



GRADUATE SCHOOL  
EAST TENNESSEE STATE UNIVERSITY

East Tennessee State University  
**Digital Commons @ East  
Tennessee State University**

---

Electronic Theses and Dissertations

Student Works

---

5-2019

## An Exploration of Resilience: Evaluating Resilience Scores Among Honors Undergraduates Involved in Leadership Programs

Amy Van Buren  
*East Tennessee State University*

Follow this and additional works at: <https://dc.etsu.edu/etd>



Part of the [Educational Leadership Commons](#), and the [Higher Education Administration Commons](#)

---

### Recommended Citation

Van Buren, Amy, "An Exploration of Resilience: Evaluating Resilience Scores Among Honors Undergraduates Involved in Leadership Programs" (2019). *Electronic Theses and Dissertations*. Paper 3553. <https://dc.etsu.edu/etd/3553>

This Dissertation - unrestricted is brought to you for free and open access by the Student Works at Digital Commons @ East Tennessee State University. It has been accepted for inclusion in Electronic Theses and Dissertations by an authorized administrator of Digital Commons @ East Tennessee State University. For more information, please contact [digilib@etsu.edu](mailto:digilib@etsu.edu).

5-2019

# An Exploration of Resilience: Evaluating Resilience Scores Among Honors Undergraduates Involved in Leadership Programs

Amy Van Buren

Follow this and additional works at: <https://dc.etsu.edu/etd>

Part of the [Educational Leadership Commons](#), and the [Higher Education Administration Commons](#)

---

An Exploration of Resilience: Evaluating Resilience Scores  
Among Honors Undergraduates Involved in Leadership Programs

---

A dissertation

presented to

the faculty of the Department of Educational Leadership and Policy Analysis

East Tennessee State University

In partial fulfillment

of the requirements for the degree

Doctor of Education in Educational Leadership

---

by

Amy Walsh Van Buren

May 2019

---

Dr. James Lampley, Chair

Dr. William Flora

Dr. Janet Painter

Dr. Stephanie Tweed

Keywords: Resilience, College Students, Leadership, Resilient Leadership

## ABSTRACT

### An Exploration of Resilience: Evaluating Resilience Scores Among Honors Undergraduates Involved in Leadership Programs

by

Amy Walsh Van Buren

Resilience is vital to college and university student success. Furthermore, resilience is necessary for successful leadership. Student leadership programs must consider resilience building as part of successful program development. By considering resilience as a factor in student leadership success and future leadership success, programs may encourage the development of leaders who are highly equipped to lead and continue to lead in the long term. Because of the need to promote resilience building through leadership program development, the researcher sought to explore the potential relationship between participation in leadership activities and student resilience scores. The purpose of this quantitative research was to determine if there were differences in scores on the Connor-Davidson Resilience Scale among undergraduate students involved in honors leadership programs at a 4 year university. Potential links between specially designed 4 year student leadership programs and resilience scores were studied. The number of leadership opportunities participants had engaged in as well as gender, age, and class status (freshman, sophomore, junior, senior) were analyzed.

A quantitative nonexperimental survey research design was employed by examining the results of the Connor-Davidson Resilience Scale. The survey link was provided to students during the

Fall 2018 semester. Data from the survey were analyzed to address each of the 9 research questions. Seven of the research questions were addressed using ANOVA and 2 research questions were addressed using t tests. No significant relationship was found between overall resilience scores among the 3 activity groups. The results indicated that the majority of the students scored well above the national average score. Although the analyses of relationship between the number of activities and each of the 5 resilience factors were not significant, students who completed 5 or more activities tended to score higher overall. Gender and age showed no significant difference on resilience scores. However, male students scored slightly higher than females, and females scored higher than the national average. The findings from this study may contribute to resilience research, student development research, leadership development research, and educational programming considerations.

## DEDICATION

I dedicate this work to my parents Charles and Cathy Walsh who have been a source of unyielding support and unconditional love since the day that I was born. My parents have walked every mile of my life journey with me and have always been my biggest cheerleaders. They taught me to never lose hope, believe in myself, and to walk in faith. They are the reason that I value education and the reason that I work every day to be the best that I can be for that is the example that they have set throughout my life. The completion of this dissertation would not have been possible without the support of my parents. Daddy, you are the greatest man I have ever known. Your resilience is an inspiration, and your capacity to love is unrivaled. You unknowingly set the stage for my dedication to the education profession. Momma, your strength and fortitude have always been the foundation of our family. I do not know what I would have done throughout this process without the knowledge that I could count on you each step of the way.

Thank you to both of you for teaching me:

“Love always protects, always trusts, always hopes, and always perseveres.”

1 Corinthians 13:7

## ACKNOWLEDGMENTS

I would like to acknowledge my husband Michael and our children, Madeleine, Hannah, and Mikie for your support through this process. I would also like to acknowledge Andrea, Eric, and Carter Monday for your unconditional love and belief in me. My sister, Andrea, you are an inspiration and I could never doubt your support for me.

My friend, Mindy Thomas, thank you for being a part of this journey step by step from day one. Mindy Thomas and Ashley Bentley, I will be forever thankful for the network of support and encouragement that we have shared through the process.

I would like to thank my Chair Dr. James Lampley for all of the time, energy, and care that you have put into making this program and the dissertation writing process an incredible journey. I would also like to offer special acknowledgement to Dr. Janet Painter for encouraging me and for serving as a mentor and colleague. Dr. Stephanie Tweed, I hope that you know how much I have learned from you and the gratitude that I feel for your contribution to my committee. Thank you Dr. William Flora for joining my committee and for your expertise. Thank you Dr. Don Good for taking the fear out of all things statistics and for serving as part of my committee.

## TABLE OF CONTENTS

	Page
ABSTRACT .....	2
DEDICATION .....	4
ACKNOWLEDGEMENTS .....	5
LIST OF TABLES .....	9
LIST OF FIGURES .....	10
Chapter	
1. INTRODUCTION .....	11
Statement of the Problem .....	14
Research Questions .....	14
Significance of the Study .....	15
Definition of Terms .....	17
Limitations and Delimitations .....	18
Overview of the Study .....	18
2. REVIEW OF LITERATURE .....	19
Resilience .....	20
Factors of Resilience.....	23
Models of Resilience.....	26
Dimensions of Resilience .....	28
Resilience and Brain Research.....	29
Resilience and College Student Development.....	30
Resilience and Leadership .....	35
College Student Leadership .....	37



3. Research Method .....	42
Research Questions and Null Hypotheses .....	43
Instrumentation .....	45
Sample .....	47
Data Collection .....	47
Chapter Summary .....	48
4. FINDINGS.....	49
Demographic Information .....	50
Research Questions .....	50
Research Question 1 .....	50
Research Question 2 .....	52
Research Question 3 .....	54
Research Question 4 .....	56
Research Question 5 .....	58
Research Question 6 .....	60
Research Question 7 .....	62
Research Question 8 .....	63
Research Question 9 .....	65
5. SUMMARY, CONCLUSIONS, and RECOMMENDATIONS .....	67
Summary .....	67
Conclusions .....	70
Recommendations for Practice .....	73
Recommendations for Further Research .....	75
REFERENCES .....	77
APPENDICES .....	87
Appendix A: .....	87

Appendix B: .....	88
Appendix C: .....	90
VITA .....	91

## LIST OF TABLES

Table	Page
1. Means and Standard Deviations of Activity Groups (Years of Experience) .....	51
2. Means and Standard Deviations of Activity Groups (Factor 1) .....	53
3. Means and Standard Deviations of Activity Groups (Factor 2) .....	55
4. Means and Standard Deviations of Activity Groups (Factor 3) .....	57
5. Means and Standard Deviations of Activity Groups (Factor 4) .....	59
6. Means and Standard Deviations of Activity Groups (Factor 5) .....	61
7. Means and Standard Deviations of Status .....	64

## LIST OF FIGURES

Figures	Page
1. Resilience Scores by Number of Activities .....	52
2. Factor 1 Scores by Number of Activities.....	54
3. Factor 2 Scores by Number of Activities.....	56
4. Factor 3 Scores by Number of Activities .....	58
5. Factor 4 Scores by Number of Activities .....	60
6. Factor 5 Scores by Number of Activities.....	62
7. Resilience Scores by Gender.....	63
8. Resilience Scores by Status.....	65
9. Resilience Scores by Age.....	66

## CHAPTER 1

### INTRODUCTION

There has been a remarkable shift in what was once considered a quality education. The advancements in research, technology, and other societal concerns have pressed educators to apply innovative approaches to address the needs of college students in ways that promote success in college life, career, and citizenship (National Education Association, n.d.; Marthers, 2017; Patton, Renn, Guido, & Quaye, 2016). In fact, the inception of the “21<sup>st</sup> century skills” movement that began in the early 2000s resulted in a nationwide push to promote the “Four Cs”: critical thinking, communication, collaboration, and creativity (NEA, n.d.).

As a result of the 21<sup>st</sup> century skills movement colleges and universities across the country are pursuing means for promoting less traditional, noncognitive indicators of success (Hartley, 2011; Mathers, 2017). Evidence that noncognitive factors such as resilience are essential to success in college and beyond permeates the body of research (Beetham, McGill, & Littlejohn, 2009; Ungar, 2008). According to Marthers (2017) higher education institutions have begun to apply a student success lens to the student life cycle. The application of the student success lens has led to examination of the roles played by grit and resilience. “This shifting approach is leading to intentional campus initiatives designed to foster attitudes and behaviors that will promote student success—as measured by higher retention, graduation, and student satisfaction rates” (Marthers, p. 1).

Resilience has been widely researched as an essential component to success in academics, employment, and leadership. In fact, resilience is a 21<sup>st</sup> century skill that has been

repeatedly cited as one of the most essential factors in overall college student success (Ovans, 2015; Steinhardt & Dolbier, 2010). Ungar (2011) found the following:

In the context of exposure to significant adversity, resilience is both the capacity of individuals to navigate their way to the psychological, social, cultural, and physical resources that sustain their well-being and their capacity individually and collectively to negotiate for these resources to be provided in culturally meaningful ways (p. 76).

Additionally, the implications for the promotion of resilience reach beyond the college experience. Resilience is essential for the effective leader. According to Ledesma (2014) a direct correlation exists between the leader's job stress, and the ability to maintain resilience through prolonged adversity (Ledesma, p.1, 2014). The career success of college graduates is an essential consideration for higher education; therefore, it is imperative that attention be paid to resilience building opportunities during the college experience (Bjorklund-Young, 2016; Gray, 2017; Resilient Leadership, 2017)

Resilience research is essential to the field of education and the related educational research as it considers the factors that promote academic, leadership, and career success as well as longevity in academic settings and the workplace. Resilience is a significant factor in college student development and success; therefore, the understanding of resilience as a factor in successful higher education planning should be examined (Ungar, 2008).

Many higher education authors cite greater mental health concerns for college students in the 21<sup>st</sup> century (Gray, 2015; Levine & Dean, 2012; Wilson, 2015). There exists an array of research pointing to the decline in student resilience as a serious concern for colleges (Gray, 2015; Ketchen, Lipson, Gaddis, Heinze, Beck, & Eisenberg 2015; Zivin, Gulletts, & Golberstein,

2009). Colleges and universities are attempting to address students' needs while tending to a complex array of considerations (Patton et al., 2016). Not only must students be prepared with necessary cognitive skills for leadership in the workforce, higher education institutions are tasked with building noncognitive capacities to foster academic and future employment success (Mathers, 2017).

Despite emphasis in intentional programming that fosters resilience, research regarding the most effective actions to promote resiliency in today's unique and ever-evolving society is in its infancy (Frost & Kay, 2015; Paulsen, 2016). There are powerful links between resilient leadership and academic success, future leadership success, and long-term job satisfaction (Ledesma, 2014). Also, research regarding leadership programming for college students points toward the necessity for resilience promoting learning opportunities as a means for improving student success (Frost & Kay, 2015; Valiente, Swanson, & Eisenburg, 2014).

Across the nation colleges and universities are cultivating leadership programs for motivated and high achieving students. Such programs provide unique opportunities for students to participate in activities that teach and promote leadership skills (Frost & Kay, 2015). Considering the link between effective leadership and resilience, it is prudent to explore resilience outcomes of such programs. Furthermore, it is necessary to consider demographic variables as they relate to potential differences in resilience outcomes for diverse student populations.

## **Statement of the Problem**

The purpose of this quantitative research is to determine if there are differences in resilience scores among undergraduate students involved in honors leadership programs at a 4-year university. The relationship of student leadership activities and resilience scores among undergraduate students at a 4 year university was examined. Essentially, the study examined the resilience scores of students who have participated in a varying number of leadership opportunities. Furthermore, are there differences in resilience scores among genders and freshmen, sophomores, juniors, and seniors? The findings and implications of this study will contribute to resilience research, student development research, leadership development research, and educational programming considerations.

## **Research Questions**

Research Question 1: Is there a significant difference in the total resilience scores among the three activity groups for students enrolled in the honors programs at the participating university?

Research Question 2: Is there a significant difference in the Factor 1 scores (persistence and tenacity) on the Connor-Davidson Resilience scale among the three activity groups (0 to 4, 5 to 9, 10 or more) for students enrolled in the honors program at the participating university?

Research Question 3: Is there a significant difference in Factor 2 scores (emotional and cognitive control) on the Connor-Davidson Resilience scale among the activity groups (0 to 4, 5 to 9, 10 or more) for students enrolled in the honors program at the participating university?

Research Question 4: Is there a significant difference in Factor 3 scores (adaptability and ability to bounce back) on the Connor-Davidson Resilience scale among the three activity groups



(0 to 4, 5 to 9, 10 or more) for students enrolled in the honors program at the participating university?

Research Question 5: Is there a significant difference in Factor 4 scores (control) on the Connor-Davidson Resilience scale among the three activity groups (0 to 4, 5 to 9, 10 or more) for students enrolled in the honors program at the participating university?

Research Question 6: Is there a significant difference in Factor 5 scores (spiritual influences) on the Connor-Davidson Resilience scale among the three activity groups (0 to 4, 5 to 9, 10 or more) for students enrolled in the honors program at the participating university?

Research Question 7: Is there a significant difference in resilience scores between male and female students enrolled in the honors program at the participating university?

Research Question 8: Is there a significant difference in resilience scores among freshmen, sophomore, juniors, and seniors enrolled in the honors program at the participating university?

Research Question 9: Is there a significant difference in resilience scores between the two age groups (18 to 20 years and 21 to 27 years) of students enrolled in the honors program at the participating university?

### **Significance of the Study**

Patton, Renn, Guido, and Quayle (2016) defined “college students as individuals engaged in post-secondary learning experiences” (p. 5). In addition to learning inside the formal setting of colleges, universities, and other higher education settings, college students are also engaged in learning when at work, doing service, studying abroad, or living in a community. As students learn they become increasingly complex individuals (Patton et al., 2016). Resilience is vital to

the development of successful college students who are equipped to become successful members of the workforce.

The needs of 21<sup>st</sup> century college students are exceedingly complex. The rigorous standards of 21<sup>st</sup> century skill development, workforce preparation, financial considerations, and the building of necessary skills for leadership are part of the ever-evolving list of demands placed on today's college students (Miremadi, 2015). In a world in which higher education is seeing high rates of mental health issues, suicide, and drug and alcohol abuse, it is vital that undergraduate student programming is tailored to support the complex needs of college students (Miremadi, 2015; Pech, 2017; Rosenbaum & Weatherford, 2017).

Research supports resilience as a key factor in student success both in college and in the workplace (Morales, 2005; Ovans, 2105). Resilience is a vital protective factor for personal health and development, academic success, student retention, self-efficacy, successful leadership in the workplace, and student and employee retention (Ovans, 2015; Steinhardt & Dolbier, 2010). The body of research provides compelling support for the vitality of resilience promoting programming across institutions, fields of studies, and in learning and workplace communities.

The study may provide acumen to higher education leaders and educators about successfully promoting resilience among college students. An analysis of the data from the study may also help program leaders identify weaknesses in current programming. The study may provide useful information for higher education leaders regarding factors that promote student success and retention. Furthermore, the implications of the study may inform curriculum development, student service activities, and leadership program development.

## **Definition of Terms**

To ensure the meaning and understanding of the terms used in this study, the following definitions are provided.

1. **Resilience:** Resilience is widely defined as the ability to bounce back from adversity, frustration, and misfortune (Ledesma, 2014).
2. **Adversity:** Any hardship and suffering linked to difficulty, misfortune, or trauma (Jackson, Firtko, & Edenborough 2007).
3. **Thriving:** A person's ability to go beyond her or his original level of functioning and to grow and function despite repeated exposure to stressful experiences (Ledesma, 2014).
4. **Self-Efficacy:** An individual's belief in his or her capacity to execute behaviors necessary to produce specific performance attainments (Bandura, 1997).
5. **Personal Control:** The belief that you have some measure of control over your life (Mills & Dombeck, 2005).
6. **NonCognitive Traits:** A person's personality traits, goals, character, motivations, and preferences (Kautz, Heckman, Diris, Ter Weel, & Borghans, 2014).
7. **21<sup>st</sup> Century Skills:** The term "21st-century skills" is generally used to refer to certain core competencies such as collaboration, digital literacy, critical thinking, and problem-solving that advocates believe schools need to teach to help students thrive in today's world (Rich, 2010).
8. **Growth Mindset:** The belief that learning is not fixed and can be changed (Cochineal, & Finamore, 2015).
9. **Resilient Leadership:** A way of seeing, thinking, and leading that enables leaders to navigate the Emotional Systems of organizations (Resilient Leadership LLC, 2015).

### **Delimitations and Limitations**

The study is limited by the appropriateness of the theoretical framework in determining the resilience of participants and that resilience can be measured. The study also assumed that the survey used for data collection is valid and reliable. It is assumed that participants answered honestly, and that the sample was representative of the population. Furthermore, it is assumed that the methodology appropriately addressed the research questions, and that the statistical tests were appropriate. The study is also limited by the usefulness of the results to the stakeholders.

Limitations existed regarding this study due to the nature of the population that was chosen. This study is delimited to undergraduate students who attend a private, 4 year university in the state of North Carolina during the 2018 - 2019 school year. Therefore, the results may not be generalizable to students at other institutions. All students who were involved in one of three leadership programs were invited to participate. However, the responses of those who chose not to respond may differ from those who chose to participate.

### **Chapter Overview**

The study is organized into five chapters. Chapter 1 comprises an introduction to the study, statement of the problem, research questions, significance of the study, definition of terms, and delimitations and limitations. Chapter 2 includes a review of literature. Chapter 3 includes research methodology, research questions, research design, and population of the study. Chapter 4 delineates the results of the study. Finally, Chapter 5 presents a summary of the findings, conclusions, and recommendations.

## CHAPTER 2

### REVIEW OF LITERATURE

The study of resilience emerged over the past 50 years from the field of psychology. Early in the study of resilience psychology, the aim was to determine factors that put individuals at risk of psychological problems. A paradigm shift in the early 1990s brought about inquiry into the strengths of the individual (protective) factors rather than causal (predictive) factors. Continued research has sought to identify the characteristics that help individuals to thrive in difficult circumstances (Fletcher & Sarkar, 2013; Ledesma, 2014; Luthar, Cicchetti, & Becker, 2000).

Every human experiences some type of adversity. From minor day-to-day adversity to significant hardships individuals vary in their abilities to cope with stressful situations. Science has shown that some children develop the ability to cope with hardship while others do not (Ledesma, 2014). However, all individuals, no matter their age or stage of development, can learn to become resilient. Understanding ways in which individuals develop resiliency in childhood and into adulthood is essential to every society (Hartley, 2011; Masten, Cutuli, Herbers, & Reed, 2009).

Considering the rising demands and concerns of today's college students, it is imperative that resilience is researched and implemented as a factor in all aspects of college and university academic and community programming (Gray, 2015; Hartley, 2011). The body of research points heavily toward resilience as an integral component to traditional and nontraditional college student mental health, retention, and overall academic success (Gray, 2015; Kilbert et al., 2014; Lerner, 2006; Steinhardt & Dolbier, 2008). Hartley (2011) explored the connections

between resilience, mental health, and academic persistence of undergraduate college students and found significant correlations between inter and intra personal resilience and cumulative GPA, aptitude and achievement, and mental health.

### **Resilience**

Resilience theory developed from the work of the pioneers in clinical psychology, developmental psychology, behavior genetics, and psychiatry (Luthar, 2003). In his quest to understand the nature and origins of schizophrenia, resilience research pioneer Norman Garmezy developed an interest in the study of children at risk for psychopathology. Garmezy's research that began in the 1940s and 1950s led to studies of competence in at-risk youth.

By the 1970s Garmezy partnered with scientists and colleagues across multiple disciplines to research the development of problems in childhood and how those problems may be prevented. Arising from this collaboration, the field of developmental psychopathology emerged as the study of mental health problems throughout the phases of human development. Through their influential research, Norman Garmezy, E. James Anthony, Lois Murphy, Michael Rutter, and Emmy Warner expounded upon their observations of children developing healthily despite exposure to adversity to speak and write about what came to be called resilience (Luthar, 2003; O'Dougherty-Wright, Masten, & Narayan, 2013).

In addition to their contributions to the evolution of the study of developmental psychopathology, Garmezy and his colleagues collaborated to give rise to Garmezy's research program Project Competence (Luthar, 2003). From Project Competence evolved a resilience framework for research, policy, and practice. In the 1970s pioneer resilience researcher, Ann Masten, joined Project Competence as a graduate student. Along with Masten, Garmezy and his team implemented a study aimed at evaluating connections between competence, adversity,

internal functioning, as well as individual and family attributes of a cohort of 205 children as they progressed through adulthood (Luthar, 2003).

According to Luthar (2003) the core longitudinal study of Project Competence asserted the following significant findings:

Competent and resilient young people have more resources at hand, including effective adults in their lives in a parenting role, average or better cognitive development, and positive self-regard. Maladaptive young people, on the other hand, have few internal, family, or other resources (p. 12).

Luthar's study revealed that maladaptive individuals were prone to experiencing negative emotions. Additionally, they were more prone to stress and more likely to get into stressful situations. In terms of reactivity to stress, maladaptive individuals responded poorly to challenges. Participants who demonstrated maladaptive competencies showed lower self-worth both in adolescence and into adulthood (Luthar, 2003).

In contrast, participants in the Project Competence study who demonstrated resilience demonstrated a greater sense of self-worth from youth through adulthood. Finally, competence appeared to "have staying power" (Luthar, 2003, p. 12). Competent and resilient youth continued to demonstrate happiness, resilience, and competence in the tasks of adult life as they continued to thrive during their early adult years.

The work of Garmezy and his colleagues generated the foundation of resilience research (Ledesma, 2014; Luthar, 2003). Researchers across the fields of psychology, psychopathology, sociology, biology, and cognitive neuroscience have conducted theoretical and empirical studies

regarding the construct of resilience (Ledesma, 2014). The relationship between resilience and mental health has been the most notable topic of interest (Hu, Zhang, & Wang, 2015).

Resilience theory has been defined in varying ways across disciplines (Ledesma, 2014). Ledesma outlined the differing definitions of resilience among the fields of study. In psychology resiliency is defined as the ability to bounce back and withstand hardship by repairing oneself. Developmental psychology defines resiliency as the ability to maintain an “internal and integrated” sense of self while coping with challenges and threats. The field of medicine defines resilience theory as the ability to “recognize pain, acknowledge its purpose, and tolerate it until it subsides” (p. 2). The social sciences generally define resiliency as the ability to survive adversity, while becoming stronger through the process (Ledesma, p. 2).

A meta-analysis of the trait resilience conducted by Hu, Zhang, & Wong (2014) outlined the three orientations of the current definitions of resilience. The trait orientation characterizes resilience as a personal trait, or characteristic, that enables individuals to deal with adversity and gain good adjustment and development (Conner & Davidson, 2003; Hu et al., 2011). The outcome-oriented approach regards resilience as a behavioral outcome. The process-oriented approach defines resilience as active process of adapting to adversity (Hu et al., 2014).

While the body of educational research supports the trait orientation definition of resilience, it is important to note the varying conceptual discrepancies (Fletcher & Sarkar, 2013). Some researchers argue that conceptual discrepancies can impact analysis of research findings, complicate the process of operationalizing construct measurements, and may impede meta-analysis (Davydov, 2010; Hu et al., 2014).

To the contrary, Luthar, Cicchetti, and Becker (2000) asserted that the diversity in defining or measuring a construct [resilience] is important to creating validity of discrete domains



within the construct. In fact, reviews of resilience research have shown coordinated evidence of the correlates of resilience. The correlates, or protective factors, of resilience have emerged across multiple studies that have implemented a variety of measurement strategies (Luthar et al., 2000).

Despite the varying definitions across disciplines, researchers agree that resilience is concerned with, “individual variations in response to risk” (Ledesma, 2014, p. 2). There is also consensus that the varying definitions of resilience are grounded in the core concepts of adversity and positive adaptation (Fletcher & Sakar, 2013; Hu et al., 2014; Luthar et al., 2000; Masten & Obradovic, 2006).

### **Factors of Resilience**

Dating back to the 19<sup>th</sup> century protective factors of mental health called “mental hygiene” was defined as:

The art of preserving the mind against all incidents and influences calculated to deteriorate its qualities, impair its energies, or derange its movements and including—the management of the bodily powers regarding exercise, rest, food, clothing and climate, the laws of breeding, the government of the passions, the sympathy with current emotions (Davydov et al., 2010, p.4).

The terms “mental hygiene” and “mental resilience” are synonymous with factors associated with positive mental health (Davydov et al., 2010). At present resilience research addresses protective factors as both cognitive and noncognitive factors that support an individual’s ability to manage life stressors and grow in adaptability despite adversity (Bolton, Praetorius, & Smith-Osborne, 2016; Diehl & Hay, 2010; Miller, Dodd, & Fiala, 2014; Moore & Woodcock, 2017). The protective factors most significantly related to resilience include: nurture

and support, positive connections, meaningful participation, life guiding skills, and clear and consistent boundaries (Miller, Dodd, & Fiala, 2014, p. 5).

Ledesma (2014) categorized internal variables of resilience as “self-factors, personality factors, or individual resources” (p.4). Internal factors include hardiness, which describes an individual’s ability to make the best of difficult circumstances (Bonanno, 2004; Ledesma, 2014). Other internal factors include temperament, coping ability, cognitive resources, self-efficacy, and self-factors such as self-esteem, empathy, insight, self-regulation, positive emotion, and laughter, and personal energy encompassing physical, emotional, mental, and spiritual energy (Bonanno, 2004; Ledesma, 2014; Luthar, Cicchetti, & Becker, 2006; Masten, 2009; Ungar, 2004).

External variables of resilience that impact the ability to maintain resilience when facing adversity have been identified as centrality of relationships and social support (Ledesma, 2014). The literature on external variables connected to resilience has produced compelling and consistent findings demonstrating that confiding relationships during difficult times significantly impacts the individual’s ability to be resilient (Ledesma, 2014; Masten, Cutuli, Herbers, & Reed, 2009). External support systems encourage and reinforce coping skills (Ledesma, 2014).

Fletcher and Sakar (2013) asserted that consensus among researchers supports the notion that resilience is demonstrated only when adversity and positive adaptation are present. However, adversity and positive adaptation have been described inconsistently across the literature. Thus, some researchers view such inconsistencies as diminishing the scientific value of resilience research (Bodin & Winman, 2004; Fletcher & Sakar, 2013). Therefore, Luthar et al. (2000) recommend that researchers clearly define adversity and justify the use of the definition when engaging in resilience research (Luthar et al., 2000, p. 27).

Resilience researchers have taken a variety of approaches to employing a definition of adversity (Fletcher & Sakar, 2013). According to Luthar et al. (2000), “adversity typically encompasses negative life circumstances that are known to be statistically associated with adjustment difficulties” (p. 858). These authors employed a “threshold-dependent” definition that is aligned with the idea of risk (Fletcher & Sakar, 2013; Luthar et al., 2000). In contrast, other researchers have approached defining adversity with a less exacting style (Fletcher & Sakar, 2013).

Jackson, Firtko, and Edenborough (2007) delineated adversity as “any hardship and suffering linked to difficulty, misfortune, or trauma” (p. 30). Recent research on the role of adversity suggests that daily adversities do not constitute major disasters, but “modest disruptions” in the daily lives of individuals (Davis, Luecken, & Lemery-Chalfant, 2009). Moreover, Davis et al. (2009), along with a collective group of scholars presented a solid case for the examination of exploring the development of positive adaptations through common, daily stressful and taxing events (Fletcher & Sakar, 2013). Furthermore, resilience mechanisms may vary based on the severity of the context in which adversity is endured (Davydov et al., 2010).

Throughout resilience research, the term “adversity” has endured a negative connotation. Risk-related terminology, negative circumstances, and undesirable consequences have driven the focus of adversity toward predictors of instability (Davis et al., 2009; Fletcher & Sakar, 2013). However, Fletcher and Sarkar (2013), offer the suggestion that positive life events that may not be labeled as adversities such as the transition to college, job promotion, and marriage will require resilience in adapting favorably to a new and challenging situation.

Considering positive adaptation as a second core concept of resiliency, researchers have defined the concept as “symptoms related to internal well-being” (Masten & Obradovic, 2006, p.

15). Masten et al. (2009) asserted that levels of positive adaptation should be explored appropriately to the type of adversity. For example, an indicator of positive adaptation for a college student may be academic success, whereas an indicator of positive adaptation for military personnel may be lack of psychiatric symptoms (Fletcher & Sakar, 2013; Masten, 2009).

### **Models of Resilience**

According to Ledesma (2014) there exists three resilience models used by researchers to explain the mechanisms for the influence of stress on favorable adaptation: the compensatory model, the challenge model, and the protective factor of immunity versus vulnerability model.

The compensatory model asserts that resilience neutralizes exposure to risk. More specifically, outcomes are predicted through independent contribution of both risk factors and compensatory factors (Ledesma, 2014). Compensatory factors include optimism, insight, intellectual competence, self-esteem, direction or mission, and determination and perseverance (Ledesma, 2014; Ungar, 2004; Werner, 2004).

The challenge model embodies the notion that a person's adaptation can be enhanced by risk factors (Ledesma, 2014). According to O'Leary (1998), significant challenges inherently possess the potential for crisis, as well as opportunity. Challenges have potential to create opportunities for growth for individuals and groups (Nishikawa, 2006; O'Leary, 1998).

The protective factor model of resilience was derived from developmental literature and systems theory. The model presented the notion that protective factors promote positive outcomes and "healthy personality characteristics" despite life adversity (Ledesma, 2014). Ungar (2004) composed a list of protective factors including emotional management skills,

intrapersonal reflective skills, academic and job skills, ability to restore self-esteem, planning skills, life skills, and problem-solving skills.

Drawing upon the research of O’Leary, Carver, & Ickovics (1998), recent resilience studies have begun considering the concept of “thriving” as a construct of resilience (Ledesma, 2014). Thriving is measured by the individual’s gained wisdom, personal growth, personality growth, and enhanced life meaning and productivity resulting from adverse experiences (Ledesma, 2014; Nishikawa, 2006). Thriving results from enduring hardship. Thriving is characterized by a cognitive shift that occurs in response to the hardship. Further, thriving is the outcome of healthy resilience (Ledesma, 2014).

Patterson and Kelleher (2005) outlined a four-cycle phase of resilience. Depending upon the individual’s capacity for resilience, one of the four phases may be applicable: a deteriorating phase, adapting phase, a recovery phase, or a growing phase (Ledesma, 2014; Patterson & Kelleher, 2005). Resilience capacity is established by the accumulation of life experience. Furthermore, resilience capacity is expanded through growth from adversity. Essentially, individuals are strengthened over time through adversity. In contrast, however, the authors suggest that negative reactions to adversity will weaken resilience capacity over time. Patterson and Kelleher’s model reinforces the cumulative effects of building resilience capacity: strengthened personal values, personal efficacy, and personal energy.

A variety of conceptualizations or models of theories of resilience and thriving can be found. However, there is agreement across the body of research that there is significance to the role of adaptation in enduring and overcoming crisis (Ledesma, 2014; Nishikawa, 2006). Furthermore, the literature pertaining to resilience and thriving is guided by the context of

internal and external components (Ledesma, 2014; Ungar, 2004). Finally, there is agreement among resilience researchers and theorists that the conceptualization of resilience is vital to continued research and theory development (Fletcher & Sakar, 2013; Hu et al., 2015).

### **Dimensions of Resilience**

The dimensions of resilience include mental, emotional, physical, and spiritual factors (Connor & Davidson, 2003; Hu et al., 2014; Lerner, 2006). Reich, Zautra, and Hall (2010) also identify specifically the social dimensions, racial and cultural dimensions, biological dimensions, and cognitive, affective, and behavioral dimensions. The terminology used for the various dimensions vary across the literature, social, biological, cognitive and non-cognitive factors that are explored for their role in the individual dimensions are consistently overlapping. The foundations for resilience include self-efficacy, control, adaptability, flexibility, and spiritual influences (Connor & Davidson, 2003). Connor and Davidson used a five-factor analysis in their resilience scale. The factors are described as follows:

- Personal competence, high standards, and tenacity: persistence and tenacity (factor 1)
- Trust in one's instincts, tolerance of negative affect, and strengthening effects of stress: emotional and cognitive control (factor 2)
- Positive acceptance of change and secure relationships: adaptability and ability to bounce back (factor 3)
- Control (factor 4)
- Spiritual Influences (factor 5)

Benight and Ceislack (2011) argued that “resilience is more a process than an outcome of individual coping efforts or a single factor (e.g., personality trait) contributing to effective coping with adversities” (p. 19). In their exploration of self-efficacy as a cognitive factor in resilience,

Benight and Ceislack (2011) cited cognitive factors derived from Albert Bandura's social cognitive theory: self-efficacy, appraisal of stressful events, self-regulation, stability, controllability, and generalizability related to the stressor (Southwick, Charney, & Friedman, 2011).

### **Resilience and Brain Research**

Advances in studies involving biological aspects of resilience have supported the notions that resilience is progressive and that it can be built at any age (Fletcher & Sakar, 2013). Although resilience is best learned at a young age, resilience can be learned and fostered during the college years and beyond. Furthermore, there is strong neurological evidence that the resilient individual will demonstrate greater control when faced with future adverse events (Cicchetti & Blender, 2006). Essentially, the assertion that resilient individuals will continue to become more resilient is not only supported by psychosocial analyses, but in scientific studies of the brain's responses to stress as well.

Brain research conducted by Maier and Watkins (2010) showed that participants who had exhibited control in an adverse situation exhibited blunted behavioral and neurochemical responses to succeeding stressors occurring days to months later, supporting the progressive nature of resilience. More specifically, there appears to be plasticity in the ventromedial prefrontal cortex (vmPFC) circuits of the brain that are altered by the experience of control in stressful situations. The alteration of these circuits occurs in such a way that results in activation of stressor resistance due to inhibition of stress-responsive limbic and brainstem structures (p. 55).

Patterson and Kelleher (2005) asserted that, during any point in the human life span, the capacity of resilience is determined by the accumulation of life experiences. Through

empowered personal values, efficacy, and energy, resilience capacity is expanded. Scientists in the field of brain research have found that this reality is reinforced through the brain's plasticity. Scientific studies have found that emotional regulation in the brain occurs in the right thalamus and the inferior and middle frontal gyri. Multiple studies have shown that resilience is positively correlated with reactions in those parts of the brain (Daniels et al., 2012; Li & Yang, 2017; Shaw, 2016).

### **Resilience and College Student Development**

Research has clearly established resilience as an integral component to healthy human development across the human life-span. Resilience is not merely the ability to survive hardship, but the ability to recover from hardship and grow stronger for having done so. Furthermore, resilience is progressive, meaning that it has a multiplying effect, and it permeates all aspects of the human being (Benight & Cieslak, 2011; Joyce, Shand, Tighe, Laurent, & Bryant, 2018; Maier & Watkins, 2010). Therefore, at any age a person may learn resilience, demonstrate resilience, and/or become more resilient through adversity.

Additionally, considering the far-reaching implications of stress and stress related illnesses, resilience has proven significant to personal and familial development as well as social and financial development (Joyce et al., 2018). Many researchers have argued that the period of late adolescence, which is typically the point at which individuals enter college, is an "ideal period to examine trajectories of developmental change, as reflected in their intra-individual and interpersonal worlds" (Gutman et al., 2017, p. 81). In a study by Li and Yang (2016) exploring the resilience-stress path model for college students, findings supported research reports that active coping by college students was effectively predicted by trait resilience.



In their study of resilience intervention to enhance coping in college students Steinhardt and Dolbeir (2008) emphasized the numerous challenges and health implications of enduring the transition from adolescence to adulthood. Significant stressors such as intrapersonal, academic, interpersonal, and environmental changes during the transition to college continuously increase and result in psychological and health problems for college students. Steinhardt and Dolbeir further noted that such stressors, when married with developmental gaps in coping ability, have contributed to the rise in reported psychological and physical health problems among college students.

The demands of roles and responsibilities for college students are ever shifting, conflicting, and necessitate the achievement of balance to produce healthy emotional and behavioral adjustment (Kilbert et al., 2014). College life is often characterized by stressors such as, “high-stakes academic pressure, minimal academic support compared to high school, and potential social isolation during the transition, and long-term financial debt” (Hartley, 2011, p. 597). According to Pittman and Richmond (2008) first time college students face multiple transitions alongside adapting to more independence and responsibility both personally and academically. While many experience successful college transitions, long term emotional maladjustment and depression plague some students.

Hartley (2011) pointed out consistent evidence that stress serves as an academic impediment to more than one third of college students. Maladaptive efforts to cope with college stress leads to symptoms of depression and anxiety as well as symptoms and frequency of physical illnesses (Hartley, 2011; Kilbert et al., 2014; Lerner, 2006, Pittman & Richmond, 2008; Steinhardt & Dolbier, 2008). Such outcomes not only infringe upon healthy functioning through the college years but also have lasting impacts on the individual’s future.

Resilience may mediate the relationship between college stressors and student functioning (Kilbert et al., 2014; Lerner, 2006). Lerner (2006) described resilience, when conceptualized as an attribute of the developmental system, as involving “mutually beneficial, reciprocally influential relations between a person and his or her context” (p.40). Furthermore, Lerner suggested that, to identify a “relationship” within the developmental system indicating resilience, there must be evident behaviors connected with positive functioning during the occurrence of adversity and/or in the future. Resilience and positive development can be achieved through the alignment of individual factors and contextual resources. When such positive alignment is achieved, an optimistic view and positive human development can be promoted (Lerner, 2006).

Kilbert et al. (2014) described resilience as a mechanism of a flexible set of attitudes that include finding meaning and purpose in conflict and change. Resilience can foster effective problem-solving skills that promote improved well-being and life satisfaction (Kilbert et al., 2014; Maddi, 2008). The elemental attitudes of resilience buffer the effects of any level of diversity. In contrast, attitudes that undermine the growth of resilience, such as attitudes that encourage “negative self-appraisals,” diminish a sense of well-being in college students (Campbell-Sills, Cohan, & Stein, 2006; Kilbert et al.).

Campbell-Sills et al. (2006) explored the relationship of resilience to personality traits, coping styles, and psychiatric symptoms in a sample of college students. The authors found a negative association between resilience and neuroticism and a positive relationship between resilience and extraversion and conscientiousness. Furthermore, coping styles were more highly associated with variances in resilience than personality traits.

The findings of Campbell-Sills, Cohan, and Stein were supported in the results of Kilbert et al.'s study of resilience as a mediator in perfectionism and college student distress (Kilbert et al., 2014). According to the authors, perfectionism is highly prevalent among college students, and is characterized by holding oneself to high standards (self-oriented); the tendency to hold others to stringently high standards (other-oriented); or, the perception that others assume high and unrealistic expectations of one's behavior (socially prescribed) (Kilbert et al., 2014).

The study results indicated that socially prescribed perfectionism is negatively related to resilience among college, which indicates that those students have greater difficulty overcoming adversity. Further, a notable association was made between coping strategies, such as appraising and managing stressful circumstances, and the connection between socially prescribed perfectionism and stress. Essentially, college students who have difficulty coping with and overcoming stress report greater symptoms of distress (Kilbert et al., 2014).

Not only is resilience a mediator for the many challenges of college life, resilience has long-lasting impacts on the healthy human development process. Prior stress-related experiences can be activated when individuals experience stressful events. As evidenced in the broad body of research on resilience, human development, and brain research, building resilience mediates the impact of future stressors. When a person encounters positive experiences during stressful situations through trait resilience, self-efficacy, and secure attachments, those positive experiences will be activated during future encounters with stress (Li & Yang, 2016). From the evidence, it is assumed that the development of resilience during the college years, will serve to better prepare students for future adversities beyond college.

Findings of Hartley's (2011) study of the relationships between resilience, mental health, and academic persistence of college students supported evidence that interpersonal resilience

factors support undergraduate college student's efforts to negotiate the increasingly stressful climate of college life. Furthermore, there is a strong link between resilience and academic persistence.

Resilience has been found to be a mediator in student success and retention. In addition to widely adopted factors including aptitude, achievement, and involvement in extracurricular activities, Hartley (2011) further cited research that supports tenacity and persistence; emotional intelligence and the ability to tolerate stress; positive acceptance of change and self-control; spirituality and the belief that things will work out; and interpersonal resilience as significant contributors to academic persistence.

Resilience research exemplifies the buffering effect that protective factors have on negative impacts of risk. A multitude of characteristics of adolescents and their developmental stage can be gestated with respect to risk and protective factors (Gutman et al., 2017). Gutman et al. (2017) cited prior research that illustrated a fluctuation in student expectations. A decline was noted from ages 14 to 16, followed by an increase until age 20, and then a decrease from ages 20 to 26. Likewise, analysis of student occupational expectations demonstrated an increase from ages 14 to 18, followed by a slight decline through age 26. These findings are significant to the exploration of college student development in terms of resilience as the ages are reflective of those of traditional undergraduate college students.

Many studies have noted differences between males and females regarding risk and protective factors. In academic performance females have been shown to outperform males throughout middle grades, high school, and college years (Gutman et al., 2012). Regarding educational and occupational aspirations and school motivation, females in early and late adolescence outperform their male counterparts. However, females demonstrate lower levels of

academic self-concept (Gutman et al., 2012; Mello, 2008; Schoon, Martin, & Ross, 2007).

Studies of female college students who display coping skills, including active coping strategies, found that females exhibited greater overall well-being and positive self-concept (Snapp, Hensley-Choate, & Ryu, 2012).

### **Resilience and Leadership**

Resilience theory can inform action, and the study of resilience can be reflexive as it seeks to promote understanding of both characteristics and processes (Ungar, 2008). Similarly, leadership theory and practices have sought to explore the characteristics of successful leaders as well as the actions that successful leaders take. It is vital that leaders face challenges and take appropriate action to move ahead despite adversity. The survival of a leader, as well as his or her ability to adapt and succeed, is dependent upon his or her career resiliency (Ledesma, 2014).

Nishikawa (2006) cited the crippling effect of the constant threat of adversity and extended contact with stress can have on leaders. Aviola and Gardner (2005) suggested that, considering the unique stressors faced by today's organizations, from "ethical meltdowns to terrorism," what has previously been assessed as a "normal" range of functioning for individuals is constantly shifting. A need for a modernized focus on being able to recover from catastrophic events and demonstrate resiliency is necessary. As such, there is an advancing understanding among scholars and practitioners regarding the relevance of authentic and transformational leadership that are enhanced by resilience factors (Aviola & Gardner, 2005; Luthar, 2015).

Both authentic and transformational leadership are positive forms of leadership practice. In fact, Arnold and Connelly (2013) cited extensive literature that explores the impact of transformational leadership on employee psychological well-being. Psychological well-being constitutes the three factors of burnout, affect, and mental health. Transformational leadership is

closely related to authentic, charismatic, spiritual, and servant leadership (Aviola & Gardner, 2005). Rooted in these leadership styles are actions that build upon resilience factors for both leaders and their constituents. Through efforts to apply resilience to leadership, the concept of resilient leadership has emerged and have expanded across fields and work environments (Reed & Blaine, 2015; Resilient Leadership, 2015).

Resilient leadership can have far-reaching impacts on both individuals within the organization, as well as the organization as a system. Research indicates that resilient leaders can influence the resilience of their counterparts and followers. In their study of leader resilience impact on followers, Harland, Harrison, Jones and Reiter-Palmon (2005) found that “participants who mentioned their leaders as a positive factor in dealing with the situation exhibited greater resilience than participants who did not” (p. 2).

The positive psychological resources of hope, efficacy, resilience, and optimism have been evaluated for their impacts on overall organizational health. Analyses of these constructs have shown to be relevant in human resources development in organizations across the United States (Avey, Reichard, Luthans, & Mhatre, 2011). Additionally, Chen (2005) found a statistically significant correlation between psychological constructs and leadership characters. Undoubtedly, the displayed characteristics of positive psychological resources through leadership can be developed and supported with a focus on the development of resilience at all levels (Avey et al., 2011; Youssef & Luthans, 2007).

The foundational aspects of recruiting and retaining resilient leaders involves providing access to trusted peers and colleagues, time for reflection and collaboration with colleagues, and collaborative transformational development opportunities (Ledesma, 2014; Nishikawa, 2006; Perry, 2002). According to Rosen (2014) healthy leaders embrace six dimensions of leadership

health: emotional health, intellectual health, spiritual health, vocational health, and social health. The development of these dimensions empowers leaders to act, forge a shared direction, unleash human potential, foster productive relationships, seize new opportunity, and drive high performance (p. 18).

### **College Student Leadership**

Colleges and universities across the United States have joined the push to build specialized leadership programs for students that incorporate opportunities for campus leadership, service, mentoring, internships, and study abroad (Gray, 2015). These efforts are intended to build high quality leaders who will flourish on campus and as leaders in their chosen fields. Preliminary research on the importance of building undergraduate leadership programs has shown a significant impact on future leadership potential (Kan & Reichard, 2009).

Woodard (1994) discussed the need for innovative and varying leadership approaches. Leadership development should include opportunities that promote individual values and beliefs, as well as their leadership development in areas such as theory, skills development, societal issues, and leadership experience. Furthermore, the author cited the necessity of an overall leadership model that promotes decisive, competent, flexible leaders. Finally, it was suggested that student leadership development programs must facilitate the growth of leaders who are comfortable with risk taking.

Dugan (2006) supported the notion that the major function of higher education has been to educate and cultivate leaders. Curricular and cocurricular programs for developing college student leaders are prolific among institutions. The depth and scale of college student development programs range among various institutions. Programs vary from a series of short

workshops to leadership undergraduate and graduate programs (Cress, Astin, Zimmerman-Oster, & Burkhardt, 2001).

In a longitudinal study by Cress et al. (2001) it was purported that students who participated in leadership programs demonstrated growth in the areas of leadership skills, understanding of leadership theories, personal and societal values, civic responsibility, and multicultural awareness. These findings were reinforced by the results of Dugan's (2006) study that suggested that student developmental gains demonstrated the effectiveness of leadership programs in developing "civic responsibility, multicultural awareness, skill development, and personal and societal awareness" (p. 217). Later research findings presented by Thompson and Torres (2012) illustrated the positive impact of increased student interaction with varying agencies on students' cognitive development toward leadership.

College student involvement is determined by the degree of both physical and psychological energy a student devotes to the academic experience (Cress et al., 2001). Student personal development and learning are directly proportional to their level of involvement in all aspects of the learning process. Participation in leadership experiences and activities are integral components of the learning process and significantly impact the student's level of educational attainment and increased personal values. Additionally, college students who are equipped to reframe daily stressors demonstrate improved well-being and retention rates (Avolio & Gardner, 2005).

Findings from the study of outcomes for college students involved in leadership activities conducted by Cress et al. (2011) described common elements of leadership programs that directly impact student development. Opportunities for service learning (volunteering),



experiential activities (internships), and active learning through collaboration (group projects) were found to have the greatest degree of impact on student growth.

The measures assigned by Cress et al. (2001) represent development skills, values, and cognitive understanding that are outcome goals of the American College Personnel Association (ACPA) Student Learning Imperative. The goals represent the ACPA notion that “learning, personal development, and student development are inextricably intertwined and inseparable and are the hallmarks of a college educated person” (p. 17).

Findings from a 2007 national study on building leadership capacities among college students sponsored by the National Clearinghouse for Leadership programs demonstrated “meaningful and positive changes in student perceptions of leadership” (Dugan & Komives, 2007, p. 12) in the areas of consciousness of self, congruence, collaboration, common purpose, citizenship, and change. The sample population involved in the study included students who participated in leadership activities over the course of their 4 years of college. Study results indicated growth over time in all areas assessed. When assessed on the degree to which they are confident in their ability to participate in select leadership activities (leadership efficacy), students reported the highest degree of change in leadership efficacy. Student consciousness of self was also highly ranked in degree of change (Dugan & Komives, 2007).

An important objective for colleges and universities as they consider program building is student satisfaction. Considering student satisfaction and preferences, Allen and Hartman (2009) found that students preferred activities that promoted personal growth and skill building as their primary objective. Furthermore, students demonstrated greater satisfaction with personalized developmental opportunities over activities designed for group oriented-development. These

findings are significant as they inherently involve resilience building as students prefer activities that are targeted toward their personal development.

Regarding the exploration of college student leadership development and resilience, research clearly dictates the need for consideration and evaluation of protective factors that improve the chances of successful leadership (Ledesma, 2104). It is vital for organizations committed to developing strong leaders, including colleges and universities, to identify and explore means for fostering resiliency through leadership development.

Luthans, Luthans, and Avey (2014) highlighted the significance of resilience as a facilitator of leader focus, willingness to take on challenges, and ability to recover from mistakes. Resilient leaders are not easily distracted by emotion, and they typically more motivated to engage in new activities as they expect successful outcomes. Furthermore, students who participated in leadership activities that cultivate resilience demonstrated a lasting effect on overcoming barriers to academic success.

Wagner (2016) described the necessity of personal commitment in ensuring leadership success. Grounded in an individual's sense of self, commitment has been characterized by investment and involvement of time and emotional passion. Such investment powers the leader's commitment to the purpose and generates resilience from setbacks. Although commitment can be a challenge for developing leaders, resilience can enhance the ability to stay the course (Wagner, 2016). Purposeful structuring of student leadership programs that encourage a wide variety of contextual experiences will prepare students for responsible resilient leadership (Dugan, 2006).

Resilience research has informed program development through the recognition of resilience as an important factor in authentic leadership (Resilient Leadership, 2017). Resilient

leaders not only possess the personal qualities that allow them to thrive, but they model those attributes for their constituents (Beetham, McGill, & Littlejohn, 2009; Yates, Tyrell, & Masten, 2015). Resilient leaders continuously thrive personally and professionally despite life's challenges (Resilient Leadership, 2015). Resilience building is a key ingredient in successful program development that promotes leadership and personal development (Luthans, Luthans, & Avey, 2013; O'Dougherty-Wright, Masten & Narayan, 2013).

The extensive bodies of researcher on resilience, college student development, and leadership clearly demonstrates the profound impact of resilience on overall well-being, student success, and leadership development as well as implications for future career leadership success. Building leadership skills in undergraduate students to support their personal development and educational attainment is necessary. Despite the vast literature supporting these concepts, there appears a gap in evaluating the impacts of leadership programs on the development of resilience among undergraduate college students.

## CHAPTER 3

### RESEARCH METHOD

Educational research is important to pedagogy, practice, public interests, and the promotion of the field of education. Evidence-based inquiry that produces valid information and knowledge can be used to inform decision making in the field. According to McMillan and Schumacher (2010), the quantitative approach to inquiry, which is based in positivism, assumes that “there are stable, social facts, with a single reality, separated from the feelings and beliefs of the individual” (p. 12). Furthermore, quantitative research assumes a single reality that is measured by an instrument. The purpose of quantitative research is to establish relationships between measured variables through procedures which are established prior to the study (McMillan & Schumacher, 2010).

The purpose of this quantitative research was to determine if there were differences in scores on the Connor-Davidson Resilience Scale among undergraduate students involved in honors leadership programs at a 4-year university. Potential links between specially designed 4 year student leadership programs and resilience scores were studied. The number of leadership opportunities participants had engaged in, as well as gender, age, and class status (freshman and sophomore, junior or senior) were analyzed. The methodology for the study was quantitative nonexperimental survey research. This chapter describes the research questions, instrumentation, population, data collection, and data analysis used in the study.

## **Research Questions and Null Hypotheses**

To explore resilience level of undergraduate students involved in honors leadership programs, the following questions guided the study.

Research Question 1: Is there a significant difference in the total resilience scores among the three activity groups for students enrolled in the honors programs at the participating university?

Ho1: There is no significant difference in the total resilience scores among the three activity groups for students enrolled in the honors programs at the participating university?

Research Question 2: Is there a significant difference in the Factor 1 scores (persistence and tenacity) on the Connor-Davidson Resilience scale among the three activity groups (0 to 4, 5 to 9, 10 or more) for students enrolled in the honors program at the participating university?

Ho2: There is no significant difference in the Factor 1 scores (persistence and tenacity) among the three activity groups for students enrolled in the honors program at the participating university.

Research Question 3: Is there a significant difference in Factor 2 scores (emotional and cognitive control) on the Connor-Davidson Resilience scale among the activity groups (0 to 4, 5 to 9, 10 or more) for students enrolled in the honors program at the participating university?

Ho3: There is no significant difference in Factor 2 scores (emotional and cognitive control) among the activity groups for students enrolled in the honors program at the participating university.

Research Question 4: Is there a significant difference in Factor 3 scores (adaptability and ability to bounce back) on the Connor-Davidson Resilience scale among the three activity groups

(0 to 4, 5 to 9, 10 or more) for students enrolled in the honors program at the participating university?

Ho4: There is no difference in Factor 3 scores (adaptability and ability to bounce back) on the Connor-Davidson Resilience scale among the three activity groups for students enrolled in the honors program at the participating university.

Research Question 5: Is there a significant difference in Factor 4 scores (control) on the Connor-Davidson Resilience scale among the three activity groups (0 to 4, 5 to 9, 10 or more) for students enrolled in the honors program at the participating university?

Ho5: There is no significant difference in Factor 4 scores (control) among the three activity groups for students enrolled in the honors program at the participating university.

Research Question 6: Is there a significant difference in Factor 5 scores (spiritual influences) on the Connor-Davidson Resilience scale among the three activity groups (0 to 4, 5 to 9, 10 or more) for students enrolled in the honors program at the participating university?

Ho6: There is no significant difference in Factor 5 scores (spiritual influences) among the three activity groups for students enrolled in the honors program at the participating university.

Research Question 7: Is there a significant difference in resilience scores between male and female students enrolled in the honors program at the participating university?

Ho7: There is no significant difference in resilience scores between male and female students enrolled in the honors program at the participating university.

Research Question 8: Is there a significant difference in resilience scores among freshmen and sophomore, juniors or seniors enrolled in the honors program at the participating university?

Ho8: There is no significant difference in resilience scores among freshmen, sophomore,

juniors, and seniors enrolled in the honors program at the participating university.

Research Question 9: Is there as significant difference in resilience scores between the two age groups (18 to 20 years and 21 to 27 years) of students enrolled in the honors program at the participating university?

Ho 9: There is no significant difference in resilience scores between the two age groups (18 to 20 years and 21 to 27 years) of enrolled in the honors program at the participating university.

### **Instrumentation**

The Connor Davidson Resilience Scale (Appendix A) was administered to participants in the present study. The 25 question Likert-type scale included an overall resilience score, as well as five factors. The five factors were measured based on participant responses to selected questions. The survey included a demographic portion (Appendix B) to identify gender, class status (freshman, sophomore, junior, senior), and number of leadership activities completed.

The range categories for the number of leadership activities were as follows: 0-4, 5-9, 10-14, and 15-19. The possible range of scores was determined by the total possible number of activities a given student may complete by the start of his or her senior year.

The overall mean score of resilience was compared with national averages. The five factor analysis categories were determined by grouping questions thematically with corresponding questions. The researcher coded the questionnaire based on question content.

The survey was electronic and administered online. The researcher uploaded the informed consent document, demographic survey, and resilience scale to Survey Monkey. The Survey Monkey link was shared with participants during a program meeting during the fall semester, September 2018. The program directors followed a script provided by the researcher

(Appendix C) for administering the survey link to participants. The participants completed and submitted the surveys through the Survey Monkey link. Participants were allowed time to complete the survey during the meeting.

In the study the survey was used to describe the self-reported resilience scores of a population of undergraduate college students who were participating in honors leadership programs at a 4-year university. From their responses, information was inferred. Data collected from the survey instruments were analyzed through quantitative methodology.

The Conner Davidson Resilience scale (CD-RISC) is a researched backed instrument that serves as a widely used resilience measure in psychological and educational research. This instrument enables the researcher to measure scores of overall resilience which includes the five factors of resilience. The five factors of resilience measured by the CD-RISC include persistence and tenacity (factor 1), emotional and cognitive control (factor 2), adaptability and ability to bounce back (factor 3), control (factor 4), and spiritual influences (factor 5). Each question in the CD-RISC offers rating options of: not true at all (0) rarely true (1) sometimes true (2) often true (3) true nearly all the time (4).

The survey instrument included an informed consent cover page and demographic questions as well as the Connor-Davidson Resilience Scale. Research questions numbers 1 through 6 were analyzed using one-way ANOVA. Research question 7 was analyzed using independent sample t-tests to compare the means of the subgroups. Question 8 was analyzed using one-way ANOVA. All data analysis procedures were conducted using IBM - SPSS data analysis software.

Because the study sought to measure resilience through an instrument, it was appropriate to utilize statistical data to make comparisons and look for potential correlations. The validity



and reliability of the study were enhanced by using statistical measures. The Connor-Davidson Resilience scale is a psychometrically sound measure of resilience that has been studied and validated within several groups including American college students. Also, because there was no direct manipulation of conditions, the design was nonexperimental in nature.

### **Sample**

The population for this study was comprised of undergraduate students at a 4- year university who were currently enrolled in one or more of three specialized leadership programs: Teaching Scholars, Engaged Scholars, and Broyhill Leaders. The population included participants from all class standings (freshman, sophomore, junior, and senior) and both male and female students. The participants had engaged in a variety of leadership activities of their choice with varying numbers of leadership activities. Subgroups were identified by class status (freshman, sophomore, junior, senior) and gender.

Participants included all students who were participating in one or more of the three leadership programs. All students participating in these programs who were at least 18 years of age at the time of the survey were sampled. The total population was 170 students. Students who were involved in more than one of the programs were surveyed only once. The final sample size was 70 students.

### **Data Collection**

After receiving approval from the Institutional Review Boards at Lenoir Rhyne University and East Tennessee State University, the three program directors who agreed to administer the survey during program meetings were notified by email. The email included a description of the purpose of the study, a script for administering the survey, and the link to the

survey. A previously agreed upon date for administration of the survey was added to the email and director calendars.

The survey responses were anonymous because they included no identifiable measures. No tangible incentives were provided for participation in the study. The researcher provided contact information to all participants with invitation to contact for further questions or information as needed. Follow up correspondence with program directors occurred as necessary before data collection was finalized.

### **Chapter Summary**

Chapter 3 was a descriptive summation of the methodology used in the study. The summation includes research questions and hypotheses, the research design, population of the study, and procedures for data collection and analysis. Chapter 4 delineates the results of the study. Finally, Chapter 5 includes a summary of the findings, conclusions, and recommendations.

## CHAPTER 4

### FINDINGS

The purpose of this quantitative research was to determine if there were differences in scores on the Connor-Davidson Resilience Scale among undergraduate students involved in honors leadership programs at a 4 year university. Potential links between specially designed 4 year student leadership programs and resilience scores were studied. The number of leadership opportunities participants had engaged in, as well as gender, age, and class status (freshman and sophomore, junior, senior) were analyzed.

A survey design was employed by examining the results of the Connor-Davidson Resilience Scale (Appendix A). The program Directors for each of the three honors programs (Teaching Scholars, Engaged Scholars, and Broyhill Leaders) provided the electronic survey link to all students enrolled in the corresponding program. Data from the survey were analyzed to address each of the eight research questions.

The population in the study was students enrolled in one of the three honors programs. The dissemination of the survey corresponded with the program meeting dates. All meetings occurred between November 1, 2018 and December 1, 2018. The data collection period ended and the survey closed on December 7, 2018. Participants had to agree to the first question to access the survey. This action ensured that the participant had read the informed consent (Appendix B), agreed to voluntarily and anonymously participate in the study, and were at least 18 years of age. The survey link was provided to 130 students enrolled in one of the three honors programs. Of 130 possible participants, 72 (55 %) responded to the survey.

## **Demographic Information**

Descriptive data revealed 26.7% (n = 19) of students were enrolled in the Teaching Scholars Program, 52.1% (n = 37) were Engaged Scholars, and 21.1% (n = 15) were Broyhill Leaders. Gender characteristics of the students were 73.2% (n = 52) female and 23.9% (n = 17) were male. Reported age ranges for students were as follows: 74.6% (n=75) were 18-20 years of age; and 25.4% (n = 18) were 21-27 years of age. The reported academic status of students were 43.6% (n = 30) freshmen and sophomores, 36.6% (n = 26) juniors, and 19.7% (n = 14) seniors.

Participants were asked to report a range of numbers of leadership activities they had completed in their programs. The majority of students 61.9% (n = 44) reported completion of 0-4 leadership activities. Just over 23% (n = 17) reported completing 5-9 activities, while 14% (n = 10) reported completing 10 or more activities.

## **Research Questions**

### **Research Question 1**

Is there a significant difference in the total resilience scores among the three activity groups for students enrolled in the honors programs at the participating university?

Ho1: There is no significant difference in the total resilience scores among the three activity groups for students enrolled in the honors programs at the participating university?

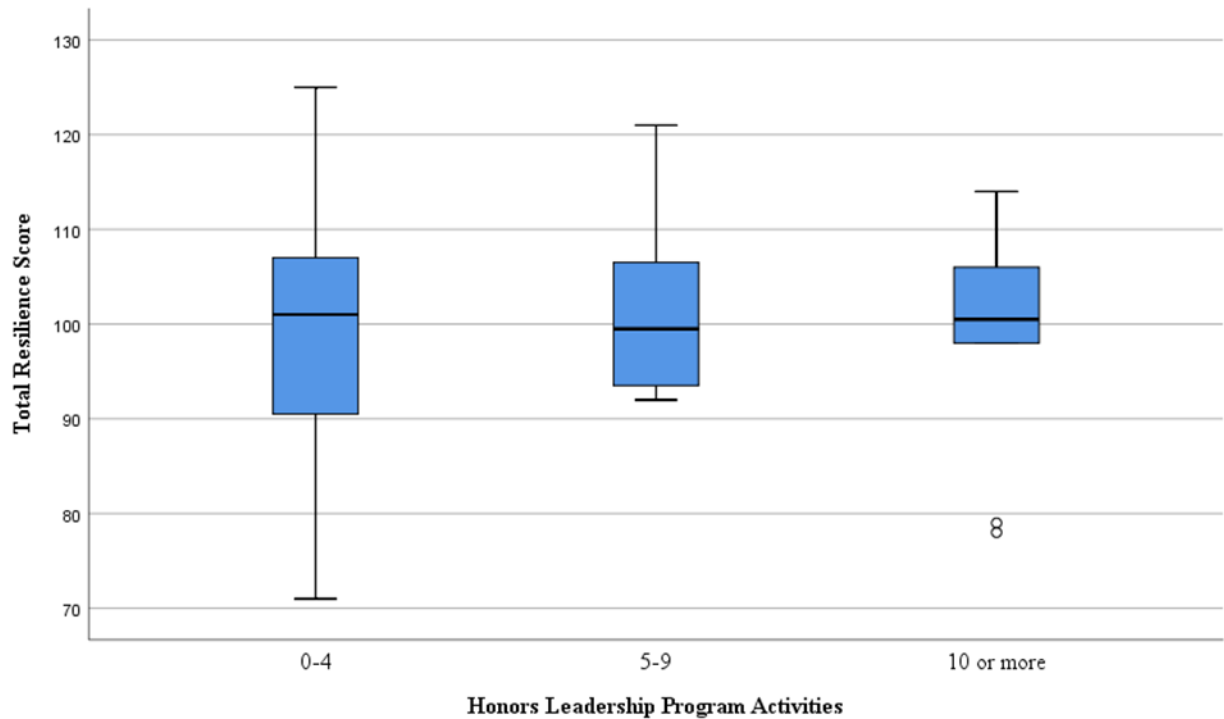
A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship between total resilience scores and the three activity groups. The factor variable number of leadership activities included three levels: 0 to 4 activities, 5 to 9 activities, and 10 or more activities. The dependent variable was the total resilience score. The ANOVA was not significant,  $F(2, 66) = .13$ ,  $p = .882$ . Therefore, Ho1 was retained. The strength of the relationship between

total resilience scores and number of leadership activities as assessed by  $\eta^2$  was small ( $<.01$ ). The results indicate that the total resilience score was not significantly related to the number of activities. Students that participated in more activities did not display higher resilience scores. The means and standard deviations for the three activity groups are reported in Table 1 and Figure 1 shows the distribution of scores.

Table 1

*Means and Standard Deviations of Activity Groups*

Number of Activities	N	M	SD
0 to 4	43	99.93	11.61
5 to 9	16	101.38	9.10
10 or more	10	99.40	12.34



*Figure 1.* Resilience scores by number of activities.

## Research Question 2

Is there a significant difference in the Factor 1 scores (persistence and tenacity) on the Connor-Davidson Resilience scale among the three activity groups (0 to 4, 5 to 9, 10 or more) for students enrolled in the honors program at the participating university?

Ho2: There is no significant difference in the Factor 1 scores (persistence and tenacity) among the three activity groups for students enrolled in the honors program at the participating university.

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship between the number of leadership activities and Factor 1 scores. The factor variable number of

leadership activities included three levels: 0 to 4 activities, 5 to 9 activities, and 10 or more activities. The dependent variable was the Factor 1 score. The ANOVA was not significant,  $F(2, 67) = .43$ ,  $p = .652$ . Therefore,  $H_0$  was retained. The strength of the relationship between number of leadership activities and Factor 1 scores as assessed by  $\eta^2$  was small ( $<.01$ ). The results indicate that the Factor 1 scores were not significantly related to the number of activities. Students who participated in more activities did not display higher Factor 1 scores. The means and standard deviations for the three activity groups are reported in Table 2 and the distribution of scores are show in Figure 2.

Table 2

*Means and Standard Deviations of Activity Groups*

Number of Activities	N	M	SD
0 to 4	43	19.53	2.97
5 to 9	17	20.29	3.10
10 or more	10	20.00	2.67

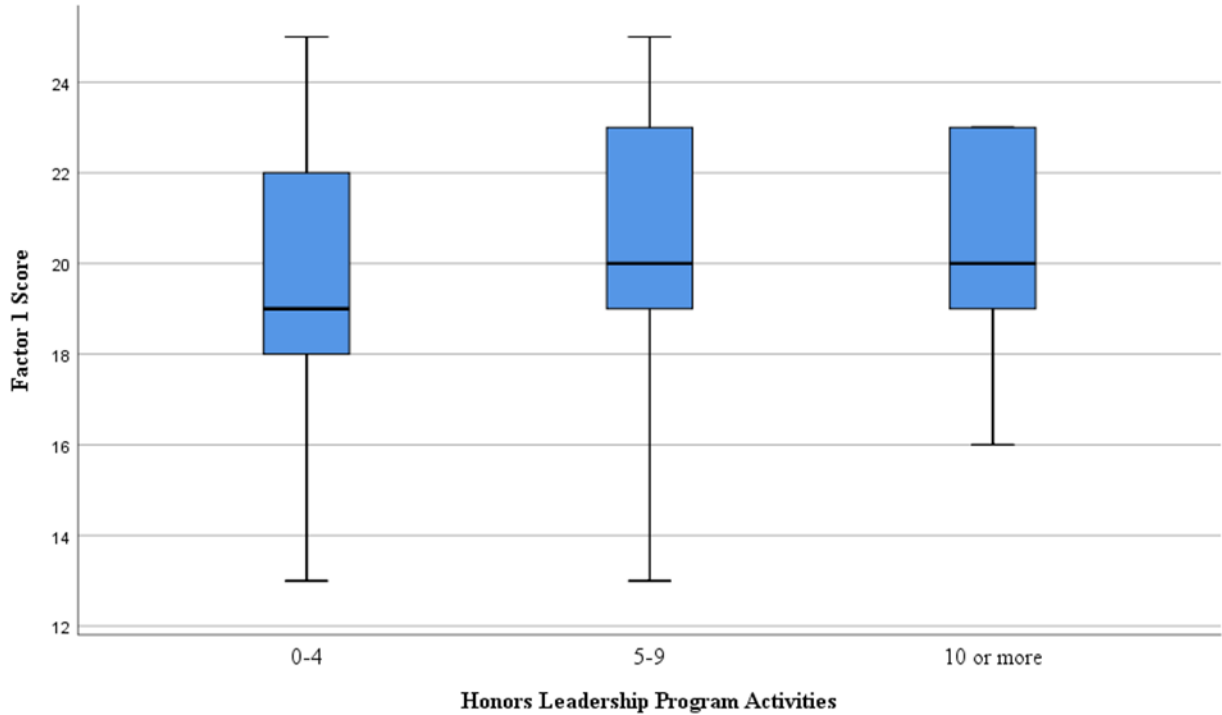


Figure 2. Factor 1 scores by number of activities.

### Research Question 3

Is there a significant difference in Factor 2 scores (emotional and cognitive control) on the Connor-Davidson Resilience scale among the activity groups (0 to 4, 5 to 9, 10 or more) for students enrolled in the honors program at the participating university?

Ho3: There is no significant difference in Factor 2 scores (emotional and cognitive control) among the activity groups for students enrolled in the honors program at the participating university.

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship between the number of leadership activities and Factor 2 scores. The factor variable number of leadership activities included three levels: 0 to 4 activities, 5 to 9 activities, and 10 or

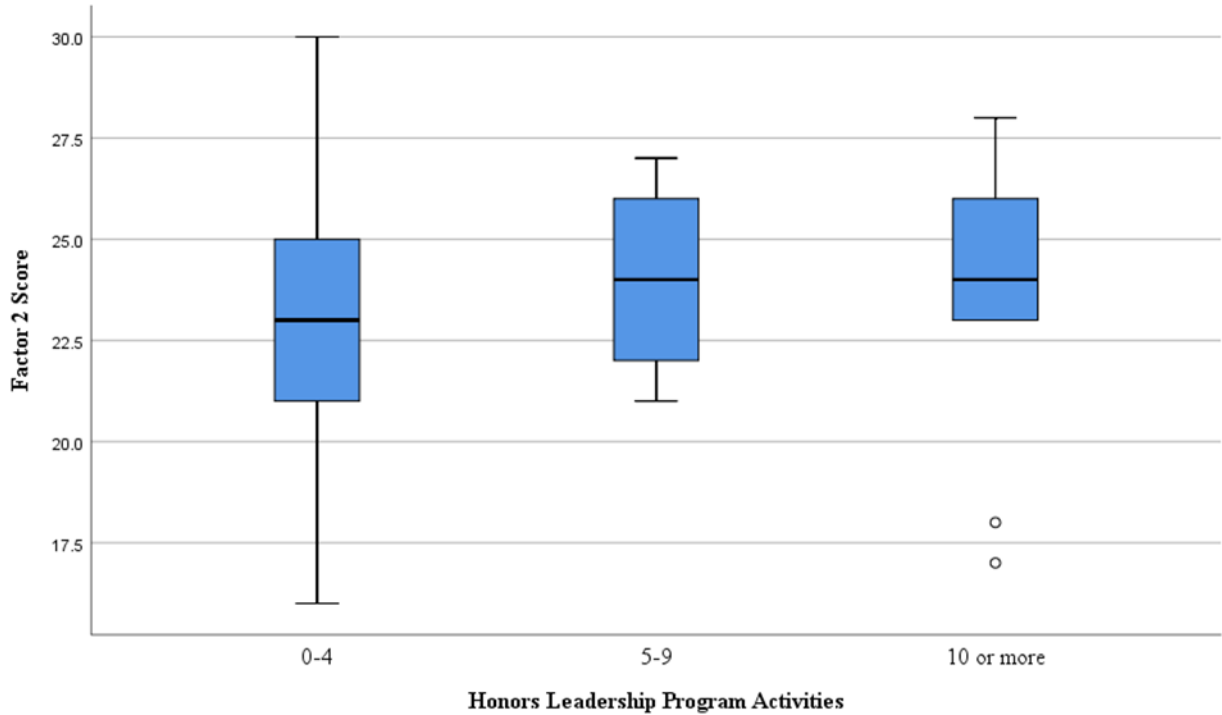


more activities. The dependent variable was the Factor 1 score. The ANOVA was not significant,  $F(2, 66) = .38, p = .685$ . Therefore,  $H_{01}$  was retained. The strength of the relationship between number of leadership activities and Factor 2 scores, as assessed by  $\eta^2$ , was small ( $<.01$ ). The results indicate that the Factor 2 scores were not significantly related to the number of activities. Students who participated in more activities did not display higher Factor 2 scores. The means and standard deviations for the three activity groups are reported in Table 3 and the distribution of scores are shown in Figure 3.

Table 3

*Means and Standard Deviations of Activity Groups*

Number of Activities	N	M	SD
0 to 4	43	23.16	3.33
5 to 9	16	23.94	2.08
10 or more	10	23.60	3.57



*Figure 3.* Factor 2 scores by number of activities.

#### **Research Question 4**

Is there a significant difference in Factor 3 scores (adaptability and ability to bounce back) on the Connor-Davidson Resilience scale among the three activity groups (0 to 4, 5 to 9, 10 or more) for students enrolled in the honors program at the participating university?

Ho4: There is no difference in Factor 3 scores (adaptability and ability to bounce back) on the Connor-Davidson Resilience scale among the three activity groups for students enrolled in the honors program at the participating university.

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship between the number of leadership activities and Factor 3 scores. The factor variable number of leadership activities included three levels: 0 to 4 activities, 5 to 9 activities, and 10 or

more activities. The dependent variable was the Factor 3 score. The ANOVA was not significant,  $F(2, 67) = .52$ ,  $p = .698$ . Therefore,  $H_{01}$  was retained. The strength of the relationship between number of leadership activities and Factor 3 scores as assessed by  $\eta^2$  was small ( $<.01$ ). The results indicate that the Factor 3 scores were not significantly related to the number of activities. Students who participated in more activities did not display higher Factor 3 scores. The means and standard deviations for the three activity groups are reported in Table 4 and the distribution of scores are shown in Figure 4

Table 4

*Means and Standard Deviations of Activity Groups*

Number of Activities	N	M	SD
0 to 4	43	20.91	2.29
5 to 9	17	20.35	2.69
10 or more	10	20.20	2.86

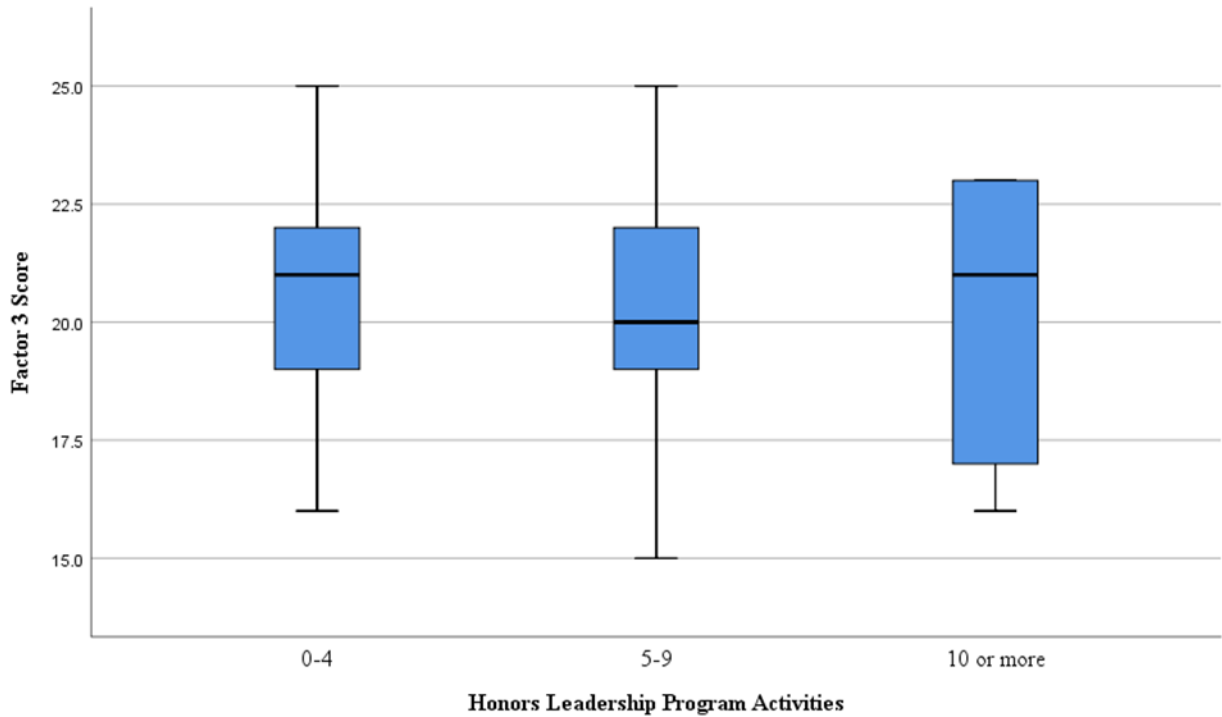


Figure 4. Factor 3 scores by number of activities.

### Research Question 5

Is there a significant difference in Factor 4 scores (control) on the Connor-Davidson Resilience scale among the three activity groups (0 to 4, 5 to 9, 10 or more) for students enrolled in the honors program at the participating university?

Ho5: There is no significant difference in Factor 4 scores (control) among the three activity groups for students enrolled in the honors program at the participating university.

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship between the number of leadership activities and Factor 4 scores. The factor variable number of leadership activities included three levels: 0 to 4 activities, 5 to 9 activities, and 10 or more activities. The dependent variable was the Factor 4 score. The ANOVA was not significant,  $F(2,$

67) = 1.06,  $p = .350$ . Therefore,  $H_01$  was retained. The strength of the relationship between number of leadership activities and Factor 4 scores, as assessed by  $\eta^2$ , was small ( $<.01$ ). The results indicate that the Factor 4 scores were not significantly related to the number of activities. Students who participated in more activities did not display higher Factor 4 scores. The means and standard deviations for the three activity groups are reported in Table 5 and the distribution of scores are show in Figure 5.

Table 5

*Means and Standard Deviations of Activity Groups*

Number of Activities	N	M	SD
0 to 4	43	23.56	3.63
5 to 9	17	24.71	2.66
10 or more	10	22.90	3.28

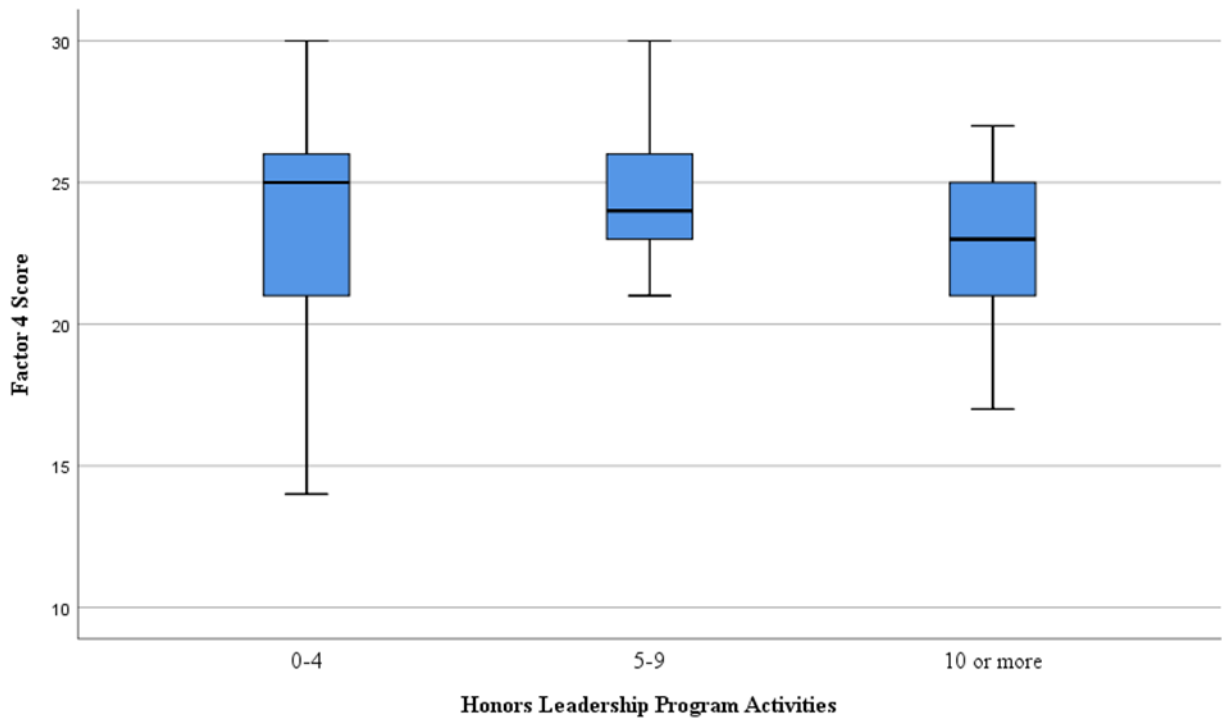


Figure 5. Factor 4 scores by number of activities.

### Research Question 6

Is there a significant difference in Factor 5 scores (spiritual influences) on the Connor-Davidson Resilience scale among the three activity groups (0 to 4, 5 to 9, 10 or more) for students enrolled in the honors program at the participating university?

Ho6: There is no significant difference in Factor 5 scores (spiritual influences) among the three activity groups for students enrolled in the honors program at the participating university.

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship between the number of leadership activities and Factor 5 scores. The factor variable number of leadership activities included three levels: 0 to 4 activities, 5 to 9 activities, and 10 or more activities. The dependent variable was the Factor 5 score. The ANOVA was not significant,  $F(2,$

67) = 1.35,  $p = .267$ . Therefore,  $H_01$  was retained. The strength of the relationship between number of leadership activities and Factor 5 scores, as assessed by  $\eta^2$ , was small ( $<.001$ ). The results indicate that the Factor 5 scores were not significantly related to the number of activities. Students who participated in more activities did not display higher Factor 5 scores. The means and standard deviations for the three activity groups are reported in Table 6 and the distribution of scores are shown in Figure 6.

Table 6

*Means and Standard Deviations of Activity Groups*

Number of Activities	N	M	SD
0 to 4	43	12.77	2.12
5 to 9	17	11.76	1.86
10 or more	10	12.70	2.79

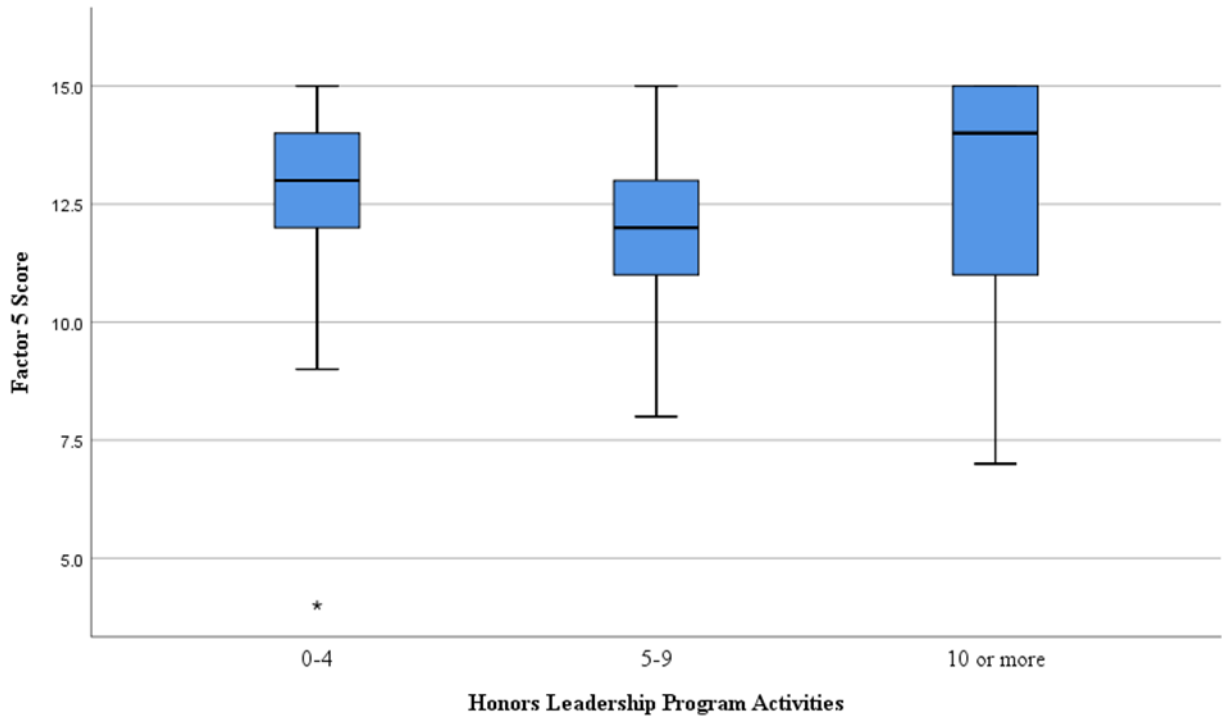


Figure 6. Factor 5 scores by number of activities.

### Research Question 7

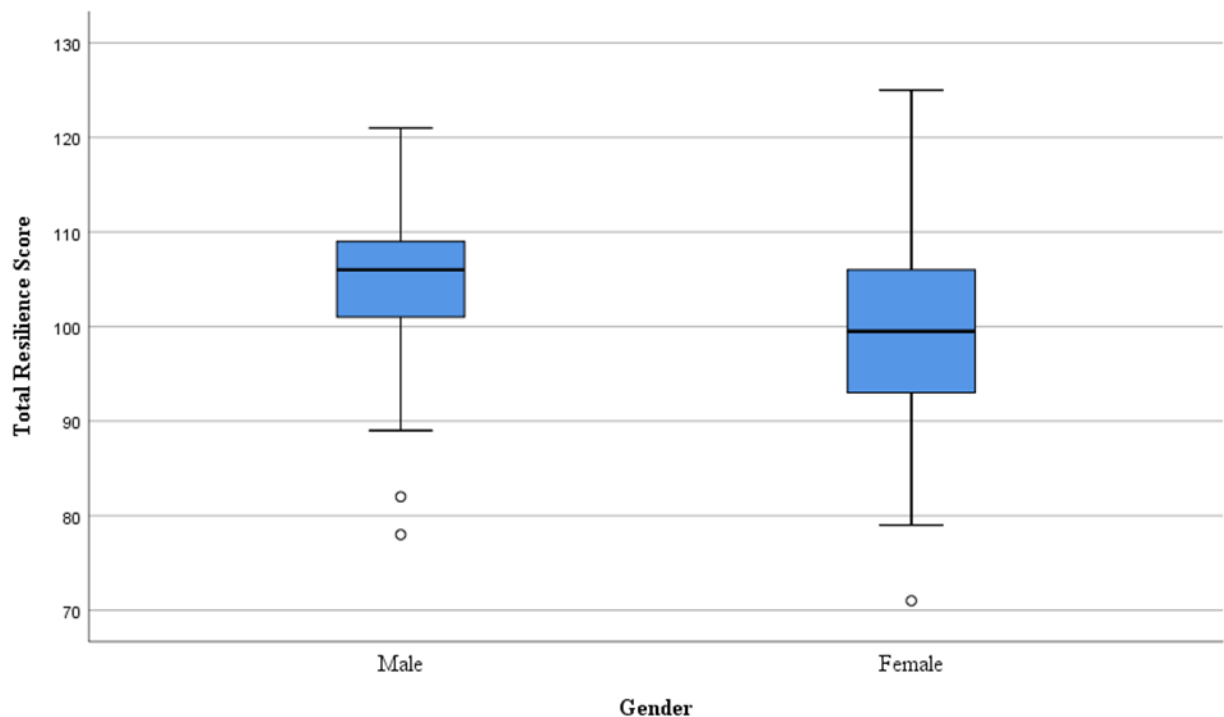
Is there as significant difference in resilience scores between male and female students enrolled in the honors program at the participating university?

Ho7: There is no significant difference in resilience scores between male and female students enrolled in the honors program at the participating university.

An independent-samples t test was conducted to evaluate whether the mean scores for females differed from the mean score for males. The mean resilience score was the test variable and the grouping variable was male or female. The test was not significant,  $t(68) = 14.66$ ,  $p < .001$ . Therefore, Ho1 was rejected. The  $\eta^2$  index was  $< .01$ , which indicated a small effect size. Female students ( $M = 99.42$ ,  $SD = 10.77$ ) tended to score lower than males ( $M = 103.29$ ,  $SD =$



12.03). The 95% confidence interval for the difference in means was 13.66 to 19.78. The means and standard deviations for males and females are shown in Table 7 and Figure 7 shows the distributions for the two groups.



*Figure 7.* Resilience scores by gender.

### **Research Question 8**

Is there a significant difference in resilience scores among freshmen and sophomore, juniors or seniors enrolled in the honors program at the participating university?

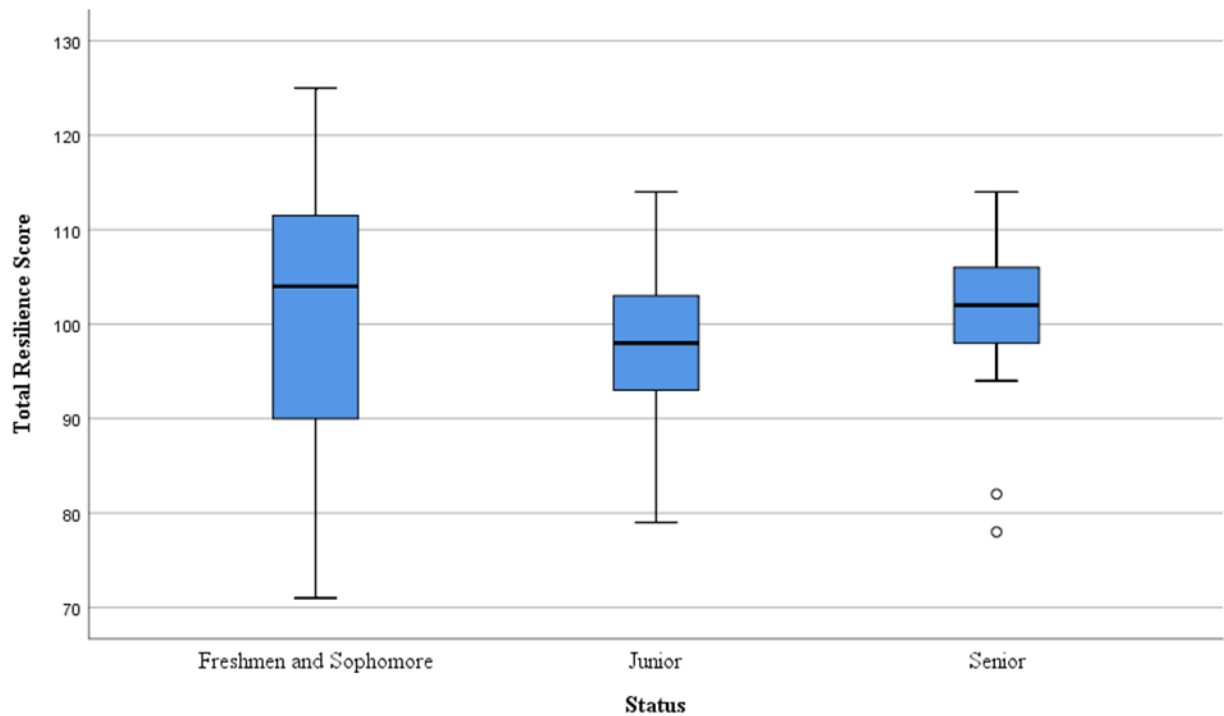
Ho8: There is no significant difference in resilience scores among freshmen and sophomore, juniors, and seniors enrolled in the honors program at the participating university.

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship between the resilience scores and class status. The factor variable class status included three levels: freshman or sophomore, junior, senior. The dependent variable was the resilience score. The ANOVA was not significant,  $F(2, 66) = .78$ ,  $p = .462$ . Therefore,  $H_01$  was retained. The strength of the relationship between status and resilience score as assessed by  $\eta^2$  was small ( $<.001$ ). The results indicate that the resilience scores were not significantly related to the academic classification. The means and standard deviations for the three activity groups are reported in Table 8 and the distribution of scores are shown in Figure 8.

Table 7

*Means and Standard Deviations of Status*

Status	N	M	SD
Freshmen and Sophomore	32	101.78	13.19
Junior	24	98.04	7.87
Senior	13	100.23	10.35



*Figure 8.* Resilience scores by status.

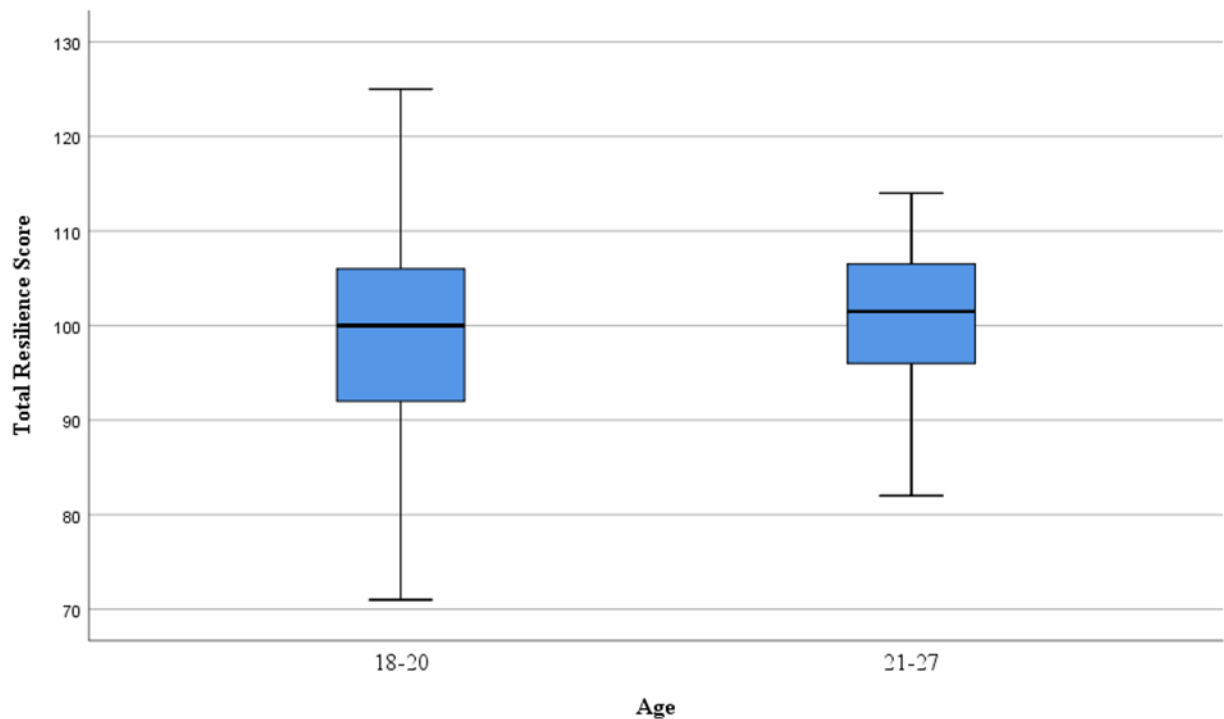
### Research Question 9

Is there as significant difference in resilience scores between the two age groups (18 to 20 years and 21 to 27 years) of students enrolled in the honors program at the participating university?

Ho 9: There is no significant difference in resilience scores between the two age groups (18 to 20 years and 21 to 27 years) of students enrolled in the honors program at the participating university.

An independent-samples t test was conducted to evaluate whether the mean scores for ages 18 to 20 differed from the mean score for ages 21 to 27. The mean resilience score was the test variable and the grouping variable was male or female. The test was not significant,  $t(67) =$

.67,  $p = .57$ . Therefore,  $H_0$  was rejected. The  $\eta^2$  index was  $< .01$ , which indicated a small effect size. Students ages 18 to 20 ( $M = 99.77$ ,  $SD = 11.77$ ) tended to score lower than students age 21 to 27 ( $M = 101.56$ ,  $SD = 8.37$ ). The 95% confidence interval for the difference in means was -8.11 to 4.53. The distribution of scores are shown in Figure 9.



*Figure 9.* Resilience scores by age.

## CHAPTER 5

### SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this quantitative research study was to determine if there were differences in scores on the Connor-Davidson Resilience Scale among undergraduate students involved in honors leadership programs at a 4-year university. The researcher sought to explore potential links between specially designed 4-year student leadership programs and resilience scores. Data were collected and analyzed from the Connor-Davidson Resilience Scale (Appendix A). The electronic survey link was provided to students during program meetings for each of the three leadership programs. Demographic data included number of leadership opportunities participants had engaged in as well as gender, age, and class status (freshman and sophomore, junior or senior). This chapter contains the findings, conclusions, and recommendations for practice and further research on the topic.

#### **Summary**

Data were gathered from 72 of the 130 students who were invited to participate in the study, resulting in a 55% response rate. Testing of the null hypotheses associated with the nine research questions resulted in no significant findings. Dependent variables were the total resilience score, and the five factors of resilience: persistence and tenacity; emotional and cognitive control; adaptability and ability to bounce back; control; and spiritual influences. Independent variables were the number of leadership programs completed, age, gender, and status (freshmen and sophomore, junior, and senior). The number of participants in the study was 72 undergraduate students enrolled a 4 year university. The level of significance used for the statistical test was .05.

The purpose of this quantitative research study was to determine if there were differences in scores on the Connor-Davidson Resilience Scale among undergraduate students involved in honors leadership programs at a 4 year university. Specifically, the study was an analysis of students' reported resilience scores of the students in relation to the number of leadership activities in which they participated to examine the potential impact of leadership practice on resilience levels of the students. The following conclusions were made based on the findings from the data from this study.

There was no significant difference in the total resilience scores among the three activity groups. Students who completed 0 to 4 leadership activities reported a mean resilience score of 99.93. Students who completed 5 to 9 leadership activities reported a mean resilience score of 101.38. Students who completed 10 or more leadership activities reported a mean resilience score of 99.40. In order to determine the difference in total resilience scores among the three activity groups, the average overall scores were compared.

The Factor 1 scores of persistence and tenacity were not significantly impacted by the number of leadership activities completed. The mean Factor 1 scores for students who completed 0 to 4 activities was 19.53. The mean score for students who completed 5 to 9 leadership activities was 20.29, while the mean score for students who completed 10 or more activities was 20.00. In order to determine the difference between the mean scores of the three subgroups for Factor 1, survey items 6, 12, 15, 23, and 25 were analyzed. A score of 30 points for the combined total of these items was the maximum possible points.

The Factor 2 scores of trust in instincts, tolerance of negative affect, and strengthening effect of stress were not significantly impacted by the number of leadership activities completed. The mean Factor 2 scores for respondents who reported 0 to 4 leadership activities was 23.16.

The mean Factor 2 scores for respondents who reported 5 to 9 leadership activities was 23.94. The mean Factor 2 scores for respondents who completed 10 or more leadership activities was 23.60. In order to determine the difference between the mean scores of the three subgroups for Factor 2, survey items 5, 7, 18, 19, 20, and 24 were analyzed. A score of 30 points for the combined total of these items was the maximum possible points.

The Factor 3 scores of positive acceptance of change and secure relationships were not significantly impacted by the number of leadership activities completed. The mean Factor 3 scores for students who completed 0 to 4 activities was 20.01. The mean score for students who completed 5 to 9 leadership activities was 20.35, while the mean score for students who completed 10 or more activities was 20.20. In order to determine the difference between the mean scores of the 3 subgroups for Factor 3, survey items 5, 7, 18, 19, and 24 were analyzed. A score of 25 points for the combined total of these items was the maximum possible points.

The Factor 4 scores of belief that you have control over life were not significantly impacted by the number of leadership activities completed. The mean Factor 4 scores for students who completed 0 to 4 activities was 23.56. The mean score for students who completed 5 to 9 leadership activities was 24.71, while the mean score for students who completed 10 or more activities was 22.90. In order to determine the difference between the mean scores of the 3 subgroups for Factor 4, survey items 4, 11, 13, 14, 17, and 22 were analyzed. A score of 30 points for the combined total of these items was the maximum possible points.

The Factor 5 scores of spirituality were not significantly impacted by the number of leadership activities completed. The mean Factor 5 scores for students who completed 0 to 4 activities was 12.77. The mean score for students who completed 5 to 9 leadership activities was 11.76, while the mean score for students who completed 10 or more activities was 12.70. In

order to determine the difference between the mean scores of the 3 subgroups for Factor 5, survey items 3, 9, and 21 were analyzed. A score of 15 points for the combined total of these items was the maximum possible points.

There was no significant difference found between total resilience scores of female and male participants. The mean score for male participants was 103.29, while the mean score for females was 99.42. The highest possible score was 150.

There was no significant difference in resilience scores among student status (freshman and sophomore, junior, senior). The mean score for freshman and sophomores was 101.78. The means score for juniors was 98.04, and the mean score for seniors was 100.23. The highest possible score was 150. Responses from seniors constituted less than one fourth of the responses. The majority of respondents were juniors, while the smallest number of responses came from sophomores.

An additional analysis performed by the researcher comparing the national average resilience score for female undergraduate college students and the average resilience score of the female respondents resulted in a significant difference in overall resilience scores between the two groups. The test value national average for female undergraduate students in the United States was 82.7, while the mean score for females in the participant group was 99.42 resulting statistically significant difference.

### **Conclusions**

Analysis of the results from this study regarding differences among varying numbers of leadership activities is consistent with research findings regarding the efficacy of leadership activities and student engagement. The participants in this study had engaged in mostly self-selected opportunities. Research has shown that college student involvement is determined by



the degree of both physical and psychological energy a student devotes to the academic experience. Student personal development and learning are directly proportional to their level of involvement in all aspects of the learning process (Cress et al., 2001).

While the mean scores among the three activity groups (0 to 4, 5 to 9, and 10 or more) were not significantly different, demographic findings demonstrated that 86% of respondents had completed 4 or fewer leadership activities. The limited number of responses for the 5 to 9 and 10 or more activity groups proved a limitation to providing solid conclusions regarding the impact of activities on resilience. Furthermore, the study's lack of specificity regarding types of activities completed, proved to limit further analysis. However, the high response rate of 0 to 4 leadership activities may align with findings of a study by Dugan and Komives (2007) in which results indicated growth over time. When assessed on the degree to which they are confident in their ability to participate in select leadership activities (leadership efficacy), students reported the highest degree of change in leadership efficacy. Student consciousness of self was also highly ranked in degree of change (Dugan & Komives, 2007).

Review of Factor 1 responses demonstrated that most respondents selected often true on these analyzed test items. Less than 5% of respondents reported rarely true or not true at all for these items. Masten and Obradovic (2006) considered positive adaptation as a second core concept of resiliency. Respondents' self-perceptions of persistence and tenacity, which are integral to positive adaptation, were highly positive in ratings among the analyzed questions.

Interestingly, the mean totals for Factor 2 for each of the three groups were slightly higher when compared to mean scores for Factors 1, 3, and 5. These findings are intriguing considering the consistently high stress levels of college students. Steinhardt and Dolbeir (2008) emphasized the numerous challenges and health implications of enduring significant stressors

such as intrapersonal, academic, interpersonal, and environmental changes during the transition to college continuously increase and result in psychological and health problems for college students. However, resilience may mediate the relationship between college stressors and student functioning (Kilbert et al., 2014; Lerner, 2006). Furthermore, Li and Yang (2016) asserted that active coping by college students was effectively predicted by trait resilience.

Review of Factor 3 responses found that 78.26% of the respondents reported having at least one close and secure relationship that helps when stressed. This finding draws an important parallel to research suggesting that external support systems encourage and reinforce coping skills (Ledesma, 2014). The literature on external variables connected to resilience has produced compelling and consistent findings demonstrating that confiding relationships during difficult times significantly impacts the individual's ability to be resilient (Ledesma, 2014; Masten, Cutuli, Herbers, & Reed, 2009).

Review of Factor 4 responses demonstrated that students who had completed 5 to 9 leadership activities scored slightly higher in Factor 4 than the 0 to 4 leadership activity subgroup. This particular can be supported by various research findings indicating that during any point in the human life span, the capacity of resilience is determined by the accumulation of life experiences (Patterson & Kelleher, 2005). Furthermore, research findings suggest that participation in leadership experiences and activities are integral components of the learning process and significantly impact the student's level of educational attainment and increased personal values (Cress et al., 2001).

Review of Factor 5 responses demonstrated the greatest variation in responses as compared to the other Factors. However, more than half of respondents selected "true nearly all

the time” for all 3 spirituality items. Hartley (2011) cited the buffering effect that protective factors such as spirituality can have on the negative impacts of risk.

Consistent with the demographic make-up of the university the students attend, significantly more females responded to the survey than males. Of the participants, 73.24% were female, 23.94% were male, and 2.82% identified as other. Analysis showed a higher mean score for males than females which may correspond with research suggesting that female college students demonstrate lower levels of academic self-concept (Gutman, Schoon, & Sebates, 2012; Mello, 2008; Schoon, Martin, & Ross, 2007). Additionally, these results are consistent with Connor and Davidson’s (2013) shared national findings indicating that female college students score slightly lower than males on the Connor-Davidson Resilience Scale (CD-Risc).

### **Recommendations for Practice**

This study has highlighted several recommendations for college student leadership program development. Additionally, this study has highlighted points of consideration for college student support and retention efforts across university settings.

1. Leadership program development personnel should seek innovative and multi-faceted approaches to program development. Opportunities should include service learning, experiential activities, and collaborative projects. Furthermore, leadership opportunities should be varied in leadership approach and should be diverse in their purpose. For example, students should be provided the opportunity to practice leadership in a variety of settings, with varied complexity of tasks, and with diverse interactions. Purposeful structuring of student leadership programs that encourage a wide variety of contextual experiences will prepare students for responsible resilient leadership (Dugan, 2006).

2. Activities that promote resilience should be imbedded in leadership development programming and resources, course design, and instructor professional development. It is imperative that college and university faculty and personnel recognize the need for resilient leaders moving forward into the workforce. Resilience has proven to be a major contributing factor to future leadership success. There are powerful links between resilient leadership and academic success, future leadership success, and long-term job satisfaction (Ledesma, 2014). Also, research regarding leadership programming for college students points toward the necessity for resilience promoting learning opportunities as a means for improving student success (Frost & Kay, 2015; Valiente, Swanson, & Eisenburg, 2014).
3. College student services personnel should consider multifaceted approaches to supporting college students that take into consideration both internal and external factors that enhance individual ability to thrive in the college setting. Fluctuation in student expectations and decline in occupational expectations between the ages of 20 and 26 (Gutman et al., 2017) suggests the need for concentrated efforts to build students' coping skills which will in turn promote overall resilience. Services for college students should be designed to support social, emotional, and spiritual needs of students. Additionally, challenging opportunities which will encourage endurance, problem-solving, and collaboration will support overall resilience for all students. While across the nation colleges and universities are cultivating leadership programs for motivated and high achieving students that provide unique opportunities for students to participate in activities that teach and promote leadership skills (Frost & Kay, 2015), resilience and leadership building opportunities are necessary for all students at all academic levels. It

is especially vital that struggling students be provided with opportunities to grow in resilience to help better ensure future success.

### **Recommendations for Further Research**

The research produced from this study has emphasized areas of recommendation for further research.

1. Resilience is essential to success in all aspects of a human's life. Well adapted individuals demonstrate resilience in their ability to successfully adapt and thrive in an ever-evolving world. Also, it has been established that resilience has staying power within brain structures and from a behavioral standpoint. Future researchers should consider expanding on the practical aspects of resilience building. The exploration of which specific actions produce the highest levels of adaptability. Furthermore, education research should be updated regularly and rapidly to keep up with the discoveries of brain research with regard to resilience.
2. There is need for diverse explorations of the role of resilience in leadership potential. Furthermore, resilience development as a goal for student growth must be explored through analysis of effective strategies for building resilient professionals. Prior research has established the importance of resilience, the factors and dimensions of resilience, and the link between resilience and adaptability; however, there is a need for outlining new and innovative practical exercises, specific experiences, and hands-on approaches to building resilience.
3. The field of resilience research would benefit from qualitative studies to explore attitudes and perceptions as well as explore the impact of life experience, social issues, and varied demographics on resilience development. Longitudinal studies designed to track long-

term resilience outcomes would serve to fill a gap in the literature regarding resilience over time. Furthermore, longitudinal studies considering leadership and career attrition outcomes would benefit leadership theory, resilience theory, and resilient leadership theory development.

4. Further research regarding resilience and leadership program development should include a variety of settings to include 4 year public universities, community colleges, and dual enrollment high school programs. Further research designs using propensity score analysis could address potential selection bias as well as enhance the maturation of the studies.

## REFERENCES

- Allen, S. J., & Hartman, N. S. (2009). Sources of learning in student leadership development programming. *Journal of Leadership Studies*, 3(3), 6-16. doi:10.1002/jls.112019
- Arond-Thomas, M. (2004). Resilient leadership for challenging times. *Physician Executive*, 30(4), 18. Retrieved July 12, 2018 from <https://search.proquest.com/docview/199984879?pq-origsite=gscholar>
- Arnold, K. A., & Connelly, C. E. (2013). Transformational leadership and psychological well-being: Effects on followers and leaders. In H. S. Leonard, R. Lewis, A. M. Freedman, J. Passmore, H. S. Leonard, R. Lewis, ... J. Passmore (Eds.), *The Wiley-Blackwell handbook of the psychology of leadership, change, and organizational development* (pp. 175-194). Wiley-Blackwell. doi:10.1002/9781118326404.ch9
- Avey, J. B., Hughes, L. W., Norman, S. M., & Luthans, K. W. (2008). Using positivity, transformational leadership and empowerment to combat employee negativity. *Leadership & Organization Development Journal*, 29(2), 110-126. Retrieved July 12, 2018 from <https://www.emeraldinsight.com/doi/abs/10.1108/01437730810852470>
- Avey, J. B., Reichard, R. J., Luthans, F., & Mhatre, K. H. (2011). Meta-analysis of the impact of positive psychological capital on employee attitudes, behaviors, and performance. *Human Resource Development Quarterly*, 22(2), 127-152. Retrieved July 10, 2018 from [https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1146&context=managementf\\_acpub](https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1146&context=managementf_acpub)
- Avolio, B. J., & Gardner, W. L. (2005). Authentic leadership development: Getting to the root of positive forms of leadership. *The Leadership Quarterly*, 16(3), 315-338. Retrieved July 12, 2018 from <https://www.sciencedirect.com/science/article/pii/S1048984305000263>
- Beetham, H., McGill, L., & Littlejohn, A. (2009). Thriving in the 21st century: Learning literacies for the digital age (LLiDA project): Executive Summary, Conclusions and recommendations. Retrieved March 15, 2018 from <http://oro.open.ac.uk/52237/1/llidaexecsumjune2009.pdf>
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. London, England: MacMillan.
- Benight, C. C., & Cieslak, R. (2011). and resilience: how self-efficacy contributes to coping with. Resilience and mental health: Challenges across the lifespan, 45. Retrieved July 10, 2018 from [https://books.google.com/books?hl=en&lr=&id=IY2GRuIPCiMC&oi=fnd&pg=PA45&dq=Benight,+C.+C.,+%26+Cieslak,+R.+\(2011\).+and+resilience:+how+self-efficacy+contributes+to+coping+with.+Resilience+and+mental+health:+Challenges+across+the+lifespan,+45.+&ots=nr0yu1w7Dw&sig=llOH9FGlZgB8gqjSijgUbOGPvUM#v=onepage&q&f=false](https://books.google.com/books?hl=en&lr=&id=IY2GRuIPCiMC&oi=fnd&pg=PA45&dq=Benight,+C.+C.,+%26+Cieslak,+R.+(2011).+and+resilience:+how+self-efficacy+contributes+to+coping+with.+Resilience+and+mental+health:+Challenges+across+the+lifespan,+45.+&ots=nr0yu1w7Dw&sig=llOH9FGlZgB8gqjSijgUbOGPvUM#v=onepage&q&f=false)

- Bjorklund-Young, A. What do we know about developing students' non-Cognitive skills? Retrieved March 15, 2018 from <http://archive.education.jhu.edu/archives-SL/edpolicy/commentary/noncog>
- Bodin, P., & Wiman, B. (2004). Resilience and other stability concepts in ecology: Notes on their origin, validity, and usefulness. *ESS bulletin*, 2(2), 33-43. Retrieved July 7, 2018 from [https://www.researchgate.net/profile/Per\\_Bodin/publication/236208772\\_Resilience\\_and\\_Other\\_Stability\\_Concepts\\_in\\_Ecology\\_Notes\\_on\\_their-Origin-Validity\\_and\\_Usefulness/links/0c960516faf19c9a03000000.pdf](https://www.researchgate.net/profile/Per_Bodin/publication/236208772_Resilience_and_Other_Stability_Concepts_in_Ecology_Notes_on_their-Origin-Validity_and_Usefulness/links/0c960516faf19c9a03000000.pdf)
- Bolton, K. W., Praetorius, R. T., & Smith-Osborne, A. (2016). Resilience protective factors in an older adult population: A Qualitative Interpretive Meta-Synthesis. *Social Work Research*, 40(3), 171-182. doi:10.1093/swr/svw008
- Bonanno, G. A. (2004). Loss, trauma, and human resilience: Have we underestimated the human capacity to thrive after extremely aversive events?. *American Psychologist*, 59(1), 20. Retrieved July 11, 2018 from <http://psycnet.apa.org/record/2004-10043-003>
- Campbell-Sills, L., Cohan, S. L., & Stein, M. B. (2006). Relationship of resilience to personality, coping, and psychiatric symptoms in young adults. *Behaviour Research and Therapy*, 44(4), 585-599. Retrieved July 13, 2018 from <https://www.sciencedirect.com/science/article/pii/S000579670500104X>
- Cicchetti, D., & Blender, J. A. (2006). A multiple-levels-of-analysis perspective on resilience: implications for the developing brain, neural plasticity, and preventive interventions. *Annals of the New York Academy of Sciences*, 1094(1), 248-258. Retrieved July 6, 2018 from <https://nyaspubs.onlinelibrary.wiley.com/doi/abs/10.1196/annals.1376.029>
- Chen, S. (2005). Changing college students' psychological constructs of learning influences their academic performances. *College Student Journal*, 39(1), 48-59. Retrieved July 13, 2018 from <http://eds.a.ebscohost.com/abstract?site=eds&scope=site&jrnl=01463934&AN=16663181&h=PUeGVNqcIW6v6hAmgQ6BlaOsr31%2fnvvD7pwPilk2RyqRgMVusFZEcE04v4ttIR5XwprzT90INrWTH8Mn5ZK%2fag%3d%3d&crl=f&crawlloc=cf%3az%2f0204546075&crawllib=RD200503.LIB&resultLocal=ErrCrlNoResults&resultNs=Ehost&crlhashurl=login.aspx%3fdirect%3dtrue%26profile%3dehost%26scope%3dsite%26authtype%3dcrawler%26jrnl%3d01463934%26AN%3d16663181>
- Connor, K. M., & Davidson, J. R. (2003). Development of a new resilience scale: The Connor-Davidson resilience scale (CD-RISC). *Depression and Anxiety*, 18(2), 76-82. doi:10.1002/da.10113



- Cress, C. M., Astin, H. S., Zimmerman-Oster, K., & Burkhardt, J. C. (2001). Developmental outcomes of college students' involvement in leadership activities. *Journal of College Student Development*. Retrieved July 12, 2018 from [https://search-proquest-com.iris.etsu.edu:3443/docview/195181299?accountid=10771&rfr\\_id=info%3Axri%2Fsid%3Aprim0](https://search-proquest-com.iris.etsu.edu:3443/docview/195181299?accountid=10771&rfr_id=info%3Axri%2Fsid%3Aprim0)
- Curtis, W. J., & Cicchetti, D. (2003). Moving research on resilience into the 21st century: Theoretical and methodological considerations in examining the biological contributors to resilience. *Development and Psychopathology*, 15(3), 773-810. Retrieved July 6, 2018 from <https://www.cambridge.org/core/journals/development-and-psychopathology/article/moving-research-on-resilience-into-the-21st-century-theoretical-and-methodological-considerations-in-examining-the-biological-contributors-to-resilience/6EFB46A83B407D407FBF9662E195165E>
- Daniels, J. K., Hegadoren, K. M., Coupland, N. J., Rowe, B. H., Densmore, M., Neufeld, R. W., & Lanius, R. A. (2012). Neural correlates and predictive power of trait resilience in an acutely traumatized sample: A pilot investigation. *The Journal of Clinical Psychiatry*. Retrieved July 13, 2018 from <http://psycnet.apa.org/record/2013-13620-014>
- Dartey-Baah, K. (2015). Resilient leadership: A transformational-transactional leadership mix. *Journal of Global Responsibility*, 6(1), 99-112. Retrieved July 12, 2018 from <https://www.emeraldinsight.com/doi/abs/10.1108/JGR-07-2014-0026>
- Davis, M. C., Luecken, L., & Lemery-Chalfant, K. (2009). Resilience in common life: Introduction to the special issue. *Journal of Personality*, 77(6), 1637-1644. Retrieved July 10, 2018 from <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1467-6494.2009.00595.x>
- Davydov, D. M., Stewart, R., Ritchie, K., & Chaudieu, I. (2010). Resilience and mental health. *Clinical Psychology Review*, 30(5), 479-495. Retrieved July 13, 2018 from [http://www.hal.inserm.fr/file/index/docid/534325/filename/Davydov\\_Clin\\_Psychol\\_Rev\\_30\\_479.pdf](http://www.hal.inserm.fr/file/index/docid/534325/filename/Davydov_Clin_Psychol_Rev_30_479.pdf)
- Diehl, M., & Hay, E. L. (2010). Risk and resilience factors in coping with daily stress in adulthood: The Role of Age, Self-Concept Incoherence, and Personal Control. *Developmental Psychology*, 46(5), 1132-1146.
- Dugan, J. P. (2006). Explorations using the social change model: Leadership development among college men and women. *Journal of college student development*, 47(2), 217-225. Retrieved July 10, 2018 from [https://www.researchgate.net/profile/John\\_Dugan2/publication/236774426\\_Explorations\\_Using\\_the\\_Social\\_Change\\_Model\\_Leadership\\_Development\\_among\\_College\\_Men\\_and\\_Women/links/570fcaac08ae19b18693838c/Explorations-Using-the-Social-Change-Model-Leadership-Development-among-College-Men-and-Women.pdf](https://www.researchgate.net/profile/John_Dugan2/publication/236774426_Explorations_Using_the_Social_Change_Model_Leadership_Development_among_College_Men_and_Women/links/570fcaac08ae19b18693838c/Explorations-Using-the-Social-Change-Model-Leadership-Development-among-College-Men-and-Women.pdf)

- Dugan, J. P., & Komives, S. R. (2007). *Developing leadership capacity in college students*. College Park, MD: National Clearinghouse for Leadership Programs. Retrieved July 10, 2018 from [https://www.researchgate.net/profile/John\\_Dugan2/publication/237536892\\_Developing\\_Leadership\\_Capacity\\_In\\_College\\_Students\\_Findings\\_From\\_a\\_National\\_Study/links/570fca6a08ae68dc79096a74/Developing-Leadership-Capacity-In-College-Students-Findings-From-a-National-Study.pdf](https://www.researchgate.net/profile/John_Dugan2/publication/237536892_Developing_Leadership_Capacity_In_College_Students_Findings_From_a_National_Study/links/570fca6a08ae68dc79096a74/Developing-Leadership-Capacity-In-College-Students-Findings-From-a-National-Study.pdf)
- Fletcher, D., & Sarkar, M. (2013). Psychological resilience: A review and critique of definitions, concepts, and theory. *European Psychologist*, 18(1), 12-23. doi:10.1027/1016-9040/a000124
- Frost, L., & Kay, L. W. (2015). Where honors lives: Results from a survey of the structures and spaces of US honors programs and colleges. Retrieved May 20, 2018 from <https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1008&context=nchcmonochap>
- Freeman, T. M., Anderman, L. H., & Jensen, J. M. (2007). Sense of belonging in college freshmen at the classroom and campus levels. *The Journal of Experimental Education*, 75(3), 203-220. Retrieved July 13, 2018 from <https://www.tandfonline.com/doi/abs/10.3200/JEXE.75.3.203-220>
- Gray, P. (2015, September). Declining student resilience: A serious problem for colleges. *Psychology Today*. Retrieved from <https://www.psychologytoday.com/us/blog/freedom-learn/201509/declining-student-resilience-serious-problem-colleges>
- Gutman, L., Peck, S., Malanchuk, O., Sameroff, A., & Eccles, J. (2017). IV: *Psychological well-being*. Monographs of the Society for Research in Child Development, 82(4), 70-82. doi:10.1111/mono.12330
- Gutman, L. M., Schoon, I., & Sabates, R. (2012). Uncertain aspirations for continuing in education: Antecedents and associated outcomes. *Developmental Psychology*, 48(6), 1707. doi: 10.1037/a0026547
- Harland, L., Harrison, W., Jones, J. R., & Reiter-Palmon, R. (2005). Leadership behaviors and subordinate resilience. *Journal of Leadership & Organizational Studies*, 11(2), 2-14. Retrieved July 10, 2018 from <https://digitalcommons.unomaha.edu/cgi/viewcontent.cgi?article=1062&context=psychfacpub>
- Hartley, M. T. (2011). Examining the relationships between resilience, mental health, and academic persistence in undergraduate college students. *Journal of American College Health*, 59(7), 596-604. Retrieved July 10, 2018 from <https://www.tandfonline.com/doi/abs/10.1080/07448481.2010.515632>

- Hochanadel, A., & Finamore, D. (2015). Fixed and growth mindset in education and how grit helps students persist in the face of adversity. *Journal of International Education Research*, 11(1), 47. Retrieved June 14, 2018 from <https://files.eric.ed.gov/fulltext/EJ1051129.pdf>
- Hu, Zhang, & Wang. (2015). A meta-analysis of the trait resilience and mental health. *Personality and Individual Differences*, 76(C), 18-27. doi:10.1016/2014.11.1399
- Jackson, D., Firtko, A., & Edenborough, M. (2007). Personal resilience as a strategy for surviving and thriving in the face of workplace adversity: a literature review. *Journal of advanced nursing*, 60(1), 1-9. Retrieved July 10, 2013 from <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1365-2648.2007.04412.x>
- Joyce, S., Shand, F., Tighe, J., Laurent, S. J., Bryant, R. A., & Harvey, S. B. (2018). Road to resilience: a systematic review and meta-analysis of resilience training programmes and interventions. *BMJ Open*, 8(6), e017858. Retrieved July 13, 2018 from <https://bmjopen.bmj.com/content/8/6/e017858>
- Kan, D. B., & Reichard, R. J. (2009). Student selection criteria in undergraduate leadership education programs. *Educational Considerations*, 37(1), 56-58. Retrieved July 10, 2018 from <https://newprairiepress.org/cgi/viewcontent.cgi?referer=https://scholar.google.com/&httpsredir=1&article=1145&context=edconsiderations>
- Kautz, T., Heckman, J. J., Diris, R., Ter Weel, B., & Borghans, L. (2014). Fostering and measuring skills: Improving cognitive and non-cognitive skills to promote lifetime success (No. w20749). *National Bureau of Economic Research*. Retrieved June 10, 2018 from <https://www.econstor.eu/bitstream/10419/107477/1/dp8696.pdf>
- Ketchen Lipson, S., Gaddis, S. M., Heinze, J., Beck, K., & Eisenberg, D. (2015). Variations in student mental health and treatment utilization across US colleges and universities. *Journal of American College Health*, 63(6), 388-396.
- Kilbert, J., Lamis, D. A., Collins, W., Smalley, K. B., Warren, J. C., Yancey, C. T., & Winterowd, C. (2014). Resilience mediates the relations between perfectionism and college student distress. *Journal of Counseling & Development*, 92(1), 75-82. doi:10.1002/j.1556-6676.2014.00132.x
- Ledesma, J. (2014). *Conceptual frameworks and research models on resilience in leadership*. /Sage Open, 4(3), 2158244014545464. doi:10.1177/2158244014545464
- Lerner, R. M. (2006). Resilience as an attribute of the developmental system: Comments on the papers of Professors Masten & Wachs. *Annals of the New York Academy of Sciences*, 1094(1), 40-51. doi:10.1196/annals.1376.005

- Li, M., & Yang, Y. (2016). A cross-cultural study on a resilience-stress path model for college students. *Journal of Counseling & Development*, 94(3), 319-332.
- Luthans, F., & Youssef, C. M. (2007). Emerging positive organizational behavior. *Journal of Management*, 33(3), 321-349. Retrieved July 12, 2018 from <https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1007&context=leadershipfacpub>
- Luthar, S. S. (2015). Resilience in development: A synthesis of research across five decades. *Developmental Psychopathology: Volume Three: Risk, Disorder, and Adaptation*, 739-795. Retrieved July 6, 2018 from <https://onlinelibrary-wiley-com.iris.etsu.edu:3443/action/doSearch?AllField=Resilience+in+Development%3A+A+Synthesis+of+Research+across+Five+Decades>
- Luthar, S. S. (2003). *Resilience and vulnerability: Adaptation in the context of childhood adversities*. Cambridge, U.K.: Cambridge University Press.
- Luthar, S., Cicchetti, D., & Becker, B. (2000). The Construct of Resilience: A critical evaluation and guidelines for future work. *Child Development*, 71(3), 543-562.
- Maddi, S. R. (2008). *The courage and strategies of hardiness as helpful in growing despite major, disruptive stresses*. Retrieved July 13, 2018 from <http://psycnet.apa.org/record/2008-12151-014>
- Maier, S. F., & Watkins, L. R. (2010). Role of the medial prefrontal cortex in coping and resilience. *Brain Research*, 1355, 52-60. Retrieved July 6, 2018 from <https://www.sciencedirect.com/science/article/pii/S0006899310018214>
- Marthers, P. (2017, December). How some colleges are building student resilience and grit. *Academic Impressions*. Retrieved June 10, 2018 from <https://www.academicimpressions.com/building-student-resilience-grit/>
- Masten, A. S. (2009). Ordinary magic: Lessons from research on resilience in human development. *Education Canada*, 49(3), 28-32. Retrieved July 10, 2018 from <https://eric.ed.gov/?id=EJ868694>
- Masten, A. S., Cutuli, J. J., Herbers, J. E., & Reed, M. G. (2009). 12 Resilience in Development. *The Oxford Handbook of Positive Psychology*, 117.
- Masten, A. S., & Obradović, J. (2006). Competence and resilience in development. *Annals of the New York Academy of Sciences*, 1094(1), 13-27. Retrieved July 10, 2018 from <https://nyaspubs.onlinelibrary.wiley.com/doi/abs/10.1196/annals.1376.003>

- McMillan, J.H. & Schumacher, S. (2010). *Research in education: Evidence based inquiry* (7th ed.). Boston, MA: Pearson Education. (ISBN 0137152396)
- Mello, Z. R. (2008). Gender variation in developmental trajectories of educational and occupational expectations and attainment from adolescence to adulthood. *Developmental Psychology*, 44(4), 1069. Retrieved May 10, 2018 from <https://pdfs.semanticscholar.org/1cac/467e3c70ceb974c6db026d0012e2e25b214f.pdf>
- Miller, S.M., Dodd, A. & Fiala, K.A. (2014). Comparing protective factors and resilience among classroom-based teachers and community-based educators. *Education*, 134 (4), 548-558.
- Mills, H. & Dombeck, M. (2015, June). Resilience: Control. *MentalHelp.net*. Retrieved June 10, 2018 from <https://www.mentalhelp.net/articles/resilience-control/>
- Miremadi, D. (2015). NASPA. Student resilience and healthy coping are key to student well-being. Retrieved June 12, 2018 from <https://www.naspa.org/about/blog/student-resilience-and-healthy-coping-are-key-to-student-well-being>
- Moore, B., & Woodcock, S. (2017). Resilience, bullying, and mental health: Factors associated with improved outcomes. *Psychology in the Schools*, 54(7), 689-702. doi:10.1002/pits.22028
- Morales, E. E., & Trotman, F. K. (2005). *Promoting academic resilience in multicultural America: Factors affecting student success* (Vol. 29). Peter Lang. Retrieved June 12, 2018 from [https://books.google.com/books?hl=en&lr=&id=BDQHwOksIWAC&oi=fnd&pg=PR7&dq=resilience+and+student+success&ots=D4wXM3Xxbi&sig=dUnaGF-Q2VeMZ\\_An7ewo5scEFNk#v=onepage&q=resilience%20and%20student%20success&f=false](https://books.google.com/books?hl=en&lr=&id=BDQHwOksIWAC&oi=fnd&pg=PR7&dq=resilience+and+student+success&ots=D4wXM3Xxbi&sig=dUnaGF-Q2VeMZ_An7ewo5scEFNk#v=onepage&q=resilience%20and%20student%20success&f=false)
- National Education Association (n.d.). *Preparing 21st century students for a global society*. Retrieved May 20, 2018 from <http://www.nea.org/assets/docs/A-Guide-to-Four-Cs.pdf>
- Nishikawa, Y. (2006). Thriving in the face of adversity: Perceptions of elementary school principals (Doctoral dissertation, University of La Verne).
- O'Leary, V. E. (1998). Strength in the face of adversity: Individual and social thriving. *Journal of Social Issues*, 54(2), 425-446. Retrieved July 6, 2018 from <https://spssi.onlinelibrary.wiley.com/doi/pdf/10.1111/j.1540-4560.1998.tb01228.x>
- Ovans, A. (2015). Harvard Business Review. What resilience means, and why it matters. Retrieved June 14, 2018 from <https://hbr.org/2015/01/what-resilience-means-and-why-it-matters>

- Patterson, J. L., & Kelleher, P. (2005). *Resilient School Leaders: Strategies for turning adversity into achievement*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Patton, L. D., Renn, K. A., Guido, F. M., & Quaye, S. J. (2016). *Student Development in College: Theory, Research, and Practice*. Hoboken, NJ. John Wiley & Sons
- Pech, M. (2017). Keys to resilience at ANU: An exploration into student resilience approaches and needs. *Journal of the Australian & New Zealand Student Services Association*, (49), 72-80.
- Perry, B. D. (2002). How children become resilient. *Scholastic Parent & Child*, 10(2), 33.
- Pittman, L. D., & Richmond, A. (2008). University belonging, friendship quality, and psychological adjustment during the transition to college. *The Journal of Experimental Education*, 76(4), 343-362. Retrieved July 13, 2018 from [https://www.researchgate.net/profile/Laura\\_Pittman/publication/254346929\\_University\\_Belonging\\_Friendship\\_Quality\\_and\\_Psychological\\_Adjustment\\_During\\_the\\_Transition\\_to\\_College/links/569ceb2408ae8f8ddc70b235.pdf](https://www.researchgate.net/profile/Laura_Pittman/publication/254346929_University_Belonging_Friendship_Quality_and_Psychological_Adjustment_During_the_Transition_to_College/links/569ceb2408ae8f8ddc70b235.pdf)
- Reed, D. E., & Blaine, B. (2015). Resilient women educational leaders in turbulent times: Applying the leader resilience profile to assess women's leadership strengths. *Planning & Changing*, 46(3/4), 459-468.
- Resilient Leadership LLC (2015). *Resilient Leadership*. Retrieved May 20, 2018 from [http://ugspace.ug.edu.gh/bitstream/handle/123456789/21551/Resilient%20Leadership\\_A%20Transformational\\_Transactional%20Leadership%20mix.pdf?sequence=1](http://ugspace.ug.edu.gh/bitstream/handle/123456789/21551/Resilient%20Leadership_A%20Transformational_Transactional%20Leadership%20mix.pdf?sequence=1)
- Rich, B. L., Lepine, J. A., & Crawford, E. R. (2010). Job engagement: Antecedents and effects on job performance. *Academy of Management Journal*, 53(3), 617-635.
- Reich, J. W., Zautra, A. J., & Hall, J. S. (Eds.). (2010). *Handbook of Adult Resilience*. New York, NY: Guilford Press
- Rosen, R. (2014). Six pillars of leadership. *Leadership Excellence Essentials*, 31(2), 18-19.
- Rosenbaum P. (2017). Resilience in College Students, *Journal of College Student Psychotherapy*, 31:2, 91-92, doi:10.1080/87568225.2017.1297640
- Schoon, I., Martin, P., & Ross, A. (2007). Career transitions in times of social change. His and her story. *Journal of Vocational Behavior*, 70(1), 78-96. Retrieved July 10, 2018 from <https://www.ifs.org.uk/caytpubs/schoon11.pdf>



- Shaw, P. S. (2016). Commentary: Mapping the young, resilient brain -reflections on Burt et al. (2016). *Journal of Child Psychology & Psychiatry*, 57(12), 1465-1466. doi:10.1111/jcpp.12613
- Southwick, S. M., Litz, B. T., Charney, D., & Friedman, M. J. (Eds.). (2011). *Resilience and mental health: Challenges across the lifespan*. Cambridge University Press. Retrieved July 10, 2018 from [https://books.google.com/books?hl=en&lr=&id=IY2GRuIPCiMC&oi=fnd&pg=PR3&dq=Southwick,+S.+M.,+Litz,+B.+T.,+Charney,+D.,+%26+Friedman,+M.+J.+\(Eds.\).+\(2011\).+Resilience+and+mental+health:+Challenges+across+the+lifespan.+Cambridge+University+Press.&ots=nr0yu1x4Ct&sig=fqSxKGScD4uUJTIE6Dnl7mMgjitc#v=onepage&q&f=false](https://books.google.com/books?hl=en&lr=&id=IY2GRuIPCiMC&oi=fnd&pg=PR3&dq=Southwick,+S.+M.,+Litz,+B.+T.,+Charney,+D.,+%26+Friedman,+M.+J.+(Eds.).+(2011).+Resilience+and+mental+health:+Challenges+across+the+lifespan.+Cambridge+University+Press.&ots=nr0yu1x4Ct&sig=fqSxKGScD4uUJTIE6Dnl7mMgjitc#v=onepage&q&f=false)
- Snapp, S., Hensley-Choate, L. I., & Ryu, E. (2012). A body image resilience model for first-year college women. *Sex Roles*, 67(3-4), 211-221. doi:10.1007/s11199-012-0163-1
- Steinhardt, M., & Dolbier, C. (2008). Evaluation of a resilience intervention to enhance coping strategies and protective factors and decrease symptomatology. *Journal of American College Health*, 56(4), 445-453.
- Thompson, M. M., & Torres, V. (2012). Gender Differences among contributing leadership development resources. *Journal of College Student Development*, 53(3), 472-476. doi:10.353/csd.2012.0047
- Ungar, M. (2004). A constructionist discourse on resilience: Multiple contexts, multiple realities among at-risk children and youth. *Youth & Society*, 35(3), 341-365. doi:10.1177/0044118X03257030
- Ungar, M. (2008). Putting resilience theory into action: Five principles for intervention. *Resilience in Action*, 17, 38. Retrieved July 10, 2018 from [https://s3.amazonaws.com/academia.edu.documents/31724873/Applied\\_theory-Putting\\_Resilience\\_Theory\\_into\\_Action.pdf?AWSAccessKeyId=AKIAIWOWYYGZ2Y53UL3A&Expires=1555350619&Signature=qLgVNvO3NGBoLe9%2Bkf%2Fmy4fOdtA%3D&response-content-disposition=inline%3B%20filename%3DPutting\\_Resilience\\_Theory\\_into\\_Action\\_Fi.pdf](https://s3.amazonaws.com/academia.edu.documents/31724873/Applied_theory-Putting_Resilience_Theory_into_Action.pdf?AWSAccessKeyId=AKIAIWOWYYGZ2Y53UL3A&Expires=1555350619&Signature=qLgVNvO3NGBoLe9%2Bkf%2Fmy4fOdtA%3D&response-content-disposition=inline%3B%20filename%3DPutting_Resilience_Theory_into_Action_Fi.pdf)
- Wagner, W. E. (2016). *Leadership for a better world: Understanding the social change model of leadership development*. Hoboken, NJ: John Wiley & Sons.
- Werner, E. E. (2004). Journeys from childhood to midlife: Risk, resilience, and recovery. *Pediatrics*, 114(2), 492-492. Retrieved July 6, 2018 from <http://pediatrics.aappublications.org/content/114/2/492.1>

- Woodard, D. (1994). Leadership challenges, 2002. *New Directions for Student Services*, (66), 91-99. doi:10.1002/ss.37119946609
- Yates, T. M., Tyrell, F. A. N. I. T. A., & Masten, A. S. (2015). Resilience theory and the practice of positive psychology from individuals to societies. *Positive Psychology in Practice: Promoting Human Flourishing in Work, Health, Education, and Everyday Life*, 773-788. Retrieved July 10, 2018 from <https://pdfs.semanticscholar.org/f59f/e98b083264ee9b18cbb3f124a4fc411502c8.pdf>
- Youssef, C. M., & Luthans, F. (2007). Positive organizational behavior in the workplace: The impact of hope, optimism, and resilience. *Journal of Management*, 33(5), 774-800. Retrieved July 12, 2018 from <https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1035&context=managementfapub>
- Valiente, C., Swanson, J., & Eisenberg, N. (2012). Linking students' emotions and academic achievement: When and why emotions matter. *Child Development Perspectives*, 6(2), 129-135
- Wagner, W. E. (2016). *Leadership for a better world: Understanding the social change model of leadership development*. Hoboken, NJ. John Wiley & Sons
- Werner, E. E. (2004). Journeys from childhood to midlife: Risk, resilience, and recovery. *Pediatrics*, 114(2), 492-492. Retrieved July 6, 2018 from <https://app.dimensions.ai/details/publication/pub.1067822870>
- Wilson, G. A. (2015). Community resilience and social memory. *Environmental Values*, 24(2), 227-257
- Woodard, D. 1. (1994). Leadership challenges, 2002. *New Directions for Student Services*, (66), 91-99. doi:10.1002/ss.37119946609



## APPENDICES

### APPENDIX A

Connor Davidson Resilience Scale:

<http://www.connordavidson-resiliencescale.com/>

## APPENDIX B

### Online Survey Consent Form

You are being invited to participate in a research study titled An Exploration of Resilience: Evaluating Resilience Scores Among Honors Undergraduates Involved in Leadership Programs.

This study is being done as part of my Doctoral Dissertation research through East Tennessee State University. You were selected to participate in this study because you are enrolled in one or more specialized leadership program.

The purpose of this research study is to explore the potential correlations between the number of leadership activities that students participate in and their self-reported resilience scores. If you agree to take part in this study, you will be asked to complete an online survey/questionnaire. This survey/questionnaire will ask about Resilience and it will take you approximately 20-25 minutes to complete.

You may not directly benefit from this research; however, I hope that your participation in the study may impact program development practices that promote Resiliency in college students. I believe there are no known risks associated with this research study; however, as with any online related activity the risk of a breach of confidentiality is always possible. To the best of my ability your answers in this study will remain confidential. I will minimize any risks by protecting your privacy. You will not be asked to provide your name or other identifying information. Your confidentiality will be maintained as no one other than the researcher will have access to your responses. All data will be carefully coded and stored electronically, and may be accessed only by the researcher.

Your participation in this study is completely voluntary and you can withdraw at any time. You are free to skip any question that you choose.

If you have questions about this project or if you have a research-related problem, you may contact the researcher, Amy Van Buren at 423-262-9107. If you have any questions concerning your rights as a research subject, you may contact IRB Chair, Dr. Randy Bergman at [randall.bergman@lr.edu](mailto:randall.bergman@lr.edu), or by phone at 828-328-7788.

By clicking “I agree” below you are indicating that you are at least 18 years old, have read and understood this consent form and agree to participate in this research study.

## APPENDIX C

### Script

Today you will have the opportunity to participate in an optional online survey. Amy Van Buren in the Department of Education is collecting survey data to be used in her dissertation.

Amy is studying resilience and college student leadership development. The survey will ask you a series of 25 questions for which you will indicate your level strength of feeling about the statement based on a scale of 1 to 5.

The information you share with me will be of great value to Amy in helping her to complete her research project. The results could help advance our understanding of resilience as a factor in leadership.

The survey will take approximately 15 to 20 minutes to complete.

There is no risk of breach of confidentiality. Your name will not be linked to any of your responses, or in any of the text of Amy's dissertation, or any other publication.

There are no other risks of participation.

Participation is voluntary. If you decide not to participate, there will be no penalty or loss. You can, of course, decline to answer any of the questions, as well as to stop participating at any time, without any penalty or loss.

If you have any additional questions concerning this research or your participation in it, please feel free to contact Amy, her chair, Dr. Randall Bergman, or our university research office at any time.

Do you have any questions about this research? If not, you may begin.

## VITA

AMY VAN BUREN

- Education:
- Ed.D. Educational Leadership, 2019  
East Tennessee State University, Johnson City, TN
- Master of Science, Urban/Multicultural Education, 2000  
University of Tennessee, Knoxville, TN
- Bachelor of Science, Criminal Justice 1997  
East Tennessee State University
- Professional Experience:
- Instructor of Education/Director of Teaching Scholars  
Lenoir Rhyne University, Hickory, NC 2018- Present
- Teacher, Middle Grades ELA  
Hickory Public Schools, Hickory, NC, 2013-2018
- Graduate Instructor  
East Tennessee State University, Johnson City, TN, 2013
- Teacher, Middle Grades ELA  
Washington County Schools, Jonesborough, TN, 2007-2010
- Teacher, Middle Grades ELA  
Kingsport City Schools, Kingsport, TN, 2007- 2010
- Teacher, Middle Grades ELA  
Prince William County Schools, Woodbridge, VA, 2001 - 2005
- Presentations:
- North Carolina Association of Middle Grades  
Educators State Conference, 2016 “Movement in the  
Middle Grades Classroom”
- Hickory Public Schools Curriculum Conferences
- 2017 “Mindful Classroom Management”
  - 2016 “Reading Beyond”
  - 2014 “Multicultural Education Applications in  
English/Language Arts”

Hickory Public Schools Curriculum Conference, 2014

Literacy Design Collaborative Sessions, 2016-Present  
(Multiple Presentations)

Professional Certification:

Tennessee Professional Teacher License (K-8), Highly  
Qualified

North Carolina Professional Teacher License (K-6; Middle  
Grades 7-9 ELA), Highly Qualified

Professional Memberships:

Association of Teacher Educators

National Association for Multicultural Education (2019  
Conference Proposal Pending)

Association of Middle Level Education (2019 Conference  
Proposal Pending)

American Educational Research Association