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THE COLLEGE EXPERIENCE IN THE EYES OF

ADVERSE CHILDHOOD EXPERIENCES

by

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A thesis submitted in fulfillment of the requirements

for the Honors in Research Program in Sociology

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ABSTRACT

Adverse Childhood Experiences (ACEs) are traumatic events experienced by children and adolescents ages zero to 17 that can have a long-lasting effect on a person's overall mental and physical health. Recent studies have shown that the rate of students entering college with one or more ACEs has increased, potentially resulting in a lower rate of college completion. The purpose of this study is to gain insight into how college students with multiple ACEs navigate the college experience despite their barriers. College students are a unique population due to its range of diversity in every aspect of a student's life, including race/ethnicity, number of ACEs, level of resiliency, and life experiences. Using a mixed-methods strategy, a cross-sectional design will be applied for a set of initial surveys to establish demographic information of the college student body. Then, a qualitative/narrative design will be used for students with multiple ACEs (four or more) to gain perspective of their college experience, including their resiliency and use of resources. By using a mixed-method design, the results will be able to highlight a percentage of the current college population in relation to ACEs and gain insight into the college interventions/resources from the point of view of students. Research has proven that ACEs can create potential barriers for college students when pursuing their college degrees. However, more research needs to emphasize student resiliency, social support, and the utilization of interventions.

Keywords: Adverse Childhood Experiences, College students, Toxic Stress, Resiliency, Social Support

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INTRODUCTION

"Traumatic events of the earliest years of infancy and childhood are not lost, but like a child's footprints in wet cement, are often preserved lifelong. Time does not heal wounds that occur in those earliest years; time conceals them. They are not lost; they are embodied" -Vincent J. Felitti [Foreword in "The impact of early life trauma on health and disease: the hidden epidemic (Lanius et al., 2011)]

Adverse Childhood Experiences, as mentioned by Dr. Robert Block, are the single, greatest unaddressed public health threat facing our nation today. Adverse Childhood Experiences (ACEs) are traumatic events experienced during the developmental stages of infancy to the age of adolescence (Centers for Disease and Prevention CDC, 2016; Felitti et al., 1998). Examples of traumatic experiences include physical, sexual, and emotional abuse, neglect, and household dysfunction, such as living with a close relative that has a mental illness. As the literature on ACEs continues to grow, the list of ACEs has expanded as well, including traumatic experiences such as racial discrimination, school shootings, and parental separation due to deportation (Trent et al., 2019, Beland & Kim, 2016, Finkelhor et al., 2013; Sacks & Murphey, 2018). These traumatic experiences, if left untreated, can have a long-lasting impact on an individual's overall mental and physical health. A factor that plays a role in the development of intense physical and emotional responses due to ACEs is traumatic stress. Traumatic stress can lead to a child enduring feelings of terror, helplessness, and even fear as a result of the re-occurrence of one ACE or the accumulation of several ACEs during the critical stages of development (The National Child Traumatic Stress Network, n.d.). Also, ACEs can

impact a child's cognitive functioning that impedes academic success. Research has shown that ACEs can impact an individual's path to academic success by developing trouble in concentration, inability to learn new tasks, or problems with memory retention (Hinojosa, M. et al., 2019).

The current aim of this study is to gain insight into how college students with multiple ACEs overcome their childhood adversity to take the steps necessary to pursue higher education. For many students, the transitional period of attending university is one of the first glimpses of feeling a sense of belonging. However, the pursuit of higher education can be overwhelming, as it can result in high levels of stress due to academic challenges and having childhood adversity. Recent research has shown that more than half of college students begin their attendance at college being affected by more than one ACE (Smyth et al., 2008). The combination of exposure to childhood adversity and the academic challenges of pursuing higher education can lead to lower rates of degree completion (Boden et al., 2007). In this study, college students will have the opportunity to express their concerns about pursuing a college degree, whether it is based on lack of support, poor study skills, health problems, or life experiences that impede them from focusing on their education. This study elaborated on the student's process of admission to college, applying for financial help, finding on-campus interventions, and developing strategies to ensure academic success despite their barriers. A combination of both aspects of a student's life can provide an idea of a student's level of resiliency that is motivating them to pursue this accomplishment. In addition, it will give the committee of universities a glimpse of their college populations and ways to improve their resources to target at-risk students to succeed in their motivation to pursue a college degree.

The literature on ACEs is still relatively new; however, the conclusion is similar. No matter what stage in life an individual is, there are ways to prevent and manage the impacts left by childhood adversity. This thesis will have an in-depth literature review to elaborate on the topic of ACEs as a social determinant of health, stress, and the relationship between ACEs and a college population, a methodology on how this study moved forward, and a discussion as to the importance of the new findings. This study hopes to contribute to the conversation of the growing literature on Adverse Childhood Experiences in a college environment.

Research Questions

1. How college students that have experienced Adverse Childhood Experiences effectively manage stressful situations provided by the transitional period of pursuing higher education?

2. Do college students with more than four ACEs utilize and seek college-designed programs to improve a student's current difficult situation, as opposed to students with less than four ACEs?

CHAPTER 1: LITERATURE REVIEW

Social Determinants of Health

The World Health Organization (WHO) defines health as a "state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity" (WHO, 1995). The Constitution of the World Health Organization states that attaining the highest standard of health is one of the fundamental rights of every human being despite their race, religion, political belief, economic and social conditions (WHO, 1995). However, the social conditions in which people are born, grow, live, work, and age, known as social determinants of health, are influenced by economic, political, and social factors that are linked to health inequities (WHO, n.d; Trent et al., 2019). For instance, experiencing stressful circumstances such as homelessness or racial discrimination can have an impressionable effect on the development of potential illnesses and disabilities (Cockerham, W.C, p. 4, 2017, McNeil, 2013, Trent et al., 2019). However, some social determinants can allow individuals to enhance their coping mechanisms, prevent diseases, and maintain health when targeted properly (Cockerham, W.C, p. 4, 2017). An example of a significant social determinant of health is the effects of Adverse Childhood Experiences (ACEs). In this study, there will be an emphasis on childhood adversity concerning physical and mental health, stress, and how it can affect the college population.

Adverse Childhood Experiences

Adverse Childhood Experiences (ACEs) are defined as traumatic events experienced by children and adolescents ages zero to 17, which can have a long-lasting impact on a person's overall mental and physical health (Centers for Disease and Prevention CDC, 2016; Felitti et al., 1998). ACEs are often categorized into two types of primary exposure, either direct action on the

child or the living environment surrounding them. The ten most common ACEs include physical, emotional, and sexual abuse, neglect (physical and emotional), and household dysfunction such as parental incarceration, violence against the mother, and living with someone with mental illness and substance abuse (Felitti et al., 1998). As the literature continues to grow, the ACE categories now have expanded to include extreme economic hardship (homelessness, food insecurity, and poverty), parental separation or divorce, military family-related stressors (deployment), discrimination based on race or ethnicity, community violence, school shootings, peer victimization or rejection, and more (Finkelhor et al., 2013; Centers for Disease and Prevention CDC, 2016; Bethell et al., 2017; Sacks & Murphey, 2018; Beland & Kim, 2016; National Child Traumatic Stress Network, n.d.).

In the late 1990s, the research study of Dr. Felitti et al. (1998) was one of the first to identify the relationship between child abuse and household dysfunction in regards to the leading cause of death in adults (Felitti et al., 1998). This study, published in the *American Journal of Preventive Medicine* (1998), became one of the journal's most cited articles (Felitti, 2019). The researchers administered the ACE Study Questionnaire, which was to determine the prevalence of ACEs in a general population to assess how it affects the health of adults in the following decades of their lives (Felitti, 1998; Felitti, 2019). The ten-item questionnaire asked the adults to recall whether they had experienced abuse, neglect, and household dysfunction as children with a number of experiences resulting in an ACE Score (Felitti, 2019). The study concluded that the more adverse childhood experiences a person had, the higher the likelihood of participating in unhealthy risk behaviors that can lead to developing health problems such as chronic bronchitis,

diabetes, substance abuse, and depression [Figure 1] (Center of the Developing Child, 2015; Felitti et al., 1998; CDC, 2020).

The participation of unhealthy risk behaviors mentioned in this study included smoking, alcohol abuse, drug abuse, overeating, and sexual behaviors (Felitti et al., 1998; National Child Traumatic Stress Network, n.d.). Through a medical and social perspective, these risk behaviors can be interpreted solely by their negative consequences (Felitti et al. 1998). However, these unhealthy risk behaviors may provide psychological or immediate pharmacological benefits. Resulting in the participant's use of immediate "solutions" to move to pass their "problem" in this case, their traumatic childhood experiences (Felitti et al., 1998; Felitti et al., 2010). Unfortunately, this relationship eventually can lead to chronic use resulting in health risks and disease (Felitti, 1998; Felitti, 2009). The cumulative effect of ongoing health risks of multiple childhood adversities may become apparent after years of exposure (Anda et al., 2010).

In addition, experiences in childhood adversity are the common pathways to social, emotional, and cognitive impairments that can lead to additional unhealthy risk factors such as violence, revictimization, disease, disability, and premature death (Anda et al., 2010). Premature death can be a reality for individuals with an ACE Score of six or more, as they have a risk of dying 20 years earlier than individuals that have zero ACEs (Bucci et al., 2016). The re-occurrence of one ACE or the accumulation of several ACEs during the developmental stages of a child can lead to exposure to traumatic stress. Traumatic stress can result in the child enduring feelings of terror, helplessness, or fear that can lead to intense physical and emotional responses (The National Child Traumatic Stress Network, n.d.).
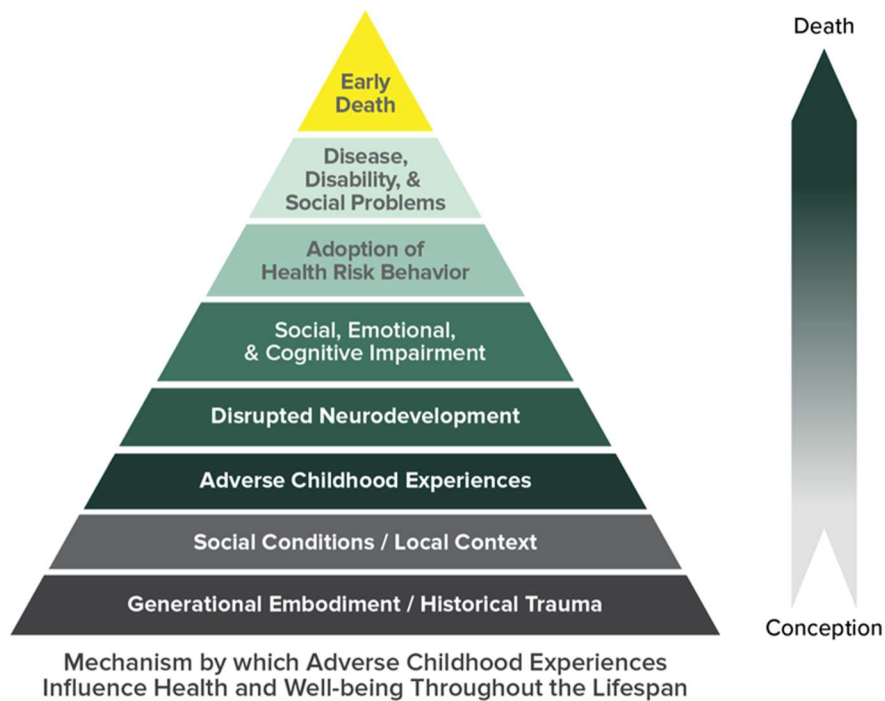
Figure 1: The ACE Pyramid, updated (CDC, 2020)

The Biological Aspect of Stress

Merriam-Webster (n.d.) defines stress as "A physical, chemical, or emotional factor that causes bodily or mental tension and maybe a factor of disease causation" (Stress, n.d.). According to the Center of the Developing Child (2015), there are three different types of stress: positive, tolerable, and toxic stress [Figure 1]. Positive stress characterized as an essential part of healthy development that helps with the promotion of child growth. It can cause mild elevation of heart rate and hormone levels (Center of the Developing Child 2015, American Academy of Pediatrics, 2014). The biological mechanism during this period of stress can be seen when there is an activation of the hypothalamic-pituitary-adrenal (HPA) axis in the presence of a mild stressor. Once the stressor is eliminated, the activation of the autonomic nervous system concludes with the return of the body's homeostasis (Center for Youth Wellness, 2017).

