NON- ACADEMIC FACTORS THAT PREDICT PERSISTENCE OF NON-TRADITIONAL STUDENTS ATTENDING COMMUNITY COLLEGE IN THE COMMONWEALTH OF VIRGINIA

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Abstract

Community colleges across the country have continued to expand since the inception of Joliet Junior College in 1901. The American Association of Community Colleges (AACC, 2010) reported that there are 1,173 community colleges in America, of which 987 are public institutions of higher learning. Additional statistics indicate that there are almost twelve million students enrolled in the community college system (AACC, 2010). Over the years many changes have occurred that affect who attends community college, no change more significant than the focus on meeting the needs of a diverse population. Many unique characteristics, such as being of minority status, being financially disadvantaged, and being a first- generation

American make up this diverse new student population. Another unique characteristic of the new student population is being of non-traditional age, which is defined as 25 years old or older (Bean & Metzner, 1985; Cohen & Brawer, 1989; Crosta, Calcagno, Jenkins, & Bailey 2006). Little empirical research has been conducted examining this new population of non-traditional students' ability to complete their goals when selecting to attend community college, especially in the state of Virginia (Sorey, 2006).

Through quantitative methodology, utilizing a cross-sectional design, the purpose of this study was to identify non-academic social and emotional factors that are related to the ability of non-traditional students to persist towards their academic goals within the Virginia Community College System (VCCS). This study included a sample of 1694 students. Their responses to an electronic survey questionnaire of non-traditional students within the VCCS were analyzed to provide

descriptive data, correlations, and mean differences. The findings indicate that participants in this study are dealing with multiple non-academic social and emotional factors that may require readjustment in their lives. Further participants in this study perceived themselves as being stressed. Finally, 12.9% of participants endorsed a moderate level of psychological distress and 4.2% of participants endorsed a serious level of psychological distress. The positive correlation between perceived stress and psychological distress supports the need of additional resources, for non-traditional students at the community college level within the Commonwealth of Virginia.

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Chapter I

Introduction

While there is not a typical community college, community colleges tend to be 2-year institutions that offer multiple certificate programs (Callan, 1997). There are three factors that tend to be consistent about community colleges across America: degree programs are equivalent to freshman and sophomore years completed at 4-year colleges and universities, they offer both occupational training (day-to-day jobs) and vocational training (selected careers), and they provide a service to their communities (Callan, 1997). As our society continues to grow and change, so do the needs of our community college students across the country. In the late 1800's and early 1900's the needs of college students centered on occupational and vocational goals, whereas now the needs of college students have expanded to include personal and economic goals (Bragg, 2001; Brock, 2010). Those personal and economic goals are even more significant among students who attend community colleges across America, as these students often may not have the same access to 4-year colleges and universities as other students. Therefore community college is where many turn to seek additional knowledge, certification, and preparation for careers (Bragg, 2001; Murray & Bank, 2007).

The general points of focus for the community college have changed over the last 50 years. Those points of focus include the demographics of the student body, characteristics of the students, and needs of the students (Ray & Altekruse, 2000). In 1901, when Joliet Junior College was established in Illinois, the typical student was male, white and middle-class. The term junior college was significant as Joliet was viewed as junior in comparison to senior 4-year institutions of higher learning. Joliet Junior College

was based in a high school for students to gain additional skills prior to transferring to a 4-year senior institution. It was not until 1948, with the Truman Commission Report, that the name was changed from junior college to community college (Callan, 1997). The name change from junior to community was indicative of continued changes in the focus and the demographics of community colleges.

In studying community colleges, Helfgot (1995) identified several characteristics of the typical community college student. That typical student may represent one or more of the following characteristics: lacks financial preparation, tends to prioritize degree completion lower than other priorities, is financially disadvantaged, is of non-traditional age, is of a minority status, is a first-generation American, and is enrolled part-time (Helfgot, 1995). Robertson (1991) also found that more than half of community college students are female, and female students tend to enroll in fewer credits and experience more interruptions, compared to their male peers. Finally, community college students tend to be over the age of 25 (Bean & Metzner, 1985; Cohen & Brawer, 1989; Crosta, Calcagno, Jenkins, & Bailey 2006).

The characteristics that Helfgot (1995) described are indicators of non-traditional students who are attending community colleges across America. The percentage of non-traditional students attending community colleges far outweighs the percentages of traditional students who select the same path (Bean & Metzner, 1985; NCES, 2003). For example, the National Center for Education Statistics (NCES), notes there are 6.7 million non-traditional students attending community college. The American Association of Community Colleges reports that the average community college student is 28 years old (2010). Further, the American Association of Community Colleges (2010) noted that

community college student populations are made up of 56% women and 40% minorities (Black, Hispanic, Asian/ Pacific Islander, and Native American). With these demographics in mind, it is important to note, that the research indicates the needs of non-traditional students differ from those of traditional students (Bean & Metzner, 1985; Calcagno, Crosta, Bailey & Jenkins, 2007).

The literature further noted that while there is research that addresses factors that influences graduation and completion rates for traditional students, there is limited research that addresses the factors that influence persistence and completion rates for non-traditional students (Bean & Metzner, 1985; Tinto, 1975, 1987; Schlossberg, 1995; Zaccaria & Creaser, 1971).

The changes in demographics and needs of students have created challenges for community college administrators, none more important than the academic advisors (also referred to as community college counselors), who must be prepared to respond to the demographic changes. For the purposes of this study, counselors at the community college will be referred to as academic advisors. Durodoye, Harris, and Bolden (2000) noted academic advisors have to be aware of factors that direct the services they provide, none more significant than the demographic shift that has occurred in America. The demographic shift has also lead to a shift in matters that affect community college students. Often these matters are such that personal and mental-health counseling is both necessary and appropriate (Durodoye, et al., 2000). While academic advisors in community college settings are trained and prepared to address non-academic needs as they relate to the careers of the students, they struggle to assess and address those needs

as they refer to the over-all wellbeing or mental stability of the students (Durodoye et. al. 2000).

Like other institutions of higher learning, community colleges recognize that meeting the needs of their students is paramount. Durodoye, Harris, and Bolden (2000) noted that the last 40 years have brought about multiple changes that affect how academic advisors perform their jobs and attempt to meet the needs of their students. These changes occurred in response to changing political, economic, social, and cultural factors. These factors have fostered not only a need for career counseling but personal counseling as well (Durodoye et. al. 2000 and Ray & Altekruse, 2000). This presents a new dilemma for academic advisors as their focus has been on career guidance and not personal wellbeing.

Problem Statement

Along with the characteristics of non-traditional students, come multiple social, emotional, and environmental factors that influence retention, completion rates, and the ability of students to persist in a community college setting. The focus of these non-academic social and emotional factors tends to be on the academic related issues such as grade point average (GPA), readiness for college and standardized testing, while limited research has focused on the non-academic social and emotional factors. Bean and Metzner (1985) noted that primary differences between non-traditional and traditional students is that environmental issues (e.g. family influences and employment) determine whether non-traditional students even return to school semester after semester, let alone whether they actually successfully achieve their desired educational goal(s). Interestingly, non-traditional students tend to be less affected by social variables, which

can be distractions for traditional college students.

Tinto's 1975, Student Integration Model explains a lack of moral integration as it relates to someone failing to possess the values that match those of the larger society and a lack of collective affiliation as it relates to a lack of personal interactions. The model further indicates that if the college system is viewed as its own social organization, failed affiliation may account for students dropping out of college, but fails to fully explain the dilemma completely. In addition to students struggling with moral integration and collective affiliation, psychological and environmental factors may also impact college student retention (Tinto, 1975). In 1982, Tinto noted that while his approach focused on significant social and institutional elements, it did not focus on the students as individuals. Research efforts that examine retention issues should consider the social environment of the institution and the individual needs and behaviors of the students.

Little research is available on which non-academic factors affect retention for non-traditional students attending community colleges. Some of the factors that have been discussed in the literature includes socioeconomic status (SES), age, preparedness for college, personality, and psychological needs (Sorey, 2006). Even less research has been done to explore how these non-academic social and emotional factors are being addressed at the community college level.

It is increasingly apparent that the needs of non-traditional students in community college include all of the challenges of traditional students, and their four-year counterparts. However there are additional stressors for non-traditional community college students who surprisingly, have fewer resources. The Commonwealth of Virginia notes as its policy, that "the VirginiaCommunity College System (VCCS) does not

provide mental health services" (VCCS, 2010). According to 2008-2009 statistics 8.9% of students attending 4-year colleges and universities accessed counseling services, a service that would not be accessible in Virginia Community Colleges. Further, according to the Virginia School Counseling Association standards, prek-12 institutions of learning in Virginia are required to address the academic, career, personal, and social needs of the students. This policy further reveals significant gaps that exist between services that are provided at the high school level and the 4-year college and university levels, but not at the community college level.

Purpose of Study

The purpose of this research is to identify non-academic social and emotional factors that influence persistence of non-traditional students who elect to pursue a post-secondary education from a 2-year community college within the Virginia Community College System (VCCS). This quantitative cross-sectional research project was intended to examine the self-perceived factors that influence students' enrollment semester to semester in the Commonwealth of Virginia and whether the participants believe those noted stressors are being addressed. Further, I examined those non-academic social and emotional factors that research indicates affect the persistence of non-traditional students.

Research Questions

This study utilized a quantitative cross-sectional approach to answer the following research questions:

1. What non-academic factors are most frequently experienced by non-traditional students attending community college within the VCCS?

2. What is the nature of the relationship between non-academic factors and the intent of non-traditional students to persist within the VCCS?

3. What is the level of perceived stress and non-specific self-perceived psychological distress experienced among non-traditional students within the VCCS?

4. Do students who seek support have a higher likelihood of persisting towards completing their goals within the VCCS than students who do not seek support?

Identifying Terminology

There are several terms that are often used in the literature which were referenced in this project and require consistency as to meaning. In other studies, *Non-traditional students* have been defined as students who begin college on or after their 25th birthday, enroll part-time, commute to and from school (residing in the community), maintain employment while enrolled, and their focus may not be to graduate from the institution (foci of students may include recertification, improvement of GPA, to meet employment requirements, to improve remedial skills in math and English and/or to maintain unemployment benefits)(Bean & Metzner 1985; Crosta, et al. 2006). For purposes of this study, the only characteristic that must be present and can exist in isolation is being of 25 years old or older.

Retention is another commonly used term in the literature and can hold multiple meanings for various institutions of higher learning. Retention factors for the community college system include the amount of time in the program, program completion, persistence, and consistent enrollment. Another challenging factor in defining retention is that other terms, such as attrition and dropout, are used interchangeability in the

literature. For our purposes, *retention* will consider the institution being able to maintain the active enrollment of a student until such time that the student has successfully graduated or met his/her individual goal of completion without interruption (this will not including summer sessions).

Persistence is defined as the student's desire and motivation to achieve their initial goal upon entering an institution of higher learning. Students play an active role in their decision to pursue or not to pursue an education, but the college controls the environment that ultimately influences a student's decision to persist.

Graduation/ completion of initial goal will be defined as meeting the requirements for an associate, an applied science 2-year degree, or a certificate. These terms will also account for a students' initial intention of enrolling in a community college. For example some students return to school to simply complete a course or two for re-certification (e.g. a teacher).

Non-academic factors are defined as elements that affect non-traditional students that are not directly grade or academic related. Although there are innumerable factors, which could be considered for this study, those non-academic factors that tend to affect non-traditional/ adult aged students will include those from the Holmes and Rahe Social Readjustment Rating Scale (SRRS; Holmes & Rahe, 1967). The SRRS notes how much social readjustment an event(s) may require if it occurs within a 12month period. Each event is weighted and given a score that can ultimately determine ones Life Change Unit (LCU) score.

Social factors are defined as elements that affect engagement with others, including peers and faculty. Such factors of social engagement include setting, purpose,

participants, topic and status. For example, status might impact the social engagement of non-traditional students in institutions of higher learning (i.e. professor to student or advisor to student).

Emotional factors are defined as feelings that are invoked by academic and non-academic situations or transitions. These feelings are typically significant enough to solicit a physiological or behavioral response to the situation or transition, especially in adults (Schlossberg, 1995).

Mental health will be defined as factors that address the wellbeing of the student; this includes psychological and physiological matters that may affect a student's ability to function in society at large (functionality in the community college setting). Finally, it is important to take cultural factors into consideration when assessing any of theses matters, but particularly issues of mental health.

Psychological distress will be defined as patterns of behaviors that indicate a disturbance in ones' daily life and mood. These patterns of behaviors may or may not represent diagnosable characteristics as documented in the Diagnostic and Statistical Manual of Mental Disorders Manual –fourth edition (DSM-IV), but they are subjectively distressing.

Limitations

Participants were asked to provide a self-report to the questionnaire utilized in this study. Although this data came directly from the participants, there could have been language barriers, concerns of reading comprehension, and misunderstandings of questions that presented limitations in this study. Because students were asked to complete an electronic questionnaire, versus engage with the researcher face-to-face,

limited experiences of the students were captured, and there may be other factors or influences of interest which were not revealed. Utilizing a cross-sectional design, presented another limitation. This approach failed to track students for a period of time, requiring the researcher to rely on the participants' responses at one moment in time. Further, no reliability and validity for the persistence scale utilized in this project was available, as it was developed for the purpose of this study. Finally, although electronic surveys are well accepted as a research tool, connection, access, and comfort with technology among older students may have been limited.

Summary

The purpose of this chapter was to provide a brief background and a foundation regarding factors that may influence persistence of non-traditional students, who attend community college within the Commonwealth of Virginia. Further, an overview of Tinto's theoretical framework was provided in order to shape the significance of this topic to the literature and mission of the community college system, since its inception in 1901. The purpose, rationale, and research questions were also reviewed in this introductory chapter. For consistency and clarity throughout the remainder of this project, definitions of significant terms were also provided.

Chapter two will provide a thorough review of the literature, including the purpose and mission of the community college system, history of retention among non-traditional students, non-academic social and emotional influences of retention, and the gaps in the fabric of the research. The literature review supports the rationale for this study by establishing a contextual framework for the methodology, illustrated in chapter three. Chapter three introduces and covers the important components of the methodology

that were utilized in this study. Chapter four reports the findings followed by chapter five which further discusses the results, implications, and conclusions.

Chapter II

Literature Review

Introduction

This chapter is presented in five sections. Section one reviews the mission of the community college system from a historical perspective and includes more recent information and statistics supplied by the American Association of Community Colleges (AACC) and the Virginia Community College System (VCCS). Section two presents the theoretical framework that was pertinent in this study. In section three, an in-depth look at non-traditional students is presented as it pertains to those who decide to remain in their community and pursue a post-secondary education at a community college. Section four reviews factors and concerns regarding persistence and goal attainment within the community college system. Although there is extensive research in higher education to address matters of retention, less research has been done regarding non-academic issues as they relate to 2-year community colleges and the factors that affect these institutions. In conclusion, the final section of this chapter reports on factors that represent gaps in the literature.

Historical Overview

Upon its inception, the community college system was referred to as junior college. The mission of junior college was to serve as a bridge between students leaving high school and transferring to 4-year institutions. The first community college (1901) was housed in a high school in Joliet, Illinois (Callan, 1997) with the goal of offering advanced education to all, but also as a filter system for the 4-year institutions of higher learning. This system was further driven by what 4-year colleges and universities believed should be taught (freshman and sophomore level courses) at the junior college

level. The junior college system was designed with the specific purpose of servicing students who were targeted for college; however diversity in the student population was not of concern. It was not until 1932 when junior colleges were recognized as an independent segment of higher learning (Callan, 1997) and in the late 40's when the mission began to shift to be more inclusive of non-whites and lower social economic status students.

The foundation of Joliet was to provide multiple areas of growth in a time where the economy needed a boost. Joliet offered programs that would lead to transfers to 4-year colleges, employment opportunities, student support services, affordability, and basic literacy (History of Joliet, 2000). According to Bragg (2001), from the inception of Joliet forward, the community college system has been complex with multiple focal points that require consideration.

Bragg (2001) further noted the variation of focal points for the community college system throughout history. As evident by the initial name of junior college, community colleges were focused on being a pipeline for 4-year colleges and universities. It was believed that having students complete their freshman and sophomore years at the junior college level would lessen the responsibility of the senior institutions (Frye, 1992). As times changed so did the focus of community colleges. While transferring remained important, the changes in politics and transitions within the economy in the late 1800's and the early 1900's pushed the importance of vocational education (Bragg, 2001; Frye, 1992). The community college setting was determined to be the appropriate location to embrace this shift. Following World War II, the emphasis was on a liberal arts education and then in the 60's developmental education and remediation (Bragg, 2001). In addition

to these noted shifts, both the Truman Commission Report (1948) and the Carnegie Commission on Higher Education report (1974) brought about specific changes.

The Truman Commission report stressed the importance of junior colleges as a benefit to democracy, but even more importantly stressed the accessibility to the majority of Americans (Fonte, 2009). Callan (1997) further noted that the Truman report stressed the need for education to address the ability, interest, and need of students as a primary goal. The Truman Commission was also instrumental in the transition from the term junior college to community college. This is significant in that it notes a transition from community colleges serving the needs of the high schools to serving the needs of the community at large. In 1974, the Carnegie Commission on Higher Education was instrumental in identifying the variation of programs and points of focus for the community college system, contingent upon each state continuing to provide financial support to the institution. Several of the programs and points of focus included general education, transferrable degrees, remediation, cultural programming and continuing education for adults (Callan, 1997).

The 1948 Truman report also prompted a shift in the community college system, not only was the name changed to Community College but there was a shift in who had access to a postsecondary education. As this change occurred, enrollment doubled between1950 and 1970. The mission slowly began to shift to meeting both academic and vocational needs of the community at large. By the 1990's the economy and the work force began to drive the focus of community college. Callan, 1997 noted three major changes that occurred to change the face and needs of community college: technology, economy, and student demographics. Levins, 2000 further examined the revision of

community college, which due to the programmatic changes, explains the major demographic shift that also occurred at the close of the twentieth century.

Levins (2000) noted a complex shift in the mission statement that occurred in the 1990's for community college. This complexity points to the community college needing to respond to businesses, industries, and the government and not so much the needs of the students. While this change in focus from businesses, industries and the government to the employment benefitted the vocational sector and the economy, specific student supported services such as student diversity and remediation were neglected (Bragg, 2001). At the close of the twentieth century the American Association of Community Colleges (AACC) looked at the overarching mission statement with a goal of refocusing on the students.

