3-24-2024

Margin in Life and Stress of Community College Adult Learners

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Margin in Life and Stress of Community College Adult Learners

by

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A dissertation submitted to the Faculty of

The Annsley Frazier Thornton School of Education

Bellarmine University

In partial fulfilment of the requirements for the degree

Doctor of Philosophy for Leadership in Higher Education

March 24, 2024

Bellarmine University

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Margin in Life and Stress of Community College Adult Learners

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Acknowledgements

It is an incredible feeling to reach the end of something that was merely a lofty dream a decade ago. I am proud that I was able to push through multiple career changes and a global pandemic to reach the finish line, but I likely would not have done so without an incredible support system. There are so many individuals that were critical to my success and a mere thank you will never be enough to cover the generous time and energy invested in me by others. My hope is that I will have a lifetime of opportunities to pay if forward to others on their path to self-fulfillment.

First, I could not have completed this journey without my incredible committee. Dr. Vetter, I am so thankful for your mentorship, guidance, and support. I remember sitting across the table from you and Dr. Rhodes during the admissions interview and you called me Dr. Ryan and said to remember that's the goal. It's been a long time since that moment, but words cannot express how thankful I am for you encouraging me to consider Bellarmine and bringing me to that table. I am forever grateful. Dr. Smith, thank you for making statistics approachable, and I dare say, quite fun. Your patience and willingness to answer my questions, even questions I had asked multiple times before, helped me feel confident in my ability to move through the dissertation process. Lastly Dr. Inge, words cannot express how grateful I am to have been a student in your classes. After years of coursework having not solidified a dissertation topic, your passion for community college students ignited my interest and I am so glad I chose adult learners to be the focus of my dissertation.

In addition to my committee, I could not have completed this journey without the support and comradery of my cohort. Amanda, Dave, George, and Bryan—I am so honored to have been able to learn with you and from you. I will always cherish the time we spent together, and I am

so proud of all that each of you have accomplished and look forward to watching you continue to thrive.

To my friends and colleagues at Midway University, this journey would not have been possible without your unwavering support of my educational goals. Thank you for providing motivation when I needed it and reminding me to show myself grace. It was amazing to study concepts of leadership in higher education in a textbook and then go to work and see you exhibit those traits day in, day out.

Completing my academic coursework in Louisville while living in Lexington would not have been possible without the support of Jordan, Nick, Maeve, Remy, and Della. Jordan, my life changed for the better when our paths crossed as 3-year-olds. Thank you for opening your home for me to stay with you on class weekends (and many non-class weekends!). I feel as though we truly went through this educational experience together and I cherish being able to watch your family grow along the way. My success could not have been possible without your friendship and hospitality.

Lastly, and most importantly, I could not have completed this journey without the unconditional love and support of my family. To my parents, Larry and Jean, thank you for instilling in me at a young age to work hard for the things you want in life. I am so lucky to have had you as my biggest cheerleaders and I appreciate your willingness to listen when I got super excited about a concept from class or attempted to describe a new statistical analysis I had learned about. To my sister, Chloe, my twin in spirit—thank you for always being my go-to in good times and in hard times. Despite your lifelong efforts to get me to chill out, we likely can agree that little has changed, but if I have learned anything throughout this process, it's never too late to learn. Thank you all for your endless love and support.

Abstract

Nontraditional adult learners (NALs) account for near 40% of all students enrolled in postsecondary institutions in the United States. NALs differ from traditional college students in that they are more likely to be over the age of 23, have dependents, be a single parent, or be employed full-time in conjunction with college enrollment. During the onset of the COVID-19 pandemic, and the years following, community colleges suffered substantial enrollment declines raising concerns for both state policymakers and higher education administrators. This study sought to understand the relationship of perceived stress and perceived margin to meet new challenges of NALs enrolled at a public two-year community college in the years following the COVID-19 pandemic. One hundred eighteen undergraduate students age twenty-five and older participated in the study utilizing the Perceived Stress Scale (PSS) and Margin in Life Scale (MILS). A Pearson Correlation showed a moderate negative correlation between the two instrument composite scores, with an increase in perceived capacity to meet new challenges resulting in a decrease in perceived stress. Analysis using MILS life area subscales (health, religiosity, interdependence, self-confidence, and parenting satisfaction) showed all variables except parenting satisfaction having a statistically significant positive correlation to perceived stress with a small effect. Two demographic variables had a statistically significant relationship to perceived stress: age and gender. A Linear Regression analysis showed age was a predictor of stress with a small effect, with stress decreasing as age increases. For gender, there was a statistically significant difference in mean stress scores between males and females in a Pearson Correlation analysis with a moderate effect. These findings have implications for how higher education institutions measure stress and the psychometric properties of the MILS to adequately measure perceived margin.

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Chapter One: Introduction

Nontraditional adult learners (NALs) account for near 40% of all students enrolled in postsecondary institutions in the United States (NCES, 2018). NALs have unique traits that differ from traditional-age students, including being over age 24, having dependents, being a single parent, having full-time employment, or financial independence (Choy, 2002; Giancola, 2009; Chen, 2017). While much research on student persistence and retention for traditional students has focused on institutional barriers to success, research on adult learners in higher education includes an area less studied with traditional students: mitigating situational barriers. Situational barriers, sometimes described as external or environmental barriers, are the unique life experiences each student faces typically not controlled by the institution (Cross, 1981). An institution often has no control over a student's employment, housing, or transportation, if those services are not affiliated with the institution. For NALs, these aspects of life may begin, end, or change without notice, often without their college or university's awareness of the issue, causing students to decide their education's priority amongst other competing priorities and roles.

With NALs making up a substantial share of postsecondary enrollments, retention of students remains essential. Using performance-based funding models to allocate educational funds, public institutions in states often use retention and six-year graduation rates as success measures. For tuition-driven private institutions, declines in enrollment may severely impact operating budgets, possibly reducing student programs and services. As such, research related to college student retention and persistence is robust. However, there are disparities between the research of traditional-age students and adult learners. Data and empirical research are nominal for adult students compared to the body of research for traditional learners (Cruce & Hillman, 2012).

NAL-specific research has been around for quite some time, even before Tinto (1993) classified adult learners as a distinct population that needed further investigation. Studies aimed at understanding student access to campus resources, such as how students get to and from campus or whether they have enough food for themselves or their family, have led to practical campus solutions. From rideshare programs, food pantries, and childcare to one-stop centers specifically aimed at NAL populations, keeping NALs enrolled has been a focal point for campus administrators (Cross, 1981; Flynn et al., 2011; Hardin, 2008). However, there has been an increased focus on understanding NAL enrollment patterns due to the unknown effects of the COVID-19 pandemic and the known projected declines in enrollment nationally (NCES, 2018).

The COVD-19 pandemic has likely exacerbated situational barriers for NALs. The sudden shift from in-person to distance learning at the early stages of the pandemic in the U.S. exposed social inequalities such as access to technology, the internet, childcare, and public spaces for studying and learning (Stanistreet, 2021). In addition, potential new variants of COVID-19 and the impact on the global economy continue to make the higher education landscape uncertain. Unlike the Great Recession of 2008, where higher education enjoyed a boost in enrollment of NALs during the years following, it is likely the COVID-19 pandemic and years following will have a different impact on college enrollments. The recession in 2008 followed a countercyclical enrollment pattern (Schueler, 2020) —as the economy moved into a recession and led to job loss, many individuals returned or enrolled at higher education institutions to learn a new skill, prepare for a career change, or make themselves marketable in the workforce. Given the toll of business and school closures during the initial stages of the pandemic, and the growing inflation costs of goods and services two years after, it is unclear how quickly the economy and society bounce back. Moreover, once it does, the pandemic may have

transformed the job landscape, leading to vanishing jobs and career opportunities, causing institutions focused on recruiting NALs to rethink educational programs (Boeren, 2020).

This study aims to understand the relationship, if any, of perceived stress and perceived external situational demands of NALs in the aftermath of COVID-19. Understanding NALs and their situational behaviors is necessary and will add to the literature on adult college student persistence and retention in uncertain economic times. It is necessary to understand the mindset, motivation, and priorities of NALs, especially those currently enrolled, and the potential impacts on their persistence.

Problem Statement

The COVID-19 pandemic thrust higher education into an enrollment crisis. In an early-pandemic study conducted by Strada Education Network (2020) of adults between 25 and 44, there was an increased interest in seeking a college credential. However, the survey found an 11% increase in participants indicating they were not sure a college credential would lead to a better job. Additional data from the National Student Clearinghouse (2020) show the initial toll of the COVID-19 pandemic on college enrollment. There were significant drops in enrollment for the Fall 2020 academic term compared to pre-pandemic enrollment trends. Overall, students between the ages 25-29 decreased by .7%, students over 30 decreased by 2.3, and public two-year college enrollment declined by 18.9%. The Spring 2021 enrollment outlook from the National Student Clearinghouse (2021) indicated that undergraduate enrollment continues to tumble. Tracking enrollment declines from January through March 2021, undergraduate enrollment fell by 5.9%, with community college enrollment declining by 11.3%. Though undergraduate enrollment of students aged 18-20 declined the most, students between the ages

25 – 29 fell 5.3% and another 4.9% for students over 29. The current enrollment statistics are likely concerning for state policymakers and higher education administrators.

Institutions must understand situational barriers NALs face and their perceived stress to understand the scope of student enrollment decisions. Investigating how situational barriers impact NAL enrollment is essential in understanding how external factors influence student decisions to enroll or remain in college. It is likely the COVID-19 pandemic will not be the last crisis institutions of higher learning face but understanding how NALs experience the current crises requires a timely investigation. Literature on supporting adult learners facing situational barriers remains limited, and observations of NAL enrollment patterns post-pandemic will be helpful for administrators and policymakers. Stress is a common experience for college students (Jenkins et al., 2021) but elevated levels of stress can impact overall physical and mental health detriment to academic performance (Sharp et al., 2018; Baghurst, 2014; Leppink et al., 2016). The purpose of this study is to understand what relationships exist between perceived stress and perceived ability to overcome external barriers. This study will frame known barriers for NALs within the context of the pandemic and utilize the Stevenson (1982) Margin in Life (MIL) scale and the Cohen et al. (1983) Perceived Stress Scale (PSS) to examine NALs.

Research Questions

RQ1: What is the relationship between NALs' scores on the Margin in Life Scale (MIL) and perceived stress as measured by the Perceived Stress Scale (PSS)?

RQ2: What is the relationship between NALs' PSS score and each subscale (health, religiosity/spirituality, self-confidence, interdependence, and parenting satisfaction) score on the Margin in Life Scale (MIL).

RQ3: Are MIL and PSS composite scores of NALs predicted by student age, enrollment status, race, total enrolled credit hours, employment status, marital status, or dependents?

Theoretical Framework

The current study utilizes the Theory of Margin developed by psychologist Howard McClusky (1963) to explain the multiple factors an individual may be balancing as an adult (the load they carry) and the ability to carry such a load (power). The theory is often referred to as Power-Load-Margin or Margin Theory (Hiemstra, 1981). McClusky (1970) states that the load one carries "the self and social demands required to maintain a minimum level of autonomy" (p. 27). For adult students, load factors can be both internal and external, and barriers to success exist when there is a greater power to load ratio. McClusky's theory describes that for adult learning to occur, there must be a surplus of power, defined as the physical, social, mental, economic, and skills an individual possesses, over the load factors. Internal factors could be self-efficacy, expectations for success, and overall goals—all of which have been documented as unique characteristics for NALs (Karmelita, 2020). External factors are generally the tasks of everyday life—family, career and employment, and socioeconomic status. McClusky's theory describes how the load components compare with the available level of power to balance the load successfully. Power factors can be physical, social, specific skills, money, position, influence, and mental ability. The higher the power related to the load, the greater the margin, and the more margin, the better the ability an adult student will have to manage the load.

The Theory of Margin has been used most in adult education-related studies (Stevenson, 1982; Day et al., 1984; Garrison, 1986), but it has also been used in healthcare to study nurses and medical staff (Kalynych, 2010). The literature surrounding the theory and its associated Margin in Life (Stevenson, 1980) scale compliments theories on student attrition and retention,

specifically barriers that NALs face, which is the broader framework for this study. Seminal works from Astin (1975) and Tinto (1975) describe student characteristics and previous educational experience as significant variables in understanding student potential and success in college. Age, gender, employment status, and enrollment type have all been variables investigated to determine which student demographic characteristics predict student enrollment. Bean and Metzner's (1985) framework on nontraditional student attrition and Tinto's (1993) theory called for group-specific interventions in higher education research. As such, research on retention often seeks to be narrowed to a specific population or demographic, which is why adult learners have their own body of literature.

Methodology

This study will utilize quantitative analysis to understand the relationship, if any, that exists between student demographic information, Margin in Life (MIL) scale scores, and Perceived Stress Scale (PSS) scores. A sample of community college students enrolled at a public community college located in an urban area of southcentral United States will be invited to take a 77-item questionnaire. A Pearson correlation coefficient will identify a positive, negative, or no correlation between MIL scores (composite and subscale) and PSS scores. In addition to understanding the relationship between student demographic information, margin, and stress, a multiple regression analysis is utilized to understand the predictive power of chosen demographic variables.

Significance of Study

While research aimed at understanding college student retention of NALs is essential, the current study seeks to understand barriers for NALs during an exceptionally challenging time. Even before the COVID-19 pandemic began, NALs faced many unique challenges. NALs are

more likely to be balancing their coursework with full or part-time employment, have families, and often do not live in campus housing (Osam et al., 2017). The more characteristics or identities of a nontraditional adult learner a student has, the greater risk of not completing a degree (Lane, 2004).

