocial health is of high importance due to implications for student learning and attrition, and because nursing students' performance has a direct bearing on their fitness to practice and on patient safety. Students in the clinical area who are depressed, fearful, nervous, sad, or worried may be unable to safely care for patients or perform the skills needed during emergency and non-emergency situations.

Psychological distress has been reported in higher education, and students in general have also reported that psychological distress plays a role in academic performance and adjustment. Nurse educators need to be aware of how student experiences during classroom (high stakes examinations) and clinical placements (development of clinical skills) may contribute to potential distress (Gibbons et al., 2011). These findings indicate that these nursing students have a need for support programs that focus on their psychosocial well-being. The students describe emotional problems that influence their academic success, and educators can be integral and sensitive in identifying these emotional problems and recommending early interventional institutional resources such as college counseling services. The students were given the college counselors' contact information, but it is not known if any or how many utilized this resource. Clearly the importance of measuring the impact of counseling and stress management as adjuvant to academic success is an area of further investigation. Tinto and Pusser (2006) noted that it is within the capacity of an

institution to change the climate to provide the quality and quantity of support that students need.

### **Limitations**

The results of this study were limited in their generalizability for the following reasons:

1. This study was conducted at a private, faith-based institution within a single metropolitan urban setting, limiting the generalizability of results to public institutions and nursing schools in other parts of the country or world.
2. The study population consisted of nursing students in their initial blended required nursing course in a baccalaureate program, limiting generalizability of results to other populations such as senior level students, other courses, or those enrolled in Associate Degree in Nursing (ADN) and Advanced Track (AT) programs.
3. The Distress Thermometer (DT) as an assessment for distress was not piloted with students for face/construct validity prior to this study.
4. The Commitment to Career Choices (CCCS) as an assessment tool had not been used with nursing students but had been used with a general college population.
5. The data set did not support the analysis of a structural model since there were not enough participants for all of the variables.

### **Implications for Future Research**

The encouraging results from this study could be the impetus needed for future research in nursing education aimed at the development of academic support programs, strategies, practices, and interventions designed to enhance success. Due to the persistent nursing shortage and societal changes highlighting the need for a diversified nursing

workforce, faculty need to examine how nursing students persist and what can be done to enhance their persistence and manage their emotional distress. Being able to identify the difference between academic and personal variables that have a negative impact on persistence is the initial step in providing appropriate and valued interventions.

Identification of students who might be most at risk for being non-persisters at this particular institution include students who are Black/African American, display or acknowledge emotional problems such as depression, fears, nervousness, sadness, worry, or loss of interest in usual activities, and those who are not fully integrated academically or socially at the institution. More specific research related to the needs of Black/African American students that were revealed in this study setting can provide insight into the interventions that would be best suited for their success.

Gibbons and associates (2011) noted that there is a range of coping resources available and those that are designed to encourage self-efficacy, control, and support are most likely to be beneficial in student learning. Future research may include screening and counseling interventions with highly distressed students to identify if these interventions can be effective strategies that will have a direct effect on persistence and academic success. Tada (2017), in a sample of 181 nursing students, found that exercise habits mediated the relationship between coping styles and psychological distress to a greater extent than sleep and suggested that complex interactions between health habits and coping styles may influence the psychological status of nursing students. Further research utilizing the DT as a quick assessment tool of distress prior to interventions may be appropriate in the nursing student population.

The participants in this initial blended course did not have an academic support program to assist with their success. Academic support programs is an umbrella term for the many different programs that institutions provide to support student success. Most colleges refer to these programs as supplemental instruction or peer tutoring (Arendale, 2002; Blanc, DeBuhr, & Martin, 1983; Habley et al., 2012). Academic support programs such as supplemental instruction could be used as an intervention to support nursing students in blended courses and warrant further study. Institutions of higher learning are challenged to provide appropriate, evidenced-based interventions aimed at decreasing student attrition and improving student retention, especially in bridge or gateway courses to specific degree programs such as nursing (Demaris & Kritsonis, 2008; Jeffreys, 2012).

The courses that are targeted for SI include those courses that have a 30% or higher rate of D/F grades or withdrawals (Martin & Arendale, 1994). In 1981, the U.S. Department of Education designated SI as a model postsecondary retention program and advocated its dissemination throughout the country (Blanc et al., 1983). “This model, which has been used for more than thirty years, still yields strong results in student learning, higher final course grades, and lower drop, fail, withdraw rates across disciplines, types of colleges, and student ethnicities” (McGuire, 2006, p. 21). Despite this empirical evidence in post-secondary education, very few schools of nursing utilize this intervention strategy with courses that have didactic and clinical/lab components. Further research on the use of SI in blended courses would provide data to evaluate the effectiveness of this intervention at specific institutions.