In 2001, the American Association of Community Colleges celebrated the 100 year anniversary of the establishment of Joliet, by reevaluating the mission statement. The current mission statement begins with, "Building a Nation of Learners by Advancing America's Community College" (AACC, 2009). The statement further emphasized serving society and transitioning from the 20th century of industry to the 21st century of knowledge. Considering these transitions, it is reported in the literature consistent changes in the types of students that are enrolling in community colleges across the country. Despite community colleges being historically homogeneous they have become more diverse than 4-year colleges and universities (Nora, 2004). This diversity extends to not only its students, but to curriculums and opportunities as well.

In 2009 the Obama-Biden Initiative indicated several reforms to strengthen the community college system by 2020, President Obama noted that strengthening the

community college would be evident in students' ability to persist towards their goals. The stated goal is to have 5 million more graduates from the community college setting by 2020. To assist with achieving this goal the President approved additional funding, as colleges at this level typically go underappreciated and underfunded, additionally improving the facilities and on-line skills training. While the initiative is meant for all students attending community colleges, non-traditional students would appear to benefit tremendously. These changes would provide the necessary support and wrap around services that is crucial to the ability of non-traditional students ability to persist towards their goals.

Demographic Statistics

According to the AACC (2009), there are 1,173 community colleges in America, of which 987 are public institutions of higher learning (the remainder are independent and tribal institutions). Most recent complied statistics indicate that there are almost twelve million students enrolled in America's community college system (AACC, 2007). The AACC projected almost a 17% increase in enrollment from 2007-2009. Of the approximately twelve million enrolled, 60% attended school on a part-time basis. The make-up of the students attending community college includes 56% who are 22 and older, 56% women, 40% racial and ethnic minorities (African-American, Hispanic, Native American, and Asian/Pacific Islander), 16% single parents, and 7% international (AACC, 2010).

The Virginia Community College System includes 23 of the 1,173 community colleges in America. The following statistics were reported for the 2009-2010 academic year: 281,243 enrolled (which represents a 7% increase from the previous year), 45% of

students are 25 years old and older, with 66% of students enrolled part-time. The VCCS also notes that more than two-thirds of their students maintain part-time employment, while enrolled at least on a part-time basis. Finally, 59% of the students enrolled in the VCCS are female and 30% are of minority status (VCCS, 2009).

These statistics represent a significant shift in the demographics since 1901, when Joliet was established, and 1948, when the Truman Commission noted the significance of higher education at the community college level. The typical student had been Caucasian, middle class, and male (Callan, 1997). This is no longer the make-up of community colleges across the country. While this facet has been a welcomed and encouraged change, the struggles to understand, serve, and maintain the new population of non-traditional students has been a consistent challenge for the community college system (Brock, 2010). Kim (2002) further noted that for a variety of reasons, a multitude of adults, possessing a wide variety of social, physical and emotional characteristics, are returning to classrooms in search of better lives.

Non-traditional vs. Traditional

As previously mentioned, non-traditional students often represent multiple characteristics, those who start college at 25 years of age or beyond, enroll part-time, maintain at least part-time employment while enrolled (Bean & Metzner 1985; Brock, 2010; Crosta, Calcagno, Jenkins & Bailey, 2006; Kim, 2002) are married or involved in a serious relationship, tend to seek certificate completion versus degree completion (Bailey, Calcagno, Jenkins, Keinzl & Leinbach, 2005) are single parents, displaced workers and/or are veterans (Kim, 2002; NCES, 1998). While many of these characteristics can exist independently, the literature speaks consistently of age (25+) being necessary for

the identification of non-traditional students, and that non-traditional students differ from traditional students (between the ages of 18-24). Traditional students typically attend community college directly following high school, have not previously been employed on a full-time basis, may continue to receive the financial support of family, and their primary commitment is attending and graduating (Choy, 2002).

Crosta et al. (2006) conducted an empirical study examining how non-traditional students' enrolled in community college; enrollment pathways' affect outcomes compared to those of traditional aged students. The authors noted a pattern, that students who come from families with good incomes, have a parent who attended college, have good high school grade point averages, receive some type(s) of financial aid, and attend full-time are more successful at completing a program or gaining a certificate of completion. These students would be identified as traditional. Credit is further given to Tinto's Student Integration Model (1975), noting the importance of both social and academic engagement in retaining traditional students. The above factors that tend to affect traditional students tend not to affect non-traditional students (Crosta, 2006); however Bean and Metzner (1985) noted environmental factors as having a larger impact on non-traditional students than traditional students. Crosta et al. (2006) acknowledged the importance of both Tinto's and Bean's models, but noted that research failed to examine how earning credits at the community college level affects retention and how that might be different for traditional and non-traditional students.

Over a five year period Crosta et al. (2006), collected data from 28 community colleges in Florida and examined the outcomes and experiences of non-traditional aged students (25 or older) who were attending college for the first time. The following

demographic information was also collected over the same five year period; age, gender, ethnicity, educational background, and college level placement scores. Additional information was gathered regarding credits completed and attempted from semester to semester (including the summer semesters), whether students were enrolled full-time or not, programs of study, financial aid received (this information was only gathered in the initial semester), programs completed and final course grades received. The participants were determined to be in the younger cohort if they were 17 to 20 (totaling 29,421), and in the older cohort if they were 25 to 65 (totaling 5,652). Students not falling into either age range were restricted from the study because students entering between the ages of 21-24 would possibly be considered of the older group upon completion (Crosta et al., 2006). The information was then gathered, sorted, and evaluated utilizing a discrete-time hazard model. Using this model was suitable for analyzing longitudinal data and explaining the risks that an event may occur within a given time period to a particular population, while acknowledging that the event may not have occurred (Singer & Willet, 1991).

While the Crosta et al., (2006) study supported the general hypothesis that non-traditional students graduate at a lesser rate than traditional students, it was not because they were older, but because of other environmental factors (extended work hours, poor finances, and responsibilities to families, lack of support, and lack of accessibility to 4-year institutions) (Bean & Metzner, 1985). It was determined that these environmental (non-academic) factors often led non-traditional students to step away from attending school, which affected their grades semester to semester. This supported other arguments

that non-traditional students have to balance multiple life events while attempting to focus on their studies (Bean & Metzner, 1985; Cleveland- Innes, 1994; Spanard, 1990).

This study provided a great deal of support identifying differences in certificate and degree completion between traditional and non-traditional students in Florida, however it failed to explore those environmental factors that affect non-traditional students. The authors noted that more research is necessary, as often environmental factors are not obvious in administrative data sets, like those used in this study (Calcagno, Crosta, Bailey, & Jenkins, 2007). Further, this study failed to explain or identify what about these environmental factors (extended work hours, poor finances, and responsibilities to families, lack of support, and lack of accessibility to 4-year institutions) created academic problems for the non-traditional students.

In 2008, Sorey and Duggan examined the predictors of persistence between traditional students and non-traditional students at a multi-campus, southeastern Virginia community college. This quantitative empirical study identified factors that were found to be important to traditional students, which included grade point average during the fall semester of the study, support, encouragement, academic integration, and the student expressing their intent to leave the school. Factors that were found to be more significant to non-traditional students than traditional students included, commitment to the institution, social integration, academic integration, belief of the futility of the degree, finances, support, encouragement, and expressed intentions of leaving the school (Sorey & Duggan, 2008).

These findings point to the complexity of factors that influence persistence among non-traditional students, while recognizing that there are more variables that affect non-

traditional students that have not been empirically shown to affect traditional students. These variables must be assessed in order to better understand the needs of non-traditional students (Sorey & Duggan, 2008). Despite the importance of this study, it focused on just one institution in southeast Virginia, which limits its applicability both within and outside of that area. The authors recommend more studies to examine the persistence of non-traditional students, as administrators are in difficult positions of maintaining students. Despite previous research, Sorey and Duggan (2008) found that understanding social integration is indeed important, further the authors also concluded that academic advisors in the community college setting have a major impact on students feeling integrated, encouraged and supported.

Both Crosta (2006) and Sorey & Duggan (2008) are two more recent studies that examined factors that affect non-traditional and traditional students attending community college. Despite significant findings, Crosta's study was limited in that it focused solely on students attending community colleges in Florida. Further the empirical study added little understanding regarding environmental factors that affect non-traditional community college students. While Sorey & Duggan's (2008) study focused on students persisting in community college, it was limited in that it only represented one institution within the VCCS.

Theoretical Framework

Tinto's (1975, 1982, and 1987) work on retention and attrition of students pursuing a postsecondary education was considered a major contribution to the literature, and laid a foundation for future research. In 1975, Tinto noted a lack of research that separated academic factors, which led to dropout, versus voluntary reasons for dropout.

He further noted that, often in research, students who completely dropout of school are combined with students who step away from school for a semester or two and return thereafter.

Tinto's early exploration of retention focused on dropout as a process, from a theoretical view (Tinto, 1975). Tinto's Student Integration Model closely examined the interaction of the institution with the individual and why it is significant in students' decisions to return. Tinto noted how similar the interaction between the individual and the institution was to individuals who commit suicide and their social connections (Durkheim, 1961; Tinto, 1975). Durkheim stressed the importance of both moral connections and collective connections in the lives of individuals, and suggested that when these connections are lacking, suicide is likely. Tinto relates the same needs for connecting, to why students dropout of school. This is not to say that those who fail to return to school are likely to attempt suicide; however that integration is important in life and in fitting into academic environments as well. Other elements of Tinto's (1975) model included the ability to predict who will dropout of school; for example individual characteristics and experiences, external influences, interaction within the institute, and characteristics of the institution.

While most of Tinto's work focused on 4-year institutions, he acknowledged how his model could be applicable to 2-year institutions as well (Tinto, 1982). He noted that the retention rates were higher for public schools versus private schools and higher for 2-year schools versus 4-year schools of higher learning. Tinto and others asserted that the retention problem in the 2-year college setting was due to the differences in characteristics (i.e. age, social economy status, and marital status) and demographics of

the students (Astin, 1972; Spady, 1970; Tinto, 1971). At that time, students attending 2-year colleges were considered lower-middle class, unmotivated, and less academically sound, than those students attending 4-year colleges (Astin, 1972). It was also believed that the 2-year colleges were designed to weed-out students who were not suitable for the senior institutions of higher learning or 4-year colleges. Despite Tinto being a primary role player in understanding retention, his primary focus was on 4-year colleges and universities. Further, there are obvious flaws in Tinto's over-all theoretical perspective regarding students, as it relates to retention, 2-year community colleges and non-traditional students.

In 1982, Tinto recognized flaws in his earlier attempts to explain dropout. He noted that his initial theoretical perspective failed to consider interactions unrelated to the institution, financial factors, and the behaviors of the students. Additional research has also criticized Tinto's approach in explaining student dropout. Bean (1980) further noted that Tinto's model of retention was flawed as there was little evidence that retention could be explained by Durkheim's suicide theory. He further, noted that retention could better be explained utilizing Price's Causal model of work place turnover (Price, 1977). The Price model relates to individuals voluntarily leaving their work place. Price (1977) indicated that if a certain level of commitment, satisfaction with the institution (work place or college), and background variables of the individual, did not align, turnover was likely. This approach if examined in reference to student persistence focuses on the students' level of commitment, institutional satisfaction, and background variables when determining retention. Multiple regression and path model analysis were utilized to

better assess students' institutional commitment, satisfaction with the institution and background variables (individual characteristics of the student) (Bean, 1980).

Bean (1980 &1982) was also recognized as a major contributor to the literature on attrition. In 1985, Bean and Metzner furthered Bean's initial work in addressing the issues of attrition amongst non-traditional undergraduate students. In developing a conceptual/theoretical model of attrition (Student Attrition Model) amongst non-traditional students, the authors reviewed differences between traditional and non-traditional students. For example, they noted that non- academic factors influence non-traditional students' decisions to continue or not continue pursuing their education. The authors concluded that a primary factor in attrition for traditional students is social integration variables. Social integration refers to when "there is no institutional and individual fit, meaning there is incongruence between the individual and the institution" (Borglum & Kubala, 2000 p. 568). This is unlike the external environmental factors that affect non-traditional students (Bean & Metzner, 1985). Those environmental factors include such matters as family, employment, and finances, just to mention a few. While there is an abundance of research addressing the social integration variables that affect attrition in 4-year institutions, additional research is needed to better understand and explain the environmental variables that impact non-traditional students in 2-year community college settings.

Bean and Metzner (1985) provided a theoretical explanation of the external environmental factors including extended work hours, poor finances, and responsibilities to families, lack of support, and lack of accessibility to 4-year institutions that impact non-traditional students. These factors further impact psychological factors, which

influence retention rates of non-traditional students (Bean & Metzner, 1985). Bean and Metzner (1985) identified the psychological factors as, commitment to goals, perceived usefulness of a college degree, general satisfaction with academics and stress in their Student Attrition Model. It is further noted in studies conducted in 1975 by Tinto that an increase in goal commitment, the utility of the degree, and over-all satisfaction tend to reduce the intent to leave school while the increase in stress increases the intent to leave school (Bean & Metzner, 1985).

An empirical study conducted by Cabrera, Castaneda, Nora and Hegstler (1992) included 2,453 freshmen participants entering a large southwestern urban 4-year institution. It is significant to note that these students were of traditional status (less than 25 years of age, full-time status, and attending college for the first time) in accordance with the Student Integration Model (Tinto, 1975), additionally a sub-group of Bean's Student Attrition Model (theoretical model that attempts to explain way students' dropout) was the focus of Cabrera's study (1992). The items of the Student Integration Model were selected according to a study of items created by Pascarella and Terenzini (1979). This permitted usage of items based on a factor analyses from a Terenzini, Lorang, and Pascarella (1981) study.

Cabrera, Castaneda, Nora and Hegstler (1992) examined the discriminant and convergent validity between Bean's Student Attrition Model and Tinto's Student Integration Model and whether the two could be combined in an attempt to better understand retention. The points in which the two theoretical models agree include how persistence is assessed over time and involve complex factors such as, how high school factors affect adjustment in institutions of higher learning, and how the fit of the student

and the institution affect retention. Both models agreed that persistence over time is assessed by both institutional and personal factors. The two models did differ in that Bean's Model of Student Attrition focuses on external factors that affect retention, also indicating that academic performance is important, but that it is an outcome of social-psychological factors that drive retention. While Tinto's Student Integration Model focused primarily on academic performance (Bean, 1980; Cabrera et al., 1992).

The study concludes that both theories are accurate in noting persistence being a complex process that includes both institutional and personal factors in determining retention. Bean's model explained more variance in persistence and intent to persist with regard to external factors when considering encouragement and support. Ultimately, this study concluded that the two models were not mutually exclusive of each other and would perhaps provide a more comprehensive understanding of college persistence if the two theories were combined (Cabrera, et al., 1992). Future research and policy makers should consider both institutional and non-institutional factors that affect persistence. While Cabrera, et al. (1992) noted the important contributions of both Tinto's and Bean's theoretical models, both independently and perhaps collectively, they fail to assess the applicability of the theories to non-traditional students who attend community college. These two models also did little to further understand adult learning and the transitions that are necessary for adults when transitioning back to school.

Schlossberg (1982) studied strategies that would assist adults in transition, for example the decision to return to school. Her initial model consisted of a combination of 15 research approaches, however in the initial model Schlossberg failed to provide empirical support of how adults adapt to transitions, nor was there a critical assessment of

the research data presented in the first version. The ability of adult learners to adapt to change is significant. Bean and Eaton (2001, 2002) explained that the adult learners ability to adapt as the process by which one learns to cope with situations. To change was believed to be significant in explaining how these students adjust in environments such as, institutions of higher learning. Schlossberg's original model failed to indicate how adaptation would be measured, leading to changes in the instrument to address the adult learners ability to transition versus adapt (Schlossberg, et al.1995; Summers, 2002).

In 1995, Schlossberg, Waters and Goodman introduced the Transition Model, which addresses several key tenets that have implications of persistence of non-traditional students who attend community college. The first concept in considering this model is the type of transition the adult students face when they begin community college. This could be an anticipated, unanticipated or nonevent that occurs and prompts the transition (Schlossberg, et al., 1995). For example, if a teacher knew she was scheduled for recertification in the next twelve months and needed to take courses at the local community college, this would be identified as an anticipated transition. If someone lost their job and decided to return to school to gain additional skills, this would be an unanticipated transition. A nonevent refers to an event that is anticipated to occur, but does not. The second concept in this model is the importance of assessing how the student views the transition. In most cases, a loss of a job leading to a transition is accompanied by negative feelings, while a teacher being recertified tends to invoke positive feelings. The transition theory goes further to address the 4 S's; situation, self, support and strategies (Schlossberg, 1989; Schlossberg, et al., 1995; Summers, 2002). The 4 S's refer to the adult student's ability to cope with the noted transition.

The situation in the Transition Model considers several factors: control, role change, timing, duration, stress, assessment and previous experience with a similar issue (Schlossberg, 1989; Schlossberg, et al., 1995; Summers, 2002). The self refers to personal and demographic characteristics and psychological resources (Summers, 2002). Psychological resources include the student having the ego strength and self-efficacy to cope with a significant transition in one's life. According to Schlossberg et al., support from family, significant others, friends, and community encourages the adult to persist in spite of the transition (1995). Finally, strategies refer to the responses that ensue following the transition, "direct action, information seeking, inhibition of action, and intrapsychic behavior" (Summers, 2002, p.4).

Tinto (1975, 1982), Bean (1980) and Bean & Metzner (1985) laid a foundation of factors that affect why some students' persist in their educational endeavors and others do not. Some of those factors include social integration, family, support, environment, psychology, and finances that affect dropout and retention rates. While early works focused on 4-year institutions, the need for assessments amongst students attending community colleges became paramount as the demographics of the 2-year institutions continued to change. Sorey and Duggan (2008) and Crosta, et al (2006) further added to the literature the need to identify factors affecting non-traditional students and their ability to persist towards academic goals. Finally, Schlossberg (1995) identified factors that explain transitions for adult students. Four elements of Schlossberg's transition model provide some information as to what considerations should be made in an academic transition amongst adult students.

Dropout

Dropout is difficult to assess from the literature or within the institutional structure, however, it is important to understand how dropping out is differentiated from other interruptions of the academic progress. Often the term dropout includes students who opt-out, stop-out, or transfer out (Hoyt, 2004).