Nearly two years into the COVID-19 pandemic, enrollment of adult students has yet to show any signs of a quick rebound. Undergraduate students between the ages of 25-29 declined 13.4% compared to data in 2019 and 9.1% for students over 29 (NCES, 2021). Public 2-year institutions continue to see the steepest declines in enrollment. Enrolled students over the age of 24 saw double-digit declines compared to 2019 and an average decline of 14.8% across all age groupings at public 2-year colleges (NCES, 2021). Since the pandemic began, millions of Americans have found themselves out of work, unable to send their children to school or daycare, or are currently facing food, housing, and transportation insecurities. Just as research after the Great Recession helped form an understanding of enrollment trends during a national recession, research during the COVID-19 pandemic and the following years is necessary to best support students and institutions in preparing for future crises.

In investigating the effects of COVID-19 on the education landscape, Stanistreet (2021) describes that regardless of how equipped an education entity may be to respond to supporting students during the COVID pandemic, most have in some ways lacked the "financial, technological, and pedagogical resources to adequately support their learners" (p.2). As such, COVID-19 has created equity gaps between student types, with those possessing adequate resources to pivot in nontraditional learning and campus experiences having an advantage over students without adequate resources. Stanistreet (2021) also urges all educators to seek to understand who among their student populations has suffered the worst of the effects of the

COVID-19 pandemic and seek to find ways to mitigate barriers to reengage learning and academic success.

The practical significance of this study is that there is little research on the impact of COVID-19 and college students. Research must be conducted to understand the challenges for students during this period to 1) understand what can be done to alleviate barriers related to COVID-19 and 2) be prepared for the next global crisis that may impact college students. In addition, nontraditional student research often takes a backseat to research related to traditional-age students. This study utilizes the Margin in Life Scale (MILS) and Perceived Stress Scale (PSS) to understand situational barriers affecting enrollment of nontraditional student populations. That population has demonstrated the most significant dips in enrollment due to the pandemic. Results of this study could assist policymakers and practitioners in understanding and addressing situational barriers that impact a student's ability to earn a college credential.

Limitations

The present study has limitations that may reduce its generalizability. First, data reported in the survey results from self-report instruments may allow for social desirability bias. Subjects may have underreported or overreported levels of stress or overreported margin levels based on their perceptions of favorability by the researcher. Second, the length of the survey instruments may hinder subjects' participation. This study utilized the shortest Margin in Life scale (Stevenson, 1994) available, in addition to the ten questions for the Perceived Stress Scale (PSS), created by Cohen (1983), along with student demographic information. A third limitation will be difficulty accessing technology to participate, internet access, or other constraints that may or may not be caused by COVID-19 hardships.

Definitions of Terms

Attrition: The numeric value for students who do not retain from one specific term to another, often expressed as a percentage.

Load: In McClusky's (1963) theory, load is the internal and external factors pressures and demands adults carry as result of the functions of daily life

Margin: Margin, in McClusky's (1963) theory, is the difference between the load one carries and their perceived power to carry the load. It is expressed as Margin = Load/Power

Nontraditional Adult Learner (NAL): NALs are often characterized (Chen, 2017) as being students over the age of 24 or having one of the following characteristics:

- Delayed start to college after completion of high school
- Having dependents
- Being a single parent
- Enrolling part-time
- Having a fulltime job

Persistence: Continued enrollment at any higher education institution, regardless of if different from the initial institution a student first enrolled (NCES, 2021).

Power: In McClusky's (1963) theory, power is the factors related to an individuals physical, social, and mental abilities, as well as their economic position and inherent skills of which may help carry the load of everyday life

Retention: Continued enrollment within the same higher education institution of which a student began (NCES, 2021).

Chapter Two: Literature Review

Research on why students depart college without obtaining a degree and why some persist, despite challenges and barriers, is vast. Over the last fifty years, research on student attrition, persistence, and retention has evolved with students, institutions, and the current economic times. As such, the broad area has expanded into many subtopics: research on specific populations of students, student characteristics, financial needs, behaviors, and actions taken while in school, along with other measures such as academic performance, to understand better why not all students begin a degree program and finish it to completion (Tinto, 1975). While we have decades of research studies seeking to understand student retention, there has never been a "retention miracle" to provide higher education with the ability to sustain enrollment confidently; a strategy that increases retention rates at one institution may have no substantial effect on another. Despite the lack of certainty with such efforts, the stakes are high, and any boost to student retention, however slight, can be significant for an institution. For this reason, research in student retention is a continuous cycle.

The present review of literature will discuss the foundation of retention theories and literature for which adult learning research builds upon, barriers to success for adults in higher education, current research utilizing McClusky's Margin in Life Theory and Perceived Stress Scale (PSS), and how situational and external factors influence NAL enrollment. As administrators and policymakers seek to understand current NAL enrollment amidst the COVID-19 pandemic and endemic, it is necessary to review patterns and trends.

Nontraditional Adult Learners

Terminology used to describe adults in higher education not always agreed upon in adult education research. Students may be described as “adult students” (Deutsch and Schmertz, 2011), “nontraditional adult learners” (Chen, 2017), or “nontraditional students” (Hardin, 2008) and the terms may be used interchangeably to mean the same student population. However, while these terms are most prominent, some argue that there are further delineations of the adult student type. Compton et al (2006) posit adult learners are different than nontraditional learners in that adult learners may enroll to seek a vocational credential and are more likely to view themselves primarily as workers, not students. Iloh (2018) argues that neither term appropriately describes the student population suggesting “post-traditional” would more accurately describe students engaged in learning outside the traditional college years. Iloh’s rationale is that from an equity perspective, using the term “nontraditional” implies that a student is a part of a system that was designed for traditional students, thus creating a deficit mindset. Regardless of the terminology, many adult learner studies utilize similar characteristics to classify or categorize a nontraditional student. A student over the age of 24 is the most widely used marker for a nontraditional student, but characteristics also include whether a student has a family, works part-time or full-time, enrolled in part-time coursework, have dependents or being a single parent, financial independence, and having not attended college immediately after high school (Horn, 1996). Researchers tend to agree that age is not the only marker for a nontraditional student and that there are many that could describe a student who experiences barriers and challenges a traditional student may not face.

Identifying adult learners is essential to providing resources and support services to boost retention and overall success. Historically, higher education institutions have struggled to

identify adult students with the aim of creating support programs (Latkin, 2009). A survey by the American Council for Education (ACE) found that near 40% of institutions reported not collecting such information. To make it more difficult, it is even more challenging to fully capture which enrolled students have characteristics of being a NAL, as not all information is captured. One reason that age is a primary marker for NALs is that it is information easily obtained by a student through the admissions process. Other characteristics, such as marital and employment status, financial independence, and whether a student has dependents, are information that may not be collected on a consistent basis and could change during an enrollment period. Lack of sufficient information at the institutional level has also stifled research on adult learners. Donaldson & Townsend (2007) found that in an analysis of peer-reviewed higher education journals, only a small percentage were focused on adult learning, continuing the need for continued research of adult learners.

Retention and Persistence

Retention describes an institution's ability to keep students enrolled at the same institution from admission through graduation. Persistence is a continuation of education regardless of whether it is the same institution (Berger & Lyon, 2004). The two related areas are among the most widely studied topics in higher education research. Initial scholarship seeking to understand student departures began to form in the 1930s through the 1960s (Gekosi and Schwartz, 1961; Panos and Astin, 1968; Feldman and Newcomb, 1969) and gained widespread attention in the 1970s. From the post-World War II era to the years leading up to the 1970s, higher education experienced a "massification" across all areas (Gumport et al., 1997). The social and economic climate increased campus infrastructure, academic programs, support services, and access for underrepresented and nontraditional populations. The widespread growth

in higher education led to an increased interest in student enrollment as colleges and universities sought to maintain enrollment.

William Spady (1970) was one of first researchers to investigate specific variables that contribute to student departures (Demetriou & Smitz-Sciborski, 2012). Spady developed a model utilizing concepts of Durkheim's Theory of Suicide to frame dropouts in a way that emphasized the importance of social integration and support on academic performance and overall institutional commitment (Spady, 1971). Spady (1971) tested the model with first-year college students (n=683) investigating the predicted power of variables such as previous educational achievement, support, grade performance, level of engagement, satisfaction, and commitment. Of the study variables, academic performance was the only statistically significant variable in predicting achievement of the sample after four years.

Tinto and Cullen (1973) also sought to understand student departures but noted there were no established definitions for a who would be considered a dropout. They described that an institution may consider a student to be a dropout if they fail to enroll for a future term and that society or policy makers may consider a dropout as beginning, but never finishing a degree. Tinto and Cullen noted that current literature failed to account for students who may transfer from one institution to another, stating that definitions "tend to ignore the fact that the higher educational system is a dynamic entity within which there is a constant differentiation of individuals of varying characteristics" (p. 3). The result of the seminal work was the berth of a differentiation between students who are retained at a specific institution, and students who depart one institution to persist at another.

Tinto (1975) later developed a theoretical model of dropout seeking to understand the processes contributing to student departures. The model argues that a student's commitment to

completion goals and overall commitment to the institution are modified by academic and social experiences over time. In addition to experiences while a student, Tinto described that demographic information such as prior educational experience and expectations play a role in decisions to drop out. Tinto also recognized that not all factors related to student retention are within the constraints of the institution; external events or factors also are key in understanding the full picture of why some student's complete degrees and some do not. However, even if external factors are central to a decision to depart, Tinto's theory describes external factors continue to modify student commitments to degree completion and to the institution they are enrolled.

John Bean (1980) sought to develop a model for student attrition that focused more on specific variables of student attrition, discussing that the work of Spady (1970) and Tinto (1975) fell short. In evaluating Spady's model, Bean stated "the link between dropping out of school and suicide is suggested as a theoretical basis for those models, but there is insufficient evidence for this premise" (p.156). In addition, Bean articulated how variables are presented in Spady, and Tinto's studies made impossible to conduct a path analysis. Bean developed a causal model of student attrition derived from literature on employee turnover in organizations (Price, 1977) to better understand specific attrition variables within a higher education institution, rather than variables associated with general college students. The model examined the influence of institutional factors on student satisfaction and persistence. The approach, Bean posits, allows for more tailored investigation at the institution level.

Bean and Metzner (1985) developed a specific conceptual model on nontraditional student attrition due to increased enrollments of nontraditional students at that time. The authors posit that the main difference between traditional students and nontraditional students was that

external or environmental factors were a more significant predictor for retention than social integration at an institution. The model describes four overarching sets of variables for which dropout decisions will be made; academic performance, intent to leave as influenced by psychological outcomes, demographic student information, and environmental variables. Whitin the environmental factors, the authors identified finances, total hours of employment, encouragement outside of the institution, family responsibilities, and opportunity to transfer as direct effects of student attrition.

Alexander Astin's (1984) theory of student involvement posited that increased student involvement with various facets of campus life increases student retention. Astin based his theory on data examined in a longitudinal study of college dropouts (Astin, 1975) of which described various components of the student experience has having a positive or negative effect on student retention. First, involvement in extracurricular clubs, student organizations, Greek life, or athletics have a positive effect on continued enrollment. Second, whether a student is employed while in school can impact levels of involvement. The study described that students holding parttime jobs on campus were more likely to retain than students who have parttime or fulltime employment off-campus. Third, institutional type has a significant impact on involvement levels, as students attending a two-year institution or community college are more likely to work and live off campus. Astin's theory describes three main elements contributing to involvement: inputs, environment, and outcomes. Inputs are the attributes and characteristics a student possesses upon entering college. Environment is the experience of being in college, including all curricular and co-curricular experiences as student may have. Lastly, the outcomes are a student's acquired knowledge, beliefs, and attitudes after graduation.

Astin (1999) describes involvement theory as being comprised of five postulates of which may assist administrators with understanding the theory. First, the nature of involvement is the "investment of physical and psychological energy in various objects" (p. 519). Second, the involvement in various objects operates on a continuum, where there may be an ebb and flow of investment. Third, both quantitative and qualitative approaches to measuring involvement are necessary. Fourth, student development is directly related to "the quality and quantity of student involvement" (p. 519) in a specific program. The final postulate describes that for a policy or practice to be effective, it must relate its capacity to increase student involvement.

As campuses continued to expand and diversify, theories seeking to understand how student interactions with their institutions impact enrollment continued to develop out of necessity; keeping students enrolled became critical for institutions as enrollment fluctuated year to year. Bean and Metzer (1985) recognized that the early retention models did not account for specific populations of students on campus, namely nontraditional learners. They theorized that the characteristics of nontraditional learners in terms of how they interact and engage with campus are uniquely different from traditional-age students. Instead of only including factors for how a student experiences campus life, the experiences, or external forces, nontraditional student experiences must be considered. Tinto (1993) and other theorists began to delineate student populations and their specific circumstances for departure moving forward. With retention being the board umbrella for all student populations, it includes student departure studies for underrepresented student populations, LGBTQ+, students with disabilities, socioeconomic status, and Pell Grant eligibility.

Many studies seek to predict retention through the assessment of student demographic and other variables, similar to Bean and Metzner's (1985) study. Researchers seek to understand

if any specific qualities about a student or their behaviors or actions make them more likely to persist than others without the same qualities, behaviors, or actions. For traditional-age students, demographic information may consist of age, gender, high school grade point average, parent's educational attainment, standardized test scores, first-term grade point average, level of involvement in campus activities, and whether or not they live on campus. For nontraditional students, demographic information may include whether a student is enrolled full-time or part-time, is taking courses online or in-seat, works full-time, has dependents, and their age (Chen, 2017; Horn, 2009). Understanding the specific demographics of students is crucial for institutions seeking to keep nontraditional adult students enrolled. Mayanga et al. 2017 discuss that there may be "employment issues, social issues, financial constraints, and unintended situations that develop during their academic journey" (p.39).

