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The Relationship Between Adverse Childhood Experiences and Resilience Through the Eyes of Transition

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THE RELATIONSHIP BETWEEN ADVERSE CHILDHOOD EXPERIENCES AND

RESILIENCE THROUGH THE EYES OF TRANSITION

by

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ABSTRACT

This study focuses on the role that Adverse Childhood Experiences play in the lives of today's college students and how Protective Factors can be integrated and enhanced to increase a student's level of Resilience. This descriptive, causal-comparative quantitative study looked at participants' levels of Resilience, what Adverse Childhood Experiences they entered college with, and what role Protective Factors played in mitigating the impacts of those Adverse Childhood Experiences on the levels of Resilience. Results indicated older students scored a higher Resilience score than their younger counterparts. Goal efficacy had the strongest effect on Resilience levels, while planning and goal efficacy explained 36% and 26% of the variability of Resilience, respectively. When discussing the full or partial mediation of the effects of Adverse Childhood Experiences on Resilience, planning and social support both partially mediated the effect. These results indicated the important role Protective Factors play in the success of college students as well as the importance of Resilience as a whole. Implications for practice suggest institutions of higher education should examine how to assist students with increasing levels of Resilience to mitigate the impacts of Adverse Childhood Experiences to increase their levels of success while at college. Future research should be conducted on the role of Protective Factors and how they can further mediate the impact of Adverse Childhood Experiences and Resilience.

INDEX WORDS: Resilience, Adverse Childhood Experiences, Protective Factors

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Chapter One

Steel is forged between 360-968 degrees Fahrenheit. As part of this process, even the slightest of deficiencies could impact the entire product and cause it to shatter. Are people too as fragile as steel, forged in the most extreme of temperatures, but susceptible to fracture at the hint of imperfection? There can be no doubt the trials and tribulations of youth shape us into the people we become, for better or worse. What impacts do these experiences have on us? Do negative experiences, known as Adverse Childhood Experiences, play a role later in our emotional and often physical health? Studies have shown the higher the number of Adverse Childhood Experiences, the worse the individual's health is, and the lower their educational attainment (Houtepen et al., 2020). But what role do Protective Factors such as self-esteem and social connection play in this? Studies have demonstrated, "Having a role model, supportive friends, being culturally engaged or given opportunity were all significantly related to lower levels of all common childhood conditions" (Bellis, 2018, p. 3). With this stated, how does a college admissions officer know any of this?

When a student applies to a college or university, the admissions requirements often circulate how viable they are as an academic consumer to be successful at the institution. This may include submitting transcripts, standardized tests, and usually a writing sample. Little to no attention gets paid to whom the student is as a person and subsequently, how this person manages the day-to-day stressors of life and college. Little to no attention gets paid to the skills and abilities this individual may have to navigate the discovery of being a developing adult with new experiences and emotions confronting them daily. In essence, there is no light paid to their

life transcript.

Some students come to an institution having experienced a variety of different life events, including negative and positive ones (Centers for Disease Control [CDC], n.d.; Karatekin, 2017; Karatekin & Ahluwalia, 2020). Others come to institutions never having experienced anything negative or experiencing anything which may challenge their beliefs, values, and lives. It is when this status quo is disrupted that we see the skills an individual must have to work through and move on from this adversity. Specifically, we may see the levels of Resilience a student may, or may not, possess. When individuals are exposed to adverse experiences, the presence of Protective Factors in their life and their level of Resilience may help to inform how quickly they recover or *bounce back* from that given situation or experience (Smith et al., 2008).

The role of Protective Factors is particularly vital for student affairs professionals to be aware of and implement with students. Understanding this role and the role of Resilience may allow student affairs professionals to identify students who may be at risk before they are at-risk. In a time where counseling resources on-campus are stretched to almost beyond capacity, this prevention may help to aid student affairs professionals and institutions of higher education to turn the tide in working with students. This pre-intervention may help to increase retention and persistence rates, which in turn contributes to a higher graduation rate and a quicker integration of educated individuals into society and the workforce. Thus, it is imperative for colleges and universities to identify students who may have little to no levels of Resilience and work to increase these levels before adversity occurs. This practice of pre-intervention is not a novel one. In the United States in 2017, 92.7% of children aged 18-35 months received the polio vaccine, 91.5% received the Measles Mumps Rubella vaccine, and 91% received the varicella vaccine (CDC, 2018). This is a biological form of pre-intervention. This vaccine teaches the body how to

respond to a particular illness (i.e., adversity), so when it does experience it, it already knows how to respond. This vaccination may lead to students being more prepared to manage the stressors of college life and aid them in avoiding falling into an   at-risk status or in crisis.

As will be demonstrated below, great amounts of research have been conducted on the three primary components of this study: Adverse Childhood Experiences, Resilience, and Protective Factors. However, there has been minimal research on the relationship between Adverse Childhood Experiences and Resilience and what role Protective Factors may play on that relationship and thus, a gap in the literature remained warranting further research.

Background

This review of the literature will focus on three different areas: Adverse Childhood Experiences, Resilience, and Protective Factors. After establishing a foundation for each of these, the focus will turn to Adverse Childhood Experiences and Resilience and the relationship between those two variables. Furthermore, the influence of Protective Factors on this relationship will be discussed. These foundations are intended to help lay the groundwork for how institutions can utilize this information to better serve students and aid them in their success.

The theoretical framework used for this study will be Nancy Schlossberg's Transition Theory (Anderson et al., 2012). There are four main components to this theory: approaching transitions, transition identification and transition process, taking stock of coping resources, and taking charge and strengthening resources. This framework is the main focal point of this study as college students live in an environment of constant transition. It is also appropriate as the final component of taking charge and strengthening resources ties directly to Resilience and Protective Factors.

Adverse Childhood Experiences

The experiences impacting responses may be positive, but they may also be negative. An Adverse Childhood Experience includes experiencing violence or abuse, witnessing violence in the home or community, or having a family member attempt or die by suicide before the age of 18 (CDC, n.d.). The prevalence of Adverse Childhood Experiences and their impact has been widely researched on a variety of different populations. As will be discussed below, the occurrence of Adverse Childhood Experiences is widespread across college students. Research has demonstrated how widespread these experiences are and will also speak to the immense negative impact these experiences can have on many different facets of an adult life, ranging from emotional and behavioral issues to substance use to suicide (Forster et al., 2018; Lew et al., 2020). This negative impact may also manifest itself physically within a person, causing a range of different physiological problems (Bellis et al., 2018; Schauss et al., 2019; Windle et al., 2018).

The CDC (n.d.) stated almost 61% of adults experienced at least one type of Adverse Childhood Experience and one in six experienced four or more. Karatekin (2017) demonstrated 38% of participants had experienced at least two Adverse Childhood Experiences, while another study by Karatekin demonstrated 40% of the sample had experienced at least two Adverse Childhood Experiences. More than 25% of these participants reported psychopathology and suicide in the home, while almost 20% reported verbal abuse (Karatekin & Ahluwalia, 2020). Bellis et al. (2018) found in their study 48.5% of participants reported experiencing at least one Adverse Childhood Experience and 13.4% reported experiencing four or more.

Wolff and Caravaca Sanchez (2019) studied incarcerated males, where just over a quarter had experienced at least one Adverse Childhood Experience and slightly more experienced two or more. In their study of college students, Windle et al. (2018) found almost a third of their

participants had experienced two or more Adverse Childhood Experiences. In the Manyema et al. (2018) study of adults from South Africa, 87% of participants reported at least one Adverse Childhood Experience and over a third reported four or more. The connection between parenting stress and a higher prevalence of Adverse Childhood Experiences was discovered by Crouch et al. (2019), indicating the higher the parental stress the higher the rate of Adverse Childhood Experiences. Crouch et al. (2020) also found rural children had higher rates of Adverse Childhood Experiences than their urban counterparts. Schauss et al. (2018) found the impact of one Adverse Childhood Experience may compound the impact of another if multiple Adverse Childhood Experiences were present.

This negative impact has been widely documented in the literature, specifically the participants in the Alvarez et al. (2019) study who had experienced Adverse Childhood Experiences also reported poorer mental health. The Chatterjee et al. (2018) supported these findings, with the likelihood of poor outcomes increasing as the number of Adverse Childhood Experiences increased. Bellis et al. (2018) found physiological issues and school attendance issues in their study. Dube et al. (2001) found that suicidality increased substantially with the presence of an Adverse Childhood Experience. Sakti Kaloeti et al.'s (2019) study demonstrated a connection between Adverse Childhood Experiences and depressive symptoms. Rebicova et al. (2019) found a positive relationship between Adverse Childhood Experiences and emotional behavioral problems. Karatekin and Ahluwalia, 2020 found a negative relationship between Adverse Childhood Experiences and levels of social support, but a positive relationship between Adverse Childhood Experiences and levels of stress. Adverse Childhood Experiences may also play a role in substance use. The presence of Adverse Childhood Experiences has been

demonstrated to be a predictor in for substance use (Bellis et al., 2018; Chatterjee et al., 2018; Forster et al., 2018).

This information demonstrates most students are coming to campus having already experienced some level of adversity. The unknown element is how these students have managed this adverse experience and how they have responded to it, if at all. There can be no doubt of the frequency of Adverse Childhood Experiences and the correlated negative results because of those experiences. What then, can be done, to reduce the impact of these Adverse Childhood Experiences? Thus, enter the role of Protective Factors. These traits, both internal and external to an individual, may help to reduce the impact of the Adverse Childhood Experiences and is something institutions of higher education should invest in to help students succeed.

Resilience

There are many versions for the definition of Resilience (Hartley, 2011; Pooley & Cohen, 2010; Smith et al., 2008). One indicates the relationship between the individual and his/her environment (Hartley, 2011). One other key interpretation is "The ability to bounce back or recover from stress" (Smith et al., 2008, p. 196). For this study, the following definition from Pooley and Cohen (2010) will be used, "Despite the vast range of definitions, there is some agreement in the field that to determine if someone is displaying a resilient profile/Resilience, two elements must be present, namely adversity (i.e., a high-risk situation or threat) and successful adaptation/competence" (p. 31). This definition was selected as it recognizes that first some level of adversity must be experienced before an individual can recover.

The Karairmak and Figley's, 2017 study discussed two different stances on Resilience. The first stance is that Resilience is a process which involves personality characteristics. The second is Resilience itself is a personality trait or characteristic. These authors further stated that

as an individual encounters adversity, this Resilience trait is honed through said experience. Resilience should also not be restricted to a static trait but rather a dynamic process. At the same time, Protective Factors are traits, static or otherwise, which an individual possesses, which aids them through the situation. For an individual to be considered resilient, they must face adversity and subsequently overcome the adversity and continue moving forward. This capacity to bounce back is the distinguishing characteristic of a resilient individual (Smith et al., 2008). An individual who has never faced adversity would not be considered resilient, as that negative or adverse event is a main ingredient when discussing Resilience.

Having operationalized the definition of Resilience, the emphasis now turns to the impacts of Resilience. Resilience serves as almost a barrier to the negative impact of a circumstance but might also serve as a capacity to recover from this negative circumstance. Trigueros et al.'s (2020) study demonstrated a positive relationship between emotional intelligence and Resilience. Thomas and Zolkoski's (2020) study found a significant negative relationship between Resilience and perceived stress. Similar to Thomas and Zolkoski (2020), Lyvers et al. (2020) found a negative relationship between Resilience and university stress. They subsequently found this relationship predicted lower levels of problematic drinking. In the Shebuski et al. (2020) study, self-compassion and Resilience were found to have a direct relationship. Lin et al. (2020) found that Resilience partially mediated the effects of previous bullying victimization. Resilience was found to be the strongest predictor of psychological well-being in the Xuhua et al. (2018) study. What then, can institutions do with this information? An individual must be exposed to some sort of adversity before they could be considered resilient. College is ripe with challenges, but institutions must be charged with increasing an individual's level of Resilience.

A major portion of individuals experience a significant negative situation before the age of 18 (Bellis et al. 2018; Clements-Noelle & Waddington, 2019; Karatekin, 2017; Karatekin & Ahluwalia, 2020; Merians et al., 2018). On their study of college students, Osman Kelifa et al., 2020 found that Resilience was a significant protective factor to the impact of Adverse Childhood Experiences and depression.

Protective Factors

A protective factor is defined as "those characteristics that enhance adaptation" (Lee, 2018, p. 270). They also found Protective Factors such as satisfaction with life, optimism, high self-esteem, and friend or family support to have a much greater impact on levels of Resilience than did the presence of risk factors. The enhancement of an individual's ability to be resilient and recover from adverse circumstances may be attributed to the presence of Protective Factors. This bolsters the argument for the dedication of resources (e.g., time, financial, human) towards the establishment or increasing of an individual's Protective Factors (Bolton et al., 2016; Duan, 2016).

Resources continue to become more finite. Difficult conversations concerning the prioritization of Protective Factors should occur so institutions can be more impactful with resources. Henson et al., 2017 elevated the conversation surrounding Protective Factors from just focusing on individuals to addressing the entire community and the health of that community. Bolton et al.'s (2016) meta-synthesis study focused on Protective Factors. These authors found nine themes of Protective Factors: external connections, meaningfulness, grit, positive perspective on life, previous experience with hardship, self-care, independence, self-acceptance, and altruism. External connections, meaning, and independence were the most prevalent of the nine themes identified. These three prevalent themes and their positive correlation with

Resilience were consistent within the literature (Bolton et al., 2016). Henson et al., 2017 found similar results with Protective Factors being placed into three main categories: individual, relational, and community. Additionally, cultural connectedness was the one protective factor which spanned across all three categories. Furthermore, cultural connectedness is defined as the identification of an individual with a specific culture or group, including the customs, values, and practices of that culture. While these studies only focused on American Indian and Alaskan Natives, more research could be done to see if same would be found with other ethnic/racial groups. Racial identity was found to be an important protective factor in the Mushonga and Hennebarger (2019) study on traditional and non-traditional Black students. These authors found one key difference between these two groups and that was how important this identity was to the individuals over all identity. Burt et al. (2017) found the effects of racism were mediated by cultural socialization.