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Emotional stress is necessary during this stage of development to promote healthy coping

mechanisms and problem-solving skills (American Academy of Pediatrics, 2014). Furthermore,

tolerable stress, as opposed to positive stress, can be triggered as a result of severe or long-lasting

experiences such as loss of a loved one, injury, or aftermath of a natural disaster (Center on the

Developing Child, 2015). Tolerable stress, once triggered, will activate the body's alert system.

A child's duration to return the body to homeostasis will depend on the presence of a buffer from

a supportive adult that can promote healthy coping mechanisms (Center for Youth Wellness,

2017; Center of the Developing Child, 2015; American Academy for Pediatricians, 2014). By

implementing a child-buffer relationship system, the damaging effects of the brain and other

organs will cause no permanent damage.

The previous two types of stress, positive and tolerable, can cause a biological response

that can be either beneficial in the development of a child or can cause a temporary disruption in

brain development. However, the third type of stress correlates to the lifelong consequences of

childhood adversity. Toxic stress can be caused "when a child experiences strong, frequent, and

prolonged adversity," in the absence of a child-buffer relationship from a supportive adult

(Center for Youth Wellness, 2017; Center of the Developing Child, 2015; American Academy

for Pediatricians, 2014). The physiological response to toxic stress leads to a dysregulation of the

neuroendocrine and immune systems. In this case, the body does not have the ability to return to

homeostasis (Center for Youth Wellness, 2017). The hypothalamic-pituitary-adrenal (HPA) axis

can compromise several body systems such as the nervous, immune, cardiovascular,

reproductive, and endocrine systems (Bucci et al., 2016). In addition, this response can lead to an

increased risk of being affected by a stress-related disease and cognitive impairment, that can have a long-lasting effect well into adulthood (Center of the Developing Child, 2015).

Furthermore, toxic stress can lead to traumatic stress. Traumatic stress occurs when a traumatic experience that has the effects of toxic stress, such as an ACE, continues to persist either by the repetition of the same traumatic event or an accumulation of different traumatic situations (National Child Traumatic Stress Network, n.d., American Academy for Pediatrics, 2017). A reflection of an ACE Score can insinuate that the accumulation of childhood adversity exposure leads to changes in brain architecture, triggering an activation of the stress response system (Anda et al., 2010). The effects of traumatic stress can lead to a child living in a constant "survival mode" to cope with the current physical and/or emotional threats in their daily lives (National Child Traumatic Stress Network, n.d.). As mentioned previously, the environment of the child that has been neglected from a child-buffer system, that is needed during their development to promote problem-solving skills and healthy coping mechanisms, is absent. Instead, the child may begin participating in a maladaptive coping mechanism which can result in the child being involved in unhealthy risk behaviors, such as physical inactivity, smoking, illegal activities, and even suicide attempts (Felitti et al. 1998; National Child Traumatic Stress Network, n.d.). The reason behind acting on these unhealthy risk behaviors is because it provides immediate partial relief from the current and overwhelming emotional problems caused by these traumatic childhood experiences (Felitti et al., 1998; Felitti, 2009). Consequently, resulting in a person's overall physical and mental health to an increase in health risks in the years leading to adulthood. Dr. Felitti (2009) states a disease can be the delayed consequence of unhealthy coping mechanism as a result of traumatic childhood adversities. The example he utilized to connect this

relationship goes as follows, "adverse childhood experiences > depression or anxiety > type 2 diabetes > coronary artery disease" (Felitti, 2009). In addition to the development of unhealthy coping mechanisms, the child that has experienced the effects of traumatic stress may develop learning impairments that require support in the academic environment (National Child Traumatic Stress Network, n.d.).

STRESS RESPONSE

POSITIVE	TOLERABLE	TOXIC
Physiological response to mild or moderate stressor	Adaptive response to time-limited stressor	Maladaptive response to intense and sustained stressor
Brief activation of stress response elevates heart rate, blood pressure, and hormonal levels	Time-limited activation of stress response results in short-term systemic changes	Prolonged activation of stress response in children disrupts brain architecture and increases risk of health disorders
Homeostasis recovers quickly through body's natural coping mechanisms	Homeostasis recovers through buffering effect of caring adult or other interventions	Prolonged allostasis establishes a chronic stress response
Tough test at school, playoff game	*Immigration, natural disaster*	*Abuse, neglect, household dysfunction*

Figure 2 The spectrum of the stress response: positive, tolerable, and toxic. (Bucci et al., 2016)

Adverse Childhood Experiences in the College Population

College students are a unique population due to the range of diversity in every aspect of a student's life, including the number of ACEs, level of resiliency, and life experiences. For many, the perception of the college environment may be one of the first glimpses of getting a sense of belonging to the college community, which can influence academic performance and persistence (Simpson & Burnett, 2019). However, the college population is unique due to young adults

experiencing high levels of stress during this transitional period (Karatekin, 2018). According to the research study of Beiter and collaborators (2015), there are ten factors that can cause high levels of stress during this time such as academic performance, the pressure of success, relationships with friends and family, post-graduation plans, financial concern, overall health, body image, and self-esteem (Beiter et al., 2015). These high levels of stress can lead to the development of potential mental health illnesses, as three-fourths of lifelong mental disorders surface by the age of 24 (Kessler et al., 2005). The college environment already causes stress. However, not every individual has the same life experiences. Recent research shows that 55.8 to 84.5% of college students begin their college experience being affected by at least one adverse experience in their childhood (Smyth et al., 2008). The exposure of childhood adversity has a determining factor in the development of mental illness such as depression, anxiety, and substance abuse disorders (Felitti et al., 1998; Kessler et al. 2005; Karatekin, 2018, Hinojosa, 2019).

Adverse Childhood Experiences, as mentioned previously, when left untreated, can lead to the effects of traumatic stress that influence the lifelong consequences of physical and mental health (National Child Traumatic Stress Network, 2015). In fact, college students with a higher ACE Score have reported feeling more stressed and less supported than those with lower scores (Karatekin & Ahluwalia, 2020). The combination of childhood adversity exposure and the academic challenges of higher education can lead to lower rates of degree completion (Boden et al., 2007). These lower rates of degree completion influence a decrease in employment opportunities and mechanisms of social mobility in the future (Hinojosa et al., 2019). In addition, the exposure of high levels of ACEs is associated with a lack of social functioning and

loneliness, influencing mental health to worsen (Karatekin & Ahluwalia, 2020). A factor that

plays a role during this period of life is student engagement and social support, which can

influence whether students persist to degree completion (Simpson & Burnett, 2019; Karatekin &

Ahluwalia, 2020).

Academic success can be influenced by developing good time management and study

skills. However, lack of these skills, the difficulty of courses, and oversight of course value can

lead to potential barriers that impede college success (Hinojosa et al., 2019). Besides education-

related barriers, ACEs can play a factor in academic success. For instance, students that suffered

the effects of trauma from ACEs are at-risk with developing trouble concentrating, inability to

learn new tasks, or having problems with memory (Hinojosa, M. et al., 2019). In the research

study of Hinojosa et al. (2019), they conducted an analysis of 525 surveys completed by college

students to understand how ACEs influence a barrier towards academic success. They found

students with higher counts of ACEs tended to experience barriers in academic success when

dealing with health and family issues (Hinojosa et al., 2019). This is consistent with the

conclusion that experiences in childhood adversity are the common pathway to social, emotional,

and cognitive impairments (Anda et al., 2010).

The effects of stress caused by the college environment and Adverse Childhood

Experiences can lead to depression, anxiety, substance abuse, and suicide attempts (Felitti et

al.,1998; Beiter et al., 2015; Karatekin, 2018; Hinojosa et al., 2019). How the individual copes

with stress is what will determine success and value in college and future learning experiences

(Holdsworth, 2018). There are two ways of coping with stress, such as participating in unhealthy

risk behaviors or developing resilience. In the original ACE Study, it discussed that individuals

with multiple ACEs tend to practice unhealthy habits such as smoking, physical inactivity, and self-harm (Felitti et al., 1998). However, this leads to the development of health risks that include chronic bronchitis, severe obesity, and depression later in life (Felitti et al., 1998). According to Holdsworth et al. (2018), academic resilience can be defined as a positive adaptation to situations of stress and adversity through a formal or informal learning experience, which helps student progress, growth, and learning (Holdsworth et al., 2018). A way to develop resilience is by participating in interventions that target the cause of stress through healthy coping mechanisms. By understanding the damaging effects of ACEs in regards to stress in a college environment, organizations within the school can have a better grasp of how to assist at-risk students in developing resilience.

Problem Statement

The college population is unique due to its range of diversity in every aspect of a student's life, including race/ethnicity, life experiences, level of resiliency, and, most importantly, the number of ACEs. As discussed in the literature, there is a definite association between ACEs and the college population. Smyth et al. (2008), expressed that more than half of the college students begin their college experience being affected by at least one ACE. Research has concluded that students that have higher levels of ACEs resulted in feeling more stressed, less supported, and are associated with a lack of social functioning and loneliness (Karatekin & Ahluwalia, 2020). In addition, students with high levels of ACEs may present additional barriers that can impede academic success, such as dealing with health and family issues (Hinojosa et al., 2019). However, the literature has yet to expand on how experiencing multiple ACEs affects the navigation of the college experience. The purpose of this study is to gain insight into college

students that have experienced Adverse Childhood Experiences (ACEs) effectively manage

stressful situations provided by the transitional period of pursuing higher education.

CHAPTER 2: METHODOLOGY

Participants

Participants must be 18 years or older and currently enrolled in the University of Central Florida at the time of this study (See Table 1). Participants were recruited through different communication methods such as distribution of Qualtrics link and flyer of the study through email, and through SONA. SONA is a UCF program that allows psychology students to gain 1 credit for their participation in the survey.