## Comparison of Models

Vincent Tinto's model (see Appendix A) takes a longitudinal and dynamic approach to appraising student departure starting with precollege and ending with the decision, whether voluntary or involuntary, to drop out (Tinto, 1975). The model depicts the long road of college. Family and background are noted as variables within the model, and ethnicity was significant variable in this study. According to Tinto (1993), background variables are related to student persistence and academic performance by influencing whether a student seeks admission to college, is accepted, and is committed to the goal of pursuing a course of study and graduating.

The results from this study indicate that persistence measured by the SPQADNP, which assessed the constructs of academic integration (study hours, absenteeism, academic advising) and social integration (memberships, faculty contact, school friends), was significant to the outcome of dropout decision (failure of the course) which is consistent with Vincent Tinto's model (see Appendix A). However, the idea that a student must integrate into the college social system may require minority students to change their basic beliefs and attitudes or for the institution to offer a greater sense of belonging and engagement with minority students. This should be considered, since this particular study included a high percentage of minority students (Hurtado & Carter, 1997).

Tinto noted the importance of individual and institutional commitments in his model. Individual goal commitment as measured in this study by career commitment using the constructs of Tendency to Foreclose (TTF) and Vocational Exploration Commitment (VEC) was not significant. However, assessing career commitment independently without distress and persistence may provide well-defined data. Institutional commitment is also presented in

Tinto's model, and this was not measured in the study. There was no way to measure this in the sample since the institution did not provide structured academic support for this course. Tinto's theory has been utilized by researchers in the science discipline to evaluate the institutional commitment of an academic support program such as Supplemental Instruction (Arendale, 2000).

The ability of SI as an academic support intervention to positively impact persistence among students enrolled in a nursing program has received little research attention. Braxton, Milem, and Sullivan (2000) built upon Tinto's theory by postulating that active learning course practices that are used in academic support may directly influence social integration and indirectly affect subsequent institutional commitment and student departure decisions. Institutional commitment could be measured as a potential intervention to discover if implementation of academic support such as supplemental instruction or peer tutoring to this high-risk course would influence Tinto's outcome of dropout decisions. There is a possibility that faculty or advanced level students may have provided indirect academic support during the course. While distress is not specifically depicted in the Tinto model, within the theory Tinto (2006) acknowledged the importance of what happens to a student on campus and how interactions within the campus community can influence dropout decisions. For nursing, this is of particular interest since the campus community extends to clinical sites.

The new model proposed by this author in this study (see Appendix B) was created based on the literature review to describe the interactions of career commitment, distress, and persistence on the outcome of academic success. While the data set did not support the analysis of structural modeling to validate this model, there is a need for future research to

support structural modeling with a larger sample to evaluate the interactions of these variables on their relationship to academic success. The variables of career commitment, distress, and persistence did not suggest a relationship to each other as proposed. The variables of career commitment or overall distress did not reveal a significant relationship to academic success as was proposed in the model. However, persistence and emotional problems were both significant to the outcome of academic success as proposed. Appraisal of both Tinto's model (see Appendix A) and the proposed model (see Appendix B) note the difficulty of evaluating all of the variables at any one time that may have an influence on academic success or dropout decisions and the importance of identifying variables specific to each institution.