Students who Dropout of school are those who fail to enroll the next semester following either part-time or full-time enrollment (Bonham & Luckie, 1993; Tinto, 1993). Bonham and Luckie also noted that students who Dropout never return to complete their original purpose of entering college, which is different from students who stop-out or transfer-out (1993). Stop-out

Luckie, 1993). These students who stop-out may do so multiple times. Students who transfer-out are those who enroll in other institutions to complete their studies.

Feldman (1993) further explained dropout in a study that concluded that students who dropout tend to be enrolled part-time. Part-time students were 2.23 times more likely to dropout of school than full-time students (Feldman, 1993). Another predictor of dropout was the ethnicity of students; the rate of dropout for minority students (with the exception of Asian students) was greater than that of white students. Research has also indicated that age is a major factor that affects dropout rates (Fischbach, 1990; Brooks-Leonard, 1991). Older students tend to dropout at a higher rate than younger students (Brooks-Leonard, 1991). Finally, dropout is typically referenced negatively in the literature, leading to the belief that the students are failures (Fralick, 1993).

Attrition/Retention

Attrition is similar to dropout in that the term is often viewed negatively (Lenning, Beal, & Sauer, 1980). However, the term is most used interchangeably with retention in the literature. The term attrition refers to actual enrollment numbers lost semester to semester and year to year within an institution. Often attrition is viewed as the institutions inability to maintain students' from their initial enrollment to completion. Further this form of separation can also be decided by the institution versus the student (i.e. suspension due to poor academic performance) (Lenning, et al., 1980).

Retention along with attrition is extensively addressed in higher education literature from decade to decade. Retention is defined as the institutions ability to maintain students (Hagedorn, 2005). More recently the interest of retention in 2-year institutions of higher learning has gained momentum. There are differences between retention in 4-year institutions and that in 2-year institutions (Bean & Metzner, 1985; Sorey, 2006). The primary difference between the two establishments of higher learning is the characteristics of the students who enroll (Bean & Metzner, 1985). In a 4-year setting the majority of students can be classified as traditional, while typical 50% or more of students who attend 2-year colleges are non-traditional (Crosta, et al., 2006). In the literature the difference of residential students at most 4-year colleges and nonresidential or commuter students at most 2-year colleges are explained (Crosta, et al., 2006).

Retention, like attrition, explains the number of students who enroll in an institution. The slight difference between the two in the literature is retention considers the total time a student is enrolled in their initial institution of choice (Bean & Eaton, 2001-2002). The retention research further indicates that student commitment to

educational and career goals is perhaps the strongest factor associated with student persistence to completion (Wyckoff, 1999). This is an indication that a students' ability to persist towards their goals may affect retention rates more so than institutional or academic factors, further supporting the importance of examining the non-academic social and emotional factors that affect persistence and quite possibly retention percentages.

Persistence

Persistence references students' desire, motivation, and intention of attending college and completing their initial purpose in enrolling (Bean & Metzner, 1985; Hagedorn, 2006; Sorey & Duggan, 2008; Tinto, 1975). Unlike dropout, attrition, and retention, the focus on persistence originates with the student and is a constructive way of assessing educational decisions. In early literature, the reasons traditional students, typically attended 4-year institutions were examined by Tinto and Bean (1975, 1985) respectively. The elements of academic and social integration were identified as integral in student persistence. In more recent literature Brock (2010) examined barriers and breakthroughs that lead to the success of non-traditional students persisting towards their academic goals in the community college settings.

Those barriers are representative of continued low enrollment of minority groups and low completion rates in the community college setting and less selective colleges and universities (Brock, 2010). The primary need in breaking through these barriers is for policy makers and educators to develop and support performance based scholarship and create learning communities (Brock, 2010). The assertion is that scholarship would

improve the financial dilemmas and learning communities would affect persistence, which ultimately affects goal achievement, especially amongst non-traditional students.

An additional factor that is believed to contribute to a student's ability to persist towards goals is their psychological orientation (Bean & Metzner, 1985; Sorey & Duggan, 2008; Tinto, 1975). Bean and Metzner (1985) further spoke to psychological outcomes, such as stress, goal dedication, and external factors, such as family, finances, and employment that may also affect this population.

The literature further notes that persistence is affected by environmental factors. Bean and Metzner's (1985) theoretical student attrition model of non-traditional undergraduate student attrition notes environmental factors such as employment status, finances, encouragement, and family responsibility. The belief is that when the environmental factors are aligned with the academic needs, persistence is good and remaining in school is a priority. Likewise, when the environmental factors are not aligned with academic needs, persistence is poor and remaining in school is no longer a priority.

While there is some literature regarding persistence amongst community college students, less has been studied about the differences in persistence between non-traditional students and traditional students (Bers & Smith, 1991; Metzner & Bean, 1987; Sorey & Duggan, 2008; Stolar, 1991). The National Center for Education Statistics (NCES) (2003) has identified seven factors which affect student persistence, including: employment status, students who are single parents, married students with dependents, part-time enrollment, financial independence, high school dropouts or GED recipients, and delayed enrollment into college. Non-traditional students are representative of

several of those factors identified by the NCES. Sorey and Duggan (2008) noted that 50% of students enrolled in the community college system matched two of NCES' identified factors and over 70% of students who enrolled in community college in 1995-1996 identified with one of the seven factors.

Sorey and Duggan (2008) examined persistence as it relates to traditional students versus non-traditional students. The study examined students of ethnically-diverse backgrounds from a community college located in the Southeast Virginia. Two stratified samples were randomly selected, one from traditional aged students and one from non-traditional aged students, yielding 350 students in each group. A questionnaire was used to collect data from each student during the 2005-2006 academic years. Information was gathered at two different time periods during the academic year. The first collection of data occurred in the fall semester of 2005 and the second collection occurred in the spring semester 2006. The researchers ran a discriminant analysis and found that factors that influenced persistence among traditional students included, acknowledging the intent to leave, fall semester grade point average, encouragement and support, and academic integration. Unlike other studies, Donaldson and Graham, 1999 & Metzner and Bean, 1987 supported the importance of social integration for non-traditional students. However, this study provides support for the complexity of persistence as it relates to non-traditional students (Donaldson & Graham, 1999) and the need for encouragement and support as it relates to the persistence of non-traditional students (Nora, 2001).

In Sorey and Duggan, 2008 efforts to understand the predictors of persistence, they examined other models that have shaped beliefs about the retention of non-traditional students. For example in Bean and Metzner, 1985 they moved away from

Tinto's 1975 model, emphasizing social integration as a factor. Donaldson and Graham's (1999) theoretical Model of College Outcomes also addressed this matter and noted five factors that have an impact on non-traditional students life-world environment, adult cognition, connecting in the classroom, individual biographies, and psychosocial factors. Despite the change in emphasis between models, Sorey and Duggan found support of Tinto's 1975 model, that social integration is significant for the persistence of non-traditional students. Sorey and Duggan's (2008) review found no support for Donaldson and Graham's five factors that are believed to affect retention. Donaldson and Graham (1999) asserted that it was not social involvement of non-traditional students that influences persistence; instead it was the classroom and the overall environment of the institution that influenced persistence.

Brock (2010) further examined barriers to the success of non-traditional students in the community college setting. The authors focus was to explore the changes that have occurred, what services have been implemented and what still needs to be done. Brock (2010) notes three areas that warrant additional attention within the educational system: remediation, student support services, and financial aid assistance. Despite tremendous gains in the community college setting, Brock explained, "access to higher education has increased substantially, although some racial and ethnic groups remain underrepresented. But success in college as measured by persistence and degree attainment has not improved at all" (Brock, 2010, p. 110). It is believed that this will not improve until policy makers and educators create performance based scholarships and learning communities.

One recommendation Brock (2010) believed would increase academic outcomes is enhancing student advising and support services. Research has indicated that students, who feel more supported in an academic setting, are better able to persist towards their goals (Bean & Metzner, 1985; Brock, 2010; Sorey & Duggan, 2008). Brock further indicates that the institutions that seek to admit the best and the brightest students and typically traditional students tend to offer significant guidance and support to their students. However, institutions who have an open door policy and admit students from various backgrounds (academically and socially) and typically non-traditional students tend to offer much less guidance and support.

Social support has also consistently been noted as instrumental in student persistence (Bean & Metzner, 1985; Sorey, 2006; Tinto 1975). Non-traditional students tend to thrive with encouragement and support of family and friends (House, 1981). Support meets several needs for students; emotional, feedback, and material (House, 1981). Finally, life stress (events that occur in ones day to day life), also impacts the ability to persist (Sandier, 2002). Especially for non-traditional students who enter college with additional responsibilities, life stress is inevitable. Napoli and Wortman (1998) note that life stress is not directly related to a student's grade point average or ability to be academically successful, but is indirectly related because it affects the student's ability to attend classes on a consistent basis. These struggles not only affect attendance but: create stress and anxiety (psychological factors) for the students.

Non-academic Social and Emotional Factors

Research has shown that there are factors involved with students' abilities to persist in obtaining academic goals (Pascarella & Terenzini, 1983; Tinto, 1975). Bean

and Eaton (2001, 2002) noted "various psychological elements (e.g., personality, coping strategies, and motivation) and environment factors (e.g., social interactions, bureaucratic interactions, and academic interactions)" (p.77) that has an impact on whether students persist towards their goals.

Napoli and Wortman (1998) noted several of those factors that affect persistence as psychosocial measures, in an empirical study focusing on the community college population. These psychosocial measures included social support, self-esteem, life situations that take place during enrollment, personal conscientiousness, social competence, psychological wellbeing, and satisfaction with the institution (Napoli & Wortman, 1998). By-way of a structural equation model the authors noted when disadvantages in these psychosocial measures are combined with disadvantages in other background characteristics (e.g. age, socioeconomic status, and poor high school experiences), students' ability to persist in school becomes challenged (Napoli & Wortman, 1998).

Napoli and Wortman (1998) further examined the psychological factors that impact students, psychological adjustment, social support, and life stress and found that these factors have both indirect and direct effects on students' persistence towards their academic goals. Factors and events that often drive psychological adjustment, social support and life stress include, life situations (especially unexpected things that occur during the semester(s) in which the student is enrolled), self-esteem, social support (family and friends), psychological wellbeing and social competence (Napoli & Wortman, 1998). These types of factors influence whether students attend classes,

whether they are successful (as evidenced by receiving a passing grade(s)), feel successful and competent, and persist towards completion of their academic goals.

In 1998, Napoli and Wortman utilized the Student Adaptation to College Questionnaire (SACQ) to better understand the psychosocial factors that affect retention. The SACQ is a 52-item Likert scale, self-report. The SACQ was developed by and Siryk (1984) to assess students' psychological adjustment. Factors considered by Baker and Siryk (1984) were depression, anxiety, psychological distress and loneliness with a sample of 734, traditional college freshman. Further in 1984, Baker and Siryk assessed the predictive validity of the SACQ and found that psychological distress (i.e. depression and anxiety) affected adjustment and attachment to school, which ultimately affected persistence.

In 1967, Holmes and Rahe developed the Social Readjustment Rating Scale (SRRS), which assesses stress of life events. This instrument examines 43 potentially stressful events that may have occurred over the last 12 months of one's life. The Holmes and Rahe study had subjects rate or weigh how much readjustment was necessary once an event had occurred (1967). For example marriage was given an arbitrary value of 500, other incidents were ranked as more, less or equal to marriage in regards to the stress associated with the event and the amount of readjustment that was needed per occurrence. The weight was then determined by dividing the mean score of the life event by a scaling constant. Upon concluding the 1967 study the death of a spouse and divorce out ranked marriage as an event that currents stress. The rank order has remained since its development. Further the authors indicated that the 43 items was

associated with some coping or adaptive behaviors of the individual completing the assessment (Holmes & Rahe. 1967).

More recently Scully, Tosi and Banning (2000), looked at the SRRS after 30years of it being widely used as a tool for assessing stress by both practitioners and researchers. This research article examined three areas criticizing the SRRS; desirability versus undesirability (positive versus negative occurrences), controllable versus uncontrollable (some affect versus no affect on the occurrences) and contamination factors versus non-contaminated factors (outcomes versus antecedents of occurrences). The examination of the SRRS was completed in two phases.

Phase I consisted of 200 adult residents from Florida, these participants completed the SRRS by telephone. Participants were selected by a random-digit dialing procedure (Scully, Tosi, & Banning, 2000). Three hundred and seventy calls were completed leading to a response rate of 54%. The participants were read the instructions as they had been given in 1967 (Holmes and Rahe) regarding the arbitrary rating of life events, such as marriage. The results of phase I included some shifts in how items were weighted. While death of a spouse and divorce remained at the top of the scale, other events changed, several items shifted downward in weight (creating less stress and requiring less readjustment), retirement, marital reconciliation, and being fired from a job. While other items on the scale had an upward shift (creating more stress and requiring more readjustment), foreclosure on a loan, change in work conditions, and change in financial status. A total of 14 events on the SRRS were reordered in this study.

Phase II consisted of 257 questionnaires being distributed, of the 257 questionnaires, 188 were returned yielding a response rate of 73%. The questionnaire

was designed in two-parts. Part one indicated if an event had been experienced in the last 12 months and part two indicated the level of difficulty experienced by the event (Scully, Tosi & Banning, 2000). This study yielded 17 events as desirable, 18 as undesirable and 8 as neutral. The desirable events accounted for 19% of the variance in predicting stress related outcomes. Further the undesirable events accounted for 13% of the variance, leading the authors to conclude that similarities between desirable and undesirable life events are relatively equal in predicting stress (Scully, et al., 2000).

When addressing rather controllable events or uncontrollable events created more stress, the authors indicated 24 life events on the SRRS being controllable and 18 as uncontrollable. The results noted a commonalty in predicting stress for both controllable and uncontrollable events, there were 14 life events identified as contaminated (antecedent) events and 14 life events that were identified as uncontaminated events. While both attributed to stress, the antecedent events contribute greater variance.

These results contradict critics that undesirable and uncontrollable events create more stress than desirable and controllable events. While in fact all events are predictive of producing stress, therefore requiring social readjustment. However, contaminated (antecedent) events are more predictive of stress than uncontaminated events. The authors found support that the SRRS is a good predictor of stress and therefore social readjustment occurs when one of the 43 items indicated on the scale is experienced (Scully, Tosi, & Banning, 2000). When an event is contaminated, both researchers and practitioners should be cautious of predictability.

Stress is considered a contributing factor for whether non-traditional students return from semester to semester, but research that has been completed has focused

primarily on 4-year institutions, not community colleges (Marsh, 1966; Pantages & Creedon, 1978). The factors that tend to determine retention in 4-year institutions were students' health and family situations. Of the research that considered stress for community college students or commuter students, the following factors are reported as creating stress for non-traditional students, conflicts between peers, family conflict (spouses, children, siblings and parents), illness of self or family, matters of employment, and finances (Chickering & Kuper, 1971; Garni, 1974; Schuchman, 1974). Bean and Metzner (1985) referred to this type of research as autopsy studies: as they are often completed after the fact and specifics about the non-academic factors attributing to poor retention is not known and explored. Another study conducted by Metzner (1984) noted an over-all measure of external stress being the seventh most significant predictor of students' intention to continue educational studies. Sandier (2002) further explored how the persistence of adults in education was affected by perceived stress. Stress was found to be an important variable as it relates to goal commitment, persistence, and grade point average (Sandier, 2002).

A more recent study that focused on stress and coping strategies with community college students was conducted by Pierceall and Keim (2007). This study focused on two community colleges in southern Illinois with 212 students who were enrolled in a psychology class. The authors of this study utilized the Perceived Stress Scale (PSS) along with an additional survey, which collected demographic information from the students. From this study, it was determined that women presented with more stress than men and that there was not a significant difference between the perceived stress of traditional and non-traditional students. The authors subsequently recommend providing

additional information to students regarding stress and how they might effectively cope with stress. The primary avenues that would best promote this additional information would be the community colleges' websites as well as additional in-service training for academic advisors in the community college setting. It is further noted that additional research that examines the amount of stress and sources of stress for students is warranted (Pierceall & Keim 2007) and may even prove to benefit the students and the institutions. An obvious concern of this study is that it only included two community colleges in southern Illinois. This presents a challenge in generalizing the results to community colleges outside of the Illinois geographical area.

Research consistently indicates that the needs of non-traditional students are different from those of traditional students (Bean & Metzner, 1985; Crosta, et al., 2006; Haggan, 2000; Kim, 2002; Tinto, 1987). Due to these differences, Haggan (2000) examined the need for counseling changes in the community college setting in order to meet the transitional needs of non-traditional students. The initial phase for academic advisors is to acknowledge that the dynamics and characteristics of students have changed and will continue to change. Areas that should be considered include; intellectual, cultural, relational, and emotional needs (Haggan, 2000).

Collins and Mowbray (2005) further indicated that community colleges must be equipped to meet the psychiatric needs of students entering college. Collins and Mowbray (2005) also noted an increase of students with psychiatric disabilities on college campuses across the country. The authors identify psychiatric disabilities as including, but not limited to autism, schizophrenia, depression, and anxiety. In two separate studies, Collins and Mowbray (2005) examined services that are available for

students with such disabilities. In their initial study, they examined the disabilities for which students actually sought support and what barriers prevented students from accessing services while enrolled in school. This survey was completed by 275 disability services officers, student support service officers, or a dean of student representatives from ten states. The top three issues for which students sought support were anxiety (34%), affective disorders (25%), and psychotic disorders (15%). The primary barriers for seeking services were fear of disclosing (24%), lack of knowledge about services (19%), fear of being stigmatized (19%), and lack of referral sources (16%) (Collins & Mowbray, 2005). While this study did include responses from both 4-year and 2-year institutions, it failed to obtain information directly from the students and the survey consisted of eight pages, which is lengthy by most standards (Christ & Stodden, 2005).

In another study conducted by Collins and Mowbray (2005), the focus was more on the community college system and understanding policy as it relates to psychiatric disabilities. Despite the Rehabilitation Act of 1973 (section 504) and the Americans with Disabilities Act being in place to describe and protect the legal rights of students, students with disabilities remain underrepresented on college campuses (Collins & Mowbray, 2005). This study also yielded strong support for the community college systems in both North Carolina and California. The authors noted that the disabilities support services in these two states were well developed, however others were not as progressive. The disability support services offered in the North Carolina and California systems included services that address students with psychological disabilities. These services not only assist students with enrollment, students returning semester to semester, but students struggling with psychological matters as well.