In the initial study, 184 individuals were recruited for the study. However, after the administration of the baseline screener, 138 UCF students were recruited for the study. Participants ranged from ages 18 to 47 years ($M=21.0, SD=4.6$). In this study, 70.6% of participants were women, 28.8% were men, and 0.7% had another gender identity. The participant's race and ethnicities were White (42.4%), Hispanic (26.19%), Black (16.8%), Asian or Pacific Islander (7.6%), Other (4.9%). 36.6% of the participants identified Latino/a. The college student population was identified based in their college year, such as 1st-year undergraduate (10.5%), 2nd-year undergraduate (17.6%), 3rd-year undergraduate (39.2%), 4th-year undergraduate (22.9%), 5th-year undergraduate (8.5%), and graduate or professional student (1.3%). For both first-time college students and transfer students with an AA resulted in 44.7% of participants and 10.5% were transfer students from a 4-year university. The enrollment status of participants were divided in three categories full-time (87.6%), part-time (11.8%), and other (0.7%). Lastly, participants employment status varied, full-time (22.9%), part-time (34.0%), work-study (1.3%), flexible scheduling (7.2%), and not employed (34.6%). For more information, please see Table 1 located in Appendix A.

Data

This study uses both quantitative and qualitative data in a mixed-method design. In the

first part of the study, it focused on the quantitative data through a convenience sample of solely

college students attending the University of Central Florida. The second part of the study it used

qualitative data based on the selection of the University of Central Florida students of the initial

survey sample whose response given in the PEARLS ACE Screener section indicates four or

more ACEs. Only the participants in the second part will be utilized in the qualitative data of the

study.

Method of Research

Quantitative Data

The first part of the study obtained data using online surveys via the Qualtrics system that

was sent to students currently attending the University of Central Florida. The survey contained

seven major sections: demographic information, PEARLS ACE Screener, Multidimensional

Scale of Perceived Social Support [MSPSS], general health questions, and questions related to

the college application process, resiliency, and use of college interventions. The completed

survey is provided in Appendix B-K. The purpose of the initial part of the study was to gain a

glimpse of the perspective of the current university population, distinguish the students that have

experienced less than three ACEs and four or more ACEs, and to gain insight into the student

perspective of the college application process, social support, resiliency, and use of college-

designed programs. The data collected in the "use of college-designed programs" section

answered the research question, "Do college students with more than four ACEs utilize and seek

college-designed programs to improve life quality, as opposed to students with less than four

ACEs?". However, the data collected in this survey provided a partial response to the research question, "How college students with four or more ACEs effectively manage difficult situations provided by the transitional period of pursuing higher education?". Once the surveys were completed, students that are flagged due to indication having an ACE score of 4 or more were directed to participate in the open-ended questions section of the study.

Quantitative Data Collection Tools

The following "tools" that are described, only the PEARLS ACE Screener and the Multidimensional Scale of Perceived Social Support (MSPSS), are the only ones that have not been fully designed by the researchers. The other four "tools" were designed by researchers.

Demographic Questions: This is an initial questionnaire to establish the basic background information of each participant. The questions are regarding age, gender identity, race, current year of education, student status, and current employment status (See Appendix B).

PEARLS ACE Screener: a baseline screener composed of 19 questions regarding Adverse Childhood Experiences (ACEs) and related life events (See Appendix C). The ACE Screener is divided into two parts. Part one is composed of the initial ten questions formulated by the original ACE study and the guidelines of the CDC (Felitti et al., 1998; CDC, 2016). Part two, as opposed to the original ACE study questionnaire, includes nine additional categories that recent research has proven to be ACEs (Finkelhor et al., 2013). An example of an item on this screener is, "Have you ever felt unsupported, unloved and/or unprotected." As this is a self-reported and de-identified screener, participants will only need to provide only the number of ACEs that they have experienced from the ages 0-18. The ACE Score will be taken out of a score of 19,

participants that have a score higher than four will be labeled with "high ACEs" and participants that have a score of three or less will be labeled with "low ACEs."

Multidimensional Scale of Perceived Social Support (MSPSS) (Zimet et al., 1988): a 7-point Likert-type scale ranging as 1- very strongly disagree, 2- strongly disagree, 3- mildly disagree, 4- neutral, 5- mildly agree, 6- strongly disagree, 7- very strongly disagree. This 12-item questionnaire was designed to address social support, as it divides into three subgroups such as Family, Friends, and Significant Others (See Appendix D). Each subgroup consists of its own 4-item phrases. An example of an item used on this questionnaire is, "My family really tries to help me." In this study, the total scale will be the focus. Scale score will be ranging from 1 to 3.9 as low support, 4 to 8 as moderate support, and 8.1 to 12 as high support. The total scale of this questionnaire has a Cronbach's coefficient alpha, measurement of reliability, of .88 (Zimet et al., 1988).

For this study, it was adapted to add an additional subgroup of College Social Support with a similar premise as the original MSPSS (See Appendix E). However, the 4-item phrases are college-related. An example of an item used in this questionnaire is, "I can talk to my professor about my grades, topic clarification, or ask career questions." This will be calculated separated with 1 to 1.9 considered low support, 2 to 3 considered moderate support, and 3.1 to 4 considered high support in relation to the college-based social support.

General Health: 4-item section of the survey is implemented to establish student health (See Appendix F). In this self-report of their health, students will determine whether their health is "Poor," "Fair," "Good," "Very Good," or "Excellent." Students that respond "Poor," Fair," or

"Good" will be asked a follow up yes/no question, "Does your health make it harder to focus on your academic endeavors?". The following question is to assess access to health insurance, students will be given four possible "yes" answers such as "Yes, I use my parent's insurance plan" and one possible no answer, "I don't have health insurance." The final question is to establish what the preferred method of exercise the student might use, six possible answers are provided. An example of an item in this section is "Going to the gym using the exercise equipment."

The Beginning Stages of the College Experience Section: 13-item section consist of yes or no questions regarding the first steps necessary to begin the college experience, such as the college application process, attending orientation, and financial aid assistance (See Appendix G). The central theme of the questions is whether the participants had assistance when advancing to each process. However, if the participant answers "yes" to specific questions such as "Did you have anyone help you fill out your college application?" a follow-up question will be presented to reinforce what type of assistance the student had during this process. An example of a follow-up question is, "If yes, who helped you during your college application process? Select all that apply".

Resiliency/Motivation Section: 12-item section consisting of mixed yes/no questions, and follow-up questions, similar to the "Beginning Stages of the College Experience Section." This section is to assess the situations experiences in college that can be seen as a barrier, but other students have seen them as an opportunity (See Appendix H). The following questions are related to the participant's major, whether they have withdrawn for a course, consideration of dropping out of college, etc. An example of a question presented in this section is, "If you have

changed your major, have you seen an improvement in motivation to complete your college degree?".

Usage of Interventions: 15-item section that is there to establish the different types of interventions that are offered on-campus (See Appendix I). This section is divided into three subsections: Physical and Mental Health interventions, Academic interventions, and Campus interventions. Each sub-section has four to five questions in relation to the type of intervention. It is a mix of yes, no, or "I didn't know this resource was offered" questions to assess whether the participant has attended or participated in the interventions mentioned. An example of this item is, "Have you used the services provided by the Counseling and Psychological Services (CAPS)?" In the physical and mental and academic interventions, there is a question to assess which intervention has been revisited by the participant. An example of this item is "Based on the previous four questions, if you answered "yes" to any of the questions, please indicate all of the services you will be continuing to use during your time on campus."

Overall College Experience: this is a single item section to establish the participants' overall college experience. The question asked was "How would you rate your overall college experience so far?". To determine their overall college experience, the options are "I enjoyed it", "I like it", "I'm neutral about it", "I don't like it", or "I dreaded it".

Qualitative Data

The second part of the study was formatted as four open-ended questions. These open-ended questions were displayed after the completion of the first part of the survey automatically (See Appendix K). The students that were flagged with four or more ACEs participated in this

part were asked four questions to highlight four themes: (1) ACEs as a barrier in a college setting, (2) Additional challenges that can impede academic success, (3) Coping mechanisms, and (4) Insight of additional interventions. Participants were given the opportunity to answer the questions without any limit of word count. The purpose of this second phase was to highlight the reoccurring themes provided by the participants to gain insight to answer the research question, "How college students with four or more ACEs effectively manage difficult situations provided by the transitional period of pursuing higher education?".

Research Method

The study used a combination of a cross-sectional and narrative design. The first part of the study was a cross-sectional design. A link will be dispersed to UCF students via email, flyers, and other methods of communication to reach an extensive range of participants across the college campus that will direct them to the initial survey. Participants must be 18 years or older, current students at the University of Central Florida, and must agree to the informed consent form prior to continuing the survey. There are several advantages to utilizing a cross-sectional design, such as providing accessibility for the survey to reach a more significant number of people at a single point in time. In addition, it can provide ease to identify correlations by comparing differences and similarities between groups. Once the survey is completed, it can pinpoint future participants to qualify for the second part of the study.

The second phase of the study will be a narrative design. Once the surveys from the initial study are collected, participants that have been flagged in the PEARLS ACE Screener with four or more ACEs were automatically provided with the open-ended questions. Participants must be 18 years or older, current students at the University of Central Florida, have

more than four ACEs, and must agree to the informed consent form. The advantage of utilizing

this design is that only a small portion of participants are needed to identify themes that reflect

the meaning of the experiences being asked. In addition, it allows for more flexibility on how to

analyze raw data to identify significant themes, without the restrains of having a structured

methodology. One of the disadvantages of utilizing a narrative design is that it can provide

limited conclusions, as it is only asking a specific portion of a wider population.

CHAPTER 3: RESULTS

PEARLS ACE Screener

Participants (N=137) were asked to identify the number of ACEs they may have experienced in their childhood from a scale of 1-19. For this study, three or less ACEs are classified as "Low ACEs" and four or more ACEs are identified as "High ACEs". The overall average ACE Score was 5.56. However, 47 of the participants were identified as "Low ACEs" and 90 of the participants were identified as "High ACEs". Indicating that the majority of the sample population was classified as "high-risk". However, this study does not include individuals that may have one or more recurrent ACE.

Multidimensional Scale of Perceived Social Support [MSPSS]

According to the data collected using this tool, the overall mean of social support based on this group of participants can result in moderate support. The majority of the items presented had a mean of 5.61 (the highest) and 4.42 (the lowest). As mentioned in the methodology section, moderate support is ranged from 4-8, as elaborated in the original scale. For a more detailed table, please see Table 2 in Appendix A.

General Health (Self-reported)

In physical health, the majority of the participants rated it as a score of "Good" (34.72%), "Poor" (4.17%), Fair (20.38%), "Very Good" (22.92%), and "Excellent" (17.36%). In mental health, the majority of the participants rated it as "Fair" (37.93%), "Poor" (11.72%), "Very Good" (13.79%), and "Excellent" (11.72%). The data shows that 53.47% of participants agree that their health impacts their academic endeavors, while 46.53% say that it does not affect their

academic endeavors. When asked about their health insurance, most participants (67.12%) mentioned that they utilize their parents health insurance plan. Lastly, the most common method of exercise that this sample uses is by going outside (33.98%) to walk, jog, or run. For a more detailed result, please look at Table 4 in Appendix A.