Retention theories offer a broad understanding of how to support students to keep them enrolled. How these theories translate to practice is subjective to the population of students studied, institutional type, and problem an institution may be seeking to address. As such, replication from one institution to another may have varied results, and significant results should be discussed in relation to the timing of the study, the population or student demographic, and the institution type.

Barriers for Adult Learners

Retention studies specific to NALs have identified barriers that may affect the enrollment patterns of adult students seeking to enroll or stay enrolled in college. Barriers to adult learning are multifaceted. Ekstrom (1972) and Cross (1981) are most often cited in studies investigating barriers for adult students. Each identifies and discusses three general barrier levels for adult students: institutional, situational, and dispositional. Institutional barriers are the policies and

processes that the institution controls, such as admissions processes and student services. Situational barriers are identified as forces present in the student's life, such as finances, family obligations, or other daily life functions. Lastly, dispositional barriers describe self-efficacy, motivation, or confidence in academic ability. Each of these barrier categories continues to shape how adult learner research is conducted.

Situational Barriers

The most widely studied barrier for adult learners is situational barriers, or the tasks of daily life (Osam et al., 2017). Adults in college are more likely to identify as a parent or employee rather than a student (Compton et al., 2006), differing from traditional-age students. The specific barriers that have received the most attention are family life and finances (Osam et al., 2017). Prioritization and balance of studies with family responsibilities and roles can significantly impact a student's success in the classroom (Genco, 2007). Childcare, marriage, and multiple family roles have been common barriers in recent literature (Shepherd & Nelson, 2012; Deutsch & Schmertz, 2011).

In a study seeking to understand institutional barriers for adult students across thirteen European countries (n=3943), Saar et al. (2014) found that the ability to afford college and access to transportation was a common barrier of participants across all nationalities and identified those barriers as being situational, and not institutional. The researchers identified that there are stipends provided to full-time students for postsecondary education within many European countries, but not for adult students, creating a discrepancy in affordability. The lack of public funds for adult students poses a barrier, and while loans may be available, not all adult students are willing to incur debt for their education. Numerous other U.S. studies cite finances

and the ability to afford college as a significant barrier for adult students (Goto & Martin, 2009; Hostetler et al., 2007, Flynn et al., 2011).

In a U.S. study, Hostetler et al. (2007) found that childcare was the main barrier to adults and family roles. The study identified a significant association between financial assistance for childcare and enrollment of women at postsecondary institutions (n=418). Women who received forms of financial assistance were four times more likely to enroll in coursework than those with no financial support. Osam et al. (2017) posit that gender plays a significant role in situational barriers, and women carry a greater burden that may limit their enrollment in college (Home & Hinds, 2009). However, though women may experience more limitations due to family roles, there is some indication that those roles will not always limit the ability to enroll or achieve success in college. Hostetler et al. (2007) also found that participants who self-reported being married and having substantial family demands were more likely to enroll in college than participants without family roles and responsibilities.

Institutional Barriers

Unlike situational barriers, which are concerned with the aspects of a student's life outside the institution, institutional barriers are often policies and procedures controlled by the institution that may be limited to adult learners and affect their ability to complete a degree (Cross, 1981; Bergman et al., 2014). Many institutions are structured to support and serve traditional-age students rather than adult students (Benshoff & Lewis, 1992). The lack of focus for adult-specific policies and procedures at the institutional level has led to barriers such as a lack of course offering in the evening and during the weekend (Hardin, 2008) and accessibility to admissions and advising staff (Kasworm, 2010). Additionally, colleges tend to view the engagement and involvement of students as the amount of time in class and participating in out-of-class activities.

Fairchild (2003) argues that the very definition of student involvement is a barrier for adult students as their involvement will be quite different from a traditional student and should be measured differently.

Dispositional Barriers

Dispositional barriers are complex as they are barriers that must be resolved by the individual (Cross, 1981); an individual may find little institutional or situational support to alleviate such barriers. These barriers are concerned with mindset, fear of failure, confidence in academic ability and readiness, and attitude (Ekstrom, 1972). To combat dispositional barriers, adults typically must adopt self-reliance and be determined to begin or finish their degree (Goto & Martin, 2009, as cited by Osam et al., 2017). Fairchild (2003) describes dispositional barriers as being situated within roles (family, work) and the demands of those roles as affecting attitudes towards education. (1998) found that women may experience greater role conflicts from being separated from their children, leading to feelings of guilt. Quantitative research on dispositional barriers of adult students has been scarce. However, many qualitative studies have described barriers as being student perceptions of their ability in the academic environment, confidence, self-esteem, and anxiety toward academic success (Genco, 2007; Flynn et al., 2011, Shepherd & Nelson, 2012, and Kasworm, 2010).

Alleviating barriers for adult student success is a central tenant of research on adult learning in college. Whether an adult is seeking to enter college or is currently enrolled, they will likely experience barriers that are either institutional, situational, or dispositional. Osam et al. (2017) describe a need for institutions to continually develop ways to integrate adult students into the educational community. Programs should be intentionally focused on specific student populations, such as adult learners.

Margin in Life Theory

Psychologist Howard McClusky developed the Theory of Margin in 1963 to explain the multiple factors an individual may be balancing as an adult (the load they carry) and the ability to carry such a load (power). The theory is often referred to as Power-Load-Margin (PLM) or Margin Theory (Hiemstra, 1981). McClusky's theory predates one of the most widely known adult learning theories, andragogy, popularized by Malcolm Knowles (1968; 1980) as the counterpart of pedagogy, which focused on adolescent learning (Merriam et al., 2020). McClusky's theory posits that adults are best suited to carry a load (such as schoolwork) if they have the capacity or power to carry the load amongst external and internal factors. Internal factors could be self-efficacy, expectations for success, and overall goals—all of which have been documented as barriers for adult learners (Karmelita, 2020). External factors are generally the tasks of everyday life—family, career and employment, and socioeconomic status—all of which are characteristics common for NALs (Chen, 2017; Horn, 1996).

McClusky's theory seeks to understand the margin for which individuals can be successful based on the load they carry. For adult learning to occur, there must be a surplus of power, defined as the physical, social, mental, economic, and skills an individual possesses, over the load factors present in life. Too little power and too much load may cause an adult to be unsuccessful or be able to address new or unexpected load factors. The formula for margin is expressed as Load/Power = Margin. McClusky (1970) states that the load one carries is "the self and social demands required to maintain a minimum level of autonomy (p. 27)." The practical nature of the theory in relation to external and external factors contributing to or inhibiting success is a significant reason it has been utilized over the past 40 years to understand adult learning.

Margin theory has often been used to study nursing and emergency professionals and adults in college. While these areas are different, each has been identified as a high-stress environment or demanding workload (Kalynych, 2010). In healthcare studies, researchers often seek to understand at what point the job demands, in conjunction with external factors, will lead healthcare professionals to leave their positions. Essentially, whether individuals in such roles will retain. In higher education, margin theory often is used to generalize about adult learners in either entering college coursework or retaining through degree completion (Stevenson, 1982; Day et al., 1984; Garrison, 1986), which supplements major seminal works from Tinto (1975) and Astin (1975) who describe student demographics and out of classroom experiences as being significant variables for student success.

Stevenson's Margin in Life Scale

Joanne S. Stevenson (1982) developed the first instrument to measure load, power, and margin to operationalize McClusky's theory. The first iteration of the MIL scale, comprised of 211 items, utilized items from the Religiosity Scale (Swanson, 1958), the Cornell Medical Index (Cornell, 1956), the Tennessee Self Concept Scale (Fitts, 1964), the Life Satisfaction Scale (Neugarten, 1961) and the Locus of Internal-External Control Scale (Rotter, 1966). The initial scale was aimed to include a broad array of items relevant to adult life. Stevenson later reduced the scale to 94 items in the areas of self, family, religiosity and spirituality, body, extrafamilial relationships, and environment. Through continued testing of the validity of the instrument, Stevenson (1994) further reduced the instrument to 58 items consisting of the following five factors: health/body, religiosity/spirituality, self-confidence, interdependence, and parenting satisfaction.

In all versions of the MIL scale, participants are instructed to answer questions that began with “generally speaking...” and then rate the perceived importance of the statement in their life, then rate the level of power and load from 1 to 5. Before respondents took the instrument, they were provided with a brief overview of McClusky’s definition of power and load. The instrument provides a researcher with a margin composite score and each subscale score. To aid in understanding MIL scale scores, Mikolaj and Boggs (1991) and Kaylinch (2010) proposed margin categories to understand participant ratings on the instrument. A low rating would be a 1, 2, or 3 rating, and a high rating would be 4 or 5 for each power and load category. Table 1 describes the categories within which a respondent’s scores may fall. A person who perceives a low load with low power is in balance. A person considered to have high power and a low load is considered to have sufficient margin to meet new challenges or take on new tasks. Individuals who have opposite power/load ratios, with a higher load than power, have reached a crisis point where taking on new tasks or facing new challenges could be difficult. Lastly, while having both high power and high load is considered barely even, it could indicate stressful life conditions.

Table 1
Margin in Life Categories and Power/Load Ratings

Margin Categories			
A. In balance	B. Having Margin	C. In Crisis	D. Barely Even
Ratio of Load Over Power			
A. Low Load Low Power	B. Low Load High Power	C. High Load Low Power	D. High Load High Power

Main (1979), Kaylinch (2010), Mikolaj and Boggs (1991)

All three of Stevenson’s (1994) versions of the MIL scale were deemed to have established internal validity and consistency. The MIL-58 is commonly used in research as the instrument may allow for greater feasibility of studies using the MIL scale. Other scholars have

made adaptations of the instrument for their research. Hanpachern (1997, 1998) developed a MIL Revised Scale containing 50 items used to focus on aspects of life in relation to work. Hanpachern's version included five categories: knowledge and skill, job demands, social relations in the workplace, management relations, and organizational culture. Madsen et al. (2004) utilized the MIL Revised scale by Hanpachern (1998) to investigate margin and readiness for change for employees at non-profit and for-profit organizations (n=464). The MIL Revised Scale and the Ready for Change (RFC) instrument were administered. Results suggested a significant correlation between the two instruments on the variables of age, education level, and length of employment (Madsen et al., 2003).

Education Studies Utilizing MILS-94. Studies conducted before Stevenson released the updated 58-item MIL scale used the 94-item version of the instrument. Both Weiman (1987) and Knepper (1990) investigated the relationship between composite MIL scores and grade point average. In Weiman's study, graduate students enrolled in a Computing Science Education program took the MIL scale. However, findings detailed that no statistically significant correlation between GPA and overall MILS scores was present. Knepper sought to understand if a relationship existed between low GPA and low MILS scores of 324 community college students. In the study, Knepper controlled variables such as age, gender, major, previous educational experiences, and the total number of credit hours attempted to understand if any variable had a significant impact on the relationship of GPA and MILS scores. Ultimately, no relationship between low GPA and low MILS was found in Knepper's (1990) study either. The average MILS score for the sample was .57 on a 0-1 scale, indicating a slightly above average margin.

Milolaj and Boggs (1991) investigated interpersonal stressors as barriers for reentry for women seeking to reenroll at a private college (n=129). Instead of utilizing the MILS as it is, the researchers borrowed questions from the instrument relating to their student population and conducted test-retest reliability of the instrument used. The study found that independent variables related to marital status, age of children, and their specific reasons for reenrolling in school significantly correlated to perceptions of load and power. In evaluating all 7,259 questions answered in the sample, 27% identified low margin or crisis point, and 27% identified barely maintaining balance with current responsibilities.

Education Studies Utilizing MILS – 58. Stevenson's (1994) revised MIL scale that included 58-items allowed researchers to explore margin with student populations further and make it feasible to incorporate additional instruments. In studies by Johnson (1996) and Johnson et al. (2000), the MIL scale was used to investigate the specific subscales of the MIL in relation to a sample (n=350) of community college women. The study results found that within the sample, the margin was adequate in almost all subscales, according to McClusky's (1973) theory. However, in parenting satisfaction, the women did not have enough margin to cope with current demands or meet new challenges. While early studies using the 94-item scale may not have shown promise as a predictor for GPA, the studies by Johnson created a need further to investigate specific populations and their MIL subscale scores.

Schawo (1997) also utilized Margin Theory to investigate the relationship between MIL scores and female students in a published dissertation. The MIL Scale was administered to female students (n=263) aged 25 and older in conjunction with the Adult Classroom Environment Scale (ACES) to understand if margin scores impacted ideal classroom environment perception and classroom involvement. The study revealed that there was a positive

correlation between MIL scores and classroom involvement. Schawo's study was one of the first to utilize two instruments to investigate margin (Kaylinch, 2010).

In investigating the MILS composite score and associated subscales in its ability to predict persistence among NALs, Walker (1997) examined students at two different colleges (n=519) over three consecutive academic quarters. Ultimately, the researchers found that neither MILS compositive scores nor the associated subscales successfully predicted persistence within the sample.