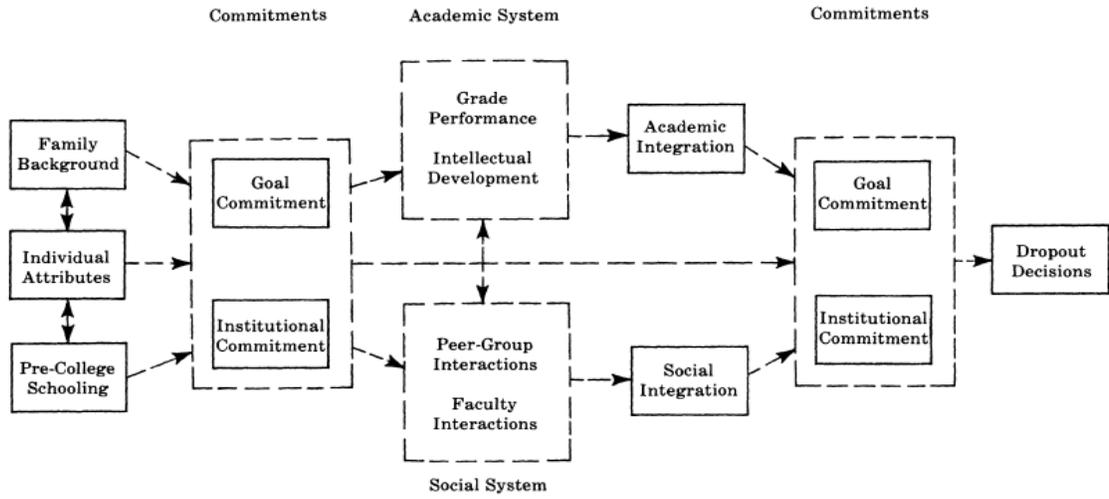
### **Conclusions**

Specific research into the impact of health care experience on persistence and academic success is warranted to more clearly understand how a commitment to nursing education can be strengthened as a precursor to overcoming academic success barriers and strengthening persistence. Future research should include larger sample sizes and longitudinal studies to follow nursing students through the curriculum. The administration of institutions of higher learning may also utilize further research to place early warning flags with advisors and faculty to intervene earlier in the pre-nursing part of the curriculum. This warning may provide options for potentially unsuccessful students to explore an alternative education track to achieve success in a different field of study. Career exploration early in high school and the first year of college including job shadowing, volunteering, and nurse mentoring can strengthen the understanding and commitment to pursue a degree. Based on the results of this study, more counseling support to counter the barrier of emotional issues

and needs should be tested as an effective intervention strategy to understand persistence and academic success.

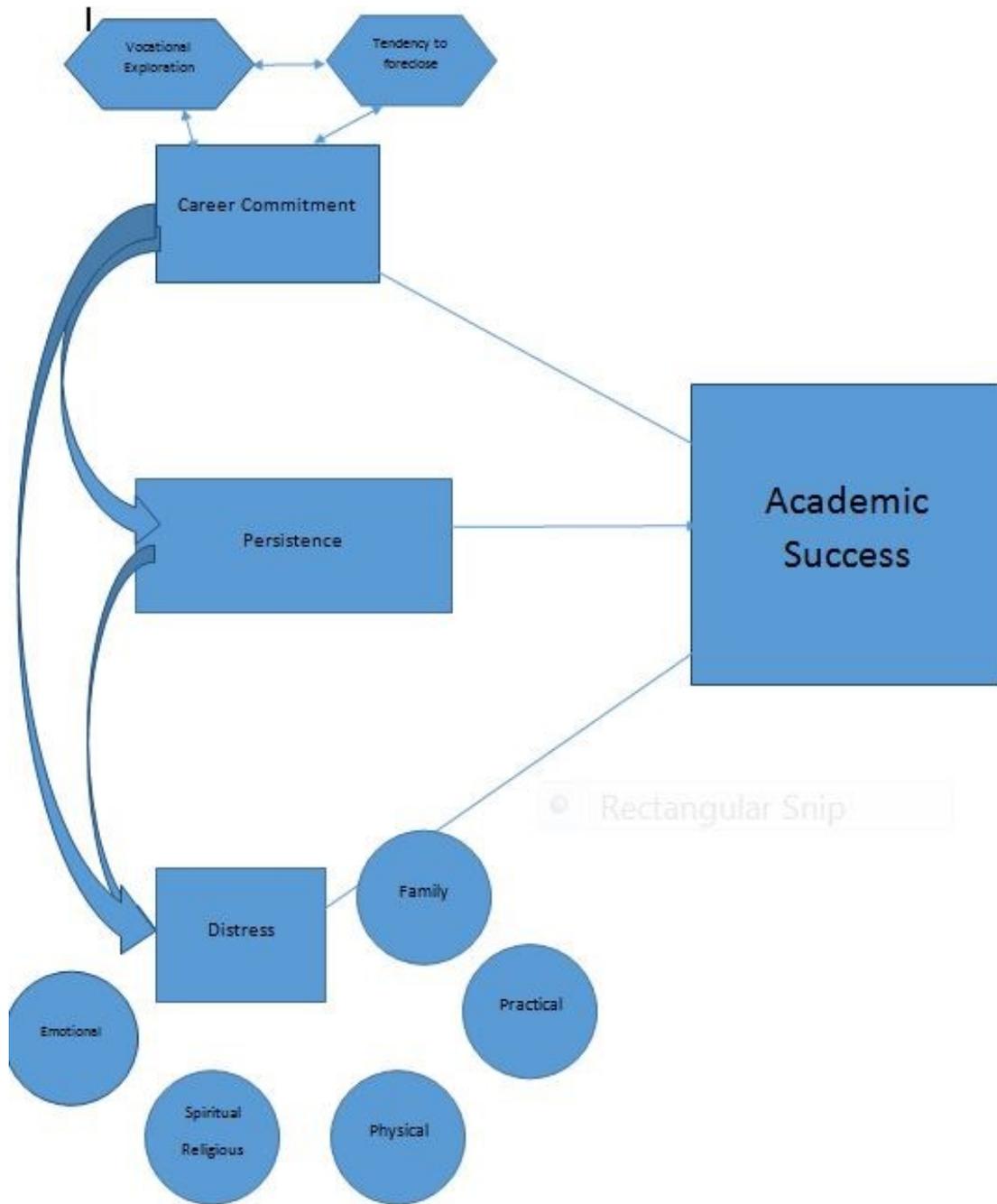
APPENDIX A

TINTO'S MODEL OF STUDENT DEPARTURE



APPENDIX B

KENNEL'S PROPOSED MODEL DERIVED FROM RESULTS OF STUDY



## APPENDIX C

### CONSENT FOR STUDY PARTICIPATION

#### **INFORMED CONSENT FOR PARTICIPATION IN A RESEARCH STUDY**

**Title of Study: The effects of career commitment, distress, and persistence on academic success among undergraduate baccalaureate nursing students**