The Beginning Steps of the College Experience

The majority of the participants expressed that their parents did not graduate with a college degree (40.56%), Both parents (37.76%), One parent (19.58%), and 2.10% responded "I don't know". In the college application process, the main individual resource that was used was the guidance of their parents (40.2%). However, the most used resource when filling out the college application was utilizing the University Website (65.8%). Only 75.7% of students found that orientation provided useful resources for their beginning journey of college. But only 33.8% of students rated their orientation preparedness with 33.8%. When it comes to financial assistance, FASFA was the most used resource for this sample with a 47.3%. Lastly, the most common method of paying for college expenses is through scholarships and grants (60.3%). For a more detailed result, please look at Table 5, in Appendix A.

Resiliency/Motivation

When asked the statement "I enjoy my major", there was a positive outlook of 48.3% of participants rating this statement with "Strongly Agree". The majority of participants (58.7%) has never changed their major, however the ones that did saw improvement in motivation to complete their degree (32.17%). The most common reason individuals have withdrawn from a course is due to personal circumstances (20.0%), but in this study the majority of participants have never withdrawn from a course (51.72%). Participants prefer to study alone (46.12%) than

to study with a group of peers (13.10%). However, to improve or maintain good academic

standing only 14.0% of participants use on-campus resources. Participants that have held

leadership positions are 64.8%. The thought of dropping out of college has only been indicated

by 35.9% of participants in this study. Lastly, 88.2% of participants has indicated that they will

continue to graduate or professional school. For a more detail result, please look at Table 6 in

Appendix A.

<p style="text-align:center">Usage of Interventions</p>

This section was divided in three major subcategories: physical and mental interventions,

academic interventions, and campus interventions. However, regardless of the type of

intervention mentioned, the majority of participants have never used most of the resources

provided by the university. When distinguishing between those with "Low ACEs" and those with

"High ACEs". It was evident that ACEs was not a contributing factor of the use of interventions

to help improve participants daily lives. Please look at Table 7 in Appendix A, for more

information.

<p style="text-align:center">Open-Ended Questions</p>

<p style="text-align:center">Has experiencing stressful life events during your childhood impacted your college education</p>

<p style="text-align:center">progress? If so, in what way?</p>

Participants (N= 75) were asked to answer the question to the best of their abilities. Once

the answers were collected, the analysis to identify common themes commenced. The most

common themes were: ACEs had no negative impact (N=20), N/A (N= 2), ACEs did have a

negative impact (N=53), Family dysfunction (N=20), Mental Health (N=25), and Motivation (N=17): Lack of motivation (N=10) and Positive motivation (N=7).

Based on your college experience, have you ever encountered any challenges that have impacted your college education?

Participants (N=75) were asked the following question. The most common themes were Mental Health (N=16), Family Dysfunction (N=10), Financial issues (N=12), and Academic difficulty (N=8).

If you are having a hard day, what are some ways you cope with stress?

Participants (N=77) were asked to express their most common stress coping mechanism. The most common themes were: Watching TV (N=16), Sleeping (N=13), Listening to music (N=19), Going outside (N=13), Exercise (N=18), Support (N=16), and Unhealthy Coping Mechanisms (N=13) including Drugs (N=2), Alcohol (N=3), Smoking (N=3), and Dissociation (N=5).

What forms of support or resources do you think would be beneficial for the university to provide?

Participants (N=66) were asked to provide suggestions to improve existing interventions provided by the university. The most common themes were No Suggestion (N=19), Mental Health Assistance (N= 22), Advisor Assistance (N= 5), Better advertisement (N= 5), Financial Assistance (N=5), and Physical Health Assistance (N=4).

CHAPTER 4: STRENGTHS, LIMITATIONS, AND SUGGESTIONS FOR FUTURE RESEARCH

Strengths

There are several strengths that are demonstrated throughout this study. The main strength is the amount of information that was collected in this study. At the time of this study, there has yet to be a research study that expanded on the entire transitional period of higher education in relation to Adverse Childhood Experiences. Most research studies, focuses on one factor that contributes to the relationship between ACEs and college students. However, the data collected in this study can be seen individually or as a whole to gain an understanding of the current college population and insight on how students overcome their barriers to reach college completion. Through the use of open-ended questions students with High ACEs to were able express their individual challenges and what the university can provide to ease this journey. This resulted in the identification of several common themes such as mental health, family dysfunction, and common coping mechanisms of stress. This study gained valuable information that can be utilized for university committee members to understand their college population at a greater scale.

Limitations

The overall study has the potential of presenting risk towards the participants, emotionally and mentally. The material presented in the survey and in the open-ended questions may cause the participant to reflect on the traumas of childhood and how it has affected their lives in combination with their physical and mental health, and academic stress. Reflecting on

these traumatic experiences may trigger strong emotions and discomfort for the participant. This can lead to non-response bias, in which the individuals invited to participate refuse, or drop-out from the study. To combat this limitation, the PEARLS ACE Screener used will be a de-identifiable screener. The participants will only need to identify the number of ACEs rather than identify which ACE(s), they have experienced. In addition, resources about mental health services will be posted throughout the survey to ensure participants know that they can speak to mental health professionals. Also, a reminder in the beginning survey and the open-ended question portion was placed to remind participants that the study is voluntary, and they can withdraw their participation in any moment.

Another factor of non-response bias is based on the format of the overall survey. The survey length is approximately more than 50 questions, and the survey may take approximately 30-45 minutes to complete. However, this limitation was acknowledged and was being resolved by adding different methods to answer the survey questions to make the participant not lose interest when responding to the survey. For example, features such as a slider, matrix tables, and drop-down list were used to make the survey more enjoyable and less mundane.

Misrepresentation and selection bias is another limitation that will be considered. By only distributing surveys in a convenience sample of college students from the University of Central Florida, the study primarily surveyed admitted college students that can be considered of the low-risk group. Unfortunately, it is not providing information on those individuals that have experienced high levels of ACEs, and that would like to pursue a college degree but don't have the financial assistance to attend. In addition, this study was conducted during the time of COVID-19. As a result, the survey was solely distributed virtually, and no in-person recruitment

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was used. To combat selection bias, the study is expected to recruit applicants through various methods of communication via SONA, email, flyers, and other methods of communication to reach an extensive range of participants across the college campus that will direct them to the initial survey.

Implications for Further Research

Further research can include individuals that have experienced the reoccurrence of one or more ACEs. As this study solely focused on categorizing individuals with "Low ACEs" and "High ACEs", previous research has shown that it is important to take into consideration the frequency and severity of ACEs, as it can be detrimental to an individual's overall physical and mental health. Also, replicating this study with a sample of college alumni to gain insight on individuals that have reached degree completion and how their experiences differ from individuals that are still currently in college. In the case of the University of Central Florida, there are a good number of resources available for student needs. However, according to the data collected, most students were not aware that these resources were available due to lack of advertising. In addition, students have expressed their need for better resources specifically in the department of mental health and financial assistance. The topic of ACEs is still expanding, further research can elaborate on the different ACEs that have yet to be seen on the common list of childhood adversity.

CHAPTER 5: CONCLUSION

This overall study found that college students that have experienced Adverse Childhood Experiences effectively manage stressful situations provided by the transitional period of pursuing higher education in various methods. Examples of these methods are through social support, direct resources provided through the university, and coping mechanisms of stress. This study demonstrated that the use of interventions is not the driving factor of managing stressful situations due to the low usage of resources in both categories of "Low ACEs" and "High ACEs". The majority of the participants in this study fall under "High ACEs", due to experiencing four or more ACEs. Despite beginning their college journey with this barrier, the overall result of the college experience was given a positive rating. This study allowed participants that experienced four or more ACEs to elaborate whether experiencing these ACEs have impeded their academic success. This research demonstrated that mental health and family dysfunction are the most common barriers that students with four or more ACEs are overcoming to continue their education. Further research should focus on a study involving college alumni to have a more accurate depiction of the overall college experience. This research study aims to gain insight how college students that have experienced Adverse Childhood Experiences navigate the college experience.

APPENDIX A: RESEARCH STUDY TABLES

Table 1: Demographics (N=138)

	M (Sd)	%
Age	21 (4.6)	
Gender Identity		
Woman		70.6%
Man		28.8%
Another identity		0.7%
Race/Ethnicity		
White		42.7%
Hispanic		26.1%
Black		16.8%
Asian or Pacific Islander		7.6%
Other		4.9%
American Indian, Alaskan Native, or Native American		0.0%
Latino		
Yes		36.6%
No		63.4%
Enrollment		

1st year undergraduate	10.5%
2nd year undergraduate	17.6%
3rd year undergraduate	39.2%
4th year undergraduate	22.9%
5th year undergraduate	8.5%
Graduate or professional student	1.3%

College Attendance

First time in college	44.7%
Transfer student with AA from a community college	44.7%
Transfer student from another 4-year university	10.5%

Enrollment Status

Full-time	87.6%
Part-time	11.8%
Other	0.7%

Living arrangements

With parents/family members	36.6%
On-campus housing	10.5%
Off-campus housing	47.7%

Other	5.2%
Employment Status	
Full-time	22.9%
Part-time	34.0%
Work-Study	1.3%
Flexible Scheduling	7.2%
Not employed	34.6%
Employment Interfering with Academic Goals	
I don't have a job	34.0%
My job does not interfere with my academic goals	29.4%
My job sometimes interferes with my academic goals	31.4%
My job interferes a lot with my academic goals	5.2%

Table 2: Multidimensional Scale of Perceived Social Support [MSPSS] (N=147)

	Mean	Sd
1. There is a special person who is around when I am in need	5.34	1.93
2. There is a special person with whom I can share joys and sorrows	5.50	1.85
3. My family really tries to help me	5.34	1.83
4. I get the emotional help & support I need from my family	4.90	1.92
5. I have a special person who is a real source of comfort to me	5.45	1.85
6. My friends really try to help me	5.41	1.55
7. I can count on my friends when things go wrong	5.24	1.69
8. I can talk about my problems with my family	4.42	2.05
9. I have friends with whom I can share my joys and sorrows	5.61	1.60
10. There is a special person in my life who cares about my feelings	5.54	1.84
11. My family is willing to help me make decisions	5.25	1.78
12. I can talk about my problems with my friends	5.42	1.59

Table 3: College-based Social Support (N=147)

	Mean	Sd
1. I have someone who is willing to help me with my academic journey	5.44	1.53
2. I am a part of a club or organization that I enjoy	3.99	2.07
3. If I have a problem concerning my safety on campus, I feel comfortable informing the campus police	4.79	1.91

Table 4: General Health Questions (self-reported)

	%
Physical Health	
Poor	4.17%
Fair	20.83%
Good	34.72%
Very Good	22.92%
Excellent	17.36%
Mental Health	
Poor	11.72%
Fair	37.93%
Good	24.83%
Very Good	13.79%
Excellent	11.72%
Health Impacts Academics	
Yes	53.47%
No	46.53%