Quinn et al. (2019) used McClusky's theory in a mixed methods design to investigate first-generation TRIO participants at a small, four-year institution. The researchers sought to understand whether student demographic information could significantly predict margin or the participant's perceived margin regarding success in college. The study did not have significant quantitative findings but discusses that the MILS tool may not have been best suited to understand the margin for a small sample (N = 144) of traditional-age undergraduates. However, within the qualitative methodology, the research cited grit, or the passion and persistence of long-term goals (Duckworth et al., 2007), as a common theme amongst participants, suggesting that using the MILS alone may not be sufficient to understand the margin of adult learners.

Wolffin (1999) combined the MILS with the Type E Stress Inventory, developed by Braiker (1986), for a study of adults walking down a sidewalk in an urban city (N=78). The researcher sought to understand the stress level of an adult, regardless of if they were planning to enroll in college or were already enrolled. Wolffin posits that all adult learners have some level of external and internal loads and that those experiences are typical for adult learners and all adults. Stevenson (1982) identified a potential challenge of utilizing MILS is how and when it should be administered. Stevenson describes, "It is possible to pinpoint certain areas of an

individual's life where there are particularly heavy loads" (p.225) and that she had used the MILS to assess respondent perceptions during an acute crisis but had not used the MILS as a post-evaluative measurement tool. While Wolffin (1999) and Quinn et al. (2019) challenge the MILS as a standalone tool for understanding margin, their work opens the door for additional measurements to be used in conjunction with the MILS. Furthermore, since neither researcher performed their study during an economic crisis or global pandemic, there is a need to investigate margin and stress during the COVID-19 pandemic, where levels of internal and external load factors have been exacerbated.

Merriam et al (2020) posits that McClusky's theory has endured over time and "has appeal in that it speaks to everyday events and life transitions that all adult students encounter (p.134)." The authors further discuss that continued research of adult learners using McClusky's theory, both qualitatively and quantitatively, is necessary due to the practical nature of how the theory examines external factors and ability to balance multiple life priorities.

Stress and College Students

Enrollment in higher education may lead to experiences of stress, when demands on a student exceed their ability to cope with such demands (Haidar et al., 2018; Cohen et al., 1995). The effects of stress on colleges students have been studied to understanding connections to smoking, marijuana and drug use, alcohol, internet usage, sleep, motivation, weight gain, and finances (Magid et al., 2009; Benham, 2021; Gusman et al., 2021; Cadaret et al, 2019; Koyama et al, 2011; Nelson et al., 2008; Charles et al., 2021). Significant stress or inability to positively cope with stressors may lead students to face academic or personal difficulties (Haidar et al., 2018), making stress important an important variable of student success.

The COVID-19 pandemic may have influenced how college students perceive and experience stress. A study (n=252) by Gusman et al. 2021 sought to understand the relationship between sleep and stress of undergraduate students before, during, and after the transition from in-seat learning to online learning when many colleges and universities shutdown in-person operations. The study revealed that participants perceived a high level of stress and low levels of sleep during the initial transition, but that once students adapted to the online learning environment, more sleep and less stress was reported. While the sleep and stress study focus on a sample of first- and second-year students who are likely not to identify with NAL attributes, it highlights the need to understand the impact of events on adult learners, who may have experienced greater stressors throughout the pandemic.

Adult learners face greater life stress as compared to traditional students, given they are likely to have roles beyond being a student, such as a parent (Trenz et al. 2015). A study by Moore et al. (2021) aimed at understanding academic and financial distress among NALs who utilize services provided by college counseling centers found that adult students present with concerns that are more external in nature as compared to traditional students. Adult students were more likely to have financial stress, family stress, and academic challenges, compared to nontraditional students.

Cadaret et al. (2019) investigated how undergraduate and graduate students (n=3,303) self-reported financial stress in conjunction with their mental health concerns. The authors revealed that as financial stress increases, so does stress for academic performance and family/social relationship. Adult students may be prone to more financial barriers such as credit card debt, student loan or school debt, and other financial obligations that may lead to financial distress.

Perceived Stress Scale

The Perceived Stress Scale (PSS) was developed by Cohen et al. (1983) to develop a measure of perceived stress. The Likert scale measurement tool is one of the most utilized psychological instruments having over 6,000 citations (Smith et al. 2014). The instrument is short, comprised of either 10 or 14 questions, but often comprises 10-questions (PSS-10). The instrument's questions seek to understand perceived stress during unpredictable times, lack of control, and overload (Remor, 2006). Anwer (2020) discusses that physiological stress "results from an imbalance between external environmental demands and an individual's perceptions to meet them" (p.2). Roberti et al. (2006) discuss that any stressor hinges on two key components; the stressor is perceived as threatening, and there is a lack of perceived resources to mitigate the stress. Lazarus and Folkman (1984) also detail that emotional distress can become when there is a perception of no control or inability to deal with a challenge. Given the interdisciplinary nature of the instrument, it has been used widely within various populations.

Cohen et al. (2012) examined psychological stress amongst many demographic samples within the United States using the PSS10. Their cumulative findings were that overall, across all samples, men were more stressed than women and that as age, income, and education increase, stress decreases. The researchers were also interested in understanding how the Great Recession of 2008 impacted stress amongst their samples. Comparing data from 2006 and 2009, the results showed that white individuals, men, individuals between the ages 45-64, and those fully employed perceived greater stress during the economic downturn.

In a dissertation by Siegel (2008), the role of stress and the impact on retention for nontraditional community college students were examined. The researcher surveyed 244 students of all age groups taking classes at an urban two-year college. The study results found significant

differences between perceived high stress and low intent to stop out or drop out of school. Similar to the findings of Cohen et al. (2012), gender was a demographic variable that predicted stress; however, this study findings detail females experience more significant perceived stress than males. Siegal also states that research on stress and community college students has been limited. Literature suggests that of students attending four-year colleges or universities, evidence points to females having greater perceived stress (Bojuwoye, 2002; Pierrine, 2001), and it is unclear if perceived stress changes based on age and institution type.

In one of few studies relating to COVID-19, Yan (2021) investigated the relationship between stress and emotional distress during the pandemic of Chinese individuals (n=3233). The study utilized the PSS-10 to understand the stress and emotional stress at the onset of an emergent health event. The findings concluded that individuals with perceived high stress due to COVID-19 were significantly related to more emotional distress. Further, individuals who adopted positive coping mechanisms to handle stress suffered fewer adverse effects of emotional distress. Interestingly, the study found that boredom, especially during isolation or lockdown periods, aggravated an individual's ability to cope with COVID-19 stress positively. The study offers insight into investigating the effects of COVID-19 on individuals' stress and mental wellness. It could offer insight into the relationship of how other populations may persist through the pandemic.

Chapter Two Summary

The COVID-19 pandemic has created instability and uncertainty in many aspects of life. The initial toll of the pandemic on college student enrollment detail that nontraditional students may have suffered greater negative effects causing higher education to be secondary to other needs. Just as research on student enrollment patterns after the Great Recession in the early

2000s was looked upon during the current crisis, research on student populations during the current pandemic is essential for learning how to be best prepared for the next global crisis. It is necessary to investigate what factors have led to such declines in NAL enrollment to understand how policymakers and institutional leaders can develop mitigative efforts to address. The Theory of Margin and its associated scale (MILS) is well suited to investigate NALs as it seeks to understand how individuals perceive their power to control various life circumstances. The literature of Margin Theory paints a picture that continued research is needed to fill in the gaps on whether the MIL scale is a valuable instrument to investigate adult learners in college. The theory itself makes practical sense as a student who, through the pandemic, carried a significant load (school, parenting, or work) but did not have the appropriate power to maintain the load may have been forced to choose from competing priorities. However, more investigation is needed to understand if the findings can be generalizable. The PSS compliments the theoretical construct of margin as stress may be an indicator of low margin in nontraditional students.

Chapter Three: Methodology

This study aims to examine the relationship between MILS composite score and subscales (McClusky, 1973; Stevenson, 1980) and perceived stress using the PSS10 (Cohen, 1983). Understanding whether a relationship exists between MILS scores and PSS10 scores could better understand the nature of margin with overall perceived stress for adult learners during a global pandemic. As a theoretical construct, Margin Theory is well suited to investigate the situational barriers of adult community college students. A central tenet of margin theory is that adults continually navigate the balance between external and internal loads with the capacity to carry such loads. Adults who lack margin and have reached a crisis point (Main, 1979) may experience stress related to their perceived load and capacity to take on new challenges or maintain current tasks of life (McClusky, 1963).

Research Questions/Hypothesis

This study utilized quantitative analysis to understand the relationship between student demographic information, Margin in Life (MIL) scale scores, and Perceived Stress Scale (PSS) scores. A Pearson correlation coefficient will identify positive, negative, or no correlation between MIL scores (composite and subscale) and PSS scores. In addition to understanding the relationship between student demographic information, margin, and stress, a linear regression analysis is utilized to understand the predictive power of chosen variables. Data was collected to answer the following questions:

RQ1: What is the relationship between NALs' scores on the Margin in Life Scale (MIL) and perceived stress as measured by the Perceived Stress Scale (PSS)?

Null Hypothesis: There is no relationship between NALs' scores on the MIL and PSS scale.

RQ2: What is the relationship between NALs' PSS score and each subscale (health, religiosity/spirituality, self-confidence, interdependence, and parenting satisfaction) score on the Margin in Life Scale (MIL).

Null Hypothesis: There is no relationship between the PSS score and each subscale of the MIL.

RQ3: Are MIL and PSS composite scores of NALs predicted by student age, enrollment status, race, total enrolled credit hours, employment status, marital status, or dependents?

Null Hypothesis: MIL composite scores are not predicted by variables of age, enrollment status, race, total enrolled credit hours, employment status, marital status, or dependents.

Sampling and Participants

The study was conducted at an urban two-year community college in east southcentral United States with a total enrollment of 12,053 in the fall of 2022. The community college is one site governed by a statewide college system, system, enrolling over 73,000 students across all campuses (Office of Research and Policy Analysis, 2023). Participants were enrolled students during the Spring 2023 and Summer 2023 semesters. The target population of this study was undergraduate students enrolled at a public two-year community college who are identified as nontraditional adult learners.

A convenience sample was used to identify enrolled students aged 24 or older, as identified by the birthdate provided to the college upon admission at the time of the study. Age is the most often used proxy for identifying an adult learner (Lakin, 2009), and only enrolled students aged 25 or older were invited to participate in the study. In fall 2022, around 25% of all enrolled students were aged 25 or older (Office of Research and Policy Analysis, 2023). A total

of 3,178 students met the sample criteria and were invited to participate in the study. A minimum sample size was determined for each hypothesis using G*Power 3.1 software.

Instrumentation

Margin in Life Scale (MILS)

Stevenson (1982) developed an instrument to operationalize McClusky's Theory of Margin. The first iteration of the scale was comprised of 211 items taken from the Religiosity Scale (Swanson, 1959), the Cornell Medical Index (Cornell, 1965), the Tennessee Self Concept Scale (Fitts, 1964), the Life Satisfaction Scale (Neugarten, 1961) and the Locus of Internal-External Control Scale (Rotter, 1966). Stevenson pulled from each study to compile a list of items believed to investigate margin in adults. Stevenson conducted a factor analysis on the 94 MILS items (1994) and determined that the instrument should be narrowed to five subscales, or life factors, and be comprised of 58 items (Appendix B) and provided a scoring guide for the instrument (Appendix C). Both subscale scores and the overall composite score range from .01-.99. McClusky (1973) identified that for adults to have adequate margin to meet new or unexpected life challenges, a power-load ratio between .5-.8 is required. The MIL-58 was validated by factor analysis utilizing a sample of 283 adults aged 23 – 62 (Appendix D). Table 2 details the five factors in Stevenson's 58-item questionnaire.

Table 2
MILS-58 Factors and Number of Items for Each Factor

Life Factors	Number of Items
Health/Body	18
Religiosity/Spirituality	12
Self Confidence	13
Interdependence	10
Parenting Satisfaction	5

Note. Stevenson's 58-item MILS questionnaire (1994).

Table 3 provides example questions and rating scale. Participants taking the questionnaire are provided with a brief definition of power and load (McClusky, 1983) and directions for how to complete all 58 items. If an item on the instrument is not applicable to the life of the respondent, they should indicate it is not applicable.

Table 3
MILS-58 Rating Scale and Example Questions

	Importance of Item	Load	Power	NA
Generally speaking…				
My mental health is:	1,2,3,4,5,6,7,8,9,10	1,2,3,4,5	1,2,3,4,5	□
Finances are:	1,2,3,4,5,6,7,8,9,10	1,2,3,4,5	1,2,3,4,5	□
Learning is:	1,2,3,4,5,6,7,8,9,10	1,2,3,4,5	1,2,3,4,5	□

Perceived Stress Scale (PSS)

The PSS is a widely used instrument to measure stress. The instrument was developed by Cohen et al. (1983) to measure "the degree to which situations in one's life are appraised as stressful" (p.385). The original instrument included 14 items that asked participants to rate their perceived stress on a Likert scale (0-5). In contrast, a score of 0 indicates never, and a score of 4 indicates something experienced very often over the past month. The instrument was later shortened to 10 items, and the PSS-10 (Appendix F) is used widely across many disciplines to analyze stress (Cohen & Williamson, 1988). Four questionnaire items are scored in reverse as they have a positive direction wording. Composite scores are calculated by totaling survey items 1,2,3,6, 9, and 10 with the sum of reversed items 4,5,7,8. The higher the instrument's composite score (0 – 40) indicates more significant perceived stress (see Table 4). Cohen conducted two extensive studies to investigate the internal reliability of the instrument: the L. Harris Poll in 1983 (n=2,387) and the eNation Survey conducted in both 2006 and 2009. Cronbach's Alpha for

the L. Harris Poll was .78 and .91 for both eNation surveys. In all three national samples, stress increased with decreasing age, income, and level of education (Cohen & Janicki-Deverts, 2012).