Protocol No.: BMH 17-65    UMKC 17-393

Investigator: Kimberly D. Kennel

Participating Investigators: Ann Cary

Telephone: 901-496-9303

#### INTRODUCTION

You are being asked to take part in a research study. This study is being conducted at Baptist College of Health Sciences. The researchers in charge of this study are Ann Cary and Kimberly Kennel. You are being asked to participate in a research study. Before agreeing to participate in this research study it is important that you read and understand the following explanation of the proposed procedures. This document describes the purpose, procedures, benefits, risks, discomforts and precautions of the study. It also describes the alternative treatments/procedures that are available to you and your rights to withdraw from the study at any time. No guarantees or assurances can be made as to the results of the study. Research studies only include people who choose to take part. This document is called a consent form. Please read this consent form carefully and take your time making your decision. The researcher will go over this consent form with you. Ask her to explain anything that you do not understand.

#### BACKGROUND

The demands of nursing education, with its diverse clinical, laboratory and classroom content, suggest the need for research on the barriers and facilitators to student success and persistence. Within programs of nursing there are blended courses which have a clinical, laboratory, and classroom components; with successful completion dependent upon demonstrating competence in all areas. This difference makes you as a student who is in your first blended course the best participant to accurately describe your career commitment, distress, and persistence as a student.

## PURPOSE

Using student participants in a blended course will provide the best group for determining how to improve student outcomes and provide academic support/resources within the college. Students in your course are being recruited since this is the first course that includes a clinical/lab and classroom component. The purpose of this study is to gain knowledge about career commitment, distress, and persistence to determine what, if any, changes would be appropriate and have the greatest influence on student success. You will be one of about 75 subjects in the study at Baptist College of Health Sciences.

## PROCEDURES

- A packet will be distributed during a regularly scheduled class. This packet will include this consent form, three surveys and a demographic form. Please do not place your name on the surveys- only your student identification number. The packet will also contain a crossword puzzle.
- If you choose to participate, you will complete the consent form, three surveys and demographic form.
- If you choose NOT to participate, please complete crossword puzzle during the 30 minutes. This way other students will not know who is participating or not participating in the study.
- The research assistant will collect the packets when everyone is finished and place them in a sealed envelope.
- If you choose to participate, the researcher will need to know the course grade at the end of the semester. This course grade will be reported to the researcher using an ID number only.

If you choose not to participate, it will not affect your standing in the school or your grades. Participation in this study is voluntary at all times. You may choose to not participate or to withdraw at any time. To do so, simply turn in the surveys without submitting your answers. Deciding not to participate will not result in any penalty. Your course grade will not be affected in any manner through participation or non-participation. If you elect not to participate, your answers or your grade at the end of the term will not be collected as part of this research. The surveys should take no longer than a total of 30 minutes to complete.

## POSSIBLE RISKS

The risk for participating in this study is minimal. That means that the risks of taking part in this research are not expected to be more than the risks in your daily life. The potential risks include breaches of privacy and confidentiality, as well as potential emotional discomfort. While completing the study survey tools you may encounter material that makes you uncomfortable. If this occurs, you will be instructed to

notify the researcher immediately, and study participation may be discontinued if desired. If needed, you will be referred to counseling resources available at the college.

Collecting course completion (pass/fail) data is potentially sensitive information. The pass/fail information will be collected from course faculty after the term has ended and will only include student ID numbers and pass/fail for the course not a specific letter grade. All Student ID numbers will be removed within 48 hours of obtaining data. No names will be collected. All data will be in a password protected file on a password protected computer. All physical copies will be stored in a locked filing cabinet in a locked office

### **ALTERNATIVE TREATMENTS & CHOICES**

The alternative is not to take part in this study.

### **POSSIBLE BENEFITS**

Other students may benefit in the future from the information which can be used for improvement in student outcomes by identifying the barriers and facilitators to student success. Using student participants will provide the best group for determining how to improve student outcomes within the college.

### **COSTS FOR PARTICIPATION**

There is no expense to you for participating in this research study.

### **COMPENSATION FOR PARTICIPATION**

Snacks/treats will be provided for all students whether you choose to participate or not.