In a study conducted on self-esteem and Resilience, Kapikiran and Acun-Kapikiran (2016) found a strong relationship was demonstrated between those two traits. The researchers believed increasing self-esteem would increase Resilience and thus advocated for the development of educational programs focused on the development of self-esteem. The Mushonga and Hennebarger (2019) results supported this advocacy, finding self-esteem, spirituality, and social support to be important Protective Factors for positive mental health. Duan (2016) found in their study that interpersonal and temperance strengths were more impactful than other Protective Factors. Similarly, Lew et al. (2020) found a strong negative relationship between feelings such as hopelessness and suicide and the presence of and search for meaning.

Dvorsky and Langberg (2016) and Fritz et al.(2018) identified three categories in their separate studies of Protective Factors: individual, familial, and community. Each study showed the positive impacts of mental flexibility, family cohesion, immediate family support, and general social network on levels of Resilience. Dvorsky and Langberg (2016) found social acceptance was a major buffer against attention deficit hyperactivity disorder (ADHD) symptoms in their study of youth. They also found social competence and positive peer relationships to be significantly related to the youth's ability to adapt and be resilient.

Balgiu (2017) noted individuals with higher levels of self-esteem were more readily able to rely on themselves when adversity occurred. Thus, they identified having a higher level of Resilience and self-esteem as a key protective factor. Balgiu (2017) highlighted students with higher self-esteem were also more resilient. Zolkoski et al. (2016) found that multiple Protective Factors positively impacted participant's levels of Resilience. Students who viewed themselves as non-traditional students, primarily based on age, had significantly higher levels of Resilience than those who viewed themselves as traditional (Chung et al., 2017).

Freitas et al. (2017), in their work with youth who had been victimized, found that time was not as a strong of factor in predicting resilience as Protective Factors were. The authors also found high levels of protective mechanisms contributed to higher levels of Resilience, thus supporting the concept of bouncing back.

Holden et al., (2016-2017) found Resilience itself was a Protective Factor against mental illness, contributing to better treatment response in their work with African American women suffering from depressed and post-traumatic stress disorder. Eakman et al. (2016) found a negative relationship between Protective Factors and greater health-related vulnerabilities.

Tinto (2007) focused on how conversations concerning retention have moved away from thinking those students that stop out are lower functioning or less motivated. Retention of freshmen students to their sophomore year may involve many different factors, including readiness, participation, institutional commitment, and personal motivation (Sharma & Yukhymenko-Lescroart, 2018; Torkzadeh et al., 2016; Xu, 2017). Sharma and Yukhymenko-Lescroart (2018) found a positive relationship between a strong sense of altruistic purpose and degree attainment. These authors noted that helping a student realize their purpose will in turn help them to be successful and subsequently graduate. Torkzadeh et al. (2016) emphasized the importance of students having the necessary skillset as they enter college and how this readiness helps students retain and graduate.

In summary, as has been demonstrated throughout this background, most individuals coming to college are likely to have experienced some level of adversity, some of which may be classified as an Adverse Childhood Experience. Through the breadth of research, resilience can help to buffer the impact of these negative experiences and help to buffer the negative experiences that may occur while at college. The positive impact of Protective Factors has also been widely documented. These traits help an individual to continue forward, while potentially lessening the impact of and aiding in the recovery from negative situations. An individual's ability to bounce back after adversity is essential to their success. This Resilience benefits both the student and the institution. Students continue to increase their skillset and their ability to manage difficult situations, while the institution benefits from students that hopefully progress and graduate more efficiently and successfully.

Statement of the Problem

The current generation of students face challenges managing the typical stressor and difficulties of life. Put into context, these students are seen to lack Resilience. They are known to be incapable of responding and managing their stressors, which may result in higher levels of depression, anxiety, and suicidality. To combat this, the question posed to student affairs professionals is how to build the levels of Resilience within each student so they may have the capacity to be nimbler when adversity occurs. Directly connected with this is how to develop each student's Protective Factors, thus moderating the impact of negative experiences on their level of Resilience.

To understand this question and to be able to respond to it adequately, student affairs professionals must first understand the experiences students are coming to college with and how those experiences may impact their ability to respond. As demonstrated throughout the background, a large portion of students are coming to college having experienced at least one Adverse Childhood Experience. These experiences shape the lens in which students see their world, but also have a major impact on both the mental and physical health of students. How then do these Adverse Childhood Experiences impact a student's level of Resilience? Is there anything that can be done to mediate this impact? Enter the role of Protective Factors. Protective Factors may play a major role in mediating the effects of Adverse Childhood Experiences on Resilience. These factors may also help to mediate the impact of additional adverse situations a student may experience while at college. Student affairs professionals would be keen to identify strategies to identify protective factor deficits to better buffer students and enable them to bounce back.

The overarching theme of the variety of different definitions of Resilience is some level of adversity, challenge, or problem and some level of recovery, or not, from that adversity. The current generation of students funneling into our institutions and the characteristics of that generation must be considered when discussing Resilience and adversity. What was true 10 years ago in working with students is no longer true today. This lends to one of the many arguments of student affairs practitioners against the phenomenon known as the helicopter parent. Some students are entering college not having experienced any level of adversity (because their parents or guardians managed everything for them) and thus would not be able to be resilient. So, when they then come to college, the default role of parents, appropriately so, transitions to the background and students are compelled to manage the many stressors of college. When this transition to the background does not occur, the development of Resilience can continue to be hampered by the over-involved parent. None of this should be read as advice for parents or for parenting, rather, this is providing empirical evidence to demonstrate why it is so important to allow students to navigate their own issues and to recognize or remember their own inner strengths that will help them overcome adversities.

Purpose Statement

The purpose of this quantitative study is to investigate the relationship between the presence of Adverse Childhood Experiences (independent variable) and levels of Resilience (dependent variable) and the presence of Protective Factors (dependent variable) to see if Protective Factors mediate the relationship between Adverse Childhood Experiences and Resilience.

Research Questions

The following equally weighted overarching research questions guided this study: Research question one - What levels of Resilience do the participants have?; Research question two - To what degree does the presence of Protective Factors (support, skills, planning, and goal efficacy) predict students' Resilience?; and Research question three - To what degree does the presence of Protective Factors mediate the impact of Adverse Childhood Experiences on Resilience?

Significance of the Study

This study was intended to help close the gap in Adverse Childhood Experiences and Resilience literature in college students. More importantly, this study was intended to shape pre-interventions with students that may be identified as at-risk due to the presence of Adverse Childhood Experiences, their level of Resilience, and the presence of Protective Factors. The interplay of these three variables may be critical to the success of a student at college but may also serve as a possible antidote to the increasing rates of risk factors in college students. This information can also help in the saving of lives. Engaging with at-risk students before they come at-risk could help to reduce the increasing levels of risk factors (depression, anxiety, suicidality) students are facing.

For those staff members in direct contact with students, these pre-interventions may help to inform conversations, particularly surrounding the importance of Protective Factors and the role they play in a student's life. Social connectedness, for example, is a key one. Anecdotally, student affairs professionals have known the importance of connecting to the institution. This study is intended help to enforce that and take the conversation out of the abstract. For mid- and senior-level student affairs administrators, this research may help guide the allocation of

resources, as it may demonstrate the need for more direct resources and support for students. This research is intended to establish a foundation set upon data for the deployment of student affairs services, particularly as students are transitioning into college. This foundation may inform practices and procedures and overarchingly contribute to the success of students as they progress through college and ideally graduate in four to six years. These efficient retention, progression, and graduation rates will, in turn, contribute to the advancement of institutions and aid in the recruitment of new students.

Procedures

Research Design

This study utilized a descriptive, causal-comparative quantitative study. This approach was selected due to the nature of the research topic to examine the impact of one variable upon another (Cohen, 1988).

Participants

The participants for this study were students from a mid-size public institution in the southern part of the United States. The total full and part-time enrollment in Fall 2022 was 11,327 undergraduate students. Of that population, 59% were White, 20% were Hispanic/Latino(a), and 13% were Black/African American. This student population was 64% female and 36% male. The classification of the population was: 28% Freshmen, 19% Sophomore, 25% Junior, and 29% Senior (Stephen F. Austin State University, n.d.). The retention rate from Fall 2019 to Fall 2020 was 76.8% (Stephen F. Austin State University, n.d.).

Participation was entirely voluntary. All participants completed an acknowledgment and informed consent (See Appendix B) before beginning the instrument. Participation in the survey also demonstrated this informed consent. Institutional Review Board approval from the research

institution was garnered before any data collection occurred. The instrument was completely anonymous and posed no risks other than everyday life to the participants.

Instruments

The method used to collect data was a survey. The instruments used in the survey, in addition to some basic demographic questions was the Brief Resilience Scale (Smith et al., 2008), the Scale of Protective Factors (Ponce-Garcia et al., 2015), and the Adverse Childhood Experiences Survey (Felitti et al., 1998). All instruments, along with demographic questions, were combined into one instrument that was distributed by utilizing Qualtrics and the new survey was titled the "Adverse Childhood Experiences, Resilience, and Protective Factors Survey" (see Appendix A).

The Brief Resilience Scale was verified as having adequate internal consistency reliability and construct validity (Smith et al., 2008). As stated by the authors, this scale was "created to assess the ability to bounce back or recover from stress" (p. 192). There are six items on the questionnaire, three positively worded, and three negatively worded. Responses were scored using a 1-5 Likert scale, with "1" being strongly disagree and "5" being strongly agree. A composite Resilience score was obtained by reverse coding the negatively worded scales and finding the mean of the six items (Smith et al., 2008).

The Scale of Protective Factors was found to have adequate internal consistency reliability and construct validity (Madewell & Ponce-Garcia, 2016; Ponce-Garcia et al., 2015). The instrument itself contains 24 questions which focus on four main Protective Factors to include support, skills, planning, and goal efficacy (Ponce-Garcia et al., 2015). The support and skills areas are categorized as social, and the planning and goal efficacy are categorized as cognitive. Responses were scored using a 1-5 Likert scale, with "1" being disagree completely

and "5" being completely agree. Once complete, the instrument produced four sub-scores (i.e., two social and two cognitive scores) and, when added together, provided one Scale of Protective Factors score for the participant.

The Adverse Childhood Experiences survey used by Felitti et al. (1998) was the seminal study of Adverse Childhood Experiences. The instrument itself was a combination of multiple instruments, including the Conflicts Tactics Scale, Wyatt, the National Health Interview Survey, the Behavioral Risk Factor Surveys, Health and Nutrition Examination Survey, and the Diagnostic Interview Schedule from the National Institute of Mental Health. The instrument contains 10 yes or no questions. Once complete, the instrument produced a cumulative score, with an affirmative response being scored as a one and a negative response being scored as a zero. The higher the score, the more Adverse Childhood Experiences the participant experienced. The instrument has been found to be consistent and reliable (Folayan et al., 2020).

The first step in the data collection process was to replicate the instruments themselves in Qualtrics. Qualtrics is an online survey software. All three specific instruments were combined into one in addition to demographic questions, to include age range, race/ethnicity, and classification and this merged survey was be titled the "Adverse Childhood Experiences, Resilience, and Protective Factors Scale". The second step in the data collection process was to identify the different collection methods. Groups of students will be identified, and emails will be sent to those students, requesting their participation in the study. While emails will be sent to individuals with individual links, the anonymization feature in Qualtrics will be utilized to scrub IP address, location data, and contact information from responses. The researcher was able to track who has responded, but not what their responses were so all responses were anonymous to assure the confidentiality of the participants. Faculty members were recruited to volunteer via

their classes to participate in this study. Once faculty members agreed to participate, appropriate class times were identified, and the researcher attended the beginning or end of the class to speak to the class and provide the QR code for students to participate in the study electronically. Specific student organization meeting times were also identified to garner a higher response rate. Acknowledging the current international health crisis, all efforts were taken to maintain the safety of the participants and the investigator and there were no risks with the survey other than those of everyday life.

Data Analysis

Upon conclusion of the data collection window in Qualtrics, the data were exported from Qualtrics as an Excel sheet and imported into SPSS. Data was screened for outliers (participants whose scores are > 3 standard deviations from the sample means) and tested for requisite statistical assumptions (e.g., linearity, homoscedasticity, normality) prior to analysis. The first research question was answered by conducting descriptive statistics, including central tendency (mean/median), measure of dispersion, standard deviation, minimum and maximum values, and ranges, and zero order by correlations. The second research question was answered by conducting an ordinary least squares regression, using standard simultaneous regression. To garner more robust information, the four sub-scale scores of Protective Factors were utilized. For the third question, a path analysis with observed variables only was used for the purpose of testing mediation. Sobel Tests were employed to test the statistical significance of each hypothesized mediated path. Data were disseminated through appropriate charts and graphs.

Definition of Key Terms

Resilience/Resiliency – Resiliency is the adversity (i.e., a high-risk situation or threat) and

successful adaptation/competence (Pooley & Cohen, 2010) and the ability to bounce back

(Smith et al., 2008).

Protective Factors – Protective Factors are characteristics that enhance adaptation (Lee et al.,

2013).

Adverse Childhood Experiences – Potentially traumatic events that occur in childhood (0-17

years old), such as experiencing violence, abuse, or neglect; witnessing violence in the

home; or having a family member attempt or die by suicide (Centers for Disease Control,

n.d.).

Chapter Summary

As has been demonstrated, the majority of students coming to college have experienced

at least one childhood experience that was adverse. This may indicate these students are already

coming with an associated level of Resilience, or it may mean they have no Resilience at all and

have turned to other forms of coping to mediate the effects of those childhood experiences that

were adverse. The question posed to student affairs professionals is what is to be done with this

information. Data shows Protective Factors help to increase levels of Resilience, which would, in

turn, mediate the negative impacts of these childhood experiences on students.