Table 4
Composite PSS-10 Scores and Associated Stress Levels

Composite Score Range	Perceived Stress Level
0-13	Low Stress
14-26	Moderate Stress
27-40	High Stress

Note. Cohen (1983)

Data Collection

The associated research instruments were entered into the Alchemer Survey platform, and each participant was invited to complete the demographic questions, the MILS-58 and PSS-10, in that order. The MILS-58 and PSS-10 have associated demographic questions: (1) the MIL-58 consists of seventeen demographic items, and (2) the PSS-10 has five questions. Due to the nature of the present study and the characteristics of NALs, only demographic questions relevant to the research questions were utilized. The questionnaire included gender, age, race, employment status, income level (Cohen et al., 1983; Cohen & Williamson, 1988), marital status, number of children, and total enrolled credit hours (Stevenson, 1994). Included demographic items and associated variables can be found in Appendix A.

Upon IRB approval from the study site, participants were identified by the Office of Institutional Effectiveness, Research, and Planning at the community college study site. An invitation was sent to the identified sample on behalf of the researcher through the school's KNECT system, a communication tool where non-emergency information is delivered by text and email to students (Appendix F). A follow-up reminder email was sent two weeks following the initial email.

Participants were informed of an opportunity to enter a drawing for one of eleven gift cards to increase participation in the study. Participants were allowed to opt-in to the survey drawing after completing the primary survey questions and instruments (demographic questions, MILS-58, and PSS-10). Participants who opted in were taken to a separate survey form where they could provide their email addresses to be contacted. Information on participant names and email addresses was sent to the researcher, separate from the primary data set. The separation between the primary survey questions and the gift card drawing added an additional layer of protection to personally identifiable information. One winner was selected to receive a $100 gift card, two winners were selected to receive a $50 gift card, and eight winners to receive a $25 gift card. Winners were selected using a random number generator based on the total number of participants who opted into the drawing. Drawing winners were mailed the associated gift card through USPS mail.

After the survey time frame ended, the researcher was sent a password-protected data file from the Office of Institutional Effectiveness, Research, and Planning of the study site, including deidentified survey responses from 133 participants. Of the surveys received, seven (7) participants indicated they did not consent to participation in the study, two (2) submitted partial surveys, and six (6) participants completed the PSS-10 instrument but submitted partial responses to the MILS instrument. After removing non-consent and partial surveys, the remaining sample analyzed was n=118.

Data Analysis

MILS-58 subscale and overall composite scores were calculated using Stevenson's (1994) scoring guidelines (Appendix C). Each of the 58 items on the instrument was first separated into their associated life area: health, spirituality/religiosity, self-confidence, interdependence, and

parenting satisfaction. Stevenson's scoring process considers that not all items will be applicable for each participant; thus, any items left unanswered or marked "Not Applicable" did not exclude a participant from inclusion in the overall sample. Item responses that included the importance of item score (1-10), power score (1-5), and load score (1-5) were added together to be the applicability count for each participant within a given subscale. Item responses that included some but not all of the three scored items were not included in the applicability count for the associated subscale. For each subscale composite score, a weighted importance average of completed items was used to adjust for items not answered by a participant. The weighted importance average was calculated by dividing the sum of all importance scores for each item by the total applicable items.

MIL subscale scores were calculated in three steps. The first step was to multiply the importance and load scores for each item, then add the result for each item of the subscale to produce a total importance score. The second step was to take the produced result in the first step and multiply it by the sum of the load and power scores. A final subscale score was achieved by dividing the results of the first step by the results of the second.

MIL composite scores were calculated by multiplying each subscale score with the associated weighted importance average. Second, the results for each subscale were added together and divided by the total weighted importance averages for all subscales. An individual Margin in Life score was calculated by subtracting the results by .1. Calculations for the overall MIL composite score deviated from Stevenson's (1994) scoring guide in the following step where the instructions state to subtract by .05 to receive a final MIL composite score. In their dissertation, Kalynych (2010) noted that the correct step is to subtract the results from 1 and not .05, as doing so will produce usable composite scores that are not negative.

Statistical Analysis of Research Questions

For research questions one and two, Pearson's correlation and linear regression analysis were used to understand the relationship between perceived stress and perceived margin as identified by the composite and subscale MIL scores and composite PSS scores. The MILS and PSS are scale variables that allowed for a Pearson correlation to assess the strength of a linear association between the variables and a regression analysis to understand if one variable could predict the other.

For research question three, multiple analyses were used to understand the relationship of demographic variables on perceived stress and margin. For demographic variables gender, marital status, and parental status, an independent samples t-test was utilized. An ANOVA analysis was used for the variables with more than two groups, which included race, employment status, enrollment status, and income. Finally, a simple linear regression analysis was used to analyze age with the MIL and PSS.

Chapter Three Summary

This chapter summarizes the study sample, research questions, survey instruments, and the study's overall methodological approach. Chapter Four will detail the procedures of analysis and the analysis results to ensure possible replication of the study.

Chapter Four: Results

The purpose of this study is to examine the relationship between MILS composite score and subscales (McClusky, 1973; Stevenson, 1982), perceived stress using the PSS10 (Cohen, 1983), and demographic variables. McClusky's (1974) Theory of Margin seeks to understand how adults perceive the load carried in varies life areas, and their perceived power to carry the load. Margin is defined as having surplus of power to load, identified by McClusky to be the positive threshold to meet new life challenges. Stevenson (1982) developed the MILS 58 to operationalize McClusky's theory to be used in quantitative research. This chapter presents the demographic profile of study participants, and presents findings for the following research questions:

RQ1: What is the relationship between NALs' scores on the Margin in Life Scale (MIL) and perceived stress as measured by the Perceived Stress Scale (PSS)?

H_1*:* There is no relationship between NALs' scores on the MIL and PSS scale.

RQ2: What is the relationship between NALs' PSS score and each subscale (health, religiosity/spirituality, self-confidence, interdependence, and parenting satisfaction) score on the Margin in Life Scale (MIL).

H_1*:* There is no relationship between the PSS score and each subscale of the MIL.

RQ3: Are MIL and PSS composite scores of NALs predicted by student age, enrollment status, race, total enrolled credit hours, employment status, marital status, or dependents?

H_1: MIL and PSS composite scores are not predicted by variables of age, enrollment status, race, total enrolled credit hours, employment status, marital status, or dependents.

Study Demographics

The study was conducted at a two-year public community college in an urban city in the east southcentral United States during the Spring 2023 academic semester. Participants in the study were enrolled in at least one credit hour at the time of study and were age 25 or older (n=133). Of the original sample, 15 participants were removed prior to analysis: seven (7) completed the online survey and indicated they did not consent to participation and were removed; two (2) participants partially completed the MILS instrument but did not respond to any survey items on the PSS-10 instrument; six (6) participants completed the PSS-10 instrument but submitted partial responses to the MILS instrument. The total sample population used in the analysis was 118.

Table 5 describes the demographic characteristics of the study sample. Most participants were female (63%), White (63%), and between the ages of 25-40 (74%). The mean age of participants was 36.2 years (*SD*=10.4). Of the sample, 66% indicated they were not married, 58% had children, and 52% indicated their total income was less than $35,000. Additionally, 55% were employed full-time, and 58% were enrolled in seven or more credit hours during the study.

Table 5

Characteristics of Study Participants

Demographic	Categories and Frequencies
Gender	Male (n=43), Female (n=75)
Age	25 – 30 (n=39), 31 – 40 (n=48), 41 – 50 (n=19), 51 – 60 (5), 61+ (n=6)
Race	White (n=75), Black (n=30), Hispanic (n=7), Other (n=6)
Marital Status	Single (n=78), Married (n=39)
Parental Status	Children (n=69), No Children (n=49)
Income Level	$24,000 or Less (n=37), $25,001-$35,000 (n=25), $35,001-$50,000 (n=33), $50,001-$75,000 (n=12), $75,001 or More (n=9)
Employment Status	Fulltime (n=65), Parttime (n=22), Unemployed (n=31)
Enrollment	≤ 3 credit hours (n=6), 4-6 credit hours (n=44), 7-9 credit hours (n=22), ≥ 10 credit hours (n=46)

Note. n=118

Mean scores for the sample are reflected in Table 6. For the PSS-10, the mean was 20.30 (*SD* = 6.22), indicating a range of moderate perceived stress. For MIL composite scores, the mean was .56 (SD = .09), indicating a range of margin capability of meeting new life challenges.

Table 6

Descriptive Statistics for Study Instruments

	N	Mean	*SD*	Minimum	Maximum
PSS-10	118	20.30	6.22	2	35
MILS	118	.56	.09	.33	.83

*Note***.** PSS-10 composite scores range 0 – 40. MILS composite scores range .01 - .99.

Research Question 1

A Pearson Correlation was used to measure the relationship between PSS-10 scores and MILS-58 composite scores. One case was identified as a potential outlier by visual inspection of a scatter plot. After completing the correlation analysis with and without the potential outlier, there was minimal impact on the overall level of correlation; therefore, the outlier case was left in the analysis. Not all variables were normally distributed, as assessed by Shapiro-Wilk's test ($p < .05$). Due to a variable not being normally distributed, a Spearman's Rank-Order Correlation test was used to understand if there were significant differences between the two analyses. Due to minimal differences, Pearson's was used instead and is reflected in the reporting. There was a statistically significant moderate negative correlation between MIL and PSS composite scores, $r(118) = -.32$, $p < .05$.

Perceived stress scores statistically explained 10.2% ($R^2 = .102$) of the variability in Margin in Life composite scores, with an increase in perceived stress moderately correlated with a decrease in perceived margin.

A linear regression analysis was used to determine if perceived stress could statistically predict perceived margin. PSS scores significantly predicted MILS composite scores, $F(1, 116) = 13.209$, $p < .001$, $R^2 = .102$. Predictions using the regression equation and calculating 95% confidence intervals were made to determine mean MILS scores for individuals whose PSS composite scores were 14 and 27. PSS composite scores range from 0-40, with a score of 14 being the first number falling into the range defined by Cohen et al. (1983) as having moderate perceived stress (14-26) and 27, the first score in the range defined as having high perceived stress (27-40). For a PSS-10 composite score of 14, the mean MILS score was predicted as .60, 95% CI [.57,.62]; and for a score of 27, the mean MILS score was predicted as .53, 95% CI [.51,

.56]. The overall regression equation (Table 7) was: predicted MILS score = .668 + (-.005 x PSS composite score). Based on the correlation and linear regression analyses, statistically significant relationships exist between PSS and MILS scores, rejecting the null hypothesis.

Table 7

Linear Regression Summary for MILS-58 Composite Scores

Variable	*b*	SE *B*	*B*
(Constant)	.668 (.612, .725)	.028	
PSS Composite	-.005 (-0.008, -0.002)	.001	-.320

Note. R^2 = .102, p < .001, Durbin-Watson = 1.755

Research Question 2

A Pearson Correlation was used to assess the relationship between the PSS composite scores and the MIL subscales (health, parenting satisfaction, self-confidence, religion, and interdependence). Four of the five subscales had a statistically significant positive correlation to perceived stress, detailed in Table 2. Coefficient values for health, self-confidence, religion, and interdependence reflect a small correlation (Cohen, 1988). Parenting satisfaction did not result in a statistically significant correlation with perceived stress.

Table 8

Pearson Correlations for MILS-58 subscales

	PSS Score	Health	Self Confidence	Parenting Satisfaction	Religion
Health	.238**				
Self-Confidence	.220**	.454**			
Parenting Satisfaction	.124	.173	.041		
Religion	.186*	.616**	.517**	.117	
Interdependence	.292**	.659**	.794**	.116	.594**

Note. **p < 0.01 level. *p < 0.05 level.

A multiple linear regression analysis was performed to assess the effect of MIL subscale scores on perceived stress (PSS). One case was identified as a potential outlier but was kept in analysis as, when excluded, it did not affect the overall model significance. *R*2 for the overall model was 9.6%, a small size effect according to Cohen (1988). The overall regression model was statistically significant, $F(5, 112) = 2.379$, $p < .05$, $R^2 = .096$.

Though the overall model was statistically significant, none of the five coefficient predictors were statistically significant, suggesting possible multicollinearity between variables or an indication of inadequate power of the study based on sample size. A post hoc analysis using G*Power 3.1 determined that the regression model had sufficient power (> .80) based on the sample, with a medium effect size error probability at the .05 level for five predictors.
A simple linear regression was completed for each independent variable with statistically significant correlations to perceived stress scores. All four variables were statistically significant when analyzed individually with PSS scores. Interdependence accounted for 9.2% of the explained variability for perceived stress scores and was the only variable significant at the p < 001 level, $F(1,115) = 22.894$, p < .001. Subscale health scores accounted for 7% of the explained variability $F(1,115) = 8.693$, p < .005, and self-confidence accounted for 5.6%, $F(1, 115) = 6.875$, $p < .05$. The linear regression model for parenting satisfaction has the lowest level of explained variability at 4.6%. Predictions were made to determine mean perceived stress for individuals whose scores resulted in an interdependence subscale score of .70, an indicator of high margin. Perceived stress was predicted as 24.49, 95 CI [21.74 to 27.24].