### **Presentations/Publications**

While aggregate data might be provided in a presentation or publication about this research, the information will not be discussed in a way that would allow you to be individually identified as a participant.

### **Confidentiality**

While we will do our best to keep the information you share with us confidential, it cannot be absolutely guaranteed. Individuals from the University of Missouri-Kansas City (UMKC) and Baptist Memorial Healthcare Institutional Review Boards (committees that review and approve research studies), Research Protections Program, and Federal regulatory agencies may look at records related to this study to

make sure we are doing proper, safe research and protecting human subjects. The results of this research may be published or presented to others. You will not be named in any reports of the results. No names will be collected.

Safeguards will be implemented to prevent loss of confidentiality. All study data will be electronic password protected in a computer database. Information related to the study will remain in a password protected computer in the researcher's secured office for seven years. Final course completion status (pass/fail) will be retrieved by student identification numbers. Once all data are entered, the paper copies of the survey instruments will be kept in a locked cabinet in a locked office. These documents will be shredded and destroyed in seven years, in compliance with IRB policies at both institutions. After seven years, all computer files and documentation related to this study will be erased and shredded by the researcher. All Student ID numbers will be removed within 48 hours of obtaining data.

## CONTACT FOR QUESTIONS

The participant and/or their insurance is responsible for costs incurred due to injury or harm. Baptist College of Health Sciences appreciates people who help it gain knowledge by being in research studies. It is not the University's policy to pay for or provide medical treatment for persons who are in studies. If you would like to speak with the investigator to discuss any questions, concerns, problems, or injuries, please call Kimberly Kennel, 901-496-9303 or [Kimberly.Kennel@bchs.edu](mailto:Kimberly.Kennel@bchs.edu).

If you would like to speak to a person who is not affiliated with this research study to discuss problems, concerns or questions, or to obtain information or offer input please call Rev. Anthony Burdick, Director of Pastoral Care, Baptist Memorial Health Care Corporation at 901-226-5025.

You should contact the Office of University of Missouri-Kansas City Institutional Review Board at 816-235-5927 if you have any questions, concerns or complaints about your rights as a research subject.

## VOLUNTARY PARTICIPATION

Participation is voluntary, refusal to participate will involve no penalty or loss of benefits to which you would otherwise be entitled, and you may discontinue participation at any time without penalty or loss of benefits to which you are otherwise entitled. The collected data will not be linked to you as an individual. You have read this Consent Form or it has been read to you. You have been told why this research is being done and what will happen if you take part in the study, including the risks and benefits. You have had the chance to ask questions, and you may ask questions at any time in the future by contacting Kimberly Kennel ([Kimberly.kennel@bchs.edu](mailto:Kimberly.kennel@bchs.edu)). By signing this consent form, you volunteer and

consent to take part in this research study. You will receive a copy of this consent form for your personal records.

**STUDY WITHDRAWAL**

Once you withdraw you will not be able to continue in the study. No new data will be added to the database once you withdraw, but all data collected prior to withdrawal may still be used as part of the study.

**NEW FINDINGS:**

Any new findings that may impact your decision to continue participation will be explained to you.

**THIS SPACE HAS BEEN  
INTENTIONALLY LEFT BLANK**

## CONSENT TO PARTICIPATE

The research study, procedures, risks and benefits have been explained to me. I have read and understand all of the above, been given the opportunity to ask questions, and my questions have been answered to my satisfaction. I voluntarily agree to participate in this research study. I will be given a copy of this signed and dated consent form for my own records. I do not give up any of my legal rights by signing this consent form.

\_\_\_\_\_  
Name of Adult Participant (printed)

\_\_\_\_\_  
Signature of Adult Participant

\_\_\_\_\_  
Date/Time

\_\_\_\_\_  
Name of Person Obtaining Consent (printed)

\_\_\_\_\_  
Signature of Person Obtaining Consent

\_\_\_\_\_  
Date/Time

APPENDIX D

STUDY SURVEYS

Study Surveys      **Student ID Number:** \_\_\_\_\_

As a nursing student presently enrolled in a course that contains both a classroom and a laboratory component, you are being asked to participate in this study. The purpose of this study is to describe how career commitment, distress, and persistence effect academic success. As a study participant, you will provide a self-assessment of these three concepts, and complete a demographic data form. While these data will not impact your academic experience, these data will be used to identify the student at risk for not succeeding, and allow an intervention to be provided.

It is estimated that 10 minutes will be required for you to complete the instruments. Participation in this study is voluntary – your grade or academic progress will not be impacted by your participation. Study reports will present these data in aggregate form only, which prevents the ability to link any set of responses to a specific participant. If you have questions about the surveys, please contact the principal investigator, Kimberly Kennel, at 901-496-9303.