Historically there has not been recording (s) of massive injuries or loss of life on the campuses of community colleges across the country at the hands of someone suffering from a mental illness, however the recent events on the campus of Virginia Polytechnic Institute and State University (Virginia Tech) has created numerous mental health concerns. Flynn and Heitzman (2008) noted that this devastating event has moved the profession to thinking more intently about the students attending college and those struggling with mental illness. The authors indicate a few areas that should be considered in developing tools to address disturbed students in the college setting. Some of those areas include the responsibility of the counseling centers, development of threat assessment teams, advocacy for those struggling emotionally, and the need for further empirical research and analysis of the mental health needs of college students (Flynn & Heitzmann, 2008).

The vital information shared by Flynn & Heitzmann (2008), is significant to institutions of higher learning, including community colleges. While Virginia Tech is a four year institution, a similar incident could occur on any college campus. The community college system could learn vicariously by the loss of life and significant physical and emotional injuries and take a proactive stance in addressing the needs of their students. This provides additional support for Collins and Mowbray's (2005) recommendation that state agencies and the government, at all levels, need to collaborate in order to ensure that the rights and needs of students with psychiatric disabilities are being met.

Summary

A review of the historical literature, documents the initial focus of community college being to serve the mid-class, male population. Further the goal was to prepare those students for 4-year senior institutions of higher learning. The literature also documents how the community college has changed and now must focus on a diverse population. The National Center for Education Statistics indicated in 2012, the community college system across America will account for more than six million non-traditional students. More specifically, of the twenty-three community colleges in the Commonwealth of Virginia 45% of the students are of non-traditional age (NCES, 2010).

In an attempt to identify differences between traditional and non-traditional students', empirical studies were reviewed. Numerous empirical studies have indicated that indeed there are differences between the two groups of students (Bean & Metzner, 1985; Brock, 2010; Crosta, et al, 2006 and Sorey & Duggan, 2008). Those primary differences include age, gender, financial status, and GPA; however additional factors have been considered as well: social and environmental factors, integration, family support, and psychological distress.

The ability of non-traditional students to persist towards their academic goals is affected by various things. Most commonly noted factors in the literature are social integration (Sorey & Duggan, 2008), support (Brock, 2010; House, 1981), environmental issues (Bean & Metzner, 1985; Sorey & Duggan, 2008; Tinto, 1975), and psychological factors (Collins & Mowbray, 2005; Napoli & Wortman, 1998).

Bean and Metzner (1985) noted that the prognosis of non-traditional students completing a degree or certificate program is significantly less than that of traditional

students, despite changes that have occurred in intuitions of higher learning. In Brock's (2010) review of the literature he noted that despite increases in access to higher education, success in college, as measured by persistence and degree attainment, has not improved. Research on a state level could provide additional insights as to how to begin addressing these non-academic related factors within the state and beyond as it relates to persistence.

Chapter III

Methodology

This chapter reviews the methodology for this study in eleven sections, which examined the non-academic social and emotional factors that may help explain the persistence of non-traditional students who attend community college in the Commonwealth of Virginia. Section one presents the rationale for the study, sections two through five presents information regarding research questions, research design and measurements respectively. Finally sections six through eleven presents information regarding participants, ethical considerations, consent and confidentiality, method of data collection, data analysis, and limitations of this study.

Rationale for Study

The purpose of this study was to identify non-academic social and emotional factors that influence persistence of non-traditional students who elect to pursue a post-secondary education from a 2-year community college within the Virginia Community College System (VCCS). The literature indicates significant differences between traditional and non-traditional students (Bean & Metzner, 1985; Crosta et al., 2006; Sorey & Duggan, 2008). Some of those differences include age of enrollment, in that traditional students tend to enter college directly following high school and are between the ages of 17 and 19. Traditional students also tend to leave their domestic homes to reside in a dormitory or an apartment close to the institution of their choice (Metzner & Bean, 1987). Further, traditional students may continue to receive the financial support of family, and their primary commitment is attending school and graduating with a degree (Choy, 2002).

By-way of a quantitative approach, I will add to the literature and professional discourse by identifying the non-academic social and emotional factors effecting persistence of students enrolled in community colleges within the VCCS. This research has addressed whether factors that have been identified by other studies are also significant for students attending community colleges within the VCCS. This study has further contributed to the literature by examining self-reported factors that students indicated created psychological distress for them and may ultimately affect their ability to persist towards their academic goals. Finally, if non-traditional students have experienced psychological distress, an attempt was made to identify whether these needs were being addressed.

Research Questions

This study explored the student's self-perception of non-academic social and emotional factors. Additionally, the effects of those factors on the students' ability to persist towards their initial goal(s) were explored. Finally this study explored whether students who sought support for those non-academic social and emotional factors and self-perceived psychological distress are better able to persist towards their goals.

Research Question 1: What non-academic factors are most frequently experienced by non-traditional students attending community college within the VCCS?

Participants were asked to complete the Social Readjustment Rating Scale (SRRS; Holmes & Rahe, 1967). The scale consists of 43 items that may have occurred in one's life over the past 12 months, the SRRS is an assessment tool that examines occurrences that lead to social readjustment and often times illnesses (Holmes & Rahe, 1967).

Research Question 2: **What is the nature of the relationship between non-academic factors and the intent of non-traditional students to persist within the VCCS?**

The responses gathered from the SRRS represented the non-academic social and emotional factors that impact students. Persistence was measured by the participants' indication of completion of initial goal(s) or the plan to continue towards completion of goal(s). This portion of the questionnaire was adapted from Sorey (2006) which was used to examine an individual community college within the VCCS and students indicating their completion of identified goal(s) at the time of initial enrollment or during the semester in which the questionnaire was completed. The intention to complete may or may not be an indication of graduation, as community colleges also allow for certification in various fields. The researcher examined to what degree the two factors are related (occurrence(s) that require social readjustment and persistence) by way of correlation analysis.

Research Question 3: What level of perceived stress and non-specific psychological distress is experienced among non-traditional students within the VCCS?

Participants' responses to the Perceived Stress Scale (PSS) were used to measure perceived stress factors affecting non-traditional students attending community colleges within the VCCS. Participants identified stressors in their lives while enrolled in the community college setting. The intensity and frequency of identified non-academic factors will indicate to what extent non-traditional students are affected.

Further, psychological distress was measured by the participants' indication of experiencing some distress over the past 30 days on the Kessler 6 (K6). This is a six-item measure of self-perceived mental distress. The scale was designed to assess non-specific mental distress in participants, in order to identify the seriously mentally ill (SMI) from less seriously mentally ill (Wittchen, 2010). The American Psychology Association (Watson & Pennebaker, 1989) indicates that psychological distress is a nonspecific term that explains feelings of anxiety, sadness, frustration and other negative emotions. These feelings can range from mild to severe. They can also be experienced for a brief or extended period(s) of time, requiring various levels of adjustment in ones life. Baker and Siryk (1989) indicated that psychological distress affects adjustment to school, which can ultimately affect the ability of students to persist.

Research Question 4: Do students who seek support have a higher likelihood of persisting towards completing their goals within the VCCS than students who do not seek support?

The researcher assessed the mean difference between non-traditional students who seek support and those who do not seek support. The literature indicates that support for non-traditional students is important in their ability to persist (Bean & Metzner, 1985; Sorey, 2008; Tinto 1975). Persistence was the dependent variable allowing the independent variable to be seeking support.

Research Design

A quantitative approach was used to provide an explanation of the self-perceived non-academic social and emotional factors that are related to the ability of non-traditional students to persist towards their goals. A cross-sectional design allowed for collecting

data at one point in time from the participants in this study who were at varying points in their academic careers (Creswell, 2003). This approach was most appropriate for this study in that it allowed an investigation of students across a variety of stages in their academic careers, although it did not allow us to follow the participants over multiple semesters. By way of a survey questionnaire, the non-academic factors of non-traditional students within the VCCS were analyzed using the **Statistical Package for the Social Sciences (**SPSS). Descriptive and frequency information were indicated as a manner of reporting non-academic factors and self-perceived stress and psychological distress of non-traditional students attending community college in the VCCS. Further correlations were utilized in this project, as the relationship between multiple factors were examined.

Measures

An electronic survey questionnaire was administered through Survey Monkey. The questionnaire consisted of questions used to assess the persistence of students enrolled in one of the twenty-three community colleges within the VCCS (Sorey, 2006). In addition, questions from the Perceived Stress Scale (PSS; Cohen, Kamarck, and Mermelstein, 1983) and the K6 (Kessler, 2002 and 2003) mental health screening tool were included in the questionnaire (both instruments are published in the public domain, requiring no additional authorization to reproduce). The PSS is a widely used instrument that measures one's perception of stress (Cohen, Kamarck, & Mermelstein, 1983). The questions were developed with the purpose of assessing the participants' sense of their lives being overloaded, unpredictable and uncontrollable (Cohen, Kamarck, & Mermelstein, 1983). The K6 is a self assessment tool that measures one's level of psychological distress (Kessler, Andrews, Colpe, Hiripi, et al., 2003). More specifically

this tool assesses the level of a significant clinical mental illness one might be experiencing. Finally, the Social Readjustment Rating Scale (SRRS) (also available in the public domain) consists of forty-three occurrences that have been assigned a weight as to what level of social readjustment is typical per event (Holmes & Rahe, 1967).

Perceived Stress Scale

The Perceived Stress Scale (PSS) is a 14-item self-report Likert scale questionnaire and the 10-item version were "designed to measure the degree to which situations in one's life are appraised as stressful" (Cohen, Kamarck, & Mermelstein, 1983, p. 385). This scale was therefore ideal in this research as the participants appraised how stressful their lives feel. The scale was developed for respondents with at least an 8th grade education. In Cohen, Kamarck, and Mermelstein's (1983) study it was determined that adequate reliability and validity was evident in predicting physical and depressive symptomatology in the study, by assessing one's own perception of stressfulness. This empirical study consisted of three sample groups: two college groups and one community smoking-cessation program. The initial college sample included 332 freshman participants from a university in Oregon. The second college sample included 114 students enrolled in an introductory personality psychology course. Finally, the community smoking-cessation sample included 64 program participants. All three groups completed five scales, one being the PSS. The PSS was determined to be a reliable measure of perceived stress in all three groups with alpha scores of reliability of .84, .85, and .86 in each of the three samples (Cohen, Kamarack, & Mermelstein; 1983). The homogeneity of the questions is important in that each item measure the same construct (Pedhazur, & Pedhazur-Schmelkin, 1991).

Further evidence of predictive validity, in this case indicated correlations between life-events stress with depressive symptomatology, and stress with physical symptomatology was found to be significant. This is an indication of the PSS being a valid instrument of prediction of stress, which the scale was designed to do. Cohen, Kamarack, and Mermelstein (1983) noted the scale had adequate test-retest reliability at .85 for the second college group and .55, for the smoking-cessation group however internal reliability in measuring perceived stress was significant for both groups (the 3rd group in this study was not retested). Finally, in an effort to strengthen the reliability of the scale, a 10 item scale was developed (Cohen & Williamson, 1988) which is the version that will be utilized in this study**.**

The original 14 question version of the PSS, which consist of seven positively phrased questions and seven negatively phrased questions, is often shortened to 10 questions. The PSS 10 version has been administered and validated in numerous other countries (China, Hong Kong and Australia) (Cohen, Kamarack, & Memelstein, 1983; Leung, Lam & Chan, 2010). The short version removes three negatively phrased questions and one positively phrased question (Leung, Lam & Chan, 2010).

Cole (1999) examined factors of exogenous variables such as race and gender with the PSS- 10 item scale. This is significant in indicating whether the instrument or questions within the instrument are inherently biased or an authentic representation of differences. Cole (1999) indicated that questions 3, 6, 7, 8, and 10, indicated some differences in gender, reporting higher perceived levels of stress for females. In addition to the Cole (1999) study, Roberti, Harrington, and Storch (2006) gathered additional psychometric support for the 10-item version of the PSS.

The purpose of Roberti, Harrington, and Storch's (2006) empirical study was to provide normative data, factorial findings and construct validation of the PSS 10-item questionnaire for students attending college in the United States (Roberti, Harrington, & Storch, 2006). The participants in this study consisted of 285 undergraduate students enrolled in three different public universities in the United States. The ages of the participants ranged from 17 to 60 with a mean age of 23.8 years. Data was collected from the participants following approval by the institutional review board of each school. The PSS-10, the Sensation Seeking Scale, Form V (SSS-V) (40-item scale designed to measure arousal and stimulation needs), the Multidimensional Health Locus of Control, Form A (MHLC) (18-item scale designed to measure health locus of control), the Santa Clara Strength of Religious Faith Questionnaire- Short Form (SCSRFQ-SF) (5-item self-report scale designed to measure religious faith) and the Adult Aggression Scale (12-item scale designed to measure the relational and overt aggression of adults) was used in this study.

The authors reported both the internal consistency and interscale correlation of the PSS-10 (Roberti, Harrington, & Storch, 2006). The PSS-10 alpha reliability coefficient score was reported as .89. Further the overlap between the 6 items of the PSS-10 that measured perceived helplessness (.85) and the 4 items that measured perceived self-efficacy (.82) was indicated noting good internal consistency of the instrument. The convergent and divergent validity was also indicated in this the study. The convergent validity was calculated between the STAI total score and the MHLC. The PSS-10 had low to moderate correlation with the MHLC and a high correlation with the STAI total score. The divergent validity was indicated between the PSS-10 and the SSS-V, the

SCSRFQ-SF, the OA subscale, the RA subscale. The only scale that indicated a slight positive correlation with the PSS-10 was the RA subscale. Roberti, Harrington, and Storch (2006) were able to conclude that the PSS-10 is a valid and reliable measure of perceived stress amongst US students who participated in their study.

Extensive research is available noting the objective view of how stressful a person may feel or perceive their situation to be (Cohen & Weinstein, 1981; Dooley & Catalano, 1980) however the authors noted little is known regarding the subjective view of stressfulness (Cohen, Kamarack, & Mermelstein, 1983). The objective research would include the actual number of times an event occurs. For example, if someone repeatedly makes failing grades on quizzes and tests, the amount of stress related to this would be measured by how many times failing grades were received. However, in obtaining the subjective view, for the same example, would require incorporating how the person receiving the failing grades perceived the situation. This is the role of the PSS.

Kessler 6

K6 is a six-item measure of self-perceived mental distress. The K6 was originally developed as the K10, by Kessler (2002). The instrument was developed with the support of the U.S. government's National Center for Health Statistics. The purpose of the scale was to assess self-perceived non-specific mental distress in order to identify the seriously mentally ill (SMI) from less seriously mentally ill (Wittchen, 2010). Over time a truncated version of the K10 was used, which is now known as the K6. Both versions have been used in multiple countries to assess the presence of a serious mental illness (Kessler, Barker, Colpe, Epstein, Gfroerer, Hiripi, et al, 2003). Further, the K10 and the K6 versions have almost a perfect correlation of r= 0.97 (Kessler, Barker, Colpe, Epstein,

Gfroerer, Hiripi, et al, 2003) between them. The shortened version has been shown to be as clinically valid as the K10, and tends to be used most frequently. Therefore the K6 will be used in this study as a quick self-assessment of the participants' psychological distress and whether they are likely to be dealing with a SMI, moderate mental illness or not experiencing a mental illness at all.

The authors compared the measurability of the K6 with the Composite International Diagnostic Interview Short-Form (CIDI-SF) scale and the World Health Organization Disability Assessment Schedule (WHO-DAS). It was determined that all of the previously mentioned screening scales significantly related to SMI. However, neither instrument improved prediction of SMIs, significantly over the K10 or K6 scales. The K6 was determined to be the most efficient scale, despite its brevity.

There are other instruments that measure for SMI (the WHO Composite International Diagnostic Interview (CIDI), and the General Health Questionnaire (GHG-12); however the K6 demonstrated almost equal predictability of self-perceived mental distress. An Australian National Survey of Mental Health and Well-Being administered several instruments to participants and noted the following results. The CIDI, the GHG-12, along with the K10 and K6 (Furukawa, Kessler, Slade & Andrews, 2003) were administered during this study as predictors of SMI. The K10 was noted to be slightly better than the K6 in screening for anxiety and mood disorders; however the K10 and K6 were both significantly better in predicting mental distress than the other two instruments used in the study. The confidence interval (95%) for the K10 was 0.89-0.91and for the K6 was 0.88-0.90 (Furukawa et al., 2003). The authors concluded that the K6 is a preferred screening instrument of the Diagnostic and Statistical Manual of Mental

Disorders Fourth Edition (DSM-IV), due to its consistency across subsamples and brevity of the tool (Furukawa et al., 2003).

While the K6 has demonstrated predictive qualities that support the DSM-IV classifications, it is not the best instrument for diagnosing and should not be used as a diagnostic tool. The K6 allows a brief assessment that provides a broad screening of SMI (Wittchen, 2010). This further made this instrument appropriate for this study as a broad assessment of the psychological needs of the participants and it was not used for the purpose of diagnosing.

Persistence Measure

Persistence in this study was measured by questions developed by the researcher. Following the review of a persistence measure, utilized in a pervious study focusing on the VCCS (Sorey, 2006), a three-question measure was used in this study. Sorey's study provided significant information regarding predictors of persistence, however it was solely focused on one institution within the VCCS. This study examined factors that related to persistence, along with other stressors that may affect non-traditional students attending community college within the VCCS, allowing for more generalizability within the system and across the state.

The three-question measure inquired about whether the student expected to complete their goal(s) of attending a community college, during the period in which the questionnaire was completed. Further, if it was determined that they did not expect to complete their goal(s) then they were asked if they planned to return to the community college and whether they expected to complete at a future time. While reliability and

validity of these questions had not been determined, they were appropriate in examining the student's expectations to persist in this study.

Social Readjustment Rating Scale

The Social Readjustment Rating Scale (SRRS) is a scale made up of forty-three items that have been assigned a weight as to what level of social readjustment is typical per occurrence (Holmes & Rahe, 1967). In 1978, Gerst, Grant, Yager and Sweetwood examined the reliability of the SRRS. The SRRS was administered on three separate occasions with the same two groups of participants (159 in the psychiatric in-patient group and 213 in the normal control group). Rank order correlations were then made between each scoring of the SRRS. For both groups the rank order weightings was similar ($r = .91$) to Holmes and Rahe (1967) initial rank order weightings of $r = .96$ (Gerst, Grant, Yager & Sweeetwood, 1978). It was concluded that the normal control group provided a stable rating of the items per completion. However, those participants who were in the psychiatric in-patient group were less able to accurately report life changes over time. This provided support for persons not suffering with an illness being able to accurately self report life changes and readjustments over time.