Table 9

Linear Regression Summary for Independent MIL Subscale Variables

Variable	*B*	SE *B*	*b*	Sig.	R^2
Health	15.30	5.19	.26	.004*	.07
Self-Confidence	11.93	4.55	.23	.010*	.05
Religion	9.32	3.95	.21	.020*	.04
Interdependence	15.97	4.48	.31	.001**	.10
Parenting Satisfaction	2.58	2.44	.09	.292	.01

Note. Regression summary for independent models with independent subscale variable and PSS dependent variable. **p < 0.01 level. *p < 0.05 level.

Based on the results from the correlation model and regression model of independent variables, there may be a relationship between MIL subscale variables in relation to overall PSS composite scores, rejecting the null hypothesis.

Research Question 3

A regression analysis, ANOVA, and independent samples t-test were utilized to determine the impact of demographic variables on perceived margin and overall perceived stress.

Gender

MILS. An independent samples t-test was used to determine if differences exist between the means of gender on MIL scores. There was no statistically significant difference in mean MIL scores between males and females $t(38) = -.090$, $p > .05$. Male mean MILS scores were -.0016, 95% CI [-.036 to .033] lower than female mean MILS scores. In testing the model's assumptions, a visual inspection of a boxplot suggested one outlier. Upon review of the variable, the outlier had the highest MIL composite score of the sample (.83). The analysis was completed with the outlier included in the model and excluded. The overall scores reflect the case included

in the model, as there were no significant differences between the results. Scores were not normally distributed for females, as assessed by Shapiro-Wilk's test ($p < .05$); however, the analysis is robust to deviations of normality and was determined not substantially to affect a Type I error rate.

PSS. An independent-sample t-test was run to determine if there were differences in perceived stress between males and females. Male mean stress scores were -.2.78 (95% CI [-5.09 to -.47] lower than female mean perceived stress. There was a statistically significant difference in mean stress scores between males and females, $t(116) = -2.386$, $p = .019$. The model had a moderate effect, $d = 0.57$. Five outliers were identified upon inspection of a box plot. However, the outliers were left in the analysis as there were minimal differences in results, and the overall model significance did not change.

Marital Status

MILS. An independent samples t-test was used to determine if differences exist between the means of marital status, defined as married and single, on MIL scores. There were no statistically significant differences in mean MILS scores between single and married participants, $t(114) = -1.504$, $p > .05$. Margin in life scores were slightly lower for single participants ($M = .557$, $SD = .087$) than married participants ($M = .584$, $SD = .099$).

PSS. For PSS scores, there were also no significant differences between scores, $t(115) = 1.690$, $p > .05$). Unlike for perceived margin scores, Single mean stress score was 2.05, 95% CI [-.35, -4.45] higher than married stress scores.

Parental Status

MILS. An independent samples t-test was used to determine if differences exist between the means of participants with and without children on MIL. There were no statistically

significant differences in mean MILS scores between no children and participants with children, t(114) = -231, p > .05. Children mean MILS scores were -.00393, 95% CI [-.037 to .029] lower than no children MILS scores.

PSS. Mean scores were nearly the same for participants with and without children on the PSS using an independent samples t-test. No statistically significant differences between scores, t(115) = .036, p > .05). Mean scores were nearly the same, with stress scores for participants with children being slightly higher (M=20.47, SD 5.64) than those with no children (M=20.43, SD= 6.56).

Race

MILS. A one-way ANOVA was used to determine whether there were any statistically significant differences between racial groups on the MILS. The differences between the means of racial groups was not statistically significant $f(3, 113) = .037$, $p > .05$. Total perceived margin (surplus of power over load) increased from Black ($N = 30$, $M = .56$, $SD = .093$), to Hispanic ($N = 7$, $M = .56$, $SD = .088$), to White ($N = 74$, $M = .57$, $SD = 0.094$), Oher ($N = 6$, $M = .58$, $SD = .088$) race groups.

PSS. One-way ANOVA for racial groups on PSS determined there were no significant differences between groups, $F(3,114) = .448$, $p > .05$. Total perceived stress increased from Black ($N =30$, $M = 19.20$, $SD = 6.11$) to White ($N =75$, $M = 20.60$, $SD = .14$), to Other ($N = 6$, $M = 21.00$, $SD = 8.02$), to Hispanic ($N = 7$, $M = 21.28$, $SD = 6.8$).

Employment Status

MILS. A one-way Welch ANOVA for employment status and MILS determined no significant differences in perceived margin based on full-time, part-time, or unemployed status**.** There were no statistically significant differences in MILS scores between

the different employment groups, Welch's $F(2,60.543) = 2.564$, $p = .085$. In assumption testing for the model, inspection of a boxplot revealed one outlier: a high MIL composite score (.78). The outlier was kept in the analysis as there were no significant changes to the overall model result with it left in the model. The assumption of homogeneity of variances was violated, prompting the interpretation of the Welch ANOVA.

PSS. A one-way ANOVA was used for employment status on PSS scores. There were no statistically significant differences in MILS scores between the different employment groups, $f(2, 113) = .093$, $p = .911$. Perceived stress (PSS score) increased from part-time ($n = 20$, M = 19.85, SD = 5.35) to full-time (n = 65, M = 20.49, SD = 6.11) to unemployed (n = 31, M = 20.55, SD = 7.02) 4.2 ± 0.8) employment status groups. A complex contrast between the mean MILS scores of the full-time, part-time, and unemployed groups was not statistically significant, p = .805.

Enrollment Status

MILS. A one-way ANOVA analysis was used to investigate the mean difference between MILS composite scores and enrollment status. There were no statistically significant differences in MIL scores between the enrollment groups, $F(3, 114) = 2.099$, $p = .104$. Six outliers were identified in the model from the 4-6 enrolled credit hours group, and the groups were not normally disturbed. An analysis combining the 4-6 credit group ($n = 44$) with the 0-3 credit group ($n = 6$) was conducted to examine the impact on the normal distribution. The consolidated groups eliminated identified outliers, but similar to the original enrollment groups, had no statistically significant results.

PSS. A one-way Welch's ANOVA was used to investigate mean differences between perceived stress and enrolled credits. There were no statistically significant differences in PSS scores between the enrollment groups, Welch's $F(3, 23.159) = .130$, $p = .941$. A Welch's

ANOVA was used due to no homogeneity of variances, as indicated by Lavene's statistic (p = .027). Total perceived stress increased from 3 or less credits (n = 6, 19.33± 4.13) to 7 to 9 credits (n = 22, 20.09 ± 8.02) to 4 to 6 credits (n = 44, 20.27 ± 5.21) to 10 or more enrolled credits (n = 46, 20.56 ± 6.52).

Income

MILS. An ANOVA was used to examine differences between perceived margin and income ranges. One outlier was identified in the initial analysis but kept the overall result of the model the same when kept in the analysis and when removed. Total perceived margin increased by income from less than $24,000 ($n$ = 37, 0.55 ± 0.09) to $25,001 - $35,000 ($n$ = 25, 0.56 ± 0.10) to $35,001 - $50,000 ($n$ = 33, 0.57 ± 0.08) to $50,001 - $75,000 ($n$ = 12, .61 ± 0.10). to $75,0001 or more ($n$ = 9, 0.60 ± 0.10). There were no statistically significant differences in MIL scores between the enrollment groups, $F(3, 111) = .047$, $p = .267$.

PSS. Similar to the MIL analysis, an ANOVA was used to investigate differences between perceived stress and income groups. Two outliers were identified but had no impact on the overall model result. There were no statistically significant differences in MIL scores between the enrollment groups, $F(3, 111) = .442$, $p = .723$.

Age

MILS. A linear regression analysis was used to determine if participant age could predict perceived margin. The model did not statistically predict the perceived margin, $F(1, 115) = .207$, $p = .650$.

PSS. A linear regression analysis was used to determine if age could predict stress. Overall, the model statistically predicted perceived stress, $F(1, 97) = 5.320$, $p < .05$. Age accounted for 4.4% of the explained variability in perceived stress, and the prediction equation

was: perceived stress = 24.940 + (-.125*age). Predictions were made to determine mean perceived stress for individuals based on age. For age 25, mean perceived stress was predicted as 21.80 (95% CI, 20.125 to 23.48); for age 31 it was predicted as 21.05 (95% CI, 19.78 to 23.32); for age 41 it was predicted as 19.80 (95% CI, 18.58 to 21.01); for age 51 it was predicted as 18.547 (95% CI, 16.63 to 20.45); for age 61 it was predicted as 17.29 (95% CI, 14.44 to 20.14).

Table 10

Regression Summary for PSS-10 and Age

	B	SE *B*	Lower CI	Upper CI	Sig.
(Constant)	24.94	2.069	20.843	29.038	<.001
Age	-0.125	0.054	-0.233	-0.018	0.023*

Note. *p < 0.05 level.

Chapter Four Summary

Chapter four details the statistical analysis used to evaluate the research questions based on the Margin in Life Scale and Perceived Stress Scale responses of 118 participants. MILS composite and PSS composite scores had a moderate negative correlation. In addition, the PSS composite score statistically predicted MILS composite scores. For analysis using MILS subscales (health, religiosity, interdependence, self-confidence, parenting satisfaction), all variables except parenting satisfaction had a statistically significant positive correlation to perceived stress. Similarly, the same four MILS subscale values independently predicted perceived stress. Few demographic variables had a statistically significant relationship to the main study variables, with no demographic variables having a relationship to MILS composite scores. There was a statistically significant difference in perceived stress based on gender, and

age statistically predicted perceived stress. Further discussion of the findings for each research question is addressed in Chapter Five.

Chapter Five: Discussion

Overview

This study sought to further the research surrounding barriers to success for adult learners enrolled at community colleges in a post-COVID society. The effects of the pandemic took a toll on all students enrolled at higher education institutions, with community colleges suffering the most significant drops in overall student enrollment. Studies specific to community college student populations are minimal compared to research focused on understanding the retention and persistence of traditional-aged students, making this study both timely and necessary to understanding enrollment patterns of nontraditional students in challenging times. Additionally, much of the scholarship related to the retention and persistence of college students seeks to address institutional barriers or barriers that may be alleviated through initiatives or programs enacted by the college. This study focuses on nontraditional learners' situational and dispositional barriers, such as perceived stress and ability to successfully manage life commitments, which a college administrator may not quickly remedy. However, such investigation provides valuable insight into understanding the intersection of life on and off campus for NALs. This chapter will discuss the significant findings of the research study, the implications for practice, limitations, and recommendations for future research. Below are the research questions:

RQ1: What is the relationship between NALs' scores on the Margin in Life Scale (MIL) and perceived stress as measured by the Perceived Stress Scale (PSS)?

RQ2: What is the relationship between NALs' PSS score and each subscale (health, religiosity/spirituality, self-confidence, interdependence, and parenting satisfaction) score on the Margin in Life Scale (MIL).

RQ3: Are MIL and PSS composite scores of NALs predicted by student age, enrollment status, race, total enrolled credit hours, employment status, marital status, or dependents?

Significant Findings

Research Question 1

This study found that perceived stress statistically explained 10.2% of the variability in MIL composite scores, with an increase in perceived stress having a moderate negative correlation with a decrease in perceived margin. In addition, PSS scores statistically predicted MIL scores $F(1, 116) = 13.209$, $p < .001$ with a moderate effect. Based on the data analysis, there is a statistically significant relationship between perceived stress and perceived margin. Overall, mean margin composite scores for the sample ($n = 118$) were .56, indicating sufficient margin available to meet new challenges, based on McClusky's identified range of a composite score between .50 and .80. While the MIL range indicates sufficient margin, mean perceived stress scores were 20.30, indicating a moderate stress level by Cohen (1983). However, when using the predicted MIL equation from the regression analysis for research question 1, the highest score on the PSS that would indicate high stress (40) would only predict .46 MILS composite score, which indicated sufficient margin.

The correlation between stress and margin is meaningful for the current study population in understanding the overall usefulness of the MIL scale within the model. As discussed in Chapter Two, the practical nature of McClusky's (1963) Theory of Margin makes it an appealing foundational theory for investigating adult learners' capacity. However, many studies investigating margin with the associated MILS fall short of finding results indicating specific variables concerning low or high margin. This study also falls short in producing results that have a meaningful impact on margin composite scores, despite having statistical significance.

Based on the study model, stress scores have a minimal impact in changing overall margin composite scores. While these findings may not provide specific evidence as to the relationship between the two instruments, they are consistent with previous discussion on the overall efficacy of the MILS from Wolffin (1999). Wolffin refuted the MILS, suggesting that it did not adequately measure an individual's perception of life burdens, positing that all adults experience stress, regardless of whether they are enrolled in college coursework. Wolffin's research also questions whether the MIL scale, which is intended to be interdisciplinary, is best suited to examine college students.

Stevenson's MIL scale comprises five subscales that produce an independent MIL score, which was used to generate the overall MIL composite score. As noted in chapter two, Stevenson (1982) utilized questions from existing instruments and stated, “The primary concern was to cover the widest possible variety of issues of adult life" (p. 223). Stevenson did not utilize questions directly from a stress-specific instrument but sought to measure stress or a crisis point (Mikolaj & Boggs, 1991) by measuring power and load dynamics. Overall, while this study finds a relationship between perceived margin and perceived stress, more research is needed to understand the relationship between the PSS and MILS instruments, and to what extent stress is an embedded variable within the MILS instrument. Such an examination may aid in understanding the theory in education practice.