**Assessing Your Career Commitment** – please select the response that most reflects your opinion.

	Never true about me	Almost never true about me	Usually not true about me	No opinion / Not sure	Usually true about me	Almost always true about me	Always true about me
I believe that a sign of maturity is deciding on a single career goal and sticking to it.							
Based on what I know about my interests, I believe that I am suited for only one specific occupation.							
The chances are excellent that I will actually end up doing the kind of work that I most want to do.							
I may need to learn more about myself (i.e., my interests, abilities, values, etc.) before making a commitment to a specific occupation.							

It is hard for me to decide on a career goal because it seems that there are too many possibilities.							
I have a good deal of information about the occupational fields that are most interesting to me.							
I have thought about how to get around the obstacles that may exist in the occupational field that I am considering.							
I think that a wavering or indecisive approach to educational and career choices is a sign of weakness; one should take a stand and follow through with it no matter what.							
I believe that no matter what others might think, my educational and career decisions will either be right or wrong.							
Based on what I know about my abilities and talents, I believe that only one specific occupation is right for me.							
While I am aware of my educational and career options, I do not feel comfortable committing myself to a specific occupation.							
I feel uneasy about committing myself to a specific occupation because I am not aware of alternative options in related fields.							
I find myself changing academic majors often because I cannot focus on one specific career goal.							

I do not know enough about myself (i.e., my interests, abilities, and values) to make a commitment to a specific occupation.							
I like the openness of considering various possibilities before committing myself to a specific occupation.							
Based on what I know about the world of work (i.e., the nature of various occupations), I do not believe that I should seriously consider more than a single career goal at a time.							
It is hard to commit myself to a specific career goal because I am unsure about what the future holds for me.							
I find it difficult to commit myself to important life decisions.							
I feel uneasy in committing myself to a career goal because I do not have as much information about the fields that I am considering as I probably should.							
I have difficulty making decisions when faced with a variety of options.							
I feel confident in my ability to achieve my career goals.							
Based on what I know about my <u>values</u> (e.g., the importance of money, job security, etc.), I believe that only one single occupation is right for me.							

I feel uneasy in committing myself to a specific career plan.							
I think that I know enough about the occupations that I am considering to be able to commit myself firmly to a specific career goal.							
I worry about my ability to make effective educational and career decisions.							
I am not very certain about the kind of work I would like to do.							
I would change my career plans if the field I am considering became more competitive and less accessible due to a decline in available openings.							
I believe that there is only one specific career goal that is right for me.							

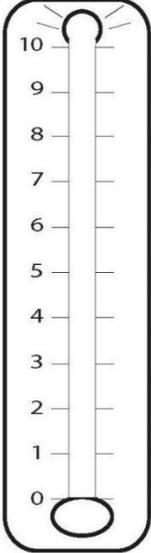
**Assessing Your Distress**

Distress Thermometer

**SCREENING TOOLS FOR MEASURING DISTRESS**

Instructions: First please circle the number (0-10) that best describes how much distress you have been experiencing in the past week including today.

Extreme distress



No distress

Second, please indicate if any of the following has been a problem for you in the past week including today. Be sure to check YES or NO for each.