Further, Scully, Tosi, and Banning (2000), indicated that events occurring recently (within the last 12 months) are closely related to symptoms currently experienced ($r = .44$, $p < .05$). Scully, Tosi, and Banning (2000) also found support for Holmes & Rahe (1967), original belief that life change occurrences are good predictors of one's present perceived stress related symptoms.

Participants

The participants in this study were solicited from each institution within the Virginia Community College System (VCCS). Once institutional permission was granted, participation was encouraged, followed by obtaining the individual consent of the participants. Participants in this study were students enrolled in a community college within the VCCS, who were 25 years of age or older and enrolled on at least a part-time basis. The participants in this study may be attending community college for various reasons, such as degree completion, transfer, certification, general interest, unemployment requirements of the Virginia Employment Commission, or undeclared interest. Additional information regarding the characteristics of the participants will be noted as a part of the results to be reported in chapter IV.

Ethical Considerations

Ethical concerns in this study, beyond basic research ethics, are limited, as no identifiable information was collected from the participants. The participants were informed of their right to refuse to participate or discontinue participating in this study without penalty. Because data was collected using on-line survey methodology, there were no face-to-face interactions with participants, allowing for anonymity. However, there was a slight risk that if a participant was currently struggling with a social or emotional matter that participating in this study could trigger additional stress. Likewise, students who were not currently experiencing stress may have experienced some discomfort when asked to reflect on various situations in their lives. Information regarding how support services can be accessed was provided for students giving consent

as well as those who selected not to give consent. This was located at the conclusion of the survey.

Another ethical consideration was this researcher's role as an Academic Advisor at an institution within the VCCS. This researcher took precaution not to dialogue about this study and its results with unauthorized personnel at my institution (Central Virginia Community College) or otherwise. If the occasion to dialogue with a participant from Central Virginia Community College did arise, this researcher was unable to identify the individual responses of the student, as results were entered directly into a spreadsheet through Survey Monkey. My commitment to upholding ethical considerations was paramount as outlined in the American Counseling Association Code of Ethics (ACA, 2005). Finally, data and results are maintained on a password protected computer, ensuring that no persons other than this researcher and my committee will have access to the information.

This researcher submitted an application to the Institutional Review Board (IRB) of Virginia Polytechnic Institute and State University (Virginia Tech) for the committee's approval of this study. The mission of the Virginia Tech IRB is to "protect the rights of and ensuring the safety of human subjects participating in research conducted by faculty, staff, and students of the University" (Virginia Tech, 2011).

Informed Consent and Confidentiality

Prior to completing the questionnaire, each participant was asked to read and voluntarily give his or her consent to participate. Consent was acknowledged by the participants' affirmative response that they are willing to participate in the study, also recognizing that they are able to withdraw from participation at any time. Finally,

participant's decision to not participate in this research had no direct or indirect effect on their academic performance. Confidentiality, IRB approval, rights to withdraw from the study and the responsibilities of the participants was explained in detail, prior to the each student being permitted to proceed to the questionnaire.

Data Collection Procedures

The questionnaire, informed consent and a link to the electronic survey were emailed to all 23 institutions within the VCCS. The emails were directed to the college president or a research designee of the institution, requesting their permission to conduct the research within their institution. This researcher provided instructions for distribution to each institution that participated in the study. Research guidelines of each institution, including when additional forms and approval procedures may be required, were followed. It is significant to note that there was not a specific research protocol for community colleges within the VCCS. Upon approval, the designee identified students meeting the non-traditional parameter of students' 25years old and disseminated the email that included the consent information and the link to the questionnaire. Two weeks after the initial emails were sent, a follow-up request was made with a notification of the closing date for the questionnaire to the research designee or president of each institution. This researcher did not have direct access to the students who ultimately completed the questionnaire, however total numbers of emails sent and emails returned (as not deliverable) were requested from the research designee. Upon completion of the questionnaire, the researcher and the committee have sole access to the information for analysis, review, and reporting the results as a part of this project. However, results may

be disseminated to individual institutions, about their institutional results, at their request if there is no chance of identifying students.

Participants were invited to participate in this study via an emailed link created using Survey Monkey. Participants were informed of the purpose of the study, specifically to examine non-traditional students' persistence in achieving their initial goal(s) of attending a community college in Virginia, non-academic social and emotional factors that affect non-traditional students' ability to persist were identified as well. Further, it was noted that students could consent to participate in the study, but have the right to withdraw from participation at any time. Participants were made aware that no identifying information was being collected as to maintain confidentiality. Finally participants were informed that no grade penalty or reward will result in their participation of the study.

Data was collected through a questionnaire, delivered through Survey Monkey, which is a secure encrypted surveying tool. Online data collections are becoming more and more popular as technology becomes more and more user friendly. Granello and Wheaton (2004) noted several advantages and disadvantages to collecting data in this format versus paper and pencil. Some of the advantages of the online approach include allowance for flexibility in control, reduction in response time, low cost and simplification of data entry (Granello & Wheaton, 2004). Some of the disadvantages in the online approach included technical difficulties, errors in measurement, sample representation, and perhaps most importantly response rates (Crawford, Couper, & Lamias, 2001; Granello & Wheaton, 2004). To offset the low response rate one reminder was sent to the participants encouraging their participation. Despite there being a risk of

a low response rate, Cooper, Cooper, Junco, Ship et al (2006) note the online method of conducting research as being both effective and efficient.

Data Analysis

Responses to the questionnaire was electronically downloaded from the secure Survey Monkey server by this researcher and subsequently analyzed. The data was analyzed utilizing SPSS, which allowed the researcher to both manage the data and maintain quality assurance. The data was stored on this researcher's laptop, which is password protected.

The analysis of the data will be reported as a part of this project, addressing each of the research questions. The formatting will include, demographic data, reporting of results as they relate to the research questions, a summary of results and recommendations.

Limitations

One limitation of this study was that participants were asked to self-report survey information. Although this data came directly from the participants, there could have been misunderstandings of the questions, language barriers, and concerns of reading comprehension. Because students were asked to complete an electronic questionnaire, versus engage with the researcher face to face, limited experiences of the students were captured, and there may be other factors or influences of interest that are not revealed. Another limitation of this study was utilizing a cross-sectional design; this approach does not track students for a period of time, requiring the researcher to rely on the participants' responses at one moment in time. Little reliability and validity for the persistence scale that was utilized in this project is known. Finally, although electronic surveys are a well

accepted research tool, connection and access issues may have been limited, as was comfort with technology among older students (Schleyer & Forrest, 2000).

Summary

This chapter provided an overview of the methodology, research design, data collection, and data analysis for this study. The purpose of this study was to identify the non-academic social and emotional factors that affect the ability of non-traditional students to persist towards their goals. The non-traditional students in this study represent those attending community colleges within the VCCS, allowing the results to be generalized across the state of Virginia. To accomplish these goals a non-experimental, quantitative cross-sectional design was chosen. Results of the data analyzed are reported in chapter IV.

Chapter IV

Results

Four research questions directed this quantitative study in identifying non-academic social and emotional factors that influence persistence of non-traditional students who elect to pursue a post-secondary education from a 2-year community college within the Virginia Community College System (VCCS). This chapter is presented in six sections: participant information, quality of instrumentation, sample descriptives, findings, other findings, and summary. Chapter four reports the results of the following questions:

1. What non-academic factors are most frequently experienced by non-traditional students attending community college within the VCCS?
2. What is the nature of the relationship between non-academic factors and the intent of non-traditional students to persist within the VCCS?
3. What is the level of perceived stress and non-specific self-perceived psychological distress experienced among non-traditional students within the VCCS?
4. Do students who seek support have a higher likelihood of persisting towards completing their goals within the VCCS than students who do not seek support?

Participants

Invitations to participate were sent to the presidents of all 23 community colleges within the VCCS. Eleven of the twenty-three community colleges (47.8%) agreed to email their non-traditional students the invitation to participate in this study. Of the

remaining twelve community colleges, seven (30.4%) provided an explanation as to why they would not be participating and the other five (21.7%) were nonresponsive to the initial invitation. The reasons for institutions not participating in this project included being back-logged with other research projects, lacking time, lacking research staff support, wanting initial approval from the VCCS, and wanting a follow-up qualitative study to this project.

Community colleges in the Commonwealth serve both rural and urban settings. The institutions are ranked according to size and the population they serve, with tier-one institutions enrolling the largest number of students and tier-three institutions enrolling smaller numbers. For example Northern Virginia Community College enrolled 46,619 students ranging in age from <17 to 60+ in the Fall of 2009, representing a tier one institution and Eastern Shore Community College (a tier-three institution) enrolled 987 students during the same semester (VCCS, 2009). The participants in this study represent 5 tier two institutions and 6 tier three institutions. No tier one institution was able to participate in this study. As a result, all non-traditional students (defined as ages 25+) enrolled during the fall 2011 semester in eleven of the twenty-three community colleges in the state of Virginia were invited to participate in this study. Of those invited to participate, 1,694 students responded to the survey.

The 1,694 participants represent eleven community colleges in the Commonwealth of Virginia. More specifically six (54.5%) of the eleven schools supplied the researcher with a total number of emails sent to their students that were 25 or older. Paul D. Camp, Lord Fairfax, Central Virginia, J. Sargeant Reynolds, New River, Virginia Highlands all indicated a total number of emails sent, requesting the

participation of non-traditional students enrolled in their perspective institution. Paul D. Camp sent 700 emails with a 6.9% response rate (n = 48). Lord Fairfax sent 2003 emails with a 12% response rate (n = 240). Central Virginia sent 1700 emails with an 11.6% response rate (n = 197). J. Sargeant Reynolds sent 5,977 emails with a 7.8% response rate (n = 468). New River sent 312 emails with a 3.5% response rate (n = 11) and Virginia Highlands 881 emails with a 4.0% response rate (n = 35). The previously mentioned institutions made up 59% of the responses participating in this study (n = 999). However, five schools (45.5%) were not able to indicate how many actual emails were sent to their students. Reasons noted for not supplying this information included not having the information available, not having the capability of tallying the number of emails sent, invitations being sent by the information technology department versus the research department. The non-reporting schools; Blue Ridge, Southside, Virginia Western, Thomas Nelson, and Southwest make up 41% of students participating in this study (n = 695).

Data Cleaning

For this research project non-traditional students from eleven community colleges in the Commonwealth of Virginia were sent the link and invited to participate. Of those eleven community colleges, 1,694 students responded to the electronic survey established in Survey Monkey. Four scales were used: The Perceived Stress Scale (PSS), Kessler-6 (K6), a Persistence Measure, and Social Readjustment Rating Scale (SRRS). Not all individuals who entered the survey completed all of the items; further several exclusion decisions were necessary regarding not giving consent and age of the respondent. As a

result, 61 participants were excluded from the survey, allowing 1,633 responses to be analyzed. The process of data cleaning will be reported below.

Prior to data analysis a review of missing information was conducted. If consent was not given (n = 12), the student was not included in the analysis. Further, students needed to respond to the initial persistence question, that indicated they would be obtaining their goal(s) of attending a community college or the subsequent persistence questions indicating their plan of continuing to pursue their goal(s) at the community college. When neither of these conditions were met the students total persistence score could not be calculated. Students not responding (n=5) to the persistence questions were also not included in the final analysis. The ages of non-traditional students ranged from 25-72 (M = 39.26; SD = 10.05). Five participants were deleted from the study as they reported being younger than 25 and two were deleted due to errors in data entry. Further there were persons who entered the survey, but who did not respond to the questions (n = 37) and were therefore eliminated from the study. Following the review for missing data and prior to the analysis, this study yielded 1,633 responses.

The Perceived Stress Scale consists of 10 questions. Of the 10 questions 4 required reverse scoring (numbers 4, 5, 7, and 8) (Cohen, Kamarack, & Mermelstein, 1983). The author indicates this being necessary as they are positively phrased questions. Twenty-two participants elected to skip the entire question and eighteen participants responded to only half of the 10 items. Therefore 40 students were omitted from this analysis, not the entire study (n = 1593).

The Kessler 6 consists of 6 questions. All questions were reversed scored and totaled, allowing each participant to have a final score. This scale yielded 1,587

responses with 46 students skipping this section. Finally the Social Readjustment Rating Scale consists of 43 items. The items are weighted from events that would require more social readjustment to those that would tend to require less (for example the loss of a spouse would require more social readjustment than a minor traffic violation). Participants skipped various items on this 43 item scale. Due to the variability of the responses only the participants who responded to all 43 items on the SRRS were utilized in the analysis (n = 1313). Further participants who responded 100% in the positive to all items or 100% in the negative for all items were deleted; either extreme would indicate that over a 12month period no social readjustment event occurred or every possible event occurred as indicated by the SRRS.

Measures

This study used four instruments to answer the research questions, the Perceived Stress Scale, the Kessler 6, a persistence measure (developed by this writer), and the Social Readjustment Rating Scale. The researcher also developed several questions to gather demographic data and information regarding the students' sources of practical, social, and emotional support. That support may have come from different sources family, finances, the community college and/or professionals (e.g. doctor, minister, counselor, academic advisor, or psychiatrist).

Perceived Stress Scale

The Perceived Stress Scale (PSS) is a 10-item Likert scale questionnaire developed to measure how stressful someone perceives his or her life to be (Cohen, Kamarack, & Mermelstein; 1983). Participants were asked about their feelings and thoughts during the last month. In each case, they were asked to indicate how often they

felt or thought a certain way (0=never, 1=almost never, 2=sometimes, 3= fairly often and 4=very often) in response to certain stressors. There are four questions on the PSS-10 that required reverse scoring (items 4, 5, 7 and 8). This was necessary because these questions are positively phrased questions, unlike the other six. After reverse scoring, the sum of the responses was totaled. Response totals ranged from 0-40. No specific cut-offs have been set as to what is a high, medium or low level of perceived stress. However, the mean scores for gender, age and race were provided for comparison (Cohen, Kamarack, & Mermelstein; 1983) (see Table 1).

Table 1

PSS 10 norm scores by demographic groups

Category	Norm Group			Current Study		
	N	Mean	S.D.	N	Mean	S.D.
Gender						
Male	926	12.1	5.9	403	14.8	7.6
Female	1406	13.7	6.6	1172	16.6	7.1
Age						
18-29	645	14.2	6.2	210	16.8	3.5
30-44	750	13.0	6.2	652	17.1	4.7
45-54	285	12.6	6.1	341	16.3	5.4
55-64	282	11.9	6.9	89	16.7	4.7
65 & older	296	12.0	6.3	13	13.4	2.8
Race						
white	1924	12.8	6.2	1128	16.1	7.3
Hispanic	98	14.0	6.9	33	14.3	5.8
black	176	14.7	7.2	263	16.0	7.5
other minority	50	14.1	5.0	69	18.7	7.6

*Note: Table taken from Cohen, S. & Williamson, G (1988)

The Perceived Stress Scale (PSS-10) yielded an internal consistency reliability alpha rating of .97 (*n* = 1589; 22 participants omitted this item and were omitted from this analysis). This is acceptable, as it is above the .7-.8 estimated ratings supported by the literature (Hulin, 1990; Nunnally, 1967).

Kessler 6

The Kessler 6 (K6) was utilized in this study to measure distress over the last 30 days. Students indicated how often they felt; nervous, hopeless, restless or fidgety, depressed and nothing being able to cheer them up, everything being an effort, and worthless. The range of choices included all of the time (1), most of the time (2), some of the time (3), a little of the time (4), or none of the time (5). The responses were then reverse coded, yielding the range of 0-24 (all of the time 1= 4, most of the time 2 = 3, some of the time 3 = 2, a little of the time 4 = 1, and none of the time 5 = 0 [*n* = 1,587; 46 omitting these items]). Respondents scoring 19 and above are at risk of experiencing significant psychological distress, moderate mental illness, or even serious mental illness (Kessler, 2002). The internal consistency reliability of the K6 in this study was .95 (*n*=1589). This score is slightly higher than in other studies using this instrument yielding reliability scores of .88-.90 (Kessler, Barker, Colpe, Epstein, Gfroerer, Hiripi, et al, 2003; Furukawa et al., 2003).

Persistence Measure

The persistence measure consisted of 3 questions. The three items were developed to assess whether a student would persist towards their goal(s) (see Appendix D). The first question was whether the student would be achieving their goal of attending their community college at the close of the current semester. If the response to this

question was ‘yes’, the student was awarded 6 points, likewise if a student’s response was ‘no’, the student was awarded 0 points. The non-traditional students who indicated they would be achieving their goals skipped the following two questions, but students, who responded ‘no’ to whether they would be achieving their goal during this same time, were asked two additional questions. First, whether they expected to return the following semester and second, whether they expected to complete their goal of attending a community college at a point beyond the current semester. The response options included (0) strongly disagree, (1) disagree, (2) agree, and (3) strongly agree. In order to assign points to each response and yield a final persistence sum, the responses were scored with strongly agree=3 points, 2 agree= 2 points, 1 disagree= 1point, and 0 strongly disagree = 0 points. The reliability and validity information for this persistence measure is not available, as the researcher created it for the purpose of this study.

Social Readjustment Rating Scale

The Social Readjustment Rating Scale (SRRS) is a 43 item measure that asks participants whether a specific event occurred within the past 12 months (Holmes & Rahe, 1967). The items within the scale are weighted from the death of a spouse to minor violations of the law (traffic tickets), with a death of a spouse requiring more social readjustment than a minor traffic violation (Holmes & Rahe, 1967; therefore death of a spouse would earn a higher life change value score. Participants were permitted to respond or not respond to each individual item. Of the 1,633 responses, only 1,313 elected to respond to all 43 items that make-up the Social Readjustment Rating Scale.

Description of Sample

The questionnaire utilized in this study provided additional information regarding the non-traditional students enrolled in the VCCS. Twenty-six percent of the respondents were male and seventy-four percent female with 93 students skipping this question. Further, 75% of the respondents were high school graduates (*n* = 1126) and 13% had earned their General Educational Development (GED) diploma (*n* = 214), and 8% (*n* = 128) indicated none of the above. The 'none of the above' category captured students who already earned a bachelor's degree and those who have shown an ability to benefit. Individuals without a high school diploma or GED can demonstrate, via a community college administered test that they could benefit from attending college. Four percent (n = 67) omitted this question.