Health Insurance

Yes, I use my parent's health insurance	67.12%
Yes, I use public health insurance	7.53%
Yes, I use private health insurance	13.70%
Yes, a combination of health insurance	2.05%
No, I don't have health insurance	8.22%
I don't know what type of health insurance I have	1.37%
I don't know if I have health insurance	0.0%

Preferred Method of Exercise

Doing exercise outside	29.61%
Going to the gym to use the exercise equipment	10.19%
Playing a type of sport	12.62%
Attending a work-out class	33.98%
I don't participate in exercise	17%
Other	11%

Table 5: The Beginning Steps of the College Experience

	%
Did your parents graduate from college?	
No	40.56%
Yes, both parents	37.76%
Yes, one parent	19.58%
I don't know	2.10%
Assistance (Individuals) with College Application	
Parents	40.2%
Family member	19.6%
Friend	25.0%
High School/College Advisor	25.0%
Teacher/Professor	14.1%
Other	13.6%
None of these	
Assistance (Resources) with College Application	
University Website	65.8%

Online forums/discussion	15.8%
Talking to directly to the university's registration office	26.1%
Talking to current students from the university	21.7%
Attending seminars related to college preparation	15.2%
Other	3.3%
None of these	3.8%

Did you find that the university orientation provided useful resources and information based on your needs?

| Yes | 75.7% |
| No | 24.3% |

"After orientation, I felt prepared to begin my journey in the pursuit of a college degree"

Very strongly disagree	4.1%
Strongly disagree	5.5%
Mildly disagree	10.3%
Neutral	15.2%
Mildly agree	33.8%
Strongly agree	20.0%
Very strongly agree	11.0%

Financial Assistance

Parent(s)	35.3%
Family member	5.4%
Financial Aid Office	38.6%
Friend	1.1%
FASFA website	6.5%
University Website	12.0%
Other	4.9%
None of these	

College Expenses Payment

Scholarships and grants	60.3%
Loans	25.5%
Personal income	35.3%
Family financial support	28.3%
Other	1.1%

Table 6: Resiliency/Motivation

	%
"I enjoy my major"	
Very strongly disagree	2.8%
Strongly disagree	4.2%
Mildly disagree	4.2%
Neutral	6.3%
Mildly agree	21.7%
Strongly agree	48.3%
Very strongly agree	12.6%
If you have changed your major, have you seen improvement in motivation to complete your degree?	
Yes, I have changed my major and saw improvement in motivation to complete my college degree	32.2%
Yes, I have changed my major and saw no improvement in motivation to complete my degree	9.1%
No, I have not changed my major	58.7%
Have you ever withdrawn from a class?	
Yes, because I felt that I wasn't prepared for the course	14.5%
Yes, because the timing was wrong	6.2%

Yes, because of personal circumstances	20.0%
Yes, because I noticed I didn't need it for my major	2.8%
Yes, Other	4.83%
No, I have never withdrawn from a class	51.7%

Are you planning on taking that withdrawn class in a future semester?

I have already taken it	26.2%
No, I will not be planning on taking that class in a future semester	27.7%
I have not withdrawn from a class	46.2%

When studying for a course, what is your preferred study environment?

I prefer to study alone	46.2%
I prefer to study with a group of my peers	13.1%
I prefer to study alone, but surrounded by other students such as library, coffee shop, etc.	33.8%
I usually don't study	3.5%
I don't have a preferred study environment	3.5%

Have you ever been in academic probation?

Yes	14.0%
No	86.1%

Are you using any on-campus resources to improve or maintain your good standing academically?

Yes	37.5%
No	62.5%

If needed, do you feel comfortable asking professors for letters of recommendations?

Yes	54.2%
No	45.8%

Have you ever held a leadership position in a club, school, work, or volunteer environment?

Yes	64.8%
No	35.2%

Have you ever considered dropping out of college?

Yes	35.9%
No	64.1%

After completing your undergraduate degree, are you planning on attending graduate school or professional school?

Yes	88.2%
No	11.8%

Table 7: Usage of Intervention

	%
Physical and Mental Health Interventions	
Counseling and Psychological Services (CAPS)	
Yes	20.8%
No	61.1%
I didn't know that this was a resource	18.1%
Student Health Services	
Yes	29.2%
No	57.6%
I didn't know that this was a resource	13.2%
On-campus recreational facilities	
Yes	54.9%
No	38.2%
I didn't know that this was a resource	6.9%
University-based workshops	
Yes	15.3%
No	61.8%

| I didn't know that this was a resource | 22.9% |

Continuation of resource

Counseling and Psychological Services	13.1%
Student Health Services	19.7%
On-campus recreational facilities	29.8%
University-based workshops	10.2%
I haven't used any of these services	23.2%
I have used some or all of these services, but I will not be continuing using them	4.04%

Academic Interventions

Campus Learning Services

Yes	39.2%
No	59.4%
I didn't know this was a resource	1.40%

Supplemental Instruction (SI) peer tutoring

Yes	62.6%
No	34.0%
I didn't know that this was a resource	3.5%

University-based workshops

Yes	20.8%
No	74.3%
I didn't know that this was a resource	4.9%

Continuation of resource

Campus Learning Services	26.2%
Supplemental Instruction (SI) peer tutoring	38.4%
University-based workshops	14.1%
I haven't used any of these services	16.5%
I have used some, but I will not be continuing using them	4.9%

Campus Interventions

Visited university-based departments

Yes	70.6%
No	29.5%

If yes, do you leave the department more prepared or more stressed than when you went in?

More prepared	26.0%
Prepared, but I can manage	40.7%
Stressed, I still have questions unanswered	17.9%
More stressed	15.5%

Knights Pantry

Yes	12.5%
No	76.4%
I didn't know that this was a resource	11.1%

On-campus library resources

Yes	53.2%
No	43.4%
I didn't know this was a resource	3.5%

Career Services

Yes	19.6%
No	72.7%
I didn't know this was a resource	**7.7%**

APPENDIX B: USAGE OF INTERVENTIONS BASED ON ACES EXAMPLE
FIGURES

Have you used the services provided by the Counseling and Psychological Services (CAPS)?
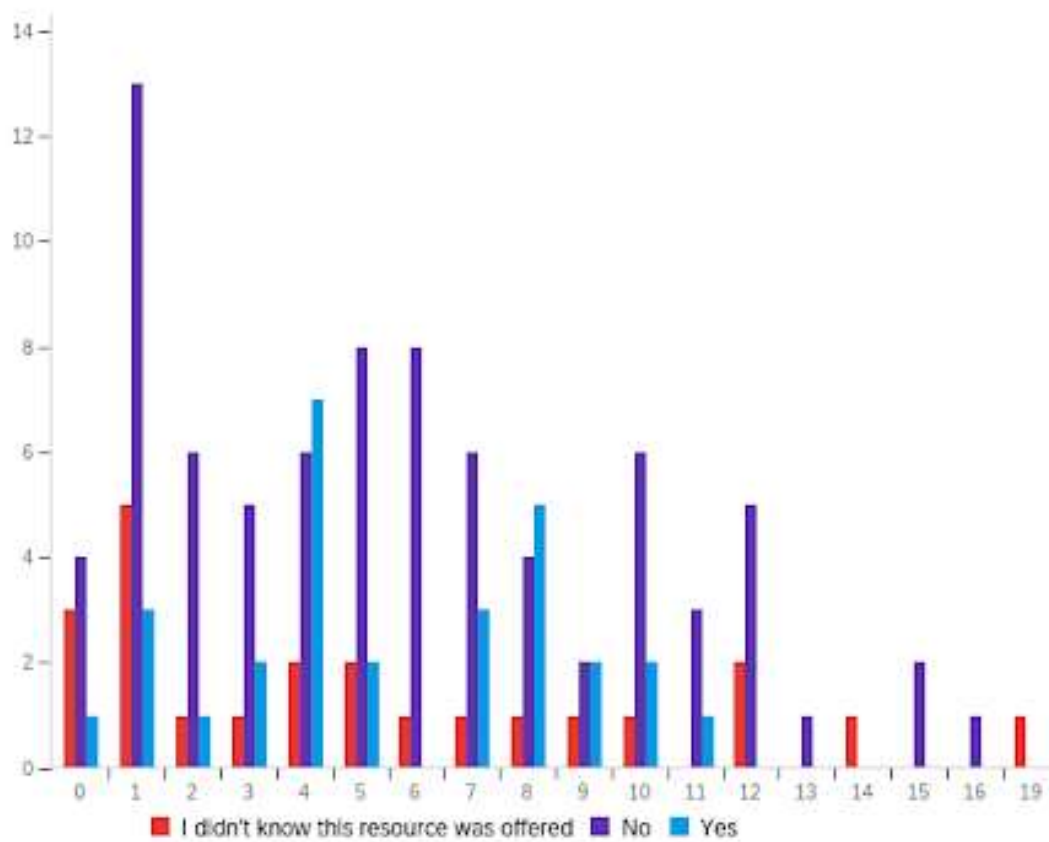

Figure 3 Physical and Mental Intervention Based on ACEs

Have you used the services provided by Student Health Services, such as primary care, dental, or pharmacy services?
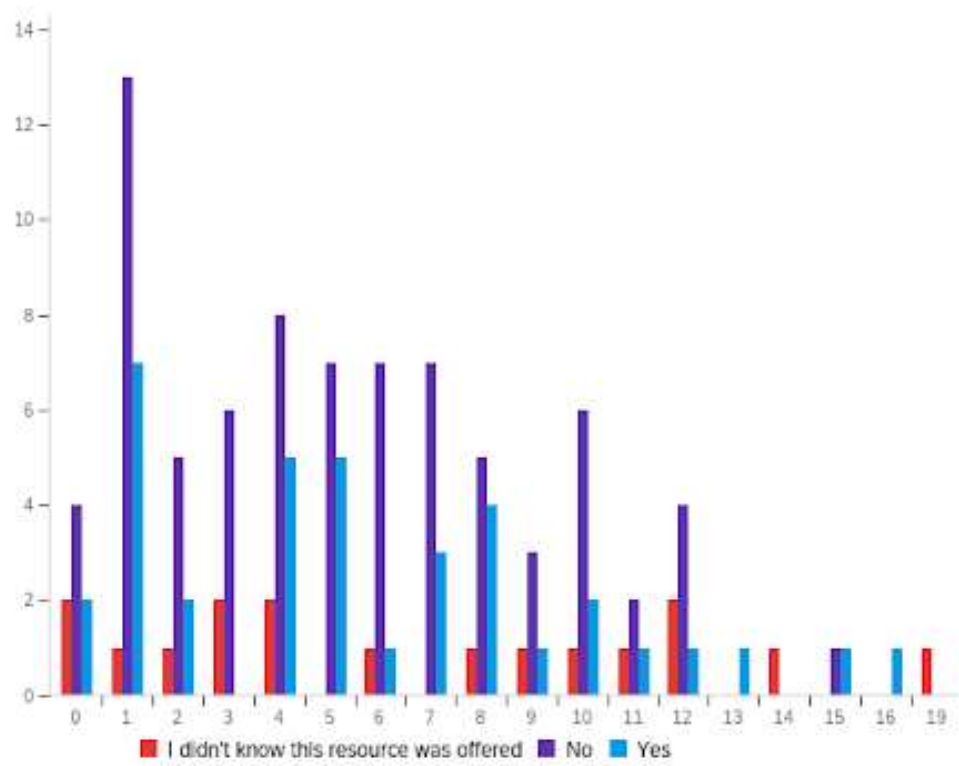