Research Question 2

The correlation and regression analysis results between the MIL subscales and the PSS composite score were also significantly significant. Due to the overall MIL composite score being correlated to the PSS, it was logical to understand the predictive relationship between the subscales and the PSS composite. The correlation analysis between the PSS and each subscale

resulted in significant but small correlations with four subscales. Of the five subscales, the interdependence subscale had the highest correlation to the PSS, being significant at the $p < .01$ level and near a moderate correlation ($R2 = .085$). Three other MIL subscales were also statistically significant but had a small effect size: self-confidence, religiosity, and health. Parenting satisfaction had no correlation with perceived stress. The findings of the correlation analysis suggest that for the life area subscales, as perceived stress increases, so does perceived margin.

The result of a positive correlation in the analysis for research question two, as compared to a negative correlation in research question one utilizing the overall Margin in Life composite score, raises further questions regarding the MILS instrument. The expected outcome for the study was that if a correlation exists between the MILS composite score and subscales with the PSS instrument, the correlation analysis results would be in the same direction, either positive or negative. However, the positive correlation in research question two may be a result of Stevenson's complex scoring calculations for the instrument, specifically as to how subscale scores are used to calculate an overall composite score.

Based on Stevenson's (1994) scoring guide, MILS subscale scores for each life area are calculated by first multiplying the importance and load scores for each applicable item within a subscale. The load and power scores were then added together and multiplied by the importance score, with the result being divided from the result of multiplying the importance and load scores to achieve the subscale Margin in Life score. To achieve a composite margin in life score, subscale scores were multiplied the associated weighted importance average, then added together and divided by all weighted importance averages of the subscales. The final step in Stevenson's scoring guide, which is to take the result of the combined subscale scores and subtract from 1,

may explain the positive correlation in research question two. When the subscale results are subtracted from 1, the results are reversed. For example, an individual score of .30 for combined subscale scores would result in a .70 composite score when subtracted from 1. The correlation between subscale scores and composite scores is an area that requires further examination to understand the implications of utilizing margin subscale scores as an independent measurement in conjunction with the overall composite score. Overall, more investigation is needed on the psychometrics properties of the Margin in life subscales.

Parenting satisfaction was the only subscale not correlated with perceived stress, which may be a result of the instrument's scoring procedures. A study by Kalynych (2010) suggested that it is difficult to achieve results in parenting satisfaction subscale, given respondents may not have children. Based on the scoring method, individuals who indicate “not applicable” for this subscale, receive a score of zero, which may impact the interpretation of mean subscale scores for the sample. Of the sample, 69 participants indicated they have children, but 72 participants completed items within the parenting satisfaction subscale that resulted in a subscale score. Forty-six participants indicated that the subscale was not applicable, resulting in the composite score not incorporating any questions from the parenting satisfaction area. Kalynych (2010), who used a modified version of the MIL scale incorporating an additional subscale, found statistically significant differences between the MIL subscale and parenting satisfaction. However, Kalynych cautioned the generalizability of the subscale, given that so many participants had indicated it was not applicable. For this study, the result for parenting satisfaction may be due to a lack of participant responses for the parenting satisfaction subscale. Additionally, compared to other MIL studies, the study sample had a high percentage of participants with children, understood as a common trait of nontraditional adult learners (Chen, 2017; Horn, 2009). Overall, the data

analysis for research questions one and two demonstrates a continued need to investigate the relationship between composite and subscale MIL scores and the relationship to stress.

Research Question 3

Investigating the relationship of student demographic variables is essential in student retention and persistence research to assess the effects on specific student populations. Seminal works from Tinto (1975), Astin (1984), and Bean and Metzger (1985) all use demographic variables as a lens for understanding the practical implications of their research in higher education. For NALs, demographic variables seek to identify specific characteristics of which an institution can develop retention and persistence support efforts. As discussed in Chapter Two, characteristics of who meets the threshold as a nontraditional student include age, income, parental status, and employment status. Other variables, such as gender and enrollment status, are commonly used throughout retention research of all college student populations (Chen, 2017).

Analysis of the effect of gender, parental status, and marital status on the MIL composite did not result in significant differences between mean scores. For each of the three demographic variables, there were only slight differences in mean scores, with males being lower than females, participants with children lower than no children, and single participants lower than married participants. There were also no statistically significant results for race, employment status, enrollment status, income, or age on MIL composite scores.

The statistical models investigating the effect of demographic variables on the PSS had some success. There were statistically significant differences in perceived stress based on gender and age. For gender, females had higher perceived stress than males, with a moderate effect size. The significance of gender in the model is consistent with previous studies examining stress

(Siegal, 2008; Bojuwoye, 2002; Pierrine, 2001). Cohen's (2012) investigation of the difference between PSS scores in national studies in 2006 and 2009 noted significant differences between genders. Females had higher perceived stress than males in both study samples, but their mean stress score only increased by .04 from 2006 to 2009. However, male mean PSS scores increased by 1.06 between the study samples. Cohen et al. describe that the economic downturn in 2008 may have had some correlation to increased stress for males. Without a comparable sample, it is not possible to examine mean perceived stress differences over time for gender to understand the relationship to economic factors. However, such analysis would provide benefits to understanding how NALs enrolled at community colleges are perceived over time.

Age was also a predictor of stress in the data analysis, though only with a small effect. The mean age of participants was 36, well above 24, often the proxy for identifying a student as a NAL. The analysis reflects that as age increases, perceived stress decreases, which is consistent with the national stress studies using the PSS scale examined by Cohen (2012). Within the data analysis of the national studies, there were differences between mean stress scores between the 25-34 and 35-36 age groups, with adults in the 35-36 age group indicating less perceived stress. While the current study predicts decreases in stress as age increases, it does not indicate what stress is perceived because of enrollment in college courses, but rather stress related to the cumulative aspects of everyday life.

Implications for Practice

The findings of this study highlight areas higher education institutions can be mindful of to understand the enrollment patterns of NALs and the barriers they face while enrolled in the community college setting. First, female adult learners may have higher perceived stress than males. As mentioned in Chapter Two, significant stress, or inability to positively cope with

stressors may lead students to face academic or personal difficulties (Haidar et al., 2018). Institutions should be mindful that gender may play a role in perception of overall stress, which may or may not be related to whether the institutional factors or whether the student is an adult learner.

A second implication is that younger adult learners may have more perceived stress than older adult learners. An enrolled student in their late twenties may perceive stress differently than an adult learner in their forties. Age is cited as the most often used characteristic to identify a student who may be a nontraditional learner because it is an easily accessible metric. However, as noted by the demographic variables of this study, age does not provide insight into other characteristics NALs may have that pose challenges to their success in college coursework. As discussed in Chapter Two, a lack of information about students may have a twofold effect—colleges may not be able to identify the target audience for a specific support program or initiative (Latkin, 2009), and scholarship remains stifled due to the lack of data. The product of not collecting additional demographic data about NALs may be a lack of growth in finding generalizable results. As colleges seek to develop mitigative strategies to support adult learners, age may be a key variable in the overall perception of stress to consider when implementing support strategies.

Limitations

The study had limitations that may reduce its generalizability. Two areas related to the data collection may have limited the overall sample, including the overall survey length and the electronic delivery. When combined, the PSS, MIL, and demographic questions resulted in 76 questions, which may have limited overall participation in the study. In addition, for each item on the MIL, participants had to indicate a rating for the total importance of the item, associated

power, and associated load. As discussed in Chapter Three, responses for items missing either an importance, power, or load rating could not be used in the scoring process. The number of actions for each question on the MIL may have contributed to the overall amount of partial or incomplete studies. Given that the instruments were designed to investigate stress and margin, individuals who may have had a high-stress level or have low power to load may have needed more time or capacity to participate.

In addition to the length of the survey study, electronic delivery may have impacted the participation. The MILS was created before online survey platforms were developed to streamline survey processes, and the questions have a unique structure that is challenging to replicate in an online format. For this study, after reading the initial instructions and providing examples, it needed to be made clear to participants whether they could return to the main section to reread instructions as they were not affixed to each section of the survey. Using the paper copy of the MIL (Appendix B), participants had the instructions readily available to reference as needed. Electronic delivery may have also been a barrier for participants who need regular and consistent computer or internet access or those without mobile phones that have internet capability. The researcher assumed that online access is often necessary to complete various tasks associated with college enrollment and that participants could access the survey sent through their university email account. However, access must be considered a limitation, given that internet access is a barrier for NALs, especially in a post-COVID society (Stanistreet, 2021).

Lastly, the MIL scale and PSS are self-report instruments, posing a limitation as they may allow for social desirability bias. The researcher made efforts through recruitment emails to describe the study's overall goals. The assumption was that each participant understood the

items/questions presented within the study and answered honestly and reflected their current perceptions.

Recommendations for Future Research

This study expands on existing literature for utilizing the MIL scale to investigate college student populations, the stress of college students, and the effects of demographic variables as predictors for success. Margin Theory will likely continue to be utilized in adult education due to its practical nature; therefore, new ways of measuring margin will be needed to produce meaningful insights about NALs. Given the present study, more research should be focused on whether Stevenson's (1982) MIL scale is the best instrument to measure the margin of today's students. The MIL scale was based on what were deemed as "life areas" for adults over forty years ago, which may contribute to its ineffectiveness as a significant predictor for the retention and persistence of NALs.

The relationship between margin and stress is an area that needs further investigation. At the definition level, the two areas are not mutually exclusive. Margin may be better for indicating areas where a student has a greater load to power. However, based on the current study, stress is a better indicator of identifying specific demographics of students who experience stress. A lingering question moving forward with studies using the MILS should be whether using the PSS as a sole instrument may be more efficient in producing more generalizable results that administrators can use to mitigate specific barriers for NALs.

A new instrument to measure margin specific to NALs should be constructed as the interdisciplinary nature of the current instrument may not capture the experiences of being a student as a life area. Perhaps a new instrument could frame life areas based on what Ekstrom (1972) and Cross (1981) describe as dispositional, situational, and institutional barriers of adult

learners, which seem to incorporate many of the original life areas of health, religiosity, self-confidence, interdependence, and parenting satisfaction. If the practical goal of the instrument is to identify who can take on more (excess of power to load) and who is in distress (excess of load to power), updated subscales can and should be specific to the issues of NALs. Consideration should be made to limit biases and assumptions in creating new subscales. Kalynych (2010) describes the religiosity subscale of the current instrument as having items specific to Christianity, which may not apply to all students; thus, items should be broader. In addition, any new instrument should aim to be shorter while maintaining validity and internal consistency, given that lengthy surveys may limit overall participation.

While this study is aligned under the umbrella of higher education student persistence and retention research, it did not include any items directly related to engagement level with campus activities, events, or services, which are commonly cited as being correlated with student persistence (Astin, 1984; Tinto, 1993). Though student engagement is more often cited for traditional-aged students, it is possible that including variables regarding campus engagement, specifically the amount of time engagement and engagement type, may provide insight into the capacity to take on new activities. At the institutional level, NALs with high margin could be encouraged to engage in additional student activities or events, while NALs with low margin could receive targeted support resources. The inclusion of engagement variables may further the understanding of how NALs prioritize the identities of being a student, employee, or parent.

Future research should also consider retesting participants at various intervals to investigate the changes in perceived margin and stress over time. This study fails to make meaning of possible correlations of stress specific to the economic and health factors of COVID-19 in the years following the outbreak. Given that we may not be able to anticipate a global

pandemic, longitudinal studies focused during and after an event may provide better insight into potential variables that impact NAL enrollment. The MIL and PSS scale would be suited to a longitudinal study as the PSS asks participants to consider the rate stress questions based on the last thirty days, so it may only capture perceived stress during a short window. While the MIL scale does not indicate a specific time for which power, load, and importance are rated, Stevenson (1994) notes in her scoring guide that "it may be possible that some of the sub-scales measure more fluid or changeable self-perceptions than other sub-scales" (p. 1). Additionally, Stevenson noted regarding the margin in life instrument that there is no prior assumption that the scale measures "trait" as opposed to "state" parameters, which may lend to some of the life area subscales to be more fluid and changeable over time than others. Enrollment in college coursework could be a load factor for participants, thus research examining both perceived stress and margin at different stages seeks to understand not only what margin exists but when it exists. Future studies using margin and stress to evaluate student retention enrollment trends in conjunction with situational events, may consider time as a variable.

Summary

This dissertation study sought to further the research surrounding barriers to success for adult learners enrolled at community colleges in the years following the COVID-19 pandemic. The effects of the pandemic took a toll on all students enrolled at higher education institutions, with community colleges suffering the largest drops in overall student enrollment. This study focused on the situational and dispositional barriers of nontraditional learners, specifically perceived stress and perceived ability to successfully manage life commitments, which are areas that may be difficult to mitigate by higher education institutions. The study's findings suggest

that more research is needed on effectively measuring margin and stress with instruments specific to nontraditional adult learners.

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Appendix A - Demographic Questionnaire and Associated Variables

Item	Measurement
Gender	Male, Female
Age (in years)	16-99
Race	White, Black, Hispanic, Other
Employment Status	Full-time, Part-time, Unemployed
Marital Status	Single, Married
Parental Status	Children, No Children
Income	$25,000 or less, $25,001 - $35,000, $35,001 - $50,000, $50,001 - $75,000, $75,000 or more
Enrollment (in credit hours)	Less than 3, 4-6, 7-9, 10 or more

Across from each of the 58 items are four columns headed by the words:

IMPORTANCE OF THE ITEM ___LOAD___POWER____ITEM NOT APPLICABLE

In the IMPORTANCE of ITEM column you will find a row of numbers from 1 to 10. The object is for you to circle any number from 1 to 10 to indicate the relative IMPORTANCE of that item in your life. The next two columns ask you to rate the LOAD of each item on a scale from 1 to 5 and the POWER of each item on a scale from 1 to 5. LOAD refers to the amount of burden or responsibility each item puts upon you. POWER refers to the joy, pleasure, strength, or richness added to your life by each item It is necessary to circle both a LOAD and a POWER for each item to signify the balance which exists in adult life between responsibilities and satisfaction. If an item has no relevance in your life--- for example, if we ask you about a spouse and you have never had one, then place a mark in the column labeled ITEM NOT APPLICABLE.