Table 2

Participant descriptives by racial identification

	# of Respondents	Percentage
American Indian/ Alaskan	15	.9%
Asian/ Pacific Islander	20	1.2%
Black African American	266	16.3%
Hispanic	34	2.1%
White	1144	70.0%
Bi-racial/ Multiracial	37	2.3%
Prefer not to answer	63	3.8%
Totals:	1,572	96.6

*Note: 56 students skipped this question (3.4%)

The ages of the respondents ranged from 25-72(M = 39.26; SD = 10.05) with 220 students electing not to indicate their ages. Because the survey was sent to students (from their institution) who met the definition of a non-traditional, being 25 years of age or older, the 220 who did not respond were not eliminated from the study. Further the racial identification of the respondents is reported in Table 2, with whites being the most represented in this study and Asian/ Pacific Islander being the least.

Academic information that is often important regarding students who enroll in community college was also collected. Of those who responded to this survey 37.5% (*n* = 614) were enrolled full-time (12 credits or more) and 59.0% (*n* = 964) were enrolled part-time (< 12 credits) (3.5% skipped this question, *n* = 57). The grade point averages (GPA) ranged from 0 to 4.0, with a mean GPA of 3.48. Finally, 22% (n = 347) of students participating in this study were enrolled in college for the first time.

General non-academic factors regarding the non-traditional students who participated in this study included, marital status, English as a second language, average number of hours worked per week and number of dependents. Of the respondents who answered the item regarding current marital status, 47.9% were married, 18.5% were single, 11.0% divorced, 5.7% separated, 1.7% widowed, and 11.7% involved in a significant relationship or have a partner
(*N* = 1578, 57 omitted this item). Additionally, almost 60% of this sample was responsible for at least one dependent child (see Table 3). Further 13.8% were responsible for at least one adult dependent (*N* = 1577, 95 omitted this item). English was a second language for 4.8% of the respondents. Fifty-nine percent of students

reported maintaining at least one job at the time of participation (n = 1574, 98 omitted this item).

Table 3

Number of Child(ren) Dependents

	# of Respondents	Percentage
None	622	38.0%
1	377	23.1%
2	341	20.9%
3	141	8.6%
4	64	3.9%
5+	30	1.8%
Totals:	1,575	96.4%

*Note: 59 students skipped this question (3.6%)

Findings

Research Question 1: What non-academic factors are most frequently experienced by non-traditional students attending community college within the VCCS?

Non-traditional students attending community college within the VCCS completed the SRSS, indicating factors that they have experienced in the last twelve months that may have required some social readjustment. Further, in some cases these factors could have also led to some form of illness (Holmes & Rahe, 1967). The five factors that were indicated at the highest response rates (≥ 40%) included beginning or ending school (44.1%; n = 625), change in eating habits (45.5%; n = 647), change in

sleeping habits (47.3%; n = 672), change in financial state (52.9%; n = 752), and Christmas (or other major holiday) (58.1%; n = 826). See Table 4, for complete results.

Table 4

Social Readjustment Rating Scale (SRRS) results as they relate to persistence

SRRS items	% Yes (*n*)	% No (*n*)
Death of Spouse	.7(9)	96.0(1304)
Divorce	3.3(43)	96.7(1270)
Marital Separation	6.9(90)	93.1(1223)
Jail term	.6(8)	99.4(1305)
Death of a close family member	22.2(291)	77.8(1022)
Personal injury or illness	32.0 (420)	68.0(893)
Marriage	4.2(55)	95.8(1258)
Fired at work	7.7(101)	92.3(1212)
Marital reconciliation	2.4(32)	97.6(1281)
Retirement	1.7(22)	98.3(1291)
Change in health of family member	37.1 (487)	62.9(826)
Pregnancy	4.6(60)	95.4(1253)
Sex difficulties	19.0(250)	81.0(1063)
Gain of a new family member	13.3(174)	86.7(1139)
Business Adjustment	23.3 (306)	76.7(1007)
Change in financial state	**57.3(752)**	**42.7(561)**
Death of a close friend	10.4(137)	89.6(1176)
Change to different line of work	24.0(315)	76.0(998)
Change in no. of arguments with spouse	24.7(324)	75.3(989)
Mortgage over $ 50,000	19.0(250)	81.0(1063)
Foreclosure of mortgage	4.8(63)	95.2(1250)
Change in responsibilities at work	31.1(408)	68.9(905)
Son or daughter leaving home	11.2(147)	88.8(1166)
Trouble with in-laws	11.7(154)	88.3(1159)
Outstanding Personal Achievements	38.2(502)	61.8(811)
Spouse begins or stops work	13.6(178)	86.4(1135)
Begin or end school	**47.7(626)**	**52.3(687)**
Change in living conditions	25.4(334)	74.6(979)
Revision of personal habits	27.9(366)	72.1(947)
Trouble with boss	15.2(199)	84.1(1114)
Change in work hours or conditions	33.9(445)	66.1(868)
Change in residence	21.0(276)	79.0(1037)
Change in school	12.3(162)	87.7(1151)
Change in recreation	17.7(233)	82.3(1080)
Change in religious activities	29.6(389)	70.4(924)
Change in social activities	36.8(483)	63.2(830)
Loan less than 50,000	25.1(330)	74.9(983)
Change in sleeping habits	**51.2(672)**	**48.8(641)**
Change in no. of family get together	32.1(422)	67.9(891)
Change in eating habits	**49.3(647)**	**50.7(666)**
Vacation	39.4(517)	60.6(796)
Christmas (or other major holiday)	**62.9(826)**	**37.1(487)**
Minor violation of laws	15.4(202)	84.6(1111)

*Note: Total N=1313

It is important to note, that while not all factors affected all of the respondents, all factors were endorsed as creating stress by at least 10 students. Further, numerous factors were endorsed by the same respondents, indicating that non-traditional students often struggle with multiple stressors. Because each event is weighted (11-100), yielding individual Life Change Unit (LCU) scores. The LCU scores ranged from 11 to 970 (n = 1313; M = 263.56, SD = 150.248).

Research Question 2: What is the nature of the relationship between non-academic factors and the intent of non-traditional students to persist within the VCCS?

This research question was answered by examining the correlation between the SRRS (N = 1,313) and the persistence sum score. The SRRS measures events that occurred in a student's life over the last 12 months. Further the factors are weighted, indicating events that tend to require some social readjustment. The intention of the students to complete their goal to

return to their school with the intent to complete in the future, determined their persistence score. Range of persistence scores were 0-6 (M = 5.58; SD .992), with zero indicating no intent to persist and 6 indicating full persistence to complete (now or in the future).

The individual correlations indicated that some factors do relate to a student's intent to persist while other factors did not. Both positive and negative correlations were indicated in this analysis, however there were no significant relationships determined (r = -.001-.003, N =1,313, p = .012 - .987). Factors not having a relationship with persistence included minor traffic violations, change in family get-togethers and change in recreation. The importance of these correlations will be covered in chapter five.

To further examine the relationship between SRRS and the persistence sum score the Life Change Unit value was calculated and correlated with the persistence sum score. The LCU yielded scores ranging from 11 to 970 (M = 263.56, SD = 150.25). This indicated a very small positive relationship between the SRRS (LCU totaled score) and the persistence sum score.

Research Question 3: What level of perceived stress and non-specific psychological distress is experienced among non-traditional students within the VCCS?

The levels of perceived stress and non-specific psychological distress were determined by examining the descriptive statistics of both measures. Prior to running the analysis the sum scores of both the PSS and the K6 were calculated in SPSS. The PSS yielded a range from 0 to 40, and a mean score of 16.1 (SD = 7.26; n = 1589). The K6 yielded a range from 1 to 24 mean score of 7.29(SD = 5.45; n = 1589). The results in this study indicate an above average level of perceived stress experienced by the participants; compared to the PSS norm scores that range from 2.0-14.7 (see Table 1). Despite the above average scores of ones perceived stress there was a relatively low level of non-specific psychological distress.

Upon further examination of perceived stress and psychological distress a correlation was calculated, identifying a positive relationship between these two self-reported measures. The results in this study indicate a positive and moderate correlation ($r = .540$) between one's perceived stress and one's non-specific psychological distress ($p < .001$).

The K6 has a cutoff point of 19 for Serious Mental Illness and of 12 for Moderate Mental Illness. The respondents with a K6 score of 13-18 represented 12.9% ($n = 207$) of

the sample. This is an indication that these students are at risk of a moderate to serious mental illness. Further, respondents in this study with a K6 score of 19+ endorsed feeling nervous, hopeless, restless or fidgety, nothing being able to cheer them up, everything being an effort and worthless during the last thirty days. This represents 4.2% (n = 68) of the participants who may be suffering from symptoms consistent with a serious mental illness.

Research Question 4: Do students who seek support have a higher likelihood of persisting towards completing their goals within the VCCS than students who do not seek support?

Mean comparisons between students who indicated seeking support versus those who did not seek support and likelihood towards persistence, was conducted using a t-test analysis. An independent samples t-test analysis allows the comparison of two groups to determine if they are *statistically* different from each other. There is a small non-significant mean difference in persistence between those who sought support (M = 5.57; SD = .98) and those who did not seek support (M = 5.56; SD = 1.06); with those not seeking support having a slightly higher mean score. There was not a significant effect for seeking support**,** t (1311) = 1.98, p = .812, with the likelihood towards persistence.

Support in this study was measured by students indicating whether they have sought professional support over the last 12 months. Some examples of sources of professional support included doctors, ministers, counselors, academic advisors, and or psychiatrists. In this sample, 38% of respondents (n = 621) indicated they had sought support, 62% (n = 1006) indicated they had not sought support and 6 students elected to skip this question. Further, 58% of respondents endorsed being willing to seek support at

their community college if the services were offered and were free (n = 941 with forty-one electing to skip this question).

Other Findings

Additional factors emerged in this study that may affect the persistence of non-traditional students attending community college. The American Association of Community Colleges (AACC) indicates that the community college system nationally is comprised of 56% females and 40% of persons representing a racial minority group (AACC, 2010). In this study 71.7% (n = 1171; 52 students omitting this item) of the respondents were female and approximately 23.5% (n = 372; 55 students omitting this item) of respondents reported being of minority status. Further seventy-six students (5%) reported that English was their second language.

Findings from this study provided additional information regarding the respondent's ability to persist towards their ultimate goals of program completion included GPA, hours worked per week, number of dependents, health insurance, and veteran status. The mean GPA for this study was 3.49 (SD = .54). Further a relationship was indicated between the student's ability to persist and the number of hours they work per week ($r = .436$, $p < .001$).

When examining the Perceived Stress of the students as the predictor, there was a significant r-square change when considering the number of dependents (M = 1.2), hours worked per week (M = 27.8) and the K6; ($r = .003$, $r = .012$, and $r = .670$, respectively, $p < .001$) indicating a moderate relationship between these factors and the self-perception of stress for students. Perceived stress also varies based on hours worked per week, no health insurance 26.4% (n = 417) and veteran status 13.5% (n = 214); yielding r = .009,

.017, and .028, $p < .001$. Further Bean and Metzner (1985) noted other environmental factors that affect non-traditional student's ability to persist towards their goals. Non-traditional students also benefit from sources of support. This study further indicated these factors as well. It is noteworthy that of the 1,619 (14 omitting this question) students responding to whether they were satisfied with the amount of financial support, 25% indicated they disagreed or strongly disagreed with this statement.

This project reviewed two primary sources of support; family and professional. The respondents indicated support of their families, either they had family support in electing to attend a community college (95% agreed or strongly agreed) and family support in persisting towards their goals of attending a community college (95% agreed or strongly agreed). Further, students were asked if they had sought professional support over the last 12 months. Thirty-seven percent (n = 612) of students sought support. Of the 37% (n = 612), 52% (n = 317) indicated continuing to seek further professional support beyond 12 months.

Summary

This quantitative study of non-traditional students enrolled in the VCCS yielded findings that indicate students acknowledged numerous non-academic factors that affected them. Further, numerous non-traditional students reported some level of perceived stress and some level of psychological distress. Even though a correlation does not indicate causation it does note a relationship between perceived stress and psychological distress, indicating that, as the students perceived level of stress changes so does the potential for an increase in self-reported psychological distress. This strengthens the relationship between the two variables.

While few individual SRRS items were determined to be significant in relation to the persistence measure utilized in this study, calculating the Life Change Unit provided some additional information. The Life Change Unit assigned a value to events that occurred in the students' life over the last twelve months. Finally, there is a slight difference in mean persistence scores between students who sought support and those who did not; however, it is not a statistically significant difference.

In the fifth chapter, the implications and limitations of the findings will be discussed as they relate to students attending community college within Virginia. How these findings can be addressed within the system and beyond will also be reviewed. The impact of these findings for future counselors and academic advisors will be discussed. Recommendations for future research, regarding non-traditional students attending community college, are also indicated by the researcher.

Chapter V

Discussion

The results of this quantitative study will be discussed in three parts. First, the importance of the topic and an overview of the study will be presented. Second, each research question will be presented along with implications to community colleges in the Commonwealth of Virginia and across the country. Finally, limitations of this current study and recommendations for future research will be presented.

Overview of Study

Since the establishment of Joliet in 1901, Junior Colleges have been a significant fixture in our communities. It was in1948 that the name was changed to Community College (Callan, 1997) to represent the changes evident in the make-up of students attending two-year institutions of higher learning. Students who typically attend community college are of minority racial status, financially disadvantaged, earning a degree is not their main priority, are female, and/or are over the age of 25 (Bean & Metzner, 1985; Cohen & Brawer, 1989; Crosta, Calcagno, Helfgot, 1995; Jenkins, & Bailey 2006; Robertson, 1991). This group of students is often referred to as non-traditional.

The National Center for Education Statistics (NCES), projects that by 2012 there will be 6.7 million non-traditional students attending community college; this represents 58.8% of students enrolled (NCES, 1998). In Virginia 45% of the students currently enrolled are considered non-traditional (VCCS, 2009). While almost half of students attending community college are non-traditional, little empirical research is available addressing the needs of this population. Further, the changes in demographics present the

need to better understand and serve this population, to improve persistence towards individual goals and ultimately retention within the community college system.

In July 2009, President Barack Obama announced the *American Graduation Initiative* (http://www.aacc.nche.edu/Advocacy/aginitiative/Pages/default.aspx), which pledges federal support to community colleges. A part of this initiative was to provide wrap around services in the community college setting to increase persistence. This type of wrap around services is just the type of support non-traditional students need to achieve their goals. The initiative includes increasing the number of graduates from community colleges to 5 million by 2020, having a community college challenge fund, developing initiatives to promote completion, modernizing facilities, and developing new on-line skills. The Obama-Biden agenda further indicated several ways to obtain these new initiatives **(http://www.aacc.nche.edu/Advocacy/aginitiative/Pages/obamafactsheet.aspx) expanding college tax credit and Pell Grants, reforming the loan system, simplifying the application process, building new skills for unemployed workers, expanding the Perkins Loan, and assisting families with saving monies.** Just as President Obama has recognized these needs, so must our administrators across the country, and make appropriate use of the allotted federal dollars.

The purpose of this study was to identify non-academic, social, and emotional factors that influence persistence of non-traditional students who pursue a post-secondary education from a 2-year community college within the Virginia Community College System (VCCS). The researcher examined the factors that influence students' enrollment in the VCCS and whether other non-academic factors are creating additional stressors.

Further, the researcher examined those non-academic social and emotional factors that research indicates affect the persistence of non-traditional students.

Non-academic Factors most Frequently Experienced

Non-academic factors were measured using the Social Readjustment Rating Scale (SRRS). All of the participants in the study endorsed more than one occurrence on the scale. The occurrences that were endorsed most frequently by the participants in this study, were; change in financial status 752 (57.3%), the beginning or ending of school 626 (47.7%), change in eating habits 647 (49.3%), change in sleeping habits 672 (51.2%), and Christmas or other major holiday 826 (62.9%). Other SRRS occurrences that were frequently endorsed by the participants in this study included; personal injury or illness 420 (32.0%), change in health of family member 487 (37.1%), change in responsibilities at work 408 (31.1%), achievements 502 (38.2%), change in work hours or conditions 445(33.9%), change in social activities 483(36.8%), change in number of family get togethers 422 (32.1%), and vacation 517 (39.4%). Some of these occurrences are negative in nature while others are positive, however both negative and positive occurrences may require social readjustment (Schlossberg, et al., 1995).

The fifty-seven percent of participants, who endorsed having a change in their financial status over the last 12 months, would likely require some social readjustment. While this change in finances may represent an increase, that is unlikely as most students maintain part-time employment (Bean & Metzner 1985; Brock, 2010) or are displaced workers (Kim, 2002; NCES, 1998). In this study 68% of students maintained at least one job outside of the home and 11.6% of that group actually maintained multiple jobs while attending school. Further, in this study participants worked an average of 28 hours per

week, which represents more than a part-time workweek. It is also noteworthy that for the purpose of this study, working as a stay at home spouse or parent was not counted as being employed, however numerous students indicated this was their full-time job. They believed their work at home should be considered as if they were employed outside of the home. Further, almost twenty- six percent (25.5%) of students indicated that they either disagreed or strongly disagreed with the amount of financial support they received while attending community college. That means a quarter of the students surveyed did not believe they had adequate financial aid to pursue their goal(s) of attending community college. This data explains a variety of potential changes in finances that would negatively affect non-traditional students.

When the above results are considered in relation to the literature, it is evident that non-traditional students take on many responsibilities that may adversely affect their ability to persist towards their academic goals. Results from a longitudinal study conducted by Beginning Postsecondary Students (BPS) on behalf of NCES (2008) indicated that seven factors negatively affect the persistence of non-traditional students. Those factors were employment status, being a single parent, married with dependents, part-time enrollment, finances, being a GED recipient, and delayed enrollment (non-traditional aged student). When non-traditional students have divided loyalties it is difficult for them to focus on their academics, which ultimately affects their ability to persist. It is evident by this study that students attending community college in the Commonwealth of Virginia struggle with many of these factors. Further this study supports Sorey and Duggan's (2008) findings that 50% of students enrolled in the

community college system matched at least two of NCES' identified factors, making their ability to persist even more challenging.

