MENTAL HEALTH OUTCOMES FROM ADVERSE CHILDHOOD EXPERIENCES AND THE ROLE OF NATURAL AND SERVICE-BASED COMMUNITY INVOLVEMENT

by

Sydney E. W. Quinones

Liberty University

A Dissertation Presented in Partial Fulfillment

of the Requirements for the Degree

Doctor of Philosophy

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APPROVED BY:

Kelly Gorbett, PhD, Committee Chair

Brittany Hernandez, PhD, Committee Member

ABSTRACT

Despite the literature that exists on adverse childhood experiences (ACEs) related to relationships and mental health outcomes, there is a gap that exists in how community involvement can be a moderating factor. Studies do not address how extended family and community influence childhood development as it relates to mental health outcomes. This study is a mixed-method research design. Participants included 61 individuals with at least 1 ACE score and who were at least 18 years of age. They were recruited through social media sharing. Phase 1 assessed demographics, ACE scores, depression and anxiety severity, involvement with a service-based community, and self-perceived relationship quality with natural community. Phase 2 was an open-ended questionnaire on lived experiences related to natural and service-based communities. There were 20 participants that were randomly selected for analysis. This study utilized a moderation analysis for Phase 1 and a narrative analysis for Phase 2. The relationships showed that the community can moderate the relationship between ACEs and mental health severity, specifically anxiety severity scores. The narrative analysis identified common themes of perceptions on community impacts on mental health such as supportive, knowledgeable, distrust, and avoidance. Furthermore, the results suggest that there is a need for additional programs, policies, screening, and prevention to support communities that have faced trauma. This can provide safeguard programs for community involvement and educate policymakers and preventionists. Furthermore, faith-based programs can integrate this knowledge to better support their communities and uplift them.

Keywords: Adverse childhood experiences, depression, anxiety, community

Dedication

First, I want to dedicate this dissertation to my husband, Hector. We have supported each other through both our educational and professional goals and I could not have done it without him. Thank you for providing me support, love, and encouragement throughout this journey. I love you and look forward to what is to come. This dissertation is also dedicated to my parents. Thank you for supporting me from the start and always providing me guidance. I could not have achieved this without your never-ending support and sacrifices. I love you both and I am proud to be your daughter. All three of you have been my cheerleaders since day one. Thank you for all that you have done and keeping me grounded.

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CHAPTER 1: INTRODUCTION TO THE STUDY

Introduction

Literature explores adverse childhood experiences (ACEs) and the influence ACEs have on development and functioning across the lifespan. These experiences specifically impact development regarding an individual's relationship formation and maintenance, biological responses to situations, mental health outcomes, physical health outcomes, behavioral reactions and choices, and cognitive and academic functioning (Dagan et al., 2018; de Neubourg et al., 2018; Fuchshuber et al., 2019; Khanijahani & Sualp, 2022). Mental health, such as anxiety and depression, can be strongly influenced by adverse childhood experiences when there is a lack of resources and community support. While there is extensive research on how ACEs influence mental health, there is a gap with identifying the influence of protective factors, such as natural and service-based communities, for moderating the ramifications of trauma (CDC, 2021; Finkelhor et al., 2013). Therefore, it is beneficial to investigate the influence of ACEs on depression and anxiety severity during adulthood, as well as explore communities as a protective factor.

The three types of ACEs are abuse, neglect, and household dysfunction, with parental divorce being the most common (National Conference of State Legislatures, 2021; Ronnenberg et al., 2020). These experiences impact an individual's health, well-being, and behaviors. Adverse childhood experiences are influential in multiple facets of an individual's lifespan. The multiple risk factors are defined as individual, family, and community, such as inconsistent discipline, isolation, unstable housing, high conflict

communication, violence, poverty, and crime. While ACEs do not define an individual's future, it is necessary to understand the multitude of risk and protective factors due to the complexities of childhood adversities and interrelationships to improve long-term outcomes (Finkelhor et al., 2013).

Background

Communities can serve as a protective factor towards a multitude of negative influences on childhood development, including the family. Adverse childhood experiences can impact an individual's development into adulthood if protective factors are not in place to moderate the influence ACEs have on depression and anxiety severity.

Parental and Caregiver Attachment

Attachment to caregivers, natural community, service-based community, school, and healthcare, are all vital for healthy development. Bowlby and Ainsworth's attachment