<p><b>YES NO <u>Practical Problems</u></b></p> <p><input type="checkbox"/> <input type="checkbox"/> Child care</p> <p><input type="checkbox"/> <input type="checkbox"/> Housing</p> <p><input type="checkbox"/> <input type="checkbox"/> Insurance/financial</p> <p><input type="checkbox"/> <input type="checkbox"/> Transportation</p> <p><input type="checkbox"/> <input type="checkbox"/> Work/school</p> <p><input type="checkbox"/> <input type="checkbox"/> Treatment decisions</p> <p style="text-align: center;"><b><u>Family Problems</u></b></p> <p><input type="checkbox"/> <input type="checkbox"/> Dealing with children</p> <p><input type="checkbox"/> <input type="checkbox"/> Dealing with partner</p> <p><input type="checkbox"/> <input type="checkbox"/> Ability to have children</p> <p><input type="checkbox"/> <input type="checkbox"/> Family health issues</p> <p style="text-align: center;"><b><u>Emotional Problems</u></b></p> <p><input type="checkbox"/> <input type="checkbox"/> Depression</p> <p><input type="checkbox"/> <input type="checkbox"/> Fears</p> <p><input type="checkbox"/> <input type="checkbox"/> Nervousness</p> <p><input type="checkbox"/> <input type="checkbox"/> Sadness</p> <p><input type="checkbox"/> <input type="checkbox"/> Worry</p> <p><input type="checkbox"/> <input type="checkbox"/> Loss of interest in usual activities</p> <p><input type="checkbox"/> <input type="checkbox"/> <b><u>Spiritual/religious concerns</u></b></p>	<p><b>YES NO <u>Physical Problems</u></b></p> <p><input type="checkbox"/> <input type="checkbox"/> Appearance</p> <p><input type="checkbox"/> <input type="checkbox"/> Bathing/dressing</p> <p><input type="checkbox"/> <input type="checkbox"/> Breathing</p> <p><input type="checkbox"/> <input type="checkbox"/> Changes in urination</p> <p><input type="checkbox"/> <input type="checkbox"/> Constipation</p> <p><input type="checkbox"/> <input type="checkbox"/> Diarrhea</p> <p><input type="checkbox"/> <input type="checkbox"/> Eating</p> <p><input type="checkbox"/> <input type="checkbox"/> Fatigue</p> <p><input type="checkbox"/> <input type="checkbox"/> Feeling Swollen</p> <p><input type="checkbox"/> <input type="checkbox"/> Fevers</p> <p><input type="checkbox"/> <input type="checkbox"/> Getting around</p> <p><input type="checkbox"/> <input type="checkbox"/> Indigestion</p> <p><input type="checkbox"/> <input type="checkbox"/> Memory/concentration</p> <p><input type="checkbox"/> <input type="checkbox"/> Mouth sores</p> <p><input type="checkbox"/> <input type="checkbox"/> Nausea</p> <p><input type="checkbox"/> <input type="checkbox"/> Nose dry/congested</p> <p><input type="checkbox"/> <input type="checkbox"/> Pain</p> <p><input type="checkbox"/> <input type="checkbox"/> Sexual</p> <p><input type="checkbox"/> <input type="checkbox"/> Skin dry/itchy</p> <p><input type="checkbox"/> <input type="checkbox"/> Sleep</p> <p><input type="checkbox"/> <input type="checkbox"/> Substance abuse</p> <p><input type="checkbox"/> <input type="checkbox"/> Tingling in hands/feet</p>
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Other Problems: \_\_\_\_\_

**Assessing Your Persistence** – please select the response that applies to you.

	Strongly Agree	Agree	Somewhat Agree	Disagree	Strongly Disagree
I participate in study groups.					
I participate in campus social activities.					
I participate in peer support group activities.					
Faculty provide the support and encouragement I need to be successful in my program.					
My interaction with faculty outside the classroom has been helpful.					
Faculty value and care for me as a person.					
Teaching methods in this program have helped me to be successful academically.					
I attend nursing classes on a regular basis.					
On occasions I have had doubts about my ability to succeed.					
My work time interferes with my study time.					
The amount of time spent taking care of my family interferes with my study time.					
I have adequate social support during my role as a nursing student.					
I receive support, friendship, and encouragement from my classmates.					

APPENDIX E

DEMOGRAPHIC QUESTIONS

Please answer the following questions which will only be used to study the population.

Student ID Number: \_\_\_\_\_

Gender:

Male  Female  Other

Age:

18-22  23-28  29-33  34-40  41-50  >50

Ethnicity:

American Indian/Alaska Native  Asian  Black or African American  Hispanic  
 Hawaiian/Pacific Islander  White  Other

Two or more Ethnicities

I am a first-generation college student?

Yes  No

My birth order in my family is:

Youngest  Middle  Oldest  Other

Are you receiving financial aid towards tuition and expenses?

Yes  No

I have a family member who is a nurse? (mother, father, sibling, aunt, uncle, grandparent)

Yes  No

I have a family member who is a healthcare professional other than a nurse? (mother, father, sibling, aunt, uncle, grandparent)

Yes  No

## APPENDIX F

### PERMISSIONS



DAVID L. BLUSTEIN, PH.D.  
DEPARTMENT OF COUNSELING, DEVELOPMENTAL,  
AND EDUCATIONAL PSYCHOLOGY  
CHESTNUT HILL, MA 02467  
OFFICE PHONE: (617) 552-0795  
E-MAIL: DAVID.BLUSTEIN@BC.EDU

Dear Colleague:

I am delighted to provide you with the items for the Commitment to Career Choices Scale. Naturally, I am granting you permission to use the Commitment to Career Choices Scale (CCCS) in your research study. In this correspondence, I will provide you with the items for the CCCS along with scoring criteria for the CCCS. The scoring pattern for the CCCS is as follows:

The nine items that comprise the Tendency to Foreclose Scale (TTFS) are as follows:  
Items #1, 2, 8, 9, 10, 15, 16, 22, 28