This study was intended to help inform further the field of student affairs and those in the

academic realm on the relationship between childhood experiences coupled with adversity and

Resilience, what role Protective Factors may play, and how student affairs professionals may

help to increase levels of Resilience to reduce the increasing number of at-risk and in-crisis

students seen on today's college campus.

Chapter Two

Review of the Literature

This review of the literature will concentrate on three different areas: Adverse Childhood Experiences, Resilience, and Protective Factors. After operationalizing an understanding for each of these, the attention will turn to Adverse Childhood Experiences and Resilience and the relationship between those two variables. Additionally, Protective Factors and their influence on the relationship between Adverse Childhood Experiences and Resilience will be discussed. This conversation will help to demonstrate how institutions can utilize this information to help with student success.

The theoretical framework used for this study will be Nancy Schlossberg's Transition Theory (Anderson et al., 2012). The main components of this theory are approaching transitions, transition identification and transition process, taking stock of coping resources, and taking charge and strengthening resources. The college environment is ripe with transition, and therefore this theoretical framework is so important.

Adverse Childhood Experiences

The experiences impacting responses may be both positive and negative. While there are many different instruments defining and assessing Adverse Childhood Experiences, this study utilized one of these titled the Adverse Childhood Experiences survey (Felitti et al., 1998). As is demonstrated in this chapter, the Adverse Childhood Experiences are widespread across the population of college students. This includes the international population rather than just the American population. These experiences are not contained to one race/ethnicity, gender, class, geography, or any other differentiating characteristic. While someone populations may have the

propensity to experience them more, based on the research, there is no demographic that is exempt from these experiences.

Adverse Childhood Experiences are an issue that has the potential to impact anyone and everyone. This exemplifies why it is so important to be familiar with Adverse Childhood Experiences are and how devastating their impacts can be. The research not only demonstrates how widespread, but also speaks to the immense negative impact these experiences have on many different facets of an adult life, ranging from emotional and behavioral issues to substance use to suicide (Forster et al., 2018; Lew et al., 2020). This negative impact may also cause a range of different physiological problems, including high blood pressure, digestion issues, and chronic migraines (Barnes et al., 2021; Bellis et al., 2018; Krinner et al., 2020; Schauss et al., 2019; Windle et al., 2018).

The Centers for Disease Control (n.d.) demonstrated the breadth of Adverse Childhood Experiences, but also how the prevention of these experiences could help to prevent millions of cases of heart disease and depression. Karatekin (2017) demonstrated over one third of their participants had experiences at least two Adverse Childhood Experiences and these experiences resulted in the worsening of participants mental health through the course of one semester. Karatekin & Ahluwalia, 2020 found those participants with higher levels of Adverse Childhood Experiences had higher levels of perceived stress and lower levels of perceived support. Bellis et al.'s (2018) study found almost half of their participants experienced at least one Adverse Childhood Experience, with poor childhood health and absenteeism increasing as levels of Adverse Childhood Experiences increased. These wide-ranging numbers continue to demonstrate how widespread Adverse Childhood Experiences are and also how wide spread their impact on college success.

Wolff and Caravaca Sanchez (2019) found in their study of incarcerated men that 28.6% reported one type of Adverse Childhood Experience and 28.9% reported two or more Adverse Childhood Experiences. These experiences were found to be associated with psychological distress while incarcerated. Clements-Noelle and Waddington (2019) found similar results in their study of juvenile offenders where over half of their participants reported four or more Adverse Childhood Experiences and these experiences significantly predicted poorer mental health and higher substance use. Windle et al. (2018) found that 31.9% of their college student participants had experienced two or more Adverse Childhood Experiences. Merians et al. (2018) found 71% of their college student participants reported at least one Adverse Childhood Experience. Statistics like these and those further discussed in this chapter demonstrate the breadth of college students entering college having already experienced some sort of adverse situation and either are adapting, or not, from that experience. Based on this review of the research, both faculty and practitioners must be challenged to be aware of how these different experiences can impact students as they enroll and engage in an institution.

Schaefer et al. (2018) found 69% of participants had experienced a traumatic sexual event before the age of 18. Crouch et al. (2019) connected parenting stress with a higher prevalence of Adverse Childhood Experiences, demonstrating the higher the parental stress the higher the rate of Adverse Childhood Experiences and this is important for the number of students at college who are managing the complexities of being a student and a parent. Crouch et al. (2020) found rural children had higher rates of Adverse Childhood Experiences than their urban counterparts and found a relationship between poverty and Adverse Childhood Experiences. This data is particularly important for this study, as it is being performed in a rural setting in the United States. Schauss et al. (2018) postulated the cumulative effect of some Adverse Childhood

Experiences, where the impact of one Adverse Childhood Experience may compound the impact of another. With so many students coming into college experience more than one Adverse Childhood Experience, the cumulative impact cannot be understated. This impact is ripe for study to determine what impact multiple Adverse Childhood Experience have on each other, or if there are specific experiences that may have a more longitudinal impact on other Adverse Childhood Experiences.

These studies highlight the prevalence of Adverse Childhood Experiences in the population, but they also highlight how many individuals have experienced multiple Adverse Childhood Experiences. Participants were from a variety of racial and economic backgrounds, differing geographically within the United States and in countries across the globe, including Australia and China. While not discussed here, much of the research reviewed demonstrated the outright public health emergency of Adverse Childhood Experiences and outlined the critical need for Adverse Childhood Experiences to be addressed from a community and public health standpoint, rather than just reacting to them afterwards. This may be an implication for further research due to the extreme negative impact Adverse Childhood Experiences may play later in life. While institutions of higher education are not typically engaged in greater public health scenarios, they should keep themselves abreast of these discussions.

Alvarez et al. (2019) found women who reported Adverse Childhood Experiences also experienced poorer mental health, though the management of stress helped to mediate the relationship between Adverse Childhood Experiences and physical/mental health. Digestive problems and school absenteeism were demonstrated in the Bellis et al. (2018) study. Dube et al. (2001) found in their retrospective work of the original Felitti (1998) Adverse Childhood

Experience study that suicide attempts increased substantially with the presence of an Adverse Childhood Experience.

Rebicova et al. (2019) found the more Adverse Childhood Experiences present, the more emotional behavioral problems present. Sakti Kaloeti et al. (2019) found a positive relationship with Adverse Childhood Experiences and depressive symptoms. They also believed in a negative relationship between distress and life adaptation. Krinner et al.'s (2020) study demonstrated a causal relationship between cumulative adversity in childhood and poor physical health in young adulthood. Those that reported an Adverse Childhood Experience also reported feeling lower levels of social support and higher levels of stress (Karatekin & Ahluwalia, 2020). Makriyianis et al. (2019) suggested that Adverse Childhood Experiences lead to depression and anxiety. Barnes et al. (2021) found that nearly 20% of youth experiencing homelessness on their own had experienced over four Adverse Childhood Experiences. These authors questioned if homelessness, often left off Adverse Childhood Experience instruments, should be included. This too would be an implication for future study, though caution should be taken to not dilute down the definition of an Adverse Childhood Experience to include any negative childhood experience. While tribulations may be present across an individual's childhood, they may not rise to the level of being an Adverse Childhood Experience.

In addition to mental health issues, Adverse Childhood Experiences may also play a role in substance use. Forster et al. (2018) found 50% of students in their study reported a history of family-based Adverse Childhood Experiences and 23% reported multiple Adverse Childhood Experiences. The researchers go on to state, "Family-based Adverse Childhood Experience are robust predictors of substance use behaviors in children and older adult populations" (Forster et al., 2018, p. 301). Chatterjee et al. (2018) found any abuse and any household dysfunction to be

early risk factors for substance abuse. Bellis et al. (2018) found "Individuals with four or more Adverse Childhood Experiences in childhood, as adults, are more than twice as likely to smoke, nearly six times as likely to be problem alcohol users and over twice as likely to develop conditions such as cancer and heart disease" (pp. 792-793). In their study of parenting women in treatment for opioid use disorder, Gannon et al. (2021), 65% of the participants reported four or more Adverse Childhood Experiences and only 5% reported none. Of these Adverse Childhood Experiences, 39% reported unwanted sexual experiences, with 82% of that abuse being classified as severe, and almost 75% reported witnessing non-physical violence between parents or caregivers. Almost two thirds of these respondents also reported neglect consistently happening. Nearly a third of these participants had also attempted suicide as a child. This data again demonstrates the relevancy of every student's childhood experience, negative or positive, and how it may manifest itself in different ways when entering and persisting through college.

Villanueva and Gomis-Pomares (2021) found the total number of Adverse Childhood Experiences was a significant predictor of drug consumption, but not of alcohol consumption. However, when looking at sub-scales of Adverse Childhood Experiences, they found emotional abuse and substance abuse were significant predictors of alcohol consumption. These authors recommended researching Adverse Childhood Experiences from both a cumulative and differential aspect to ascertain a more accurate picture of the impact they may have. Damian et al. (2021) found emotional neglect to be a strong predictor of suicidal ideation. They also found generational differences between the impacts of certain Adverse Childhood Experiences on rates of suicidality. In turn, child abuse and neglect spanned the generations in reference to suicidal ideation. As the authors stated, this is an area that warrants further study.

This information demonstrates the many students are coming to a college campus having already experienced some level of adversity, with a large amount at the level that would qualify as an Adverse Childhood Experience. The unknown element is how these students have managed these adverse experiences and how they have responded to it, if at all. Windle et al. (2018) summarized the impact of Adverse Childhood Experiences:

> Higher Adverse Childhood Experience scores significantly predicted poor mental health, higher substance use, and poorer lifestyle habits. These findings strongly support the pervasiveness of Adverse Childhood Experiences on these health behaviors and suggest that Adverse Childhood Experience scores may serve as a marker of need for college services so as to optimize student functioning and success in college settings. (p. 250)

There can be no doubt of the prevalence of Adverse Childhood Experiences and the correlated negative results because of those experiences. The true question raised is what can be done to reduce the impact or influence of these negative experiences later in an individual's life? Is the impact or damage permanently done or can some other variables be integrated into the equation to help mediate the impact of these experiences? Protective factors assist with this moderation. These traits, both internal and external to an individual, may help to reduce the impact of Adverse Childhood Experiences and is something institutions of higher education should invest in to help students succeed. Also queue the role and importance of Resilience. An individual cannot be faulted for the Adverse Childhood Experiences they have had prior to coming to college. The trait of Resilience, at whatever level it is, will be critical in their success as they navigate their challenges prior to coming to college and the many they will experience while in college. One question remains, and will be discussed later, but can Resilience be taught or is it truly an internal trait an individual has or does not have.

Resilience

There are a variety of definitions of Resilience (Hartley, 2011; Pooley & Cohen, 2010; Smith et al., 2008). One author defined Resilience as "The complex interplay between an individual and his/her environment, in which the individual can influence a successful outcome by using internal and external factors" (Hartley, 2011, p. 596). Another set of authors defined it as "The ability to bounce back or recover from stress" (Smith et al., 2008, p. 196). Pooley and Cohen's (2010) definition will be utilized in this study. It reads, "Despite the vast range of definitions, there is some agreement in the field that to determine if someone is displaying a resilient profile/Resilience, two elements must be present, namely adversity (i.e., a high-risk situation or threat) and successful adaptation/competence" (p. 31). This definition outlines that some level of adversity must be experienced before an individual can recover. Adversity means something different for every individual. While this study focuses on specific Adverse Childhood Experiences, there are other situations or circumstances that could pose adversity and thus prompt Resilience. Thus, it is logical to surmise the body must first be exposed to the threat before it can develop a response to said threat. This is the basis of vaccines and the body's response to vaccines, so it is appropriate to extrapolate this concept to response to adversities in life. These adversities also do not stop once an individual becomes an adult as each individual continues to experience different adversities and successes as their life continues and these experiences continue to help or potentially hinder the development of Resilience (Lyvers et al., 2020; Thomas & Zolkoski, 2020).

It is important to note Resilience should not be constrained to a static trait but rather a dynamic process, as well as Resilience being the adaptation itself. Conversely Protective Factors are traits an individual possesses which aid them through an adverse situation. An individual

who has never faced adversity, by definition, would not be considered resilient, as that negative or adverse event is critical when determining or prompting Resilience. This is not to say the individual cannot or would not be resilient, rather, they just have not been exposed to a situation which would prompt them to be so. So, the Resilience may be there or may develop shortly thereafter, but the situation or circumstances have not presented themselves to prompt the individual to actualize the skills.

The current impact of the COVID-19 pandemic must also be integrated into this conversation. Padron et al. (2021) found in their results of college students that their participants experienced considerable psychological difficulties as part of the pandemic. D'Costa et al.'s (2021) participants had higher levels of pandemic stress when they had higher levels of Adverse Childhood Experiences. Tasso et al. (2021) stated that since a considerable number of their participants were reporting psychological distress due to the pandemic, with some already reporting distress before the pandemic, that "concerted efforts to identify and enhance resiliency are imperative" (p. 12). Na et al. (2022) noted age groups 18-24 reported the highest levels of mental distress, while those in the older group reported lower levels of loneliness and greater levels of Resilience. This was echoed by Scheibe et al. (2022) who found older participants in their study showed higher levels of Resilience. So, before the pandemic, a significant number of students were already entering college having experienced at least one Adverse Childhood Experience (Bellis et al., 2018; Centers for Disease Control, n.d.; Clements-Noelle & Waddington, 2019; Karatekin, 2017; Karatekin & Ahluwalia, 2020; Wolff & Caravaca Sanchez, 2019). Then 18 months of having to stay at home or to quarantine is added into the equation, where at the height of the pandemic, unemployment rates were at a level not seen since the great depression of the 1930s (Center on Budget and Policy Priorities, n.d.). The true impact of the

pandemic may not truly be known for years to come, particularly as it continues to persist, with new variants of the virus continuing to emerge. An opportunity for further research would be the impact of the constant flow of information surrounding the pandemic, particularly the rate and total number of deaths. With this constant flow of negative information, it is even more critical for students to remember the positive traits they have within themselves. Eley et al. (2016) noted that "In order to promote student health and well-being, educators need to recognize and consider how to help their students cultivate the configurations of personality traits that underlie positive health and Resilience" (p. 2). Just as important, the experiences students have had prior coming to college, or even at college may be impacting or informing their responses to adversity.