Other factors that lead to stressors for non-traditional students are changes in sleeping and eating habits. In this study almost half of the students endorsed a change in eating habits (49.3%) and over half endorsed a change in sleeping habits (51.2%). Changes in eating habits can be indicative of other life situations, including stress, especially when enrolled in college (Ross, Niebling, & Heckert, 1999). Further, stress as it relates to one's ability to maintain both healthy sleeping and eating habits is also an indication of other disorders such as depression and anxiety. Wheatley (1997) noted that "depression inhibits the ability to cope with stress and so a vicious circle becomes established, depression aggravating stress and vice versa." Kessler (2002) also found that most individuals who develop a mental illness such as a major depressive disorder (MDD) reported suffering from significant stress prior to an episode. Further, anxiety is also linked to insomnia (the inability to sleep) that may create depressive symptoms. These factors would impede any students' ability to focus on academics, but could be devastating for non-traditional students and their ability to persist. The implications of this study are that students attending community college within the VCCS are struggling with changes in both sleeping and eating habits that could potentially affect their academics.

In addition to these highly endorsed factors all items were selected by a minimum of 10 students. These results align with the research that indicated that non-traditional students participating in this study are affected by multiple things that often impede their ability to persist (Crosta, et al., 2006) and further may require social readjustment. This

study further supports the literature that non-traditional students attending community college tend to deal with multiple factors that create stress in their lives (Kim, 2002). These stressors are more ascribed to non-traditional students versus traditional students (Crosta, et al., 2006).

As community colleges in the Commonwealth seek to maintain enrollment and decrease the number of students who dropout or stop-out, considering sources of support is necessary. This is significant for all students, but even more so for non-traditional students who are faced with multiple non-academic factors that ultimately may affect their persistence.

Relationship between Non-academic Factors and Persistence

While non-academic factors were measured using the SRRS, persistence was measured by three questions developed by the researcher. Participants indicated whether they were completing their goals within the current semester or were continuing into additional semester(s). Points were assigned to each participant with the range being 0-6. The mean score of 5.58 (SD = .992) for persistence was reported in this study. This would indicate that on average, students participating in this study strongly intend to persist towards their goal(s) of obtaining a two year degree, earning a specific certification, or returning the following semester to a community college within the VCCS. However the relationship between non-academic factors (SRRS scores) and persistence in this study yielded few statistically significant results.

These findings are in contrast to existing research (Crosta, et al., 2006; Sorey & Duggan, 2008), which suggested that factors causing social readjustments also negatively impact the ability of students to persist. Also Bean and Metzner (1985) and Donaldson

and Graham's (1999) argued that environmental factors greatly affected persistence of non-traditional students. Some of those factors included working extended hours, poor finances, responsibilities to family, and lack of support. At least a quarter of students in this study reported not being confident about their financial situation and 74.5% of the participants had at least one dependent child. Of the seventy-four point five percent, 35.2% have two or more dependent children. Finally, 9% of students reported that their family did not support them attending the community college nor their long term goals. These factors represent necessary social readjustment factors that could ultimately have an effect on the ability of non-traditional students to persist.

Considering the factors mentioned above that tend to require social readjustment there may be several explanations as to why the results of this study do not align with other findings. First, the measure of persistence may not be sensitive enough to fully represent a student's intentions and plans of continuing to work towards their goals. The mean score of 5.58 for persistence is extremely high and could be inflated. Second, the SRRS may not be a true representation of the stressors facing non-traditional community college students. Thirdly, items on the SRRS may need to be revisited to better represent current demographics, stressors, and cultural changes that have occurred since its development in 1967. Finally, students completing this survey may not represent the larger population of non-traditional community college students in the Commonwealth.

Despite the non-traditional students in this study having to manage numerous factors that often appear as barriers to their goals, they indicated the intent to persist. Students have demonstrated the ability to persist towards their goals, and that they are resilient. While this is important, persistence is indicative of the students' own desire,

motivation, and intent to obtain their goals. Institutions should also support them in pursuing their goals. Institutions must play a role in the success of non-traditional students, by providing consistent support (Bean & Metzner, 1985; Brock, 2010; Sorey & Duggan, 2008). This support could be provided byway of mental health services being available on each community college campus. Establishing such services would provide non-traditional students the non-academic support that may assist them in continuing to persist towards their goals of attending a community college.

Perceived Stress and Non-specific Psychological Distress

Perceived Stress was measured using the Perceived Stress Scale (PSS), developed by Cohen, Kamarack, and Mermelstein in 1983. This is a self-reported 10-item likert scale questionnaire. Non-specific psychological distress was measured using the Kessler 6 (K6). This instrument was developed by Kessler, et al., 2002; and is designed to measure perceived psychological distress over the last 30 days. This study yielded a moderate relationship between one's perceived stress and their non-specific psychological distress.

That is, students who have a high level of perceived stress also have a high likelihood of also struggling with psychological distress. This is an indication that students who experience more stress are more likely to experience psychological distress than those who are less stressed. Napoli and Wortman (1998) and Sandier (2002) found evidence that although stress does not directly affect academic success or grade point averages (GPA) there is an indirect relationship that is unavoidable and persistence is ultimately negatively affected. The authors indicated that while there is not a direct relationship, the interaction of stress and one's GPA lead to other matters that are known

to affect academic success, missing class, lack of time to properly prepare for class, and even psychological distress (Napoli & Wortman, 1998).

Collins and Mowbray (2005) reported that three psychological factors require the attention of community colleges across the country: anxiety, affective disorders, and psychotic disorders. These psychological factors require attention because more and more students entering our community colleges have such needs (Collins & Mowbray, 2005). These psychological factors are of concern because they create mental, physical and emotional distractions for students attending all institutions of higher learning including two-year community colleges, where psychiatric services are often not available. This is especially the case for non-traditional students who have multiple priorities for example, less than desirable finances, work, responsibility for dependents, and academics. Non-traditional students coping with psychological distress ultimately affect academics and their ability to persist towards their goals (Bean & Eaton, 2001, 2002; Napoli & Wortman, 1998).

The Kessler 6 also provides some indication of the level of psychological distress participants may be experiencing. The scores can range from 0-24, with the scores of 13-18 indicating moderate mental illness and 19 and above indicating serious mental illness (Kessler, 2002). In most cases, scores below 12 is considered low risk of suffering from a mental illness (Kessler, 2002). This study included 207 (12.9%) participants that are struggling with a moderate level of mental illness and 68 (4.2%) of participants that are struggling with a serious mental illness. These results create some concerns across the Commonwealth, as other non-traditional students attending community college may also struggle with moderate to serious mental illnesses. This is further concerning because

these students may not have access to mental health services on their community college campuses. Recent events on college campuses indicate that mental illnesses that go untreated may lead to severe consequences for the student(s), families, communities, and institution(s).

As a result of the April 16, 2007, Seung-Hui Cho shootings at Virginia Tech, community college campuses in Virginia have also moved forward with developing Threat Assessment Teams (names may vary from campus to campus) to address the needs of students (Flynn & Heitzmann, 2008). Threat Assessment Teams include various campus administrators, faculty, and staff whose goals are to both assess and develop a strategic plan to address potential threats
to institutions of higher learning (Dunkle, Silverstein & Warner, 2008). The Handbook for Campus Threat Assessment & Management Teams by Deisinger, Randazzo, O'Neill, and Savage (2008), indicated the purpose of the team being to identify and filter through potential threats that are posed by faculty, staff and students.

Despite these much needed changes, this study presents reason to consider going further to support mental health needs on each campus within the Commonwealth. Students participating in this study are managing multiple challenges that often require social readjustment and 17.1% of students reported symptoms of moderate to serious psychological distress. Yet further cause for more mental health supports on our community college campuses is the shooting of Congresswoman Gabrielle Gifford (January 8, 2011) by a former community college student, which raises continued concern for more mental health services and safety at the two-year institutions of higher learning. Jared Lee Loughner, the admitted shooter of Congresswoman Gifford's and

others, attended Pima Community College, where he was dismissed roughly three months prior to the shootings (Anglen, 2011). Loughner exhibited symptoms of schizophrenia while attending Pima (Houser, 2012). His behaviors required the intervention of campus police, however there is little indication of attempts to meet his mental health needs (Anglen, 2011). While Loughner did not have a documented history of mental illness, at the time of his dismissal from Pima Community College the administration indicated that a mental health evaluation was required; otherwise he could not return to the college (Anglen, 2011). This study is not meant to suggest that any students responding to this survey struggle with the same level of psychological distress as either Cho or Loughner, however preventive and proactive measures are necessary at the community college level to further ensure the safety of millions attending these institutions.

According to statewide policy, community colleges within the Virginia Community College System, do not offer mental health services on campus (VCCS, 2010). If students who have mental health needs come to the attention of the academic advisors, they are often referred to community resources (private practitioners, community service boards, and agency providing services on a sliding scale). This also means that students who are not brought to the attention of the Academic Advisors may have their needs go unmet. Some community college campuses have recognized the importance of meeting the psychological needs of their students and have secured funding through the Federal Trio Programs (TRIO), which provide grants for student support services, including counseling. The role of student support services at these

institutions is to meet the student's mental health and psychological needs, allowing the Academic Advisors to focus on the academic needs of the students.

Support and Persistence

This study also examined whether students who sought mental, emotional, or general support from a professional within the last 12 months, were more or less likely to persist towards their goal(s) of attending community college. Persistence continued to be represented by the participant's likelihood to complete their goals in the current semester or plans to continue enrollment. This study found no difference between the persistence scores of those who sought support (M = 5.57; SD =. 98) and those who did not seek support (M =5.56; SD= 1.06).

Six hundred twenty-one students (38%) indicated that they did seek support within the past 12 months. Those same students were then asked from whom they received support. The students endorsed a family member 70% of the time, a family doctor 45% of the time, a counselor/therapist in the community 24% of the time, and an academic advisor/ counselor at the community college 23% of the time. It is important to note that students were able to select as many as applied. It is also noteworthy that despite the similarities in persistence of those who sought support and those who did not, 58% of all participants responding to this portion of the study indicated that they would seek support if services were offered and were free at their community college. If professional support services were made available on-site at community colleges within the Commonwealth, there is strong indication that students would utilize the services. These results strongly suggest that professional services would be valued and utilized on the campuses of community colleges in Virginia. It further indicates that some students

are reaching out for support when they become overwhelmed, stressed, psychologically distressed and perhaps when other life events occur that this study failed to capture.

Bean and Metzner (1985) and Sorey and Duggan (2008) indicated the significance of support to non-traditional students as they pursue their goals. The support can stem from numerous sources (family, friends, finances, social interactions, and academic interactions), however without it dropping-out is more likely. Support provides non-traditional students a sense of belonging, emotional stability, mental stability, and physical stability. Community colleges can be a part of a non-traditional students' support network while also meeting their academic needs. This support might make it more likely that the students will persist towards goal completion versus dropping out, which is more prevalent amongst older students (Brooks-Leonard, 1991).

These results must be considered in light of inherent limitations. The findings may represent several different perspectives of the participants. First, participants who sought support may have received what was necessary for them to continue persisting. While those who did not seek professional support, may have been supported in other ways that promoted persistence. Second, the instrument used to measure persistence needs to be refined to ensure that it is a valid, reliable measure and the participants understood the intent of the items.

Additional Factors

This study further supported research that suggested factors beyond the control of the institution affect a student's ability to persist (Bers & Smith, 1991). Some of those factors included the number of jobs worked and hours worked per week. Non-traditional students need

to maintain employment in order to sustain themselves and their families (Bean & Metzner, 1985; NCES, 2003). While employment is typically viewed as a barrier to non-traditional students, in this study there is a moderate, positive relationship (r^2 = .436) indicating that when students work they are more likely to persist. This atypical positive relationship between hours worked per week and the ability to persist may be due to the persistence measure itself. Further, non-traditional students in this study maybe better able to manage employment and academics as both are viewed as vital to the stability and betterment of their families.

In addition to enrollment and hours worked affecting persistence, research also indicates that the number of dependents and self-reported levels of mental distress, also having an affect on the ability to persist. As would be expected, students are typically adversely affected by having multiple responsibilities as they pursue their academic goals (Brock, 2010; Kim, 2002). By definition non-traditional students juggle multiple things that are not directly connected to their academics, but ultimately have devastating consequences for their goals and often times their overall mental stability (Brock, 2010; Crosta, et al., 2006; Kim, 2002). This is consistent in this study as 30% or more of the participants endorsed thirteen of the forty-three factors noted on the SRRS. As indicated by Sorey and Duggan (2008), in a study that focused on one community college within the Commonwealth of Virginia, the factors that influence persistence among non-traditional students are complex. These factors are complex because it is difficult to surmise what any one non-traditional student will need to remain focused on his or her goals. What we do know is that throughout their academic career they will be faced with many events that could require some social adjustments that would affect their ability to

attend school on a regular basis, complete assignments as required and even fully participate in the academic experience. The complexities of these social, environmental, and even psychological factors require continued empirical research.

Limitations

There are a few significant limitations of this study. A large portion of students who met the criteria of being of non-traditional age (25+) were not able to participate in this study. Despite the researcher requesting the support of the VCCS to survey non-traditional students enrolled statewide, individual institutions decided whether they would allow their students to participate or not. Twelve schools did not participate for various reasons. Lastly, neither tier one institution within the VCCS participated in this study (Northern Virginia Community College and Tidewater Community College). The Commonwealth also has tier two and tier three institutions, which enroll smaller numbers of students. The participants in this study represent 5 tier two institutions and 6 tier three institutions. This presents a limitation, as students in the tier one institutions were not available to participate in this study.

Students who were invited to participate had to have computer access and a basic knowledge about on-line surveys. Despite electronic surveys being a widely accepted research tool, connection and access issues may have been limiting for some. Additionally, the comfort level of older adult students using technology could have presented yet further limitations. While electronic submissions are relatively easy for researchers to manage, significant information can be lost due to missing information (e.g. participants inadvertently skipping items or not fully comprehending the meaning of items). This quantitative approach also did not permit the gathering of lived experiences

of the participants, which would have strengthened this study. Several participants contacted the researcher volunteering to "sit down and talk about their experiences." This may have eliminated participants who had information to add that was not included in the survey. These participants could have decided not to participate in this study, as they believed their stories could not be adequately conveyed through a survey.

The Social Readjustment Rating Scale (SRRS) was used to determine what events occurred in the lives of the participants over the last 12 months. While this list has demonstrated strong support (Scully, et al., 2000), it may not reflect current language used among non-traditional students attending today's community colleges. This may have presented some misunderstanding and a need for participants to select what fit for their lives or skip the item(s) entirely.

Finally, the persistence measure has unknown psychometric properties. Additional use and revisions are necessary to ensure that the questions used actually measure what it was designed to measure, persistence of non-traditional students attending community college. This may have affected the relationship of persistence with other measures utilized in this study.

Implications

The results of this study have implications for administrators and academic advisors working in the community college setting. As indicated by other studies (Crosta, et al., 2006), non-traditional students deal with multiple factors that affect their ability to persist towards their goals. Non-traditional students select community college to pursue their goal(s) for multiple reasons, but we know that graduation and transfer to 4-year institutions is not the primary reason (Bean & Metzner, 1985; Crosta, et al., 2006).

By way of continued research (both quantitative and qualitative) administrators would be wise to recognize the over arching purpose of non-traditional students attending their individual institutions. This is important because it would provide specific knowledge of how to best meet the Obama- Biden initiative, to add 500 million additional graduates from the community college settings by 2020. Also using additional federal funding provided by the initiative to meet the needs of non-traditional students would be helpful. Non-traditional students attend community colleges for its convenient location to their homes, affordable pricing, and it is where they feel most comfortable. Identifying whom the students are attending their community colleges by not only the numbers but: the barriers encountered is paramount to better understand the specific needs of the students and their success. For example, some communities have a higher homeless population while other communities have more single mothers or women returning to school. A factor such as being homeless or a single parent would identify what supports are beneficial to a particular community college system. This level of knowledge would provide administrators the necessary information to both develop and implement programs that could prove vital to non-traditional students, who represent over 50% of the students enrolled in community college across the country and 45% of students in the VCCS (NCES, 1998; VCCS, 2009).

For Academic Advisors, understanding the factors affecting non-traditional students allows them to better connect and support students in ways beyond academics. Further, there are other far reaching benefits that would improve the student's likelihood of feeling connected to the institution, being committed to achieving their goals, and positively affecting retention. Just as mental health services are provided in the high

schools and four-year institution, these invaluable services should be available to the community college students as well. Feeling connected and supported by the institution provides a sense of comfort and stability that is necessary for success amongst non-traditional students.

Academic Advisors could benefit from more training to meet the multiple and complex needs of the non-traditional students and their efforts to persist. Given that non-traditional students account for almost half of the population enrolled in the VCCS, this is paramount. Academic Advisors do more than provide academic support to students. When a displaced worker enters an Academic Advisor's office and can only talk about the toll and stress of losing her job on herself and her family; it is difficult to focus on enrolling the student in a math or a computer course. Further this student, like many others, may be fearful of entering college for the first time as a non-traditional student. The Academic Advisor who is trained to adhere to a policy of only addressing career and academic needs can feel helpless to provide the necessary support for the student. Academic Advisors are in need of additional support sources, such as licensed mental health professionals to address the mental and emotional needs of students, while allowing them appropriate time to address the career and academic needs. It could also be beneficial for administrators to hire Academic Advisors who can not only recognize mental health and emotional needs, but also feel supported by the administration in assuring that those needs are met for all students. The administration could achieve this level of support by altering current policy and allowing Academic Advisors to provide mental health support services or hiring colleagues who are licensed to provide such services.

The implications for Counselor Educators and supervisors training and supervising future counselors are significant as well. First, just as community counselors and school counselors receive specialized training in counselor education programs so too should students interested in working in college settings, or more specifically community college settings. This preparation would emphasize the uniqueness of working on the campus of a community college, such as dealing with diverse population of students with diverse needs. Further, they could provide specific training that is needed to meet the needs of the students in that setting, such as mental health counseling, groups, and general support. Second, supervisors should be sought out in the community college settings to serve as mentors for students completing practicum and internship hours or seeking licensure. This would provide support to the Academic Advisors and community colleges and provide additional resources in the form of counselors in training, to the college. Counselors in training are required to provide support groups, psycho-educational groups and even mental health services to students needing such support (under the supervision of someone maintaining the appropriate credentials), which could be an asset to community colleges. Thirdly, Counselor Educators and supervisors can reach out to Academic Advisors in the community college setting to provide collegial support and trainings when necessary and appropriate. This would provide support to Academic Advisors, while making available current and relevant research and techniques for work with a diverse population of students. Finally, Counselor Educators can train future counselors (especially those hoping to work in the community college settings) to look for and access the entire person and developing an

understanding and appreciating of the environmental factors that often affect clients/students ability to persist towards their goals.