Appendix B -MILS-58 Instrument

The following example shows you how someone might respond to one item:

GENERALLY SPEAKING···

				Item not
	Importance of item	**Load**	**Power**	**Applicable**
My eyesight is:	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	( )

In this example, you notice that eyesight got a high IMPORTANCE. The person gave it a 3 for medium LOAD perhaps the person was burdened by having to wear glasses. It got a relatively high POWER score of 4 (eyesight was a significant resource to this person.

Please read the items carefully and use your best judgment in making each response. There are no right or wrong answers. Each person is unique.

Generally Speaking···	IMPORTANCE OF ITEM (Circle one)	LOAD (Circle one)	POWER (Circle one)	ITEM NOT APPLICABLE
1. My mental health is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
2. My eyesight is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
3. Living with my spouse is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
4. Our children are	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
5. Frequent prayer is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
6. My hearing is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
7. My physical health is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
8. Reading religious material is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
9. My sense of smell is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
10. I would rate my present life as	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
11. Breathing is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
12. My sense of taste is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
13. Religious faith is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
14. My ability to concentrate is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
15. Belief in God (A higher Power) is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
16. My blood circulation is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
17. My appetite is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	

Generally Speaking···	IMPORTANCE OF ITEM (Circle one)	LOAD (Circle one)	POWER (Circle one)	ITEM NOT APPLICABLE
18. The extent to which my family members cooperate with each other is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
19. Having goals in life is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
20. Being independent is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
21. My children's attitude toward me is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
22. My sexual abilities are	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
23. Making decisions is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
24. My hands and arms are	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
25. Being married is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
26. My type of employment is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
27. Being responsible is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
28. My digestion is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
29. My back is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
30. Belief in a religion is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
31. My family's way of coping with problems is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
32. My feet and legs are	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
33. Self reliance is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
34. Relating with my co-workers is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	

Generally Speaking···	IMPORTANCE OF ITEM (Circle one)	LOAD (Circle one)	POWER (Circle one)	ITEM NOT APPLICABLE
35. The way my children and I get along is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
36. Having a few close friends is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
37. Controlling my temper is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
38. A high standard of morality is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
39. My coordination is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
40. Consideration of others is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
41. The way my children act to each other is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
42. My body is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
43. The way my spouse handles responsibility is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
44. Mobility is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
45. My children's progress in school is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
46. The need for religion is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
47. The people I've met at church are	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
48. My attitude toward my family is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
49. Membership in a religion is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
50. My muscles are	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
51. Getting along with people is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
52. A spiritual way of life is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	

Generally Speaking···	IMPORTANCE OF ITEM (Circle one)	LOAD (Circle one)	POWER (Circle one)	ITEM NOT APPLICABLE
53. Rest is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
54. Frequently finding it necessary to stand for what I believe in is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
55. Self confidence is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
56. Participating in religious practices is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
57. Manual dexterity is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	
58. My concern for my family is	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5	1 2 3 4 5	

(Stevenson, 1982)

Thank you very much for your participation in this research project.

Appendix C - MILS-58 Composite and Subscale Scoring

MILScale

COMPUTATIONS FOR
THE MARGIN-IN-LIFE SCALE (58 item scale)

The followtng steps show the computations necessary to proa,ˈess from the development of ˢueighted importance averages for each subscale. through subscale scores. and then to a total Macginzln±iýe sᶜᵒʳ e.

1.Table 1 , entitled, Subscale Breakdown for Marain-In-Liïe Scale. lists the items that belong to each subscale. The first step of the computaticnaJ process is to separate the items into their respective subscales. For example, subscale 4 (se}f cc,nfidenceò has these 10 items: 1 9, 20, 23, 27, 33, 37. 541 & 55.

2.To obtain a weighted importance aveïage for a given subscale: Determine whe{her an item is applicable and if it is, then do the following:

(i) Keep a count of the number of applicable items in that subscale and call this number the appficabiiity count:

(ii) Add all the importance scores, w.. toaethgr for the subscale, for those items which are applicable•

(iii) Divide the result obtained in Step (ii ᵇ) bv the result obtainèd step {n to aet the weighted importance average fotᵉ that subscale.

For example. suppose in subscale 4. item 26 is not appficable for an ir:divždue! Then the applicability count, c, = 1. Suppose further that the importance scores w_i wher 1=14, 19: 20b 23, 27. 33. 37. 54. & 55 ere as follows: $w_{14}=10$. $w_{19}=8$. Wa-=9, $W_{20}=8$. wn=6, vvaa=S, $w_{27}=5$, $w_{54}=6$, $w_{55}=9$; then the sum o! all the importance scores in this subscale (subscale 4 of 58 item scale) is 10+8+9+8+6+6+5+6+9=67. Diviäng 67 bv 9, we get a weighted importance average, AZ 7.44.

Now. repeat the above procedure to obtain a weighted irrepartance average, Ail and an apolicabilitv count. C for 2, 3. and 5. one tor each of the other subscales,

3.Ta obtain each subsca,ˈe score:

For each item that is applicable in a given subscale do the following:

(i) Adultiplv the importance scare and the load score:

(ii) Nexl add the load score and the powe:• scare, then multiply this resulž bv *.he importance score;

(iii) Repeat steps (i) and (ii) for each item in the subsce_ˈe.

(iv) Add alf the results obtained bv oerformina step (i) an each item:

(v) Add all the resuits obtained by performing step (if) cn each item;

(vi) Oivide the result obteä-žed in step (iv) by the result obtained in step Thisnumber is a subscale score, 4.

For example. using subscale suppose the importance scores are as above in 2 (iii') and let L be the load score and Pi be the poveer scores '.Nhere =14. 19. 20, 23, 27, 33, 37, 54, & 55. Assume the responses on the scale items were obtained from one subject:

L.g=3

47=5

1-53=3

$P_{14}=4$
$P_{19}=5$
$P_{22}=5$
$P_{23}=3$
$P_{27}=3$
$P_{33}=5$
$P_{37}=3$
$P_{54}=3$
$P_{55}=5$

Completing the steps in 3 yields the fallowing score, where

$$J, \quad \frac{W_{14}L_{14}+W_{19}L_{19}+W_{20}L_{20}+W_{23}L_{23}+W_{27}L_{27}+W_{33}L_{33}+W_{37}L_{37}+W_{54}L_{54}+W_{55}L_{55}}{W_{14}(L_{14}+P_{14})+W_{19}(L_{19}+P_{19})+W_{20}(L_{20}+P_{20})+\ldots+W_{55}(L_{55}+P_{55})}$$

=1 oxa + 8k3 + + + * 6x4 + 5x5 + 6x4 + 9x3 = 243
10(3+4) + 8(.3+5) + 9(3+5) + 8<4+3) + + 9(3+5) = 518

J. 243
=.439

Now. repeat the above process to obtain ati the subscale scores, C

(i—I 2. 3, and 5 for the remaining subscales).

4.To obtain a total Margin-In-Life score;

(i) Multiply each subscale score with the associated weighted imponance average for that subscale;

For example, using subscale 4 again, multply Aa=7.44 and J_4=.469 Result js 3.489.

Do thls for each subscale.

(ii) Add together a!! the resu!ts obtained in st9D (i)

i.e. $A_1J_1+A_2J_2+A_3J_3+A_4J_4+A_5J_5$

(iii) Add together ali the weighted: importance averages of the subscales

i.e. $A_1+A_2+A_3+A_4+A_5 =$

(iv) Divide the result obtained in step bv the result obtained in step (iii) to ge: a weiahted individuat score.

$$A_1J_1+A_2J_2+A_3J_3+A_4J_4+A_5J_5 = \sum_{j=1}^{5} A_iJ_i$$

$$\frac{\sum_{j=1}^{5} A_iJ_i}{A_1+A_2+A_3+A_4+A_5 = \sum_{j=1}^{5} A}$$

(v) Subtract Ine weighted average individual score ootained in step (ivj from 0.5 to get the Maraïn-In•Life score.

Appendix D - Psychometric Properties of MILS-58

MARGIN IN LIFE SCALE

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UPDATE OF METHODOLOGICAL STUDIES
OF PSYCHOMETRIC PROPERTIES, 1994

Results of Factor Analysis of the 94 item scale on N = 140 normal adult volunteers, aged 25-60 showed the best solution to be a five-factor solution with 58 items loading clearly on one of the 5 factors. This out(nrne was validated through a factor analysis of N = 283 normal adult volunteers aged 23-62. The five factor solution with 58 items held up as the best solution,

The 5 factors were renamed to better account for the content in the items as follows: Health, Religiosity/Spirituality, Self Confidence, Interdependence, and Parenting Satisfaction.

Internal consistency reliability was assessed through a Chronbach's Alpha reliability that produced the following results:

Health	.90
Religiosity/Spiritua.lity	-86
Self Confidence	.81
Interdependence	.80
Parenting Satisfaction	.92
Total scale	.95

A test-retest reliability study was conducted on N = 61 normal adult volunteers over a four week period with the following results using Pearson Correlation Coefficient :

Health	.67
Religiosity/Spirituality	.90
Self Confidence	.69
Interdependence	.58
Parenting Satisfaction	.975

The interesting results from the test-retest may be function of the one-month time period between the tests, Perhaps there is a difference in the stability of perceptions about religious and spiritual matters and the parenting situation compared to perceptions about one's health, the self and about the interrelationships of self with others. There is not a prior assumption that the Margin In Life Scale measures '*trait" as

opposed to "state" parameters. Hence, it is possible that some of the sub-scales measure more fluid or changeable self- . perceptions than other sub-scales. This area of reliability remains unfinished and additional work is needed.

The item assignment to subscales in the revised 5B item scale is as follows:

FACTOR 1: HEALTH

	ITEM NUMBER	EIGENVALUE
N = 18 ITEMS	1	.56
	2	.44
	6	.65
	7	.39
	9	.61
	11	.65
	12	.70
	16	.57
	17	.40
	24	.72
	28	.56
	29	.43
	32	.65
	39	.66
	42	.51
	50	.66
	53	.48
	57	.62

FACTOR 11: RELIGIOSITY/SPIRITUALITY

	ITEM NUMBER	EIGENVALUE
N = 12 ITEMS	5	.59
	8	.51
	13	.66
	15	.60
	30	.67
	36	.62
	38	.49
	46	.74
	47	.60
	49	.39
	52	.43
	56	.39

FACTOR IV: SELF CONFIDENCE

	ITEM NUMBER	EIGENVALU		
	3	.34	14	.72
	10	.45	19	.63
	18	.45	20	.66
	22	.52	23	.49
	25	.42	26	.55
	31	.50	27	.58
ITEMS	34	.53	ITEMS 33	.71
	40	.69		
	43	.45		
	44	.62		
	48	.51		
	51	.72		
	58	.59		

FACTOR 111: INTERDEPENDENCE

ITEM NUMBER	EIGENVALUE

FACTOR V: PARENTING SATISFACTION

	ITEM NUMBER	EIGENVALUE
	4	.55
	21	.57
	35	.59
	41	.59
ITEMS	45	.56

Appendix E - PSS-10 Instrument

INSTRUCTIONS:

The questions in this scale ask you about your feelings and thoughts during THE LAST MONTH. In each case, please indicate your response by placing an "X" over the circle representing HOW OFTEN you felt or thought a certain way.

	Never	Almost Never	Sometimes	Fairly Often	Very Often
	0	1	2	3	4
1. In the last month, how often have you been upset because of something that happened unexpectedly?	○	○	○	○	○
2. In the last month, how often have you felt that you were unable to control the important things in your life?	○	○	○	○	○
3. In the last month, how often have you felt nervous and "stressed"?	○	○	○	○	○
4. In the last month, how often have you felt confident about your ability to handle your personal problems?	○	○	○	○	○
5. In the last month, how often have you felt that things were going your way?	○	○	○	○	○
6. In the last month, how often have you found that you could not cope with all the things that you had to do?	○	○	○	○	○
7. In the last month, how often have you been able to control irritations in your life?	○	○	○	○	○
8. In the last month, how often have you felt that you were on top of things?	○	○	○	○	○
9. In the last month, how often have you been angered because of things that were outside your control?	○	○	○	○	○
10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?	○	○	○	○	○

APPENDIX F – Email to Students

KCTCS KNECT

REMINDER! Thank you to everyone who completed the survey so far! We will be selecting winners in about 3 weeks.

Dear JCTC Student,

You are receiving this email because you are an adult learner enrolled at Jefferson Community and Technical College in the Spring 2023 or Summer 2023 term.

You are invited to participate in a research study examining the stress of adult college students during COVID times. Your participation is voluntary. Findings from this study may guide college administrators in considering new approaches to assist and support adult students. The questionnaire should take approximately 15-20 minutes to complete.

At the end of the study, you will have the opportunity to enter a drawing for a VISA gift card:

- $100 VISA Gift Card - 1 Winner
- $50 VISA Gift Card - 2 Winners
- $25 VISA Gift Card - 8 Winners

If you are interested in participating in this study, please do so here.
https://survey.alchemer.com/s3/7324507/Margin-in-Life-Scale-Survey

Thank you for your time. If you have questions, please contact me.

Sincerely,

Joseph M. Ryan
Jryan3@bellarmine.edu