Figure 4 Physical and Mental Intervention Based on ACEs

Have you used the on-campus recreational facilities such as the gym, work-out sessions, sports facilities, etc.?
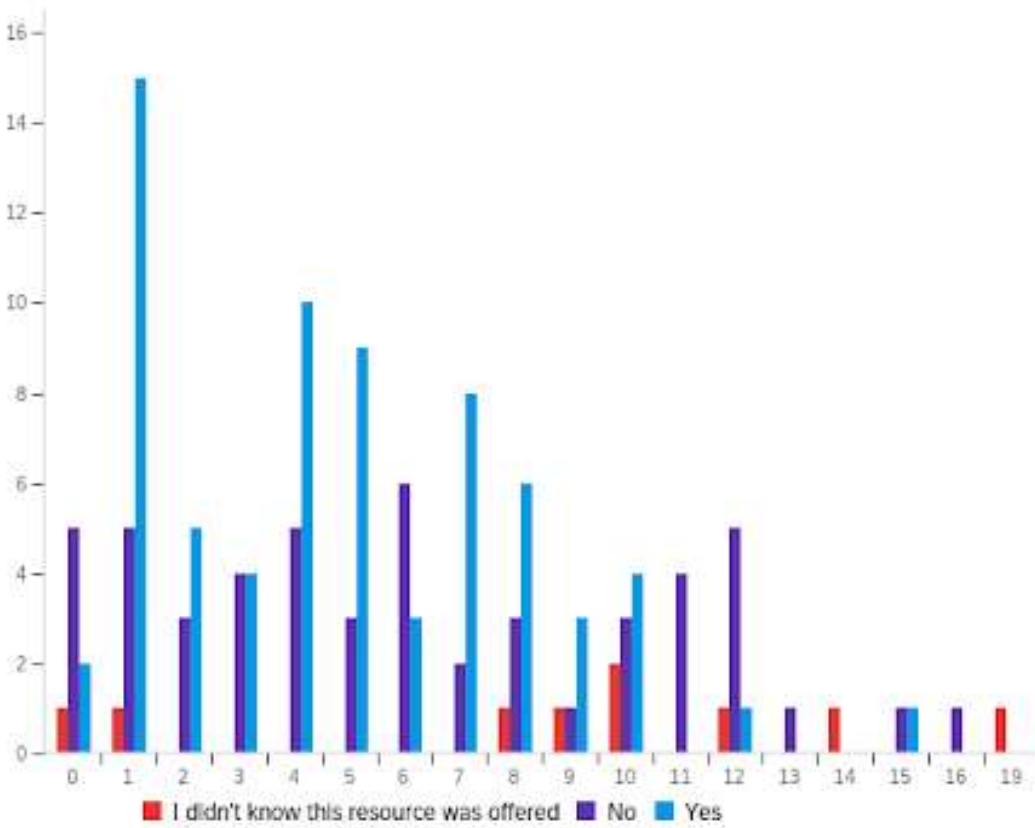

Figure 5 Physical and Mental Health Intervention Based on ACEs

Have you attended mindfulness, self-care, or any workshop offered by the university to improve or maintain your mental health?
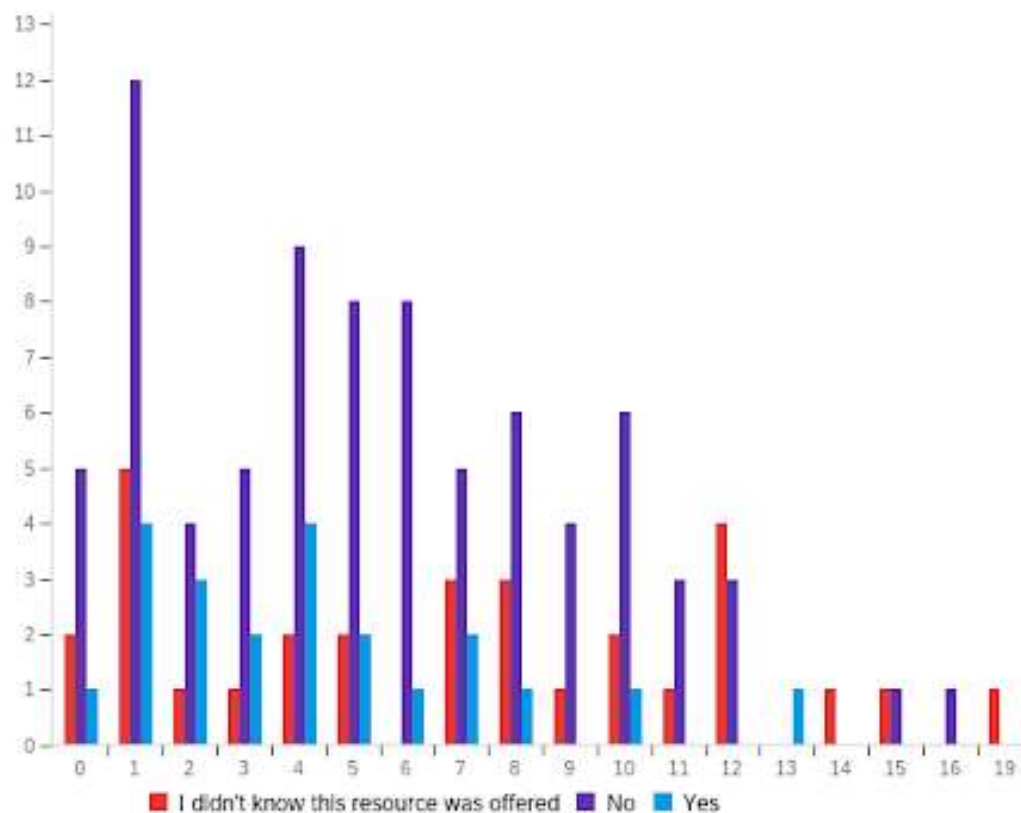

Figure 6 Physical and Mental Health Intervention Based on ACEs

APPENDIX C: BASELINE SCREENER QUESTIONS

1. Are you at least 18 years of age?
    a. Yes
    b. No
2. Are you currently enrolled in the University of Central Florida?
    a. Yes
    b. No

APPENDIX D: DEMOGRAPHIC QUESTIONS

1. How old are you? _____
2. Which term describes your gender identity?
    a. Woman
    b. Man
    c. Trans Woman
    d. Trans Man
    e. Genderqueer
    f. Another identity (please specify): _____
3. How do you describe your race and ethnicity? Select all that apply:
    a. White
    b. Black
    c. Hispanic
    d. Asian or Pacific Islander
    e. American Indian, Alaskan Native, or Native Hawaiian
    f. Other: _____
4. Are you Hispanic/Latino?
    a. Yes
    b. No
5. What year are you currently in your college education?
    a. 1st-year undergraduate
    b. 2nd-year undergraduate
    c. 3rd-year undergraduate
    d. 4th-year undergraduate
    e. 5th year or more undergraduate
    f. Graduate or professional student
    g. Not seeking a degree
6. Did you begin your college degree in the university you are currently attending, or did you transfer here from another institution?
    a. First time in college
    b. A transfer student with an AA from a community college
    c. A transfer student from another 4-year university
7. What is your enrollment status?
    a. Full-time
    b. Part-time
    c. Other: _____
8. Where are you currently residing?
    a. With parents/ family members
    b. On-campus housing (dorms, sorority/fraternity)
    c. Off-campus housing
    d. Other: _____
9. Are you currently employed?
    a. Yes, full-time
    b. Yes, part-time
    c. Yes, work-study

d. Yes, flexible scheduling
e. No, not employed
10. If you have a job, does it interfere with your academic goals?
   a. I don't have a job
   b. My job does not interfere with my academic goals
   c. My job sometimes interferes with my academic goals
   d. My job interferes a lot with my academic goals

APPENDIX E: PEDIATRIC ACES AND RELATED LIFE EVENTS SCREENER
PEARLS [DE-IDENTIFIED ACE SCREENER]

Important: For the following 19 questions, you will only input the <u>total number</u> of childhood experiences that you have experienced from ages 0-18. Once you have identified the number of childhood experiences, answer the following additional questions in regard to the frequency and severity of the number of experiences you have indicated. These questions may be hard to answer and can bring past feelings of stress, anxiety, or depression. **Remember, your participation is voluntary, and you can withdraw consent at any moment.** If you feel any feelings of anxiety, stress, depression, or will like to seek professional psychological assistance, **please contact the UCF Counseling & Psychological Services (24/7 407-823-2811).**

Pediatric ACEs and Related Life Events Screener (PEARLS)

TEEN (Self-Report)– To be completed by: **Patient**

At any point in time since you were born, have you seen or been present when the following experiences happened? Please include past and present experiences.

Please note, some questions have more than one part separated by "<u>OR</u>." If any part of the question is answered "Yes," then the answer to the entire question is "Yes."

PART 1:

1. Have you ever lived with a parent/caregiver who went to jail/prison?

2. Have you ever felt unsupported, unloved and/or unprotected?

3. Have you ever lived with a parent/caregiver who had mental health issues?
   (for example, depression, schizophrenia, bipolar disorder, PTSD, or an anxiety disorder)

4. Has a parent/caregiver ever insulted, humiliated, or put you down?

5. Has your biological parent or any caregiver ever had, or currently has a problem with too much alcohol, street drugs or prescription medications use?

6. Have you ever lacked appropriate care by any caregiver?
   (for example, not being protected from unsafe situations, or not being cared for when sick or injured even when the resources were available)

7. Have you ever seen or heard a parent/caregiver being screamed at, sworn at, insulted or humiliated by another adult?

   <u>Or</u> have you ever seen or heard a parent/caregiver being slapped, kicked, punched beaten up or hurt with a weapon?

8. Has any adult in the household often or very often pushed, grabbed, slapped or thrown something at you?

   <u>Or</u> has any adult in the household ever hit you so hard that you had marks or were injured?

   <u>Or</u> has any adult in the household ever threatened you or acted in a way that made you afraid that you might be hurt?

9. Have you ever experienced sexual abuse?
   (for example, has anyone touched you or asked you to touch that person in a way that was unwanted, or made you feel uncomfortable, or anyone ever attempted or actually had oral, anal, or vaginal sex with you)

10. Have there ever been significant changes in the relationship status of your caregiver(s)?
    (for example, a parent/caregiver got a divorce or separated, or a romantic partner moved in or out)

Add up the "yes" answers for this first section: ☐

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Please continue to the other side for the rest of questionnaire →

Teen (Self Report) - Deidentified

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1. Have you ever seen, heard, or been a victim of violence in your neighborhood, community or school?
   (for example, targeted bullying, assault or other violent actions, war or terrorism)

2. Have you experienced discrimination?
   (for example, being hassled or made to feel inferior or excluded because of their race, ethnicity, gender identity, sexual orientation, religion, learning differences, or disabilities)

3. Have you ever had problems with housing?
   (for example, being homeless, not having a stable place to live, moved more than two times in a six-month period, faced eviction or foreclosure, or had to live with multiple families or family members)

4. Have you ever worried that you did not have enough food to eat or that food would run out before you or your parent/caregiver could buy more?

5. Have you ever been separated from your parent or caregiver due to foster care, or immigration?

6. Have you ever lived with a parent/caregiver who had a serious physical illness or disability?

7. Have you ever lived with a parent or caregiver who died?

8. Have you ever been detained, arrested or incarcerated?

9. Have you ever experienced verbal or physical abuse or threats from a romantic partners?
   (for example, a boyfriend or girlfriend)

Add up the "yes" answers for the second section:

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Oakland

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Teen (Self Report) - Deidentified

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APPENDIX F: MULTIDIMENSIONAL SCALE OF PERCEIVED SOCIAL
SUPPORT [MSPSS]

Multidimensional Scale of Perceived Social Support

Instructions: We are interested in how you feel about the following statements. Read each statement carefully. Indicate how you feel about each statement.

Circle the "1" if you **Very Strongly Disagree**
Circle the "2" if you **Strongly Disagree**
Circle the "3" if you **Mildly Disagree**
Circle the "4" if you are **Neutral**
Circle the "5" if you **Mildly Agree**
Circle the "6" if you **Strongly Agree**
Circle the "7" if you **Very Strongly Agree**

		Very Strongly Disagree	Strongly Disagree	Mildly Disagree	Neutral	Mildly Agree	Strongly Agree	Very Strongly Agree
1.	There is a special person who is around when I am in need.	1	2	3	4	5	6	7
2.	There is a special person with whom I can share joys and sorrows.	1	2	3	4	5	6	7
3.	My family really tries to help me.	1	2	3	4	5	6	7
4.	I get the emotional help & support I need from my family.	1	2	3	4	5	6	7
5.	I have a special person who is a real source of comfort to me.	1	2	3	4	5	6	7
6.	My friends really try to help me.	1	2	3	4	5	6	7
7.	I can count on my friends when things go wrong.	1	2	3	4	5	6	7
8.	I can talk about my problems with my family.	1	2	3	4	5	6	7
9.	I have friends with whom I can share my joys and sorrows.	1	2	3	4	5	6	7
10.	There is a special person in my life who cares about my feelings.	1	2	3	4	5	6	7
11.	My family is willing to help me make decisions.	1	2	3	4	5	6	7
12.	I can talk about my problems with my friends.	1	2	3	4	5	6	7

APPENDIX G: COLLEGE-BASED SOCIAL SUPPORT QUESTIONS

Instructions: We would like to know your feelings towards the following three statements. These statements are related to college-based support questions. These questions may be hard to answer and can bring feelings of stress, anxiety, or depression. **<u>Remember, your participation is voluntary, and you can withdraw consent at any moment.</u>** If you feel any feelings of anxiety, stress, depression, or will like to seek professional psychological assistance, **please contact the UCF Counseling & Psychological Services (24/7 407-823-2811).**

1. I have someone who is willing to help me with my academic journey
   a. Very strongly disagree
   b. Strongly disagree
   c. Mildly disagree
   d. Neutral
   e. Mildly agree
   f. Strongly agree
   g. Very strongly agree
2. I am a part of a club or organization that I enjoy
   a. Very strongly disagree
   b. Strongly disagree
   c. Mildly disagree
   d. Neutral
   e. Mildly agree
   f. Strongly agree
   g. Very strongly agree
3. If I have a problem concerning my safety on campus, I feel comfortable informing the campus police
   a. Very strongly disagree
   b. Strongly disagree
   c. Mildly disagree
   d. Neutral
   e. Mildly agree
   f. Strongly agree
   g. Very strongly agree

APPENDIX H: GENERAL HEALTH QUESTIONS (SELF-REPORTED)

Instructions: For the following five question, you will be asked to give your own assessment of your general physical and mental health, and whether they affect your academic endeavors. These questions may be hard to answer and can bring feelings of stress, anxiety, or depression. **Remember, your participation is voluntary, and you can withdraw consent at any moment.** If you feel any feelings of anxiety, stress, depression, or will like to seek professional psychological assistance, **please contact the UCF Counseling & Psychological Services (24/7 407-823-2811).**

1. How would you rate your current physical health?
   a. Poor
   b. Fair
   c. Good
   d. Very good
   e. Excellent
2. How would you rate your current mental health?
   a. Poor
   b. Fair
   c. Good
   d. Very good
   e. Excellent
3. Does your health make it harder to focus on your academic endeavors?
   a. Yes
   b. No
4. Do you have health insurance?
   a. Yes, I use my parent's health insurance plan
   b. Yes, I use a public health insurance plan
   c. Yes, I use a private health insurance plan
   d. Yes, a combination of health insurance
   e. No, I don't have health insurance
   f. I don't know what type of health insurance I have
   g. I don't know if I have health insurance
5. What is your preferred method of exercise? Select all that apply:
   a. Going to the gym to use the exercise equipment
   b. Attending work-out classes (such as yoga, Zumba, etc.)
   c. Playing a type of sport (such as flag football, soccer, etc.)
   d. Doing exercise outside (such as walking, jogging, etc.)
   e. Other: _____
   f. I don't participate in exercise

APPENDIX I: THE BEGINNING STEPS OF THE COLLEGE EXPERIENCE

For the following seven questions, you will be asked questions in regard to your parent's education level, information about assistance with your college application, orientation, and financial assistance. These questions may be hard to answer and can bring feelings of stress, anxiety, or depression. **Remember, your participation is voluntary, and you can withdraw consent at any moment.** If you feel any feelings of anxiety, stress, depression, or will like to seek professional psychological assistance, **please contact the UCF Counseling & Psychological Services (24/7 407-823-2811).**

1. Did your parents graduate from college?
   a. No
   b. Yes, both parents
   c. Yes, one parent
   d. I don't know
2. Please indicate anyone that helped you during the college application process. Select all that apply:
   a. Parents
   b. Family member
   c. Friend
   d. High School/College Advisor
   e. Teacher/Professor
   f. Other: _____
   g. None of these
3. Please indicate which of the following resources you used during the college application process. Select all that apply:
   a. University website
   b. Online forums/discussions
   c. Talking to directly to the university's registration office
   d. Talking to current students from the university
   e. Attending seminars related to college preparation
   f. Other: _____
   g. None of these
4. Once accepted to the university, did you find that the university orientation provided useful resources and information based on your needs?
   a. Yes
   b. No
5. Based on your experience, choose the best response to the statement "After orientation, I felt prepared to begin my journey in the pursuit of a college degree."
   a. Very strongly disagree
   b. Strongly disagree
   c. Mildly disagree
   d. Neutral
   e. Mildly agree
   f. Strongly agree
   g. Very strongly agree

6. Did you have financial assistance to pay for your college education? Select all that apply:
   a. Parent(s)
   b. Family member
   c. Financial Aid Office
   d. Friend
   e. FASFA website
   f. University website
   g. Other: _____
   h. None of these
7. How do you pay for college expenses? Select all that apply.
   a. Scholarships and grants
   b. Loans
   c. Personal income (job, savings, etc.)
   d. Family Financial Support
   e. Other: _____

APPENDIX J: RESILIENCY/ MOTIVATION

For the following 12 questions, you will be asked questions in regard to your resiliency and motivations throughout your college journey. The questions are based on your enjoyment of your major, class withdrawal, study environment, and future academic planning. These questions may be hard to answer and can bring feelings of stress, anxiety, or depression. **<u>Remember, your participation is voluntary, and you can withdraw consent at any moment.</u>** If you feel any feelings of anxiety, stress, depression, or will like to seek professional psychological assistance, **please contact the UCF Counseling & Psychological Services (24/7 407-823-2811).**

1. Based on your experience, choose the best response to the statement "I enjoy my major".
   a. Very strongly disagree
   b. Strongly disagree
   c. Mildly disagree
   d. Neutral
   e. Mildly agree
   f. Strongly agree
   g. Very strongly agree
2. If you have changed your major, have you seen an improvement in motivation to complete your college degree?
   a. Yes, I have changed my major and saw improvement in motivation to complete my college degree
   b. Yes, I have changed my major and saw no improvement in motivation to complete my college degree
   c. No, I have not changed my major
3. Have you ever withdrawn from a class? Please select all that apply:
   a. Yes, because I felt that I wasn't prepared the course
   b. Yes, because the timing was wrong
   c. Yes, because of personal circumstances
   d. Yes, because I noticed I didn't need it for my major
   e. Yes, Other: _____
   f. No, I have never withdrawn from a class
4. Are you planning on taking that withdrawn class in a future semester?
   a. I have already taken it
   b. No, I have will not be planning on taking that class in a future semester
   c. I have not withdrawn from a class
5. When studying for a course, what is your preferred study environment?
   a. I prefer to study alone
   b. I prefer to study with a group of my peers
   c. I prefer to study alone, but surrounded by other students such as a library, a coffee shop, etc.
   d. I usually don't study
   e. I don't have a preferred study environment
6. Have you ever been on academic probation?
   a. Yes
   b. No

7. Are you using any on-campus resources to improve or maintain your good standing academically?
   a. Yes
   b. No
8. If needed, do you feel comfortable asking professors for letters of recommendation?
   a. Yes
   b. No
9. Have you ever held a leadership position in a club, school, work, or volunteer environment?
   a. Yes
   b. No
10. Have you ever considered dropping out of college?
    a. Yes
    b. No
11. After completing your undergraduate degree, are you planning on attending graduate school or professional school?
    a. Yes
    b. No
    c. I am still unsure

APPENDIX K: USAGE OF INTERVENTION

The following section consist of three subsections consisting of the use of physical and mental health interventions, academic interventions, and campus interventions. The questions asked are to assess whether you have utilized the interventions provided by the university and whether you will start or continue to use the interventions. These questions may be hard to answer and can bring feelings of stress, anxiety, or depression. **Remember, your participation is voluntary, and you can withdraw consent at any moment.** If you feel any feelings of anxiety, stress, depression, or will like to seek professional psychological assistance, **please contact the UCF Counseling & Psychological Services (24/7 407-823-2811).**

Physical and Mental Health Interventions

1. Have you used the services provided by the Counseling and Psychological Services (CAPS)?
   a. Yes
   b. No
   c. I didn't know this resource was offered
2. Have you used the services provided by Student Health Services, such as primary care, dental, or pharmacy services?
   a. Yes
   b. No
   c. I didn't know this resource was offered
3. Have you used the on-campus recreational facilities such as the gym, work-out sessions, sports facilities, etc.?
   a. Yes
   b. No
   c. I didn't know this resource was offered
4. Have you attended mindfulness, self-care, or any workshop offered by the university to improve or maintain your mental health?
   a. Yes
   b. No
   c. I didn't know that was a resource
5. Based on the previous four questions, if you answered "yes" to any of the questions, please indicate all of the services you will be continuing to use during your time on campus
   a. Counseling and Psychological Services (CAPS)
   b. Student Health Services
   c. On-campus recreational facilities
   d. University-based Workshops
   e. I haven't used any of these services
   f. I have used some or all of these services, but I will not be continuing using them

Academic Interventions

6. Have you used the campus learning centers such as tutoring center, writing center, etc. to improve your study skills?
   a. Yes
   b. No
   c. I didn't know this resource was offered

7. If your course offered supplemental instruction (SI) peer tutoring session, have you ever attended a session?
    a. I have never taken a course that offered SI sessions
    b. Yes
    c. No
    d. I didn't know this was a resource
8. Have you attended academic assistance workshops offered by the university, such as a time management workshop?
    a. Yes
    b. No
    c. I didn't know this was a resource
9. Which of the following resources do you plan to use in the future? Select all that apply:
    a. Campus Learning Services (tutoring centers, writing centers, etc.)
    b. Supplemental Instruction (SI) peer tutoring
    c. University-based Workshops
    d. I haven't used any of these services
    e. I have used some or all of these services, but I will not be continuing using them

Campus Interventions
1. Have you visited university-based departments such as the financial aid office, registrations office, admissions office, department of your major, etc. for any questions or concerns in regard to your degree?
    a. Yes
    b. No
2. If yes, do you leave the department more prepared or more stressed than when you went in?
    a. More prepared
    b. Prepared, but I can manage
    c. Stressed, I still have questions unanswered
    d. More stressed
3. Have you used the Knights Pantry, an on-campus organization that provides basic needs, including food, clothing, and personal hygiene items to students in need?
    a. Yes
    b. No
    c. I didn't know this was a resource
4. Have you used the resources offered in the on-campus library such as the printing services, technology lending, or using the computers?
    a. Yes
    b. No
    c. I didn't know these resources were offered
5. Have you visited the Career Services to utilize the services provided, such as resume building, mock interviews, and assistance with internship and job search?
    a. Yes
    b. No
    c. I didn't know this was a resource

6. Do you have any suggestions for possible workshops or services that can be helpful for student life? Please state suggestions:
   a. _____

APPENDIX L: OVERALL COLLEGE EXPERIENCE

Instructions: The following question is to rate your overall college experience so far. This question may be hard to answer and can bring feelings of stress, anxiety, or depression. **Remember, your participation is voluntary, and you can withdraw consent at any moment.** If you feel any feelings of anxiety, stress, depression, or will like to seek professional psychological assistance, **please contact the UCF Counseling & Psychological Services (24/7 407-823-2811).**

1. How would you rate your overall college experience so far?
   a. I enjoyed it
   b. I like it
   c. I'm neutral about it
   d. I don't like it
   e. I dreaded it

APPENDIX M: OPEN-ENDED QUESTIONS

This part consists of four main questions to discuss topics such as the impact of your college process based on your past life experiences, the challenges presented in your college experience, ways you cope with stress, and what forms of support you find beneficial. Please feel free to write as much as you want about your experiences.

These questions may be hard to answer and can bring past feelings of stress, anxiety, or depression. **Remember, your participation is voluntary, and you can withdraw consent at any moment.** If you feel any feelings of anxiety, stress, depression, or will like to seek professional psychological assistance, **please contact the UCF Counseling & Psychological Services (24/7 407-823-2811).**

1. Has experiencing stressful life events during your childhood impacted your college education progress? If so, in what way?

2. Based on your college experience, have you ever encountered any challenges that have impacted your college education?

3. If you are having a hard day, what are some ways you cope with stress?

4. What forms of support or resources do you think would be beneficial for the university to provide?

REFERENCES

American Academy of Pediatrics. (2014). Adverse Childhood Experiences and Lifelong
Consequences of Trauma.

Anda, R. F., Butchart, A., Felitti, V. J., & Brown, D. W. (2010). Building a Framework for
Global Surveillance of the Public Health Implications of Adverse Childhood
Experiences. *American Journal of Preventive Medicine*, *39*(1), 93–98.
https://doi.org/10.1016/j.amepre.2010.03.015

Beiter, R., Nash, R., McCrady, M., Rhoades, D., Linscomb, M., Clarahan, M., & Sammut, S.
(2015). The prevalence and correlates of depression, anxiety, and stress in a sample of
college students. *Journal of Affective Disorders*, *173*, 90–96.
https://doi.org/10.1016/j.jad.2014.10.054

Beland, L.-P., & Kim, D. (2016). The Effect of High School Shootings on Schools and Student
Performance. *Educational Evaluation and Policy Analysis*, *38*(1), 113–
126. https://doi.org/10.3102/0162373715590683

Bethell, C. D., Carle, A., Hudziak, J., Gombojav, N., Powers, K., Wade, R., & Braveman, P.
(2017). *Methods to Assess Adverse Childhood Experiences of Children and Families:
Toward Approaches to Promote Child Well-being in Policy and Practice*.
https://doi.org/10.1016/j.acap.2017.04.161

Boden, J. M., Horwood, L. J., & Fergusson, D. M. (2007). Exposure to Childhood Sexual and

Physical Abuse and Subsequent Educational Achievement Outcomes. *Child Abuse &*

Neglect: The International Journal, *31*(10), 1101–1114.

Bucci, M., Marques, S.S., Oh, D., & Harris, N.B. (2016). Toxic Stress in Children and

Adolescents. Advances in Pediatrics, 63(1), 403-428.

DOI: https://doi.org/10.1016/j.yapd.2016.04.002

Center for Disease Control and Prevention. (2016). About the CDC-Kaiser ACE Study.

Retrieved from:

https://www.cdc.gov/violenceprevention/childabuseandneglect/acestudy/about.html

Center for Youth Wellness (2017). How ACEs Affect Health. Retrieved from

https://centerforyouthwellness.org/health-impacts/

Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., Koss,

M. P., & Marks, J. S. (1998). Relationship of Childhood Abuse and Household

Dysfunction to Many of the Leading Causes of Death in Adults: The Adverse Childhood

Experiences (ACE) Study. American Journal of Preventive Medicine, 14, 245-258. DOI:

10.1016/S0749-3797(98)00017-8

Felitti V. J. (2002). The Relation Between Adverse Childhood Experiences and Adult Health:

Turning Gold into Lead. *The Permanente Journal*, *6*(1), 44–47.

Felitti, V. J. (2009). Adverse childhood experiences and adult health. *Academic Pediatrics*, *9*(3),

131-132.

Felitti, V. J., Jakstis, K., Pepper, V., & Ray, A. (2010). Obesity: problem, solution, or both?. *The Permanente Journal*, *14*(1), 24–30. https://doi.org/10.7812/tpp/09-107

Felitti, V. J. (2019). Origins of the ACE Study. *American Journal of Preventive Medicine*, *56*(6), 787–789. https://doi.org/10.1016/j.amepre.2019.02.011

Finkelhor D, Shattuck A, Turner H, Hamby S. Improving the Adverse Childhood Experiences Study Scale. *JAMA Pediatr.* 2013;167(1):70–75. DOI:10.1001/jamapediatrics.2013.420

Hinojosa, M.S., Hinojosa, R., Bright, M. and Nguyen, J. (2019), Adverse Childhood Experiences and Grade Retention in a National Sample of US Children*. Social Inq, 89: 401-426. DOI:10.1111/soin.12272

Hinojosa, R., Nguyen, J., Sellers K. & Elassar, H. (2019) Barriers to college success among students that experienced adverse childhood events, Journal of American College Health, 67:6, 531-540, DOI: 10.1080/07448481.2018.1498851

Holdsworth, S., Turner, M. & Scott-Young, C.M. (2018) … Not drowning, waving. Resilience and university: a student perspective, Studies in Higher Education, 43:11, 1837-1853, DOI: 10.1080/03075079.2017.1284193

Karatekin, C & Ahluwalia, R. (2020). Effects of Adverse Childhood Experiences, Stress, and Social Support on the Health of College Students. *Journal of Interpersonal Violence*. 2020;35(1/2):150-172. DOI:10.1177/0886260516681880.

Karatekin, C. (2018). Adverse Childhood Experiences (ACEs), Stress, and Mental Health in

College Students. *Stress & Health: Journal of the International Society for the

Investigation of Stress*, *34*(1), 36–45. https://doi.org/10.1002/smi.2761

Kessler RC, Berglund P, Demler O, Jin R, Merikangas KR, Walters EE. Lifetime Prevalence and

Age-of-Onset Distributions of DSM-IV Disorders in the National Comorbidity Survey

Replication. *Arch Gen Psychiatry.* 2005;62(6):593–602. DOI:10.1001/archpsyc.62.6.593

Lanius, R. A., Vermetten, E., & Pain, C. (2011). *The impact of early life trauma on health and

disease: the hidden epidemic*. Cambridge: Cambridge University Press.

Link, B., & Phelan, J. (1995). Social Conditions as Fundamental Causes of Disease. *Journal of

Health and Social Behavior,* 80-94. Retrieved from www.jstor.org/stable/2626958

McNeil, R., Guirguis-Younger, M., B Dilley, L., Turnbull, J. and Hwang, S.W. (2013). Learning

to account for the social determinants of health affecting homeless persons. Medical

Education, 47: 485-494. DOI:10.1111/medu.12132

National Child Traumatic Stress Network (n.d.). About Child Trauma. *National Child Traumatic

Stress Network,* https://www.nctsn.org/what-is-child-trauma/about-child-trauma.

Resilience. (n.d.) *Merriam-Webster's online dictionary*. Retrieved from https://www.merriam-

webster.com/dictionary/resilience

Sacks, V., & Murphey, D. (2018). The prevalence of adverse childhood experiences, nationally,

by state, and by race or ethnicity. Retrieved from

https://www.childtrends.org/publications/prevalence-adverse-childhood-experiences-nationally-state-race-ethnicity

Simpson, D. B., & Burnett, D. (2019). Commuters versus Residents: The Effects of Living Arrangement and Student Engagement on Academic Performance. *Journal of College Student Retention: Research, Theory & Practice*, *21*(3), 286–304.

Smyth, J. M., Hockemeyer, J. R., Heron, K. E., Wonderlich, S. A., & Pennebaker, J. W. (2008). Prevalence, type, disclosure, and severity of adverse life events in college students. *Journal of American College Health*, *57*(1), 69–76. https://doi.org/10.3200/JACH.57.1.69-76

Stress. (n.d.) *Merriam-Webster's online dictionary*. Retrieved from https://www.merriam-webster.com/dictionary/stress

Trent, M., Dooley, D. G., & Dougé, J. (2019). The Impact of Racism on Child and Adolescent Health. *Pediatrics, 144*(2), e20191765. DOI:10.1542/peds.2019-1765

Ungvarsky, J. (2019). Misinformation effect. *Salem Press Encyclopedia*.

World Health Organization (WHO). (1995). Constitution of the world health organization.

Zimet, G.D., Dahlem, N.W., Zimet, S.G., Farley, G.K. (1988). The Multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment*, 52:1, 30-41, DOI: 10.1207/s15327752jpa5201_2