Another factor that is clear from this study is that there is a relationship between perceived stress and non-specific psychological distress. While steps have been made to better address these needs with federal grant programs and threat assessment teams on the community college campuses in the Commonwealth, mental health supports should be viewed as an asset by the administration. Having a professional mental health representation on all twenty-three campuses would benefit the system in numerous ways. It would provide support to students, staff, and faculty, and a proactive approach to meeting student's academic and psychological needs.

Brock (2010) and Sorey & Duggan (2008) noted that students who feel supported in their academic settings are better able to persist. It is further indicated by this study that students seek support from multiple sources: family, friends, and finances. These support sources addresses many areas for students, but none more important than emotional, psychological, and financial needs, which are believed to be necessary for persistence (Bean & Metzner, 1985; Sorey & Duggan, 2008; Tinto, 1975). This study adds additional evidence that some students would utilize mental health services if they were made available at the community college level. Further 38% of participants in this study indicated that they actually sought support from a professional within the past 12months. It is reasonable to believe that if mental health services were more readily available on the campus of community colleges within the VCCS, students would utilize the services. Further, this added support might also positively affect their ability to persist, which benefits the college, the community and ultimately the students.

Conclusion

This study yielded several factors that often require social readjustment, such as change in financial status, change in sleeping habits, change eating habits, beginning or ending of school, change in the health of a family member, and change in work hours, just to mention a few endorsed by 30-57% of the participants. Despite little statistical significance between the occurrences of specific factors and persistence, students in the Commonwealth are dealing with many non-academic situations as they pursue their academic goals. Seventeen percent of students attending community college in the Commonwealth also endorsed struggling with a moderate to severe levels of psychological distress. Indicating that more professional mental health supports are warranted. In addition to the support being warranted, many students indicated that if they were available they would utilize the services.

In summary, factors beyond academics could affect the ability of non-traditional students attending community college in the VCCS. Future research is needed to determine if additional mental health supports would affect the ability of non-traditional students to persist towards their goals. Future research is also needed to capture the lived experiences of non-traditional students. Perhaps following students from their entry point until they have achieved their goal(s) would be instrumental in better understanding the needs of non-traditional students and their ability to persist. Securing all twenty-three community colleges' participation in a similar study and unifying the methods by which information is collected would provide a clearer picture of the needs of non-traditional students within the VCCS. Finally, addressing the perceived stress of students and the potential for psychological distress benefits all students, the institution, administration,

and the community at large. This study is just the tip of an important iceberg that requires further examination to better understand the needs of non-traditional students and their ability to persist.

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Appendix A

Initial Email to Designee/ President

Dear Sir/Madam (Research Designee or President),

Greetings! My name is Michelle Ghoston and I am a doctoral candidate in the Counselor Education program at Virginia Tech in Blacksburg. I am conducting research regarding factors that predict persistence of non-traditional students attending community college in the state of Virginia. I am seeking volunteers to participate in this study and I am writing to request that your institution and students participle in the research. All that is required is a query to identify non-traditional students (ages 25+) who enrolled in the Spring 2011 semester. Following that, and in order to keep the students' information confidential, I would ask that the attached email and link to the survey instrument be forwarded to those selected students. The survey questionnaire inquires about factors that affect persistence, factors that may present as stressful, factors that may present psychological distress and general demographic factors.

Participation in this study should include completing and submitting the survey to this researcher via Survey Monkey. Upon giving consent, the participants were directed to the survey. The survey takes about 15-20 minutes to complete and there are minimal risks to the participants. I have included a copy of the study abstract, the informed consent and Virginia Tech's Internal Review Board approval to provide more information about the study. I will follow-up with you by email in a week to obtain a final number of emails that was sent along with the number of emails that were undeliverable. Please feel free to contact me by phone or email with any questions or concerns you may have.

Sincerely,

Michelle Ghoston, LPC

Doctoral Candidate, Virginia Tech

Email: mrg211@vt.edu

Cell Phone: 434-420-2998

Dr. Gerard Lawson, Ph.D., LPC, NCC, ACS

Dissertation Chair, Virginia Tech

Emai1: glawson@vt.edu

Phone: 540-231-9103

Appendix B

Informed Consent

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

Informed Consent for Participants in Research Projects Involving Human Subjects

Title of Project: NON- ACADEMIC FACTORS THAT PREDICT PERSISTENCE OF NON-TRADITIONAL STUDENTS ATTENDING COMMUNITY COLLEGE IN THE COMMONWEALTH OF VIRGINIA

Researcher: Michelle R. Ghoston
Advisor: Dr. Gerard Lawson

I. Purpose
The purpose of this study was to learn more about non-academic factors that influence persistence of non-traditional students at community colleges in Virginia.

II. Procedures
The informed consent and survey was emailed to all 23 community colleges in Virginia. The email was sent to the research designee or the college president. The designee or president was asked to forward the email to students who are 25 years or older.

This researcher did not have access to the student email addresses. A total number of emails were sent and emails returned as undeliverable were requested. One week after the first email, a follow-up email was sent. The closing date of the survey was noted. All research rules of the colleges were followed.

This researcher analyzed the data and will report the results. Individual colleges asked for summary results.

III. Risks
There was minimal risks of participation. This was an online survey with no face-to-face contact. Some stress was possible when participants described life situations that impact school. Participants who felt stress could have contacted an academic advisor or have used the support resources provided.

IV. Benefits

There was no promise that participants receive any direct benefits. The researcher hopes that leaders will use these results to improve community colleges.

V. Extent of Anonymity and Confidentiality

No identifying information was part of the survey. This researcher was an academic advisor at a community college in Virginia. I did not discuss the survey with students.

Data is kept on the researcher's personal laptop, which is password protected. Only the researcher and her advisors have access to the data.

VI. Compensation

There was no payment or course grade for participation.

VII. Freedom to Withdraw

Participants could stop the survey at any time with no penalty. Participants could skip questions they do not want to answer.

VIII. Subject's Permission

I read this Informed Consent Form. I confirm that I meet the guidelines for participating in this study. I hereby acknowledge the above and gave my voluntary consent by selecting the box below.

Should you have any questions about this research or its conduct, you may contact:

Michelle R. Ghoston	mrg211@vt.edu	434-832-7800
Faculty Advisor E-mail/Telephone:		
Dr. Gerard Lawson	glawson@vt.edu	540-231-9103
Department Head E-mail/Telephone:		
Dr. Steve Janosik	sjanosik@vt.edu	540-231-9702
Chair, IRB E-mail/Telephone:		
Dr. David M. Moore	moored@vt.edu	540-231-4991

(Note: Subjects must be given a complete copy (or duplicate original) of the signed Informed Consent Form)

Appendix C

Email /Link to Participants

My name is Michelle Ghoston and I am a doctoral student in Counselor Education and Supervision program at Virginia Tech. I am conducting research on persistence of non-traditional students (age 25+) attending community college in Virginia. What are factors that motivate you and others like you to complete your goals?

If you choose to participate, you will simply follow the link included in this email to a site called Survey Monkey. After indicating that you agree to participate, you will begin the survey, which should take15-20 minutes to complete.

https://www.surveymonkey.com/s/mrgdis2011

I recognize that you will be sharing sensitive information about things that affect your ability to pursue your goal(s) of entering community college and I will make every effort to protect your privacy and provide confidentiality. If your institution requests results from me, I will provide a summary and not individual responses. Finally, the information you provide will be maintained on a password protected computer.

Your ideas are important to me as I try to understand how the Virginia Community College System can help students like you be successful in school. Please do not hesitate to contact me if you have any questions. Thank you for your time!

Sincerely,

Michelle Ghoston, LPC

Doctoral Candidate, Virginia Tech

Email: mrg211@vt.edu

Appendix D

Survey Questionnaire

This survey is designed to examine the non-academic social and emotional factors that affect non-traditional student's ability to persist towards their goal(s) for attending a community college in Virginia.

When thinking about your experiences in college, please indicate how strongly you agree with each of the following statements:

0 = Strongly Disagree 1 = Disagree 2 = Agree 3 = Strongly Agree

1. I expect to complete my goal(s) of graduating, certificate completion, skill development, employment requirement, and/ or transferring to a 4year institution at the community college this semester.

Yes or No

YES proceed to question #4, if NO skip to proceed

2. I expect to return to a community college next semester. **0 1 2 3**

3. I expect to obtain my goal(s) of attending, graduating, certification completion, skill development, employment requirement, and/or transferring to a 4year institution at a community college within Virginia.

0 1 2 3

4. My family supports me attending community college. **0 1 2 3**

5. My family supports me in achieving my goals of attending community college.

0 1 2 3

6. I am confident that I have made the right decision in choosing to attend community college.

0 1 2 3

7. It is important for me to complete my initial goal of attending community college.

0 1 2 3

8. I am confident that I have the financial ability to continue attending community college.

0 1 2 3

9. I am satisfied with the amount of financial support (grants, loans, family, job) I have received while attending community college.

0 1 2 3

10. When I have a problem unrelated to school I would be comfortable talking to someone at the college.

0 1 2 3

11. Since coming to this college, I have developed a close, personal relationship with at least one faculty member or academic employee.

0 1 2 3

12. When I have a problem unrelated to school I would be comfortable talking to someone at the college.

0 1 2 3

13. In the last 12 months I have had a problem and sought the support of a professional (ex. a doctor, a minister, a counselor, an academic advisor, or a psychiatrist).

Yes or No

If YES proceed, if NO skip to question # 17

14. From whom did you seek support or who are you most likely to talk to (check all that apply)?

Select all that apply…

? **A Family Member**

? **A Spiritual Advisor/Minister/Pastor**

? **A Healer** (e.g., herbalist, chiropractor, spiritualist)

? **My Family Doctor**

? **A Case Manager/ Social Worker**

? **A Veterans Counselor**

? **A Rehabilitation Specialist**

? **An Academic Advisor/ Counselor at the Community College**

 A Marriage or Family Counselor

? **A Counselor/ Therapist in the community**

 A Drug or alcohol counselor

 A Psychologist

 A Psychiatrist

? **No one**

? **Other** _____

15. How many times/ sessions have you attended in the last 12 months?

_____

16. Are you still attending for continued support? **Yes or No**

17. If services were free and available at your community college would you seek services?

Yes or No

The questions in this scale ask you about your feelings and thoughts **during the last month**. In each case, you will be asked to indicate by circling *how often* you felt or thought a certain way.

0 = Never 1 = Almost Never 2 = Sometimes 3 = Fairly Often 4 = Very Often

18. In the last month, how often have you been upset because of something that happened unexpectedly? **0 1 2 3 4**

19. In the last month, how often have you felt that you were unable to control the important things in your life?

0 1 2 3 4

20. In the last month, how often have you felt nervous and "stressed"? **0 1 2 3 4**

21. In the last month, how often have you felt confident about your ability to handle your personal problems? **0 1 2 3 4**

22. In the last month, how often have you felt that things were going your way?

0 1 2 3 4

23. In the last month, how often have you found that you could not cope with all the things that you had to do?

0 1 2 3 4

24. In the last month, how often have you been able to control irritations in your life?

0 1 2 3 4

25. In the last month, how often have you felt that you were on top of things?

0 1 2 3 4

26. In the last month, how often have you been angered because of things that were outside of your control?

0 1 2 3 4

27. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

0 1 2 3 4

The following questions ask about how you have been feeling during the **past 30 days**. For each question, please circle the number that best describes how often you had this feeling.

28.	**During the past 30 days, about how often did you feel**	**All of the time**	**Most of the time**	**Some of the time**	**A little of the time**	**None of the time**
a.	…nervous?	**1**	**2**	**3**	**4**	**5**
b.	…hopeless?	**1**	**2**	**3**	**4**	**5**
c.	…restless or fidgety?	**1**	**2**	**3**	**4**	**5**
d.	…so depressed that nothing could cheer you up?	**1**	**2**	**3**	**4**	**5**
e.	…that everything was an effort?	**1**	**2**	**3**	**4**	**5**
f.	…worthless?	**1**	**2**	**3**	**4**	**5**

29. Which of these life changing events has occurred in your life in the past 12 months *(select yes or no for each event)*?

a. Death of spouse	Yes or No
b. Divorce	Yes or No
c. Marital separation	Yes or No
d. Jail term	Yes or No
e. Death of close family member	Yes or No
f. Personal injury or illness	Yes or No
g. Marriage	Yes or No
h. Fired at work	Yes or No
i. Marital reconciliation	Yes or No
j. Retirement	Yes or No
k. Change of health in family member	Yes or No
l. Pregnancy	Yes or No
m. Sex difficulties	Yes or No
n. Gain of new family member (birth, adoption, older adult moving in)	Yes or No
o. Business readjustment	Yes or No
p. Change in financial state (much worse or much better)	Yes or No
q. Death of close friend	Yes or No
r. Change to different line of work	Yes or No
s. Change in number of arguments with spouse (more or less)	Yes or No
t. Loan of over $10,000	Yes or No
u. Foreclosure of mortgage or loan	Yes or No
v. Change in responsibilities at work (promotion, demotion, transfer)	Yes or No
w. Child leaving home (marriage, attending college)	Yes or No
x. Trouble with in-laws	Yes or No
y. Outstanding personal achievement	Yes or No
z. Spouse begins or stops work	Yes or No
aa. Beginning or ending of school	Yes or No
bb. Change in living conditions (remodeling, deterioration of neighborhood)	Yes or No
cc. Revision of habits (dress, manners, associations)	Yes or No
dd. Trouble with boss	Yes or No
ee. Change in work conditions	Yes or No
ff. Change in residence	Yes or No
gg. Change in schools	Yes or No
hh. Change in church activities	Yes or No

ii. Change in recreation Yes or No
jj. Change in social activities Yes or No
kk. Loan less than $10,000 Yes or No
ll. Change in sleeping habits Yes or No
mm. Change in number of family get-togethers Yes or No
nn. Change in eating habits Yes or No
oo. Vacation (taken) Yes or No
pp. Christmas (or other Major Holiday) Yes or No
qq. Minor violations of the law (e.g. traffic ticket) Yes or No

30. Age _____

31. Gender (*Circle*): **M F**
Other_____

32. Are you enrolled in 12 or more credits? ? **Yes** ?**No**

33. Is this your first college experience? ? **Yes** ?**No**

34. What is your current GPA? _____

Prior Academic Achievement

35. Prior to enrolling, I…

? Earned a high school diploma

? Earned a General Educational Development (GED) diploma

? None of the above (Ability to benefit)

Marital Status

36. What is your marital status?

? Single

? Married

? Divorced

? Separated

? Widowed

? Involved in a significant relationship/ partnered

Racial Group Affiliation

37. What is your racial affiliation?

? American Indian/Alaskan

? Asian/Pacific Islander

? Black/African American

? Hispanic

? White

? Bi- racial/ Multiracial

? Prefer not to answer

38. Is English your second language Yes or No

Employment

39. How many jobs do you currently have? 1 2 3 4 5+

40. How many total hours per week do you work?

41. Do you have health insurance (Medicaid, Medicare, FAMIS or private)?

Yes or No

Veteran Status

42. Are you a veteran? Yes or No

Dependents

43. How many dependent children are you responsible for?

1 2 3 4 5+

44. How many adult dependents (e.g. elderly parents) are you responsible for?

1 2 3 4 5+

45. Which Community College do you currently attend (this will be a drop down box in Survey Monkey)?

a. Blue Ridge Community College

b. Central Virginia Community College

c. Dabney S. Lancaster Community College

d. Danville Community College

e. Eastern Shore Community College

f. Germanna Community College

g. J. Sargeant Reynolds Community College

h. John Tyler Community College

i. Lord Fairfax Community College

j. Mountain Empire Community College

k. New River Community College

l. Northern Virginia Community College

m. Patrick Henry Community College

n. Piedmont Virginia Community College

o. Rappahannock Community College

p. Southside Community College

q. Southwest Virginia Community College

s. Thomas Nelson Community College

t. Tidewater Community College

u. Virginia Highlands Community College

v. Virginia Western Community College

w. Wytheville Community College

46. Have you taken courses…

? Entirely on-line

? Mostly on-line

? A few on-line

? Half on-line

? None on-line

Possible resources: http://www.ucc.vt.edu/stdyhlp.html

http://www.mentalhealthscreening.org/screening/Welcome.aspx

Appendix E

Second Email (reminder) to Designee/President

Dear Sir/Madam (Research Designee or President),

Hello, my name is Michelle and I am a doctoral student in Counselor Education at Virginia Tech. I contacted you last week in reference to my research on factors that predict persistence of non-traditional students attending community college in the Commonwealth of Virginia. I wanted to be in touch with you to make sure you received the information and were able to query your non-traditional students (25+) and forward the link to my survey questionnaire. Further if you could send a reminder email to the same students, it would be greatly appreciated.

It would be helpful in calculating the response rate; if you could forward me information regarding how many emails was sent, along with information of how many emails that were returned to you as undeliverable. Thank you for your time and assistance in my research study. If you have any questions or concerns regarding this study, please do not hesitate to contact me.

Thanks again,

Michelle R. Ghoston, LPC

Doctoral Candidate, Virginia Tech

mrg211@vt.edu

Appendix F

Second Email (reminder) to Participants

This is a second request, seeking participants for this study. If you have not already completed this questionnaire, please take just a few minutes to do so. Your participation would be greatly appreciated.

My name is Michelle Ghoston and I am a doctoral student in Counselor Education and Supervision program at Virginia Tech. I am conducting research on persistence of non-traditional students (age 25+) attending community college in Virginia. What are factors that motivate you and others like you to complete your goals?

If you choose to participate, you will simply follow the link included in this email to a site called Survey Monkey. After agreeing to participate, you will begin the survey, which should take15-20 minutes to complete.

https://www.surveymonkey.com/s/mrgdis2011

I recognize that you will be sharing sensitive information about things that affect your ability to pursue your goal(s) of entering community college and I will make every effort to protect your privacy and provide confidentiality. If your institution requests results from me, I will provide a summary and not individual responses. Finally, the information you provide will be maintained on a password protected computer.

Your ideas are important to me as I try to understand how the Virginia Community College System can help students like you be successful in school. Please do not hesitate to contact me if you have any questions. Thank you for your time!

Sincerely,

Michelle Ghoston, LPC

Doctoral Candidate, Virginia Tech

Email: mrg211@vt.edu