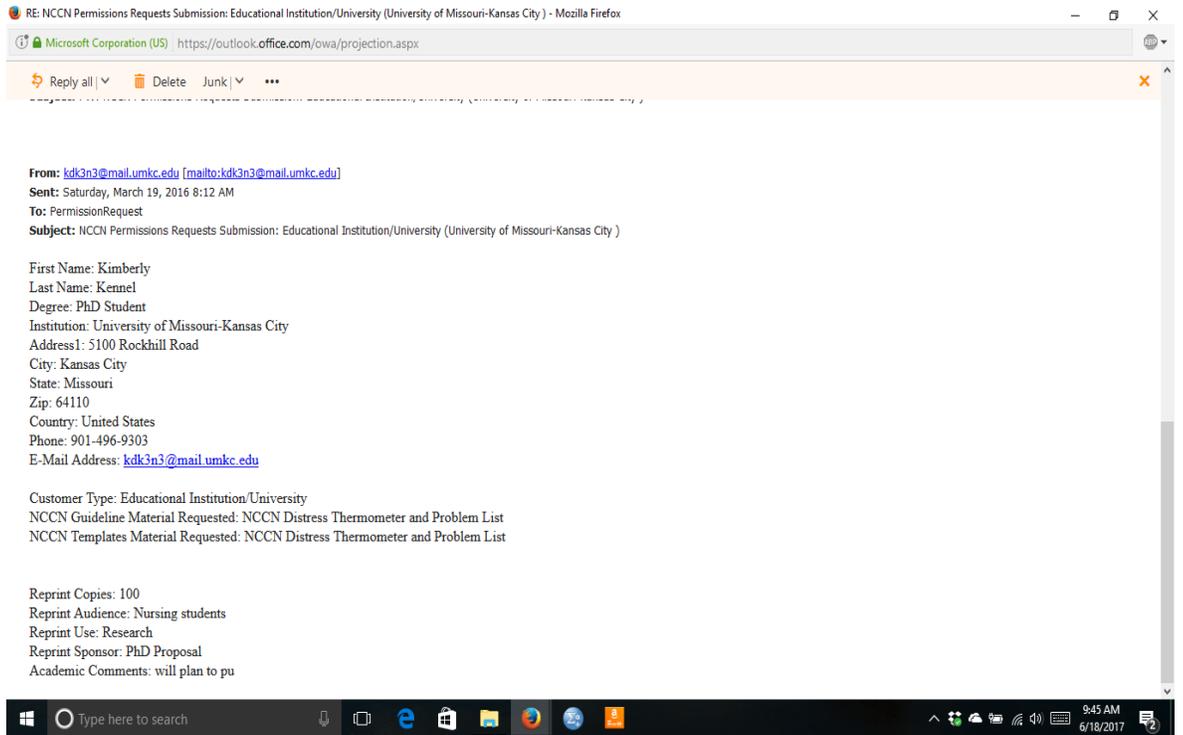
The nineteen items that comprise the Vocational Exploration and Commitment Scale (VECS) are as follows:  
Items # 3, 4, 5, 6, 7, 11, 12, 13, 14, 17, 18, 19, 20, 21, 23, 24, 25, 26, 27

Please note that six of the items are reversed scored. The reversed scored items are as follows:  
Items # 3, 6, 7, 15, 21, 24

I hope that this measure is useful to you. There is no fee for using the CCCS. If you need any additional information on this measure, please do not hesitate to contact me. Best wishes with your research.

Sincerely,

David L. Blustein, Ph.D.



June 11, 2017

Dear Mrs. Kennel:

You have my permission to utilize the Questionnaire from my dissertation which is entitled, "Student Persistence in Associate Degree Nursing Programs at Mississippi Community Colleges." This was adapted with permission from Dr. Cynthia Butters. I wish you much success with your endeavor. Please let me know if there is anything else you need.

Sincerely,

Kathryn L Fleming, MSN, FNP-C, Ed.D.

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## VITA

Kimberly D. Kennel (née Harris) was born and raised in Des Moines, Iowa. She found her love for the health care field as a hospital corpsman in the U.S. Naval Reserve. While fulfilling her reserve obligations, she graduated with a nursing diploma from Mercy Hospital School of Nursing in Des Moines in 1991. After graduation, she worked as an RN in the Coronary Care Unit at Mercy Hospital and received her Critical Care Nursing Certification. After marrying her husband Norman, his job transferred them to Collierville, Tennessee. Kimberly and Norman were blessed with three children: Kelsey, Tyler, and Kari. Kimberly continued to work in critical care at Baptist Memorial Hospital, Memphis, Tennessee, in the Intensive Care Unit.

Kimberly completed her BSN in 2003 and her MSN in 2009 at Union University with the focus of the MSN on education. Upon completion, she became an Assistant Professor of Nursing at Baptist College of Health Sciences. In 2013, Kimberly enrolled in the Doctor of Philosophy in Nursing program at University of Missouri-Kansas City. Kimberly holds additional certifications as a Medical Surgical Nurse and Certified Nurse Educator. Kimberly has been published in the *Journal of Nursing Education and Practice* on the concept of persistence. Kimberly is also a member of Sigma Theta Tau International.