The positive benefits of Resilience have been widely demonstrated in the literature over the past ten to fifteen years. Resilience serves as a buffer of sorts to the negative impact of an issue or circumstance, but also serves as a mechanism of recovering from these negative situations. In their study on emotional intelligence, Trigueros et al. (2020) found a positive relationship between emotional intelligence and Resilience, where emotional intelligence helped to predict Resilience. Thomas and Zolkoski (2020) found a significant negative association with Resilience and perceived stress, where they noted "resilient individuals are often better able to manage environmental stressors" (p. 64). In a similar study, Lyvers et al. (2020) also found higher levels of Resilience were negatively associated with university stress, which they found then in turn predicted lower levels of problematic drinking. Tam et al. (2020) noted Resilience fully mediated linkages between stress, psychiatric symptoms, and prescription drug abuse. These results are of particular importance to student affairs professionals, not only for the reduction of high-risk behaviors but also as an opportunity to develop proactive programming initiatives to curb the high-risk behaviors before they even start.

Higher levels of Resilience were also found to be negatively associated with anxiety (Ko & Chang, 2019; Lyvers et al., 2020). Collen and Onan (2021) believed the higher the level of Resilience, the lesser negative experiences, such as cyberbullying, will impact an individual. Self-compassion and Resilience were found to be directly connected in the Shebuski et al. (2020) study, where they found as Resilience increases so does self-compassion. Sefidan et al. (2021) found that higher levels of Resilience predicted lower levels of stress and mental distress. They also found in their study of soldiers in basic military training that those soldiers that dropped out had more negative scores for Resilience. Hoopsick et al. (2021) had a similar finding in their study, where greater resiliency was associated with better mental health. Akeman et al. (2020) stated "There is convincing evidence that the observed elevations in anxiety, depression, and stress lead to serious consequences for students" (p. 203). This evidence led to the authors studying whether a brief Resilience program would work to counteract the effects of depression and anxiety. Those participants who received the Resilience programming had average depression scores significantly lower than those that did not (Akeman et al., 2020). This too is an opportunity for further study, as these authors demonstrated that even with brief a brief exposure to a Resilience program, there was a marked impact on depression scores. This introduces the discussion of the development of Resilience skills and indicates lengthy, in-depth programming or efforts may not be needed to increase an individual's level of Resilience.

These findings also demonstrated the importance of Resilience and the positive impact it can play in an individual's life. Xuhua et al. (2018) found Resilience to be the strongest predictor of psychological well-being in their study. Fullerton et al. (2021) had the same result in their study. Resilience resources were also found to be positively associated with positive thinking, problem-focused coping, and support-seeking. Collen and Onan (2021) found Resilience was

positively associated with well-being. With the overwhelming demonstration of the positive and impactful role Resilience plays, how then can institutions influence those individuals that may not be resilient? How can these skills be developed in a safe an ethical way? As discussed, an individual must be exposed to some sort of adversity before they could be considered resilient. College is ripe with adversity, so institutions must be challenged to connect with students early on to help them develop the necessary skills to manage these adversities as they happen. This could be through the enhancement of current levels of Resilience or through the establishment and development of Protective Factors. The methods to do this are limitless and institutions should thus find themselves empowered to try anything which may help individuals develop these skills and traits to help them be successful.

As was discussed previously, a large proportion of individuals experience an Adverse Childhood Experience before the age of 18 (Bellis et al. 2018; Karatekin, 2017; Karatekin & Ahluwalia, 2020; Clements-Noelle & Waddington, 2019; Merians et al., 2018). Resilience has been demonstrated to be a significant protective factor to the impact of depression (Osman Kelifa et al., 2020). This study was conducted with college students and highlights the potential for the positive role Resilience may play on the impact of Adverse Childhood Experiences. Resilience in and of itself can both be a skill to help buffer the impact of Adverse Childhood Experience but also help to serve to integrate Protective Factors into an individual's life to help them be successful.

Protective Factors

A protective factor is defined as "those characteristics that enhance adaptation" (Lee et al., 2013, p. 270). The presence of Protective Factors enhances an individual's ability to be resilient and recover from adverse circumstances. This supports the primary focus of resources

(e.g., time, financial, human) towards the development or increase of an individual's Protective Factors (Bolton et al., 2016; Duan, 2016) rather than solely on the reduction of risk factors. This argument runs contrary than how most student affairs practitioners may think. Historically the focus has primarily been focusing on the reduction of risk factors with the increase of Protective Factors being secondary and sometimes an after-thought. If there is truly a larger impact on the building-up of Protective Factors rather than the tearing down or risk-factors, institutions may be wise to take heed to this and adjust their approaches accordingly.

As resources become more and more scarce at institutions of higher education, decisions concerning priorities must be made to be more effective and impactful with available resources. One study specifically stated the public health benefits of Protective Factors, taking the conversation from the impact of the individual to the impact on the community (Henson et al., 2017). Furthermore, public health practitioners and community members should "partner to identify and enhance existing Protective Factors and create environments rich in Protective Factors" (p. 21).

In their study of American Indian and Alaska Native participants, Bolton et al. (2016) found nine themes of Protective Factors including external connections, meaningfulness, grit, positive perspective on life, previous experience with hardship, self-care, independence, self-acceptance, and altruism. Of these nine, external connections, meaning, and independence were the most prevalent. These authors found these components to be associated with a variety of positive health and social outcomes for this population. A different study found similar results with Protective Factors being placed into three main categories to include individual, relational, and community (Henson et al., 2017). The one protective factor which bridged all three categories was cultural connectedness. Cultural connectedness was defined as the identification

of an individual with a specific culture or group, including the customs, values, and practices of that culture. Mushonga and Hennebarger (2019) found racial identity to be an important protective factor for their study on traditional and non-traditional Black students, though the centrality, or how important this identity was to the individuals over all identity, differed between the two groups. Similarly, Wang et al., (2020) found ethnic identity to be the only resource to be significantly correlated with lowers levels of suicidality of black college students. D'Costa et al., (2021) echoed this with the promotion of ethnic identity consistently noted as being supportive. One other study emphasized the importance of cultural socialization as it helped mediate the effects of racism (Burt et al., 2017).

Self-efficacy had the strongest positive relationship with Resilience (Lee et al., 2013). The authors also found that demographic factors had no significant impact on Resilience in their study. Kapikiran and Acun-Kapikiran (2016) found a strong relationship between self-esteem and Resilience. Additionally, the researchers stated, "The increase in self-esteem will increase the Resilience of an individual" (p. 2102), and they advocated for educational programs focused on the development of self-esteem directed at any age group. Collen and Onan (2021) found that high self-esteem strengthened a person's level of Resilience. Pankow et al.'s (2021) results in their study of female athletes underscored the importance of social connection. Interestingly it not only showed the positive impacts of coach support, but also the negative impact when that support system is not present. An important protective factor discovered in this study was the ability of athletes to identify destructive thought patterns and redirect to positive thoughts. This was echoed in Lechner et al.'s (2020) study of students experiencing COVID-19 closures, where they found perceived social support was associated with lower alcohol use.

A separate study found a difference in Resilience scores between the non-White and White participants, as well as lower risk factors having a stronger impact on Resilience than higher Protective Factors (Shpiegel, 2016). Duan (2016) found "Interpersonal and temperance strengths, rather than intellectual strength, benefited mental health against major life events" (p. 2885). Lew et al. (2020) found a strong negative correlation between the presence and search for meaning and feelings such as hopelessness and suicide.

Research has shown when Protective Factors are present, Resilience levels are typically higher (Balgiu, 2017; Pech, 2017; Zolkoski et al., 2016). One gap in the literature that has been identified is the limited amount of research on students that are in college and their levels of Protective Factors and Resilience. Balgiu (2017) found having a higher level of Resilience and self-esteem was specified as a key protective factor. They stated that "the more balanced the respective students are and the higher their self-esteem is, the more resilient they are" (p. 97). In another study, the author found positive relationships between Protective Factors (e.g., social support, physical exercise, personal self-care) and Resilience (Pech, 2017). This author examined how the institution could improve to impact student levels of Resilience positively, and responses from participants mirrored the Protective Factors and included increased access to resources, programming, and facilities. For at-risk youth, multiple Protective Factors (caring teachers, positive and supportive learning environment, and small student-teacher ratio) had a positive impact on participant's levels of Resilience (Zolkoski et al., 2016). Chung et al. (2017) found a difference between traditional and non-traditional students. Those students who viewed themselves as non-traditional students had significantly higher levels of Resilience than those that did not. These participants identified themselves as non-traditional primarily based on age. Additional reasons for identifying as non-traditional included cultural background, admissions

pathway, geographic region, and being employed. Those participants that reported themselves as non-traditional due to work reasons reported a Resilience score that was 3.67 units higher than participants that reported themselves as traditional (Chung et al., 2017).

When working with youth that had been victimized, (Freitas et al., 2017) found that "key aspects fostering the observed Resilience trajectory may be the protective mechanisms this group has and not the healing power of time" (p. 30). These authors also noted that high levels of protective mechanisms contributed to higher levels of Resilience, and this supports the notion of Protective Factors having an influential impact on an individual's ability to bounce back. In contrast, these authors found youth that was present in their at-risk group had fewer protective mechanisms in place (Freitas et al., 2017).

In a separate study, the authors noted emotional self-efficacy and interpersonal sensitivity, both Protective Factors and their impact on Resilience (Aydogdu et al., 2017). The researchers demonstrated the presence of both traits significantly predicted psychological Resilience. Concerning emotional self-efficacy, the authors stated, "emotion can be a tool to transform the negative impacts of a certain experience to make oneself more resilient in stressful life events" (Aydogdu et al., 2017, p. 45). Students who were able to effectively manage their daily responsibilities had a significantly lower chance of anxiety negatively affecting their GPA in the Lisnyj et al. (2020) study.

In their work with African American women suffering from depression and post-traumatic stress disorder, Holden et al., (2016-2017) found Resilience itself was a protective factor against mental illness, contributing to better treatment response. Another study found that veterans reported, "deficits in psychosocial Protective Factors along with substantially greater health-related vulnerabilities" (Eakman et al., 2016, p. 6). This study hopes to fill a gap in the

literature by contributing to the research on college students and their levels of Protective Factors and Resilience. In a study of Army reserve and National Guard soldiers, Hoopsick et al., (2021) denoted greater unit support served as a strong protective factor against substance use post-deployment. They also found marital satisfaction and psychological hardiness were associated with less mental health symptomology.

In a study focused on factors impacting retention, Xu (2017) denoted financial pressure to be the biggest impediment to a student's retention, though their sample was noted as having a median family income 14.6% lower than the national median income. This author specifically advocated for the increase in financial resources and relationships with local businesses to increase financial support and the student experience (Xu, 2017). Institutional environment and control over academic quality were also found to be significantly associated with persistence in this author's study. Environment and academic quality are intricately connected, and the positive perception of these was found to positively impact retention (Xu, 2017).

In summary, individuals are more likely than not coming to college having experienced some level of adversity, including Adverse Childhood Experiences. Resilience has also been demonstrated to help to lessen the impact of these negative experiences but also help the individual manage the variety of different experiences, both positive and negative they may encounter while at college. The impact of Protective Factors has also been demonstrated. These traits can help the individual sustain through difficult circumstances. Resilience is critical to a student's success. This Resilience benefits the student, as it broadens the skillset necessary to manage the challenges of collegiate life, but also life after college. This Resilience also benefits the institution, as the more likely students are to be able to manage their lives, hopefully the more likely they are to retain and progress towards graduation.

Chapter Three

Methodology

The focus of this research was to study the relationship between Adverse Childhood Experiences, Resilience, and the role Protective Factors play. Specifically, it addressed the relationship between Adverse Childhood Experiences, levels of Resilience, and the presence of Protective Factors. This research topic was chosen due to the author's profession, but also the specific interest in identifying ways to help college students recognize and build levels of Resilience to manage day-to-day stressors as well as acute stressors they may encounter whilst at college. As the research demonstrated, many college students are entering college with anywhere from one to four, if not more, distinct Adverse Childhood Experiences. The research continued to demonstrate the potential strong negative impact these Adverse Childhood Experiences may have on a student's connection, academic progress, and graduation and the integral roles of Protective Factors and Resilience.

The three equally weighted research questions for this study were: What levels of Resilience do the participants have?; To what degree does the presence of Protective Factors (support, skills, planning, and goal efficacy) predict students' Resilience?; and To what degree does the presence of Protective Factors mediate the impact of Adverse Childhood Experiences on Resilience?

This chapter outlined the different components of the methodology used in this study, including the research questions, research design, population and sampling, instrumentation, data collection, data analysis, and limitations.

Research Design

The purpose of this descriptive, causal-comparative quantitative study conducted with college students was to investigate the relationship between the presence of Adverse Childhood

Experiences, levels of Resilience, and the role of Protective Factors. More specifically the study was designed to determine if Protective Factors moderated the relationship between Adverse Childhood Experiences and Resilience and this approach was selected due to seeking to explore the impact of one variable upon another (Cohen, 1988).

The three research questions were developed to identify levels of Resilience, Adverse Childhood Experiences, and Protective Factors. They were worded in a way to also address the potential interplay between Protective Factors and Resilience and mediating the relationship between Adverse Childhood Experiences and Resilience. Distinct instruments were combined to address each of these questions, utilizing the Qualtrics software to deliver the survey.

The instrument was administered to specified groups of students to ensure a broad distribution but also to ensure the ability of follow-up. All responses were anonymous and all identifying information attached to each response was systematically erased before accessing the results. Descriptive statistics were utilized to address question one. Ordinary least squares regression, using standard simultaneous regression were utilized to address question two. A path analysis and Sobel tests were utilized to address question three.

Population and Sample

Participants for this study were students at a mid-size public institution in the southern United States. The survey was administered in the Fall 2022 semester. Prior to conducting any research, all Institutional Review Board permissions were granted from both the researcher's home institution and the study institution. Convenience sampling was be utilized, and participants were garnered from freshmen experience classes, student-athletes, first-generation students, student organization leaders, and the general student population. This sampling technique was utilized for the benefits of quick data collection, ease of research, and affordability

(Qualtrics-XM, n.d.). Students received a link to the instrument. Every participant was provided with informed consent and was given the option to not participate. The instrument was completely anonymous and posed no risk greater than everyday life. This specific approach was chosen to ensure a broad swath of students were able to participate on a voluntary basis and to ensure the recommended sample size. Specifically, to achieve a 5% margin of error and a 95% confidence level, the recommended sample size was 371 participants. When reducing the confidence level to 90%, the total number of recommended participants dropped to 264 (http://www.raosoft.com/samplesize.html).

Setting

The setting of this study was a mid-sized public institution in the south. The institution had a total enrollment of 11,327 full and part-time students in the Fall 2022 semester. Of this total enrollment, 64% were female and 36% male. In total, 59% of students identified as White, 21% identified as Hispanic/Latino(a), 12% identified as Black/African American, and 9% identified as other. The classification breakdown was 27% freshmen students, 15% Sophomores, 20% Juniors, and 25% Seniors (Stephen F. Austin State University, n.d.).

Instrumentation

The instrument utilized in this study was a combination of three different instruments: the Brief Resilience Scale (Smith et al., 2008), the Scale of Protective Factors (Ponce-Garcia et al., 2015), and the Adverse Childhood Experiences survey (Felitti et al., 1998). Also, participant demographic questions were merged to create a new instrument titled the "Adverse Childhood Experiences, Resilience, and Protective Factors Survey" (See Appendix A). This final instrument was duplicated in Qualtrics for completion and interpretation.

The Brief Resilience Scale is a six-item scale that has been verified to have adequate internal consistency, reliability, and validity (Smith et al., 2008). Responses are on a 1-5 Likert scale, with "1" being strongly disagree, "2" being disagree, "3" being neutral, "4" being agree, and "5" being strongly agree. A final composite scale was garnered by reverse coding the negatively worded questions and finding the mean of the responses.

The Scale of Protective Factors contains 24 questions and was found to also have adequate internal consistency, reliability, and validity (Madewell & Ponce-Garcia, 2016; Ponce-Garcia et al., 2015). The questions focus on four main Protective Factors: support, skills, planning, and goal efficacy. The support and skills factors are considered social, and the planning and goal efficacy are considered cognitive. Responses are on a 1-5 Likert scale, with "1" being disagree completely, "2" being disagree, "3" being neutral, "4" being agree, and "5" being completely agree. The instrument produces one social score and one cognitive score and when added together, these two scores produce a final composite score. This final composite score would cumulatively range from 24 to 120.

The Felitti et al. (1998) Adverse Childhood Experiences scale was the seminal study concerning Adverse Childhood Experiences. The instrument was found to be consistent and reliable by Folayan et al. (2020). It contains 10 yes or no questions, where affirmative responses are coded as ones and negative responses as zeros. The final score indicates the participant's exposure to Adverse Childhood Experiences. The score range is from zero to 10.

These three distinct instruments were combined into the Adverse Childhood Experiences, Resilience, and Protective Factors Instrument used in this study. With the addition of four demographic questions, the total instrument was 44 questions in total. The survey itself typically took no more than 20 minutes to complete.

Data Collection

Data collection occurred in the Fall 2022 semester. The Adverse Childhood Experiences, Resilience, and Protective Factors Survey was loaded into Qualtrics and distributed via student email to the participants previously discussed. The collection period occurred during the month of October 2022. A four-week window was being utilized to allow all sample participants time to complete the study. Participant email addresses were loaded into Qualtrics to ensure multiple responses were not allowed. Utilization of the anonymization feature of Qualtrics ensured participants do not complete the survey more than once but will erase all identifying data from the responses. Informed consent was provided at the beginning of the survey. Participation and completion of the survey implied acceptance of the informed consent. There were no anticipated risks greater than everyday life. All participants had the option to opt out of the survey or stop the survey at any time. Each participant was also provided with contact information for the researcher if they had further questions. Multiple reminder emails were sent to those in the sample group who had not responded. It was impossible for the researcher to identify responses provided by each participant. Emails were sent to campus offices across campus to garner their interest and willingness to send the recruitment emails on to their students. The initial email was sent after achieving IRB approval and once willing offices were identified, multiple reminder emails were sent to have invite students to complete the survey.

Data Analysis

All data acquired through Qualtrics was exported to Statistical Package for the Social Sciences (SPSS$^©$) and EQS 6.2 for analysis. Descriptive statistical measures were utilized to determine the current level of Resilience a participant had, as well as the presence and role of Protective Factors and what relationship those factors had with Adverse Childhood Experiences.

In this study Adverse Childhood Experiences was considered the independent variable and level of Resilience and presence of Protective Factors were both considered dependent variables. Of particular interest was to see if Protective Factors mediate the relationship between Adverse Childhood Experiences and Resilience.

Descriptive statistics, including central tendency, measure of dispersion, standard deviation, minimum and maximum value ranges, and zero order by correlations were utilized to address research question one: "What levels of Resilience do the participants have?" This number was easily obtained using the Brief Resilience Scale portion of the final instrument. Descriptive statistics were also be utilized to answer the second research question: "To what degree does the presence of Protective Factors (support, skills, planning, and goal efficacy) predict students' Resilience?" An ordinary least squares regression, using standard simultaneous regression, was applied using the four sub-scale scores of Protective Factors to obtain more robust information. This method was used to minimize the risk of predication error between the predicted and real value (Creswell & Creswell, 2018). A path analysis with observed variables only was utilized for the third research question: "To what degree does the presence of Protective Factors mediate the impact of Adverse Childhood Experiences on Resilience?" Sobel tests were also utilized to test the statistical significance of each hypothesized mediated path. These tests were utilized to determine what effect the independent variable had on a dependent variable. Charts and graphs were be employed, as appropriate.

Chapter Summary

This chapter overall demonstrated the specific methodology used in this research. Each instrument utilized in the combined Adverse Childhood Experiences, Resilience, and Protective Factors Survey has been demonstrated to be valid and reliable. The specific demographic

questions being utilized allowed for further extrapolation of the data for future usage and

research. The statistical methods utilized demonstrated relationships or connections between the

identified variables within the study. This interpretation allowed for the analysis of implications

for practice or further recommended research.

Chapter Four

Introduction

This chapter includes an overview of the study purpose, a restatement of the research questions, and a summary of the research methodology utilized. Each equally weighted question is addressed through narrative discussion and appropriate tables. The chapter concludes with a summary of the results to provide a foundation for discussions and implementation in the final chapter five.

Findings

The purpose of this quantitative study is to investigate the relationship between the presence of Adverse Childhood Experiences (independent variable) and levels of Resilience (dependent variable) and the presence of Protective Factors (dependent variable) to see if Protective Factors mediate the relationship between Adverse Childhood Experiences and Resilience.. The instrument utilized was the Adverse Childhood Experiences, Resilience, and Protective Factors Survey created by the research from three established published tools. This instrument, with the addition of four demographic questions, was a combination of three distinct tools: the Brief Resilience Scale (Smith et al., 2008), the Scale of Protective Factors (Ponce-Garcia et al., 2015), and the Adverse Childhood Experiences survey (Felitti et al., 1998). While combined into one master instrument, the Adverse Childhood Experiences, Resilience, and Protective Factors Survey, each individual scale still produced its own scores. The Brief Resilience Scale was a six-item questionnaire with three positively worded and three negatively worded questions, with responses scored on a Likert scale of 1-5. This scale, when processed, resulted in one final score ranging from zero to five (Smith et al., 2008).

The Scale of Protective Factors portion contained 24 questions, focusing on support, skills, planning, and goal efficacy. Each question was answered on a Likert scale of 1-5. Once complete, this portion produced one overall composite score, on a scale of 24-120, but also produced four sub-scale scores on a scale of 6-30 (Ponce-Garcia et al., 2015). The Adverse Childhood Experiences survey, the seminal survey studying this phenomenon, was a combination of multiple instruments, including the Conflicts Tactics Scale, Wyatt, the National Health Interview Survey, the Behavioral Risk Factor Surveys, Health and Nutrition Examination Survey, and the Diagnostic Interview Schedule from the National Institute of Mental Health. The survey was ten yes or no questions, with a score range of zero to ten.

The instrument was distributed to 927 students at the study institution. This sample size was well above the recommended sample size of 371 to achieve a 5% margin of error and a 95% confidence level (http://www.raosoft.com/samplesize.html). Of the 927 students who received the survey, 238 completed it. This resulted in a 26% response rate. Of those that participated in the study, 97.2% were between the ages of 18-23. Participants were 66.1% White (not Hispanic), 14.7% African American, 13.8% Latino(a), and 5.5% Other. Of these, 70.6% of participants identified as female and 29.4% identified as male. From a grade classification standpoint, 33% were freshman students, 13.8% were sophomores, 28.4% were juniors, 17% were seniors, and 7.8% identified as more than four years or graduate students. Tables 1-4 outlines the descriptive statistics for this first question.

Table 1

Levels of Resilience Descriptive Statistics - Age

Age	Mean	Median	SD	Min	Max
18-19	3.43	3.33	0.69	2.00	5.00
20-21	3.27	3.17	0.67	2.00	5.00
22-23	3.36	3.50	0.69	1.50	4.67
24+	4.08	4.00	0.59	3.50	5.00

n = 217

Table 2

Levels of Resilience Descriptive Statistics – Sex

Sex	Mean	Median	SD	Min	Max
Male	3.59	3.50	0.77	2.00	5.00
Female	3.28	3.33	0.63	1.50	5.00

n = 217

Table 3

Levels of Resilience Descriptive Statistics – Race/Ethnicity

Race/Ethnicity	Mean	Median	SD	Min	Max
African American	3.32	3.00	0.63	2.00	4.67
Latino(a)	3.12	3.00	0.54	2.17	4.00
White (not Hispanic)	3.43	3.50	0.70	1.50	5.00
Other	3.39	3.50	0.89	2.00	4.33

n = 217

Table 4

Levels of Resilience Descriptive Statistics – Classification

Classification	Mean	Median	SD	Min	Max
Freshman	3.39	3.33	0.68	2.00	5.00
Sophomore	3.71	3.75	0.65	2.33	5.00
Junior	3.17	3.00	0.62	2.00	4.67
Senior	3.37	3.50	0.62	2.17	5.00
More than four undergrad years	3.08	3.00	1.14	1.50	5.00
Graduate	3.76	3.67	0.57	2.83	4.67

n = 217

Levels of Resilience

Research question one, "What levels of Resilience do the participants have?" was addressed through descriptive statistics. There were three positively worded questions and three negatively worded Resilience questions in the Adverse Childhood Experiences, Resilience, and Protective Factors Survey utilized in this study. The six questions concerning Resilience were appropriately scored to result in one final Resilience number. Participants had an average Resilience score of 3.36, out of a range of one to five.

Reliability of the Resilience portion of the Adverse Childhood Experiences, Resilience, and Protective Factors Instrument was assessed by reviewing Cronbach's Alpha, which measures the internal consistency of an instrument (Creswell & Creswell, 2018). Each portion of the instrument was reviewed separately. Further tables will address the reliability of Protective Factors and Adverse Childhood Experiences, while Table 5 reviews the reliability of the

Resilience scale. A Cronbach's Alpha of 0.83, out of a range of zero to one, indicates a high

level of internal consistency. This helps to address research question one.

Table 5

Reliability Statistics for Resilience

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of items
0.83	0.83	6

n = 6

Protective Factors

 Section two of the instrument addressed Protective Factors that may be present. Research

question two posed was "To what degree does the presence of Protective Factors (support, skills,

planning, and goal efficacy) predict student' Resilience?" While one primary score could be

obtained from this section, ranging from 24-120, the four sub-scale scores will be utilized to

obtain more vigorous information. Those descriptive statistics are displayed in Tables 6-10.

These statistics indicate the levels of mean, median, and standard deviation for the four sub-

scales of Protective Factors in reference to the demographical questions. Utilization of the sub-

scales allows for a more robust analysis.

Table 6

Descriptive Statistics for Protective Factors Sub-Scales – All Participants

	Mean	Median	Standard Deviation	Min	Max
Social Support *n = 230*	3.88	4.00	0.69	1.33	5.00
Social Skills *n = 228*	3.86	3.83	0.73	1.67	5.00
Planning Behavior *n = 221*	2.92	4.00	0.67	2.00	5.00
Goal Efficacy *n = 219*	4.19	4.00	0.56	2.00	5.00

Table 7

Descriptive Statistics for Protective Factors Sub-Scales - Age

Age Group	Statistic	Social Support	Social Skills	Planning Behavior	Goal Efficacy
18-19	Mean	3.88	3.86	4.00	4.23
n = 91	Standard Deviation	0.80	0.78	0.65	0.58
	Median	4.00	3.83	4.00	4.17
	Minimum	1.33	2.17	2.83	3.00
	Maximum	5.00	5.00	5.00	5.00
20-21	Mean	3.85	3.84	3.90	4.13
n = 96	Standard Deviation	0.62	0.70	0.71	0.58
	Median	3.92	3.92	4.00	4.00
	Minimum	2.33	1.67	2.00	2.00
	Maximum	5.00	5.00	5.00	5.00
22-23	Mean	4.02	3.99	3.71	4.25
n = 25	Standard Deviation	0.53	0.63	0.63	0.36
	Median	4.00	4.00	3.67	4.17
	Minimum	2.83	2.83	2.50	3.67
	Maximum	5.00	5.00	4.83	5.00
24+	Mean	3.89	3.88	3.92	4.19
n = 6	Standard Deviation	0.69	0.73	0.67	0.56
	Median	4.00	3.83	4.00	4.00
	Minimum	1.33	1.67	2.00	2.00
	Maximum	5.00	5.00	5.00	5.00

Table 8

Descriptive Statistics for Protective Factors Sub-Scales – Race/Ethnicity

Race/ Ethnicity	Statistic	Social Support	Social Skills	Planning Behavior	Goal Efficacy
African American	Mean	3.84	3.83	3.66	4.19
n = 32	Standard Deviation	0.73	0.76	0.72	0.61
	Median	4.00	3.67	3.50	4.17
	Minimum	2.33	2.33	2.00	2.83
	Maximum	5.00	5.00	5.00	5.00
Latino(a)	Mean	4.01	3.69	3.89	4.15
n = 30	Standard Deviation	0.59	0.74	0.54	0.40
	Median	4.17	3.67	3.92	4.00
	Minimum	2.33	1.67	2.83	3.50
	Maximum	4.67	5.00	5.00	5.00
White	Mean	3.88	3.98	3.99	4.21
n = 144	Standard Deviation	0.72	0.72	0.68	0.55
	Median	4.00	4.00	4.00	4.08
	Minimum	1.33	2.17	2.33	2.00
	Maximum	5.00	5.00	5.00	5.00
Other	Mean	3.78	3.28	3.89	4.11
n = 12	Standard Deviation	0.46	0.64	0.63	0.81
	Median	3.83	3.25	4.00	4.17
	Minimum	3.00	2.17	2.83	2.83
	Maximum	4.33	4.33	5.00	5.00

Table 9

Descriptive Statistics for Protective Factors Sub-Scales – Gender

Gender	Statistic	Social Support	Social Skills	Planning Behavior	Goal Efficacy
Male	Mean	3.91	3.73	3.66	4.17
n = 64	Standard Deviation	0.65	0.85	0.65	0.58
	Median	4.00	3.67	3.67	4.00
	Minimum	2.17	1.67	2.33	2.83
	Maximum	5.00	5.00	5.00	5.00
Female	Mean	3.88	3.94	4.03	4.20
n = 154	Standard Deviation	0.71	0.68	0.66	0.55
	Median	4.00	4.00	4.00	4.08
	Minimum	1.33	2.33	2.00	2.00
	Maximum	5.00	5.00	5.00	5.00

Table 10

Descriptive Statistics for Protective Factors Sub-Scales – Classification

Class	Statistic	Social Support	Social Skills	Planning Behavior	Goal Efficacy
Freshman	Mean	3.91	3.83	3.93	4.22
n = 72	Standard Deviation	0.75	0.78	0.64	0.56
	Median	4.08	3.75	4.00	4.17
	Minimum	1.33	2.17	2.83	3.00
	Maximum	5.00	5.00	5.00	5.00
Sophomore	Mean	4.21	4.23	4.14	4.38
n = 30	Standard Deviation	0.59	0.62	0.60	0.51
	Median	4.33	4.00	4.00	4.17
	Minimum	2.33	3.00	2.83	3.50
	Maximum	5.00	5.00	5.00	5.00
Junior	Mean	3.68	3.84	3.82	4.02
n = 62	Standard Deviation	0.70	0.79	0.78	0.64
	Median	3.83	4.00	3.83	4.00
	Minimum	1.50	1.67	2.00	2.00
	Maximum	5.00	5.00	5.00	5.00
Senior	Mean	3.96	3.82	4.02	4.30
n = 37	Standard Deviation	0.57	0.55	0.60	0.38
	Median	4.00	3.83	4.00	4.17
	Minimum	2.50	2.83	2.50	3.83
	Maximum	5.00	5.00	5.00	5.00

Table 10 Continued…

Class	Statistic	Social Support	Social Skills	Planning Behavior	Goal Efficacy
4+ undergrad	Mean	3.73	3.80	3.54	4.02
n = 8	Standard Deviation	0.49	0.87	0.63	0.45
	Median	3.67	3.83	3.50	4.17
	Minimum	2.83	2.50	2.50	3.17
	Maximum	4.50	5.00	4.50	4.50
Graduate	Mean	3.91	3.61	3.69	4.28
n = 9	Standard Deviation	0.71	0.67	0.52	0.59
	Median	3.83	3.50	3.67	4.33
	Minimum	1.33	1.67	2.00	2.00
	Maximum	5.00	5.00	5.00	5.00

An ordinary least squares regression, using standard simultaneous regression was applied to discover what correlative relationship the four Protective Factor sub-scales had to levels of Resilience. This method was used to minimize the risk of predication error between the predicted and real value (Creswell & Creswell, 2018). These data are outlined in Table 11 and help to address question two "To what degree does the presence of Protective Factors (support, skills, planning, and goal efficacy) predict students' Resilience?"

Table 11

Correlation Results of Protective Factor Sub-Scales to Resilience

	Unstandardized Coefficient Beta	Unstandardized Coefficient Standard Error	Standardized Coefficient Beta	*t*	Significance
Social Support Scale	0.00	0.07	0.00	0.003	0.998
Social Skills Scale	0.11	0.06	0.12	1.76	0.08
Planning Behavior Scale	0.06	0.07	0.06	0.83	0.41
Goal Efficacy Scale	0.47	0.10	0.38	4.91	0.00

Table 12 indicates the reliability of the Protective Factors scale.

Table 12

Reliability Statistics for Protective Factors Scale

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of items
0.90	0.90	24

n = 24

A Cronbach's Alpha of 0.90 indicates a very high level of internal consistency.

The Measurement Model: Standard Confirmatory Factor Analysis

Research question three, "To what degree does the presence of Protective Factors

mediate the impact of Adverse Childhood Experiences on Resilience?" was answered by

conducting a structural equation model (SEM) analysis using the software EQS 6.2 (see Figure 1

for the hypothesized SEM). This was used to reliably test the hypothetical relationships between

the variables (Byrne, B.M., 2006). First, a measurement model was constructed in which

manifest/indicator variables were permitted to load onto their hypothesized latent variable and its

adequacy was examined via a standard confirmatory factor analysis (CFA). A CFA is a common

statistical technique used in the verification of the factor structure of a set of variables (Kline, R.,

2005; Werts et al., 1974). The measurement model specified six latent variables—Adverse

Childhood Experiences, social skills, social support, planning, goal efficacy, and Resilience.

Figure 1

Hypothesized Structural Equation Model
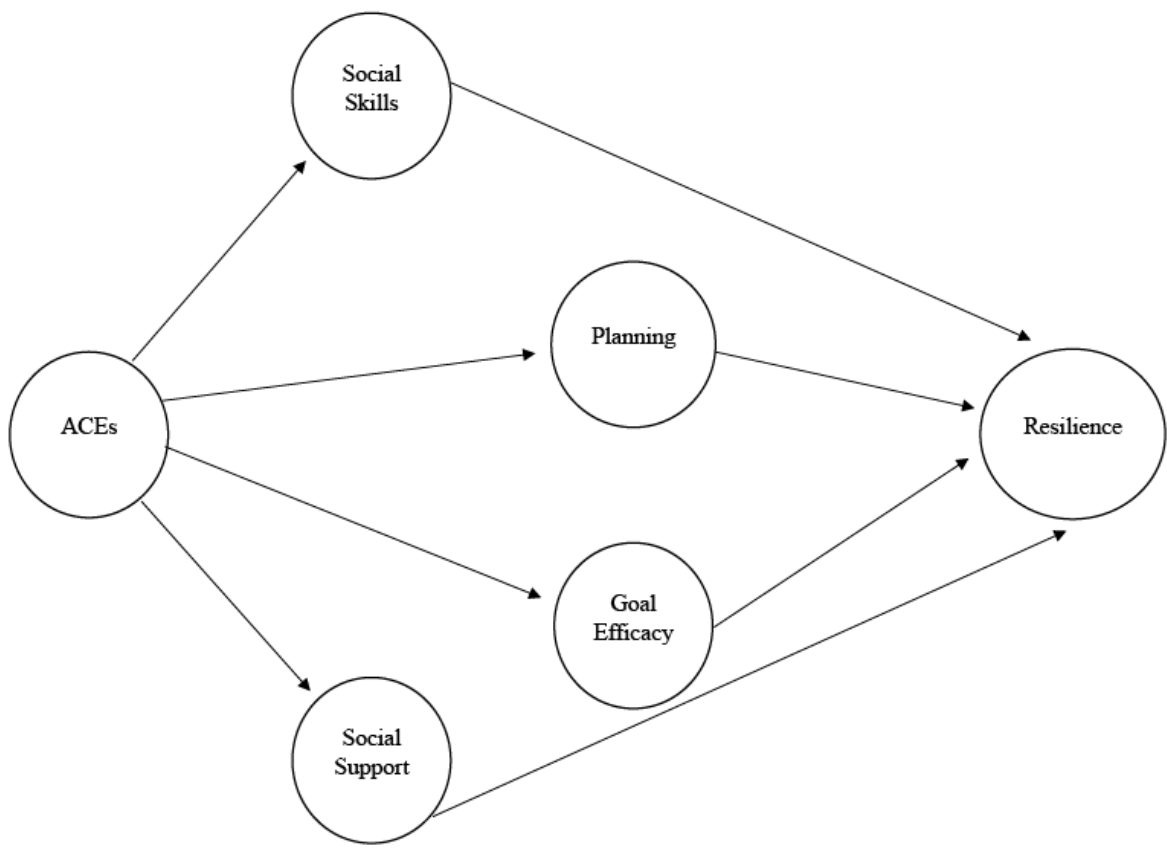
Note. Manifest/indicator variables and the error terms for the manifest variables and disturbance terms for the latent variables are omitted for the sake of parsimony.

For all models, the normal distribution goodness-of-fit indices (i.e., Non-Normed Fit Index, Incremental Fit Index, Comparative Fit INdex) and residual-based statistics (standardized root mean square residual and root mean square error of approximation and its associated 90% confidence interval [$CI_{90\%}$]) (Werts et al., 1974) between the hypothesized model and a variance-only model were examined to ascertain if the proposed model fit the data. Goodness-of-fit indices (NNFI, CFI, IFI) ≥ .90 suggest an adequately fitting model, and those ≥ .95 suggest excellent fit of the model to observed data. With respect to residuals, SRMR values ≤ .11 suggest reasonable errors in estimating model parameters and RMSEA values ≤ .08 suggest that the model parameters approximate those of the population reasonably well (Byrne, 2006; Kline, 2011). Dillon-Goldstein's rho (ρ) was also used to assess the overall or composite reliability of the model. Rho measures how well the manifest/indicator variables, as a block, represent the latent variable in which they are hypothesized to load; like the interpretation of Cronbach's alpha, higher values for ρ indicate greater model reliability, with .70, out of a range of 0 to 1, serving as the low limit for adequate model reliability (Werts et al., 1974).

The initial standard CFA model was ill-fitting, χ^2 (*df* = 725, *N* = 238) = 1161.32, *p* < .001, NNFI = .850, CFI = .860, IFI = .863, SRMR = .076, RMSEA = .053 ($CI_{90\%}$ = .047, .059). Inspection of the Lagrange Multiplier (LM) Test for adding parameters and the Wald Test for trimming parameters suggested that while no parameters should be deleted, several error covariances should be added to the model to improve its fit. Given that the addition of these error covariances in the manifest variables made substantive theoretical sense, given the related nature of the latent variables, they were added to the model. This revised CFA model with the

additional error covariances fit the data reasonably well, χ^2 ($df = 755$, $N = 238$) = 893.95, $p <$ .001, NNFI = .933, CFI = .940, IFI = .941, SRMR = .068, RMSEA = .035 ($CI_{90\%}$ = .028, .042). As no other LM Test or Wald Test results made theoretical sense, no additional parameters were added or deleted, and hence, this was deemed the final measurement model. Dillon-Goldstein's ρ = .934, indicated a reliable composite final CFA model. Factor loadings were all statistically significant and they ranged from .563 to .855 in magnitude. Factor correlations were also all significant, and they ranged from $r = -.21$ to $r = .57$. The SEM was evaluated next.

The Structural Model

The final CFA model was subsequently respecified to a SEM by removing the correlations between the six latent variables and replacing them with the direct structural paths displayed in Figure 2 and adding disturbance terms for the endogenous latent variables which serve as mediators and the dependent latent variable of Resilience. The initial SEM was ill-fitting to the observed data, χ^2 ($df = 711$, $N = 238$) = 1001.64, $p < .001$, NNFI = .898, CFI = .904, IFI = .907, SRMR = .117, RMSEA = .044 ($CI_{90\%}$ = .037, .050). LM Test results revealed that several disturbance terms needed to be correlated and they recommended the addition of two reciprocal structural paths to the SEM. As these structural paths were theoretically grounded, they were added in a respecified SEM.

This modified SEM was reasonably well fitting to the observed data, χ^2 ($df = 709$, $N = 238$) = 961.72, $p < .001$, NNFI = .911, CFI = .919, IFI = .921, SRMR = .086, RMSEA = .041 ($CI_{90\%}$ = .034, .047). No other adjustments to the model were supported by theory, and hence, this was deemed the final SEM. Figure 2 contains the final SEM with structural path coefficients.

Figure 2

Final Structural Equation Model with Structural Path Coefficients
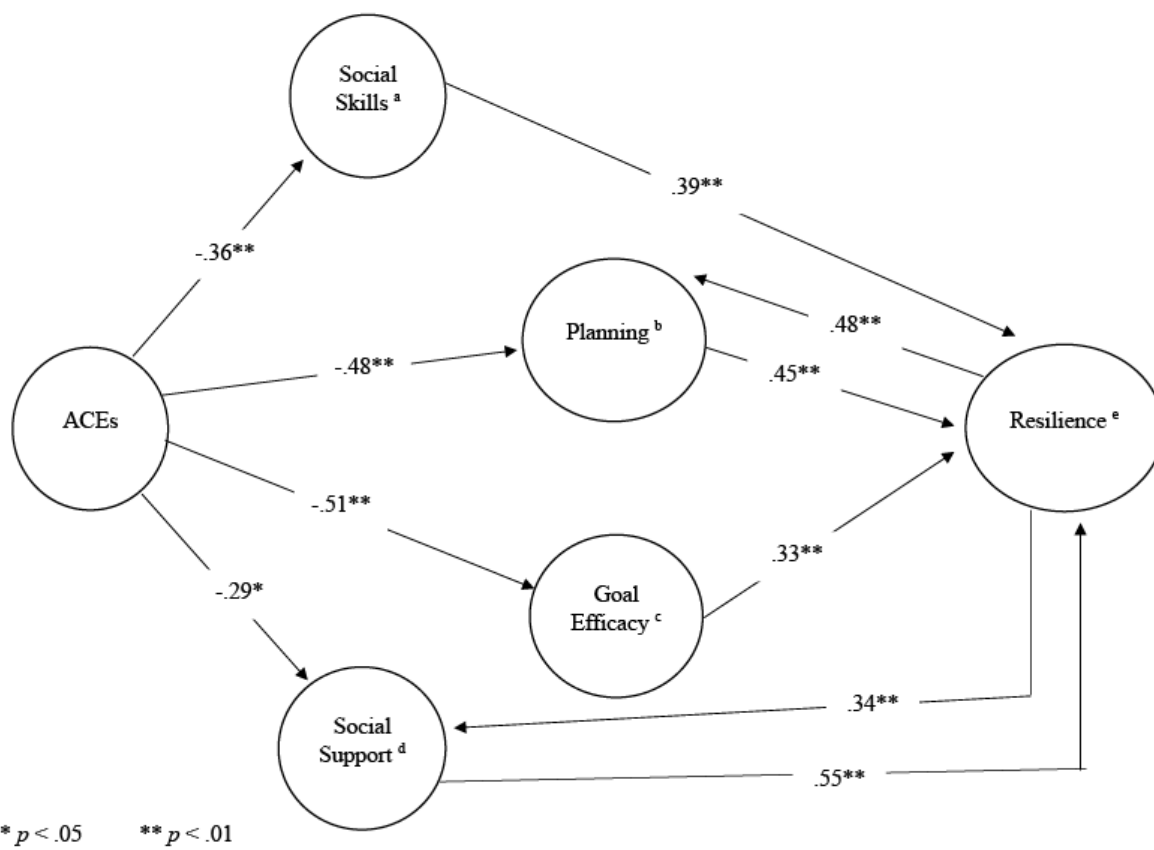
Note. [a] $R^2 = .129$; [b] $R^2 = .363$; [c] $R^2 = .260$; [d] $R^2 = .230$; [e] $R^2 = .387$.

Sobel Tests of Mediation

Mediation effects were examined by conducting a series of Sobel Tests of mediation, which evaluates whether the hypothesized mediators partially or full mediate the relation between an exogenous variable and an outcome. *Partial* mediation is present when the initial correlation between an exogenous independent variable is reduced but remains statistically significant after introducing the mediator. *Full* mediation, on the other hand, is evident when the

initial correlation between an exogenous independent variable and an outcome becomes statistically non-significant and negligible upon the introduction of the mediator.

For the present study, Sobel Tests revealed that *partial* mediation existed only for planning and social support. Planning *partially* mediated the relation between Adverse Childhood Experiences and Resilience ($\beta = -.39$, $z = 2.25$, $p < .001$). Likewise, social support *partially* mediated the relation between Adverse Childhood Experiences and Resilience ($\beta = -.31$, $z = 3.89$, $p < .001$). No other indirect effects reached statistical significance, all *p*-values $\geq .223$.

Table 13 indicates the reliability of the Adverse Childhood Experiences scale in reference to question three "To what degree does the presence of Protective Factors mediate the impact of Adverse Childhood Experiences on Resilience?".

Table 13

Reliability Statistics for Adverse Childhood Experiences Scale

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of items
0.80	0.82	10

n = 10

A Cronbach's Alpha of 0.80 indicates a high level of internal consistency.

Chapter Summary

Each of the three research questions were addressed by using a variety of statistical methods. Question one, "What levels of Resilience do the participants have?" indicated with an overall mean score of 3.37 out of five that participants in this study were more resilient than they were not. Individual demographic breakdowns indicated stark differences between each of the categories: age, sex, race/ethnicity, and classification. The four sub-scales of Protective Factors, as a response to question two "To what degree does the presence of Protective Factors (support, skills, planning, and goal efficacy) predict students' Resilience" indicated different results.

Social support indicated no correlation while goal efficacy indicated a significant relationship with Resilience. Question three, "To what degree does the presence of Protective Factors mediate the impact of Adverse Childhood Experiences on Resilience?", was addressed through structural equation modelling. This model indicated planning and social support partially mediated the relationship between Adverse Childhood Experiences and levels of Resilience.

Chapter Five

Introduction

The overarching goal of this research was to study the relationship of three distinct variables: level of Resilience, the presence of Protective Factors, and the presence of Adverse Childhood Experiences. This study focused on three research questions: What levels of Resilience do the participants have?; To what degree does the presence of Protective Factors (support, skills, planning, and goal efficacy) predict students' Resilience?; and To what degree does the presence of Protective Factors mediate the impact of Adverse Childhood Experiences on Resilience? Three instruments were combined to make the instrument for this study, titled the Adverse Childhood Experiences, Resilience, and Protective Factors Survey. The three combined instruments were the Brief Resilience Scale (Smith et al., 2008), the Scale of Protective Factors (Ponce-Garcia et al., 2015), the Adverse Childhood Experiences survey (Felitti et al., 1998). Four demographic questions were added to allow for more robust interpretation of the results.

The study aimed to help close the gap in the literature concerning college students and Adverse Childhood Experiences and Resilience, with the goal in mind to help identify students who may not yet be at-risk and get them connected to resources sooner and more efficiently. Results will be discussed in this chapter to help not only connect this study to prior research conducted but also help to identify implications for the field of student affairs and opportunities for further research.

Discussion

The demographics of the participants were close to the demographics of the institution where the study was being conducted. For sex, 70.6% of participants were female and 29.4% were male, compared to 64% and 36% respectively at the institution. From a race/ethnicity standpoint, 66.1% of the participants were White compared to 59% of the full institution.

Black/African Americans comprised 14.7% of the participants compared to 13% of the total

population. Finally, 13.8% were Hispanic/Latino(a) compared to 20% of the total population.

Comparing classification numbers, 33% of study participants were freshmen students compared

to 28% at the institution. 13.8% of study participants were sophomore students compared to 19%

of the total population. 28.4% of participants were in their junior year while 25% of the total

population were juniors. Finally, 17% identified as seniors compared to 29% of the total

population.

Resilience scores were calculated based off responses of three positively worded and

three negatively worded questions. Responses were tallied into one final Resilience score for

each participant, ranging from one to five.. When separating by age groups (ages 18-19, 20-21,

22-23, and 24+), not surprisingly those who were ages 24+ had the highest mean score of 4.08

out of five. Participants ages 18-19 were a distant second with a mean of 3.43 out of five, ages

22-23 came in third with a mean of 3.36 out of five and those aged 20-21 came up last with a

mean Resilience score of 3.27 out of five. This supports the argument of the older an individual

gets the more resilience they become (Na et al., 2022; Lyvers et al., 2020; Scheibe et al., 2022;

Thomas and Zolkoski, 2020). An unexpected result came from those participants who were ages

20-21. They had the lowest Resilience score (3.27/5) of all participants. This is an opportunity

for further study to determine the root cause of this. One trait not addressed in this study was

whether the student came in their freshmen year and progressed through or if they transferred in

at some point. This information could be helpful in identifying the cause of this lower level of

Resilience with this age group. In-line with that result, those participants who identified as a

junior had an overall mean score of 3.17/5. This would indicate something is happening in the

particular window of college that warrants further study. Those who were in five or more years

of their undergraduate degree had the lowest overall mean score of Resilience with 3.08/5. This is the lowest mean score of the different demographic breakdowns.

Male participants had an overall higher level of Resilience (3.59/5) compared to their female counterparts (3.28/5). This is supported by Sambu, L.J., and Mhongo, S. (2019), where their study had similar results. Xiao et al., (2020) also found males had a higher level of Resilience than their female counterparts. The min score for females, a 1.50/5, is of concern and should be noted. This extremely low score indicates at least one participant has an extremely low level of Resilience. When looking at the race/ethnicity breakdown of the data, White (not Hispanic/Latino(a)) participants had the highest score of 3.43/5, though similar to the minimum female score, they too had a minimum score of 1.50/5. Latino(a) participants scored the lowest out of the racial/ethnic breakdown with a score of 3.12. Latino(a) Participants also had the lowest max score of 4.00/5. The role of racial identity has been documented in various studies in reference to Resilience and Protective Factors (D'Costa et al., 2021; Mushonga and Hennebarger, 2019; Wang et al., 2020). D'Costa et al., (2021) noted the promotion of ethnic identity as being a Protective Factor and Wang et al., (2020) found ethnic identity to be significantly correlated with lower levels of suicidality in Black college students. Mushonga and Hennebarger, (2019) found racial identity to be an important Protective Factor as well.

Research question two focused on the present of Protective Factors and if that presence predicted a participant's level of Resilience. Protective factors play a key role in college student's success. The Protective Factors investigation as part of the Adverse Childhood Experiences, Resilience, and Protective Factors Survey were social support, social skills, planning behavior, and goal efficacy (Ponce-Garcia et al., 2015). Social support and social skills were categorized as social factors where planning behavior and goal efficacy were categorized as

cognitive factors (Ponce-Garcia et al., 2015). Overall social support had a mean score of

3.88/5.0, social skills had a mean score of 3.86/5.0, planning behavior had a mean score of

3.92/5.0, and goal efficacy had a mean score of 4.19/5.0. Questions were answered on a Likert

scale of 1-5, with "1" being disagree completely, "2" being disagree, "3" being neutral, "4"

being agree, and "5" being completely agree. The goal efficacy questions focused on planning,

goal achievement, making good decisions, and the ability to think quickly (Ponce-Garcia et al.,

2015). This sub-scale was the highest score for each of the breakdowns of the demographic

groups. This indicates the high level of goal efficacy of the participants. As shown in Table 11,

goal efficacy has a standardized coefficient beta of 0.38, indicated the strongest effect on

Resilience of all of the protective factors sub-scales. The social skills sub-scale was second with

a standardized coefficient beta of 0.12. These standardized coefficient betas compare the strength

of the effect of the independent variable to the dependent variable. While this effect was not as

strong, it was still significant. Both of these scores underscore the importance of the work

happening within student affairs. Helping students establish a connection with others and with

the institution not only benefits the student but benefits the institution as well. The establishment

of goals, healthy decision-making, and the ability to problem-solve also benefits both the student

and the institution.

The structural equation modeling supports the introduction of Protective Factors into the

learning environment. All four Protective Factor sub-scales mitigated the impact of Adverse

Childhood Experiences on levels of Resilience, and all contributed to explaining the variability

in Resilience. Planning and Goal Efficacy each explained approximately 36% and 26%,

respectively, of the variability of Resilience. Adverse Childhood Experiences and the four sub-

scales of Protective Factors explained almost 39% of the variability of Resilience. When looking

at each sub-scale individually in Figure 2 from Chapter 4, it is clear the positive impact each sub-scale has on the impact of Adverse Childhood Experiences. When looking at partial or full mediation, the Sobel Tests of mediation indicate planning and social support both partially mediate the relationship between Adverse Childhood Experiences and Resilience, with planning being the stronger mediator of the two. Bolton et al. (2016) had similar results in their study of American Indian and Alaskan Native participants, specifically external connections. Henson et al., (2017) also supported this, finding relational and community Protective Factors to be the most important.

Limitations, Delimitations, and Assumptions

The focus for this study was on students as they transitioned into college. While this included all that were transitioning, the focus was on the traditional 18–24-year-old. This delimitation was intentional to study the relationship between childhood experiences that were adverse and how Resilience played a role. This specific focus could limit the generalizability of the results to the general student population. It is assumed that participants in the study answered openly and honestly to all questions, as there is little to no risk involved by their participation in the study.

There were two main limitations of this study: sampling technique and setting. The researcher used convenience sampling to simplicity and convenience, but this does lead to potential restrictions on the generalizability of the results past the institution in which the research was conducted. This leads to the second limitation: setting. Research for this study was conducted at one, medium-sized public institution in the south. While the demographics of the institution are not unique, results may not be translatable to different institutions with different populations.

Implications for Practice

Each of the research questions played a part in laying the foundation for implications for practice. The foundational level of Resilience first had to be established in order to know what impact, if any, Adverse Childhood Experiences and Protective Factors had on those levels and these data can be utilized within student affairs to bring about educational reform. First, both research questions two and three indicate how important Protective Factors are. Each question, in its own way, validates the need for institutions of higher education to invest resources (time, human, and financial) into the development of environments that are rich, if not saturated, with these Protective Factors. These data also indicate the role Protective Factors play for specific demographic groups. These results can be taken to work proactively with specific groups to start the "pre-interventions" posited in Chapter One. Working to develop these pre-interventions can help to create bumpers for students and help prevent them from falling into an at-risk or in-crisis status.

Administering some sort of similar instrument prior to students' arrival could also help institution identify students that may need additional assistance and resources so they can be connected once arriving to campus. Care should be taken to use any data as informative rather than determinative. Statistics do not always predict how a student will fare, but the support network can be implemented, nevertheless.

Recommendations for Future Research

This study did well in laying a foundation for the different impacts of Adverse Childhood Experiences, Resilience, and Protective Factors on the different demographics studied. Future

more in-depth research is needed on the impact of classification on levels of Resilience and what role Protective Factors play. These Protective Factors, also in part known as soft skills, play an integral role in an individual's life while in college, but also once they get out into the workforce. If these Protective Factors can be highlighted and increased, individuals are bound to be more successful in both their personal and professional lives.

More research is also necessary into presence of Adverse Childhood Experiences and levels of Resilience in the K-12 system. Obviously the pipeline of students into a college or university comes from the K-12 system. If at-risk students are identified earlier within their K-12 career, interventions can be applied sooner and Protective Factors enhanced sooner. Theoretically this would then lead to an increased level of Resilience once they enter a college or university.

Conclusion

This research has indicated the role Protective Factors play in mitigated the negative impacts of Adverse Childhood Experiences. It has also highlighted specific demographics and what role the experiences they have had coming into college have impacted their levels of Resilience. There is a breadth of research that continues to demonstrate the prevalence of Adverse Childhood Experiences and the significant negative effects of these experiences. There is also a comparable amount of research indicating the positive impacts and benefits of Protective Factors and how those Protective Factors can help reduce the impact of any Adverse Childhood Experience present. Finally, the role of important role of Resilience continues to be demonstrated in the literature and this research. These traits are something that benefits from Protective Factors and helps all individuals be successful.

Impact Statement

This and other research have demonstrated the prevalence of Adverse Childhood Experiences with individuals entering college. Just as importantly, this and other research has demonstrated the positive impact Protective Factors can play on mitigating the impact of these Adverse Childhood Experiences on our students and on our student's level of Resilience. Institutions would do well in working to identify students who may be at-risk and work to institute pre-interventions to ideally move them off the at-risk scale and further their development and success. The importance of goal efficacy has been demonstrated. Students should be encouraged to not only plot out a plan for their four years in undergrad, but also develop a plan for when things do not happen the way they want. This ability to critically think and problem solve is not a skill reserved just for their time in college.

When speaking of the role of Protective Factors, each of the four sub-scales helped to explain almost half of the variation in Resilience. Planning and social support both helped to partially mediate the impact of Adverse Childhood Experiences on Resilience. Again, institutions would be wise to heed this data, and other of its kind, to invest time, human, and financial resources to the development of student's planning and social support Protective Factors. This study has helped to further the varying types of research on Resilience, Adverse Childhood Experiences, and Resilience. It has connected these three areas as a trifecta of research and contributed to the conversation of what institutions can do to help prepare their students to not only be technically savvy, but emotionally and socially savvy as well.

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APPENDICES

Appendix A

"Adverse Childhood Experience, Resilience, and Protective Factors Scale"
(Dies, n.d., Felitti et al., 1998; Ponce-Garcia et al., 2015; Smith et al., 2008)

Q1 I tend to bounce back quickly after hard times.
- Strongly disagree (1)
- Disagree (2)
- Neutral (3)
- Agree (4)
- Strongly agree (5)

Q2 I have a hard time making it through stressful events.
- Strongly disagree (5)
- Disagree (4)
- Neutral (3)
- Agree (2)
- Strongly agree (1)

Q3 It does not take me long to recover from a stressful event.
- Strongly disagree (1)
- Disagree (2)
- Neutral (3)
- Agree (4)
- Strongly agree (5)

Q4 It is hard for me to snap back when something bad happens.
- Strongly disagree (5)
- Disagree (4)
- Neutral (3)
- Agree (2)
- Strongly agree (1)

Q5 I usually come through difficult times with little trouble.
- Strongly disagree (1)
- Disagree (2)
- Neutral (3)
- Agree (4)
- Strongly agree (5)

Q6 I tend to take a long time to get over set-backs in my life.
- Strongly disagree (5)
- Disagree (4)
- Neutral (3)
- Agree (2)
- Strongly agree (1)

For the next six (6) questions, answer based on "My friends/family".

Q7 Keep me up to speed on important events.
- Disagree completely (1)
- Disagree (2)
- Neutral (3)
- Agree (4)
- Completely agree (5)

Q8 See things the same way.
- Disagree completely (1)
- Disagree (2)
- Neutral (3)
- Agree (4)
- Completely agree (5)

Q9 Are seen as united.
- Disagree completely (1)
- Disagree (2)
- Neutral (3)
- Agree (4)
- Completely agree (5)

Q10 Are supportive of one another
- Disagree completely (1)
- Disagree (2)
- Neutral (3)
- Agree (4)
- Completely agree (5)

Q11 Are optimistic.
- Disagree completely (1)
- Disagree (2)
- Neutral (3)
- Agree (4)
- Completely agree (5)

Q12 Spend free time together.
- Disagree completely (1)
- Disagree (2)
- Neutral (3)
- Agree (4)
- Completely agree (5)

For the next six (6) questions, answer based on "I am good at".

Q13 Socializing with new people.
- Disagree completely (1)
- Disagree (2)
- Neutral (3)
- Agree (4)
- Completely agree (5)

Q14 Interacting with others.
- Disagree completely (1)
- Disagree (2)
- Neutral (3)
- Agree (4)
- Completely agree (5)

Q15 Making new friends.
- Disagree completely (1)
- Disagree (2)
- Neutral (3)
- Agree (4)
- Completely agree (5)

Q16 Being with other people.
- Disagree completely (1)
- Disagree (2)
- Neutral (3)
- Agree (4)
- Completely agree (5)

Q17 Working with others as part of a team.
- Disagree completely (1)
- Disagree (2)
- Neutral (3)
- Agree (4)
- Completely agree (5)

Q18 Starting new conversations.
- Disagree completely (1)
- Disagree (2)
- Neutral (3)
- Agree (4)
- Completely agree (5)

For the next six (6) questions, answer based on "When working on something, I".

Q19 Can see the order in which I do things.
- Disagree completely (1)
- Disagree (2)
- Neutral (3)
- Agree (4)
- Completely agree (5)

Q20 Plan things out.
- Disagree completely (1)
- Disagree (2)
- Neutral (3)
- Agree (4)
- Completely agree (5)

Q21 Organize my time well.
- Disagree completely (1)
- Disagree (2)
- Neutral (3)
- Agree (4)
- Completely agree (5)

Q22 Set priorities before I start.
- Disagree completely (1)
- Disagree (2)
- Neutral (3)
- Agree (4)
- Completely agree (5)

Q23 Do better if I set a goal.
- Disagree completely (1)
- Disagree (2)
- Neutral (3)
- Agree (4)
- Completely agree (5)

Q24 Make a list of things to do in order of importance.
- Disagree completely (1)
- Disagree (2)
- Neutral (3)
- Agree (4)
- Completely agree (5)

For the next six (6) questions, answer based on "I am confident in my ability to".

Q25 Achieve goals.
- Disagree completely (1)
- Disagree (2)
- Neutral (3)
- Agree (4)
- Completely agree (5)

Q26 Think out and plan.
- Disagree completely (1)
- Disagree (2)
- Neutral (3)
- Agree (4)
- Completely agree (5)

Q27 Make good decisions/choices.
- Disagree completely (1)
- Disagree (2)
- Neutral (3)
- Agree (4)
- Completely agree (5)

Q28 Think on my feet.
- Disagree completely (1)
- Disagree (2)
- Neutral (3)
- Agree (4)
- Completely agree (5)

Q29 Succeed
- Disagree completely (1)
- Disagree (2)
- Neutral (3)
- Agree (4)
- Completely agree (5)

Q30 Solve problems.
- Disagree completely (1)
- Disagree (2)
- Neutral (3)
- Agree (4)
- Completely agree (5)

Please answer Yes or No to the following ten (10) questions.

Q31 Did a parent or other adult in the household often or very often: swear at you, insult you, put you down or humiliate you? Or act in a way that made you afraid that you might be physically hurt?
- Yes (1)
- No (2)

Q32 Did a parent or other adult in the household often or very often: push, grab, slap, or throw something at you? Or ever hit you so hard that you had marks or were injured?
- Yes (1)
- No (2)

Q33 Did an adult or person at least 5 years older than you ever: touch or fondle you or have you touch their body in a sexual way? Or attempt or actually have oral, anal, or vaginal intercourse with you?
- Yes (1)
- No (2)

Q34 Did you often or very often feel that: no one in your family love you or thought you were important or special? Or your family didn't look out for each other, feel close to each other, or support each other?
- Yes (1)
- No (2)

Q35 Did you often or very often feel that: you didn't have enough to eat, had to wear dirty clothes, and had no one to protect you? Or your parents were too drunk or high to take care of you or take you to the doctor if you needed it?
- Yes (1)
- No (2)

Q36 Were your parents ever separated or divorced?
- Yes (1)
- No (2)

Q37 Was your mother or stepmother: often or very often pushed, grabbed, slapped, or had something thrown at her? Or sometimes, often, or very often kicked, bitten, hit with a fist, or hit with something hard? Or ever repeatedly hit over at least a few minutes or threatened with a gun or knife?

- Yes (1)
- No (2)

Q38 Did you live with anyone who was a problem drinker or alcoholic or who used street drugs?

- Yes (1)
- No (2)

Q39 Was a household member depressed or mentally ill or did a household member attempt suicide?

- Yes (1)
- No (2)

Q40 Did a household member go to prison?

- Yes (1)
- No (2)

Q41 What age are you?

- 18-19 (1)
- 20-21 (2)
- 22-23 (3)
- 24+ (4)

Q42 What race/ethnicity are you?

- African American (1)
- Asian/Pacific Islander (2)
- Latino(a) (3)
- White (not Hispanic) (4)
- Other (5)

Q43 What is your sex?

- Female (1)
- Male (2)
- Transgender (3)
- Other (4)

Q44 What class rank are you?
- Freshman (1)
- Sophomore (2)
- Junior (3)
- Senior (4)
- More than four undergraduate years (5)
- Graduate (6)

Appendix B

Informed Consent Form
College: College of Education, Georgia Southern University
Department: Educational Leadership
Title of Study: The Relationship Between Adverse Childhood Experiences and Resilience
Through the Eyes of Transition

Researcher: Andrew J. Dies, M.Ed. Current Doctoral Student in the Georgia Southern
University Educational Leadership Doctoral Program. Will serve as principal investigator.

Investigator Contact: Andrew J. Dies, Andrew.dies@sfasu.edu; 936.468.7258

Advisor Contact: Dr. Juliann McBrayer, jmcbrayer@georgiasouthern.edu, 912.478.5302

Purpose of Study: The purpose of this quantitative study is to investigate the relationship
between the presence of Adverse Childhood Experiences and levels of Resilience and the
presence of Protective Factors to see if Protective Factors mediate the relationship between
Adverse Childhood Experiences and Resilience.

Procedures: Participation in this study will include completion of the Adverse Childhood
Experiences, Resilience, and Protective Factors Scale. This scale includes forty (40) research
questions and four (4) demographic questions.

Discomfort or Risks: Little to no discomfort or risk should be experienced for those individuals
participating in this study. As the Adverse Childhood Experiences, Resilience, and Protective
Factors Scale addresses the management of adverse situations, participants may reflect upon
sensitive issues. By participating in this study, participants understand they may access the
Stephen F. Austin State University Counseling Services at 936.468.2401 or the Dean of Students
Office at 936.468.7249.

Benefit to Participant: There is no benefit to the participant.

Benefit to Society: This information will help Higher Education Professionals intervene earlier
with students whose behavior is posing a risk to themselves or the community.

Time Required: The time required to complete the survey should be less than twenty (20)
minutes.

Statement of Confidentiality: Deidentified or coded data from this study may be placed in
a publicly available repository for study validation and further research. You will not be
identified by name in the data set or any reports using information obtained from this study, and

your confidentiality as a participant in this study will remain secure. Subsequent uses of records and data will be subject to standard data use policies which protect the anonymity of individuals and institutions.

Right to Ask Questions: Participants have the right to ask questions and have those questions answered. If you have questions about this study, please contact the researcher named above or the researcher's faculty advisor, whose contact information is located at the end of the informed consent. For questions concerning your rights as a research participant, contact Georgia Southern University Office of Research Services and Sponsored Programs at 912-478-5465.

Compensation: No compensation is offered as participation in this study.

Voluntary Participation: Your participation is voluntary. You may choose not to take the survey, to stop responding at any time, or to skip any questions that you do not want to answer. You must be at least 18 years of age to participate in this study. Your completion of the survey serves as your voluntary agreement to allow the anonymous data gathered to be used in this study and in future research.

Penalty: There is no penalty for not participating in this study.

Mandatory Reporting: All information will be treated confidentially. There is one exception to confidentiality that we need to make you aware of. In certain research studies, it is our ethical responsibility to report situations of child or elder abuse, child or elder neglect, or any life-threatening situation to appropriate authorities. However, we are not seeking this type of information in our study nor will you be asked questions about these issues.

Title of Study: The Relationship Between Adverse Childhood Experiences and Resilience Through the Eyes of Transition

Principal Investigator: Andrew J. Dies, Box 13066 – SFA Station, Nacogdoches, TX 75962
                Andrew.dies@sfasu.edu; 936.468.7258

Faculty Advisor: Dr. Juliann Sergi McBrayer, 1332 Southern Drive, Statesboro, GA 30458
                jmcbrayer@georgiasouthern.edu; 912.478.5302

To contact the Office of Research Compliance for answers to questions about the rights of research participants or for privacy concerns please email IRB@georgiasouthern.edu or call (912) 478-5465. This project has been reviewed and approved by the GSU IRB under tracking number H23067.

You must be 18 years of age or older to consent to participate in this research study. If you consent to participate in this research study and to the terms above, please continue forward with the survey. If you do not, please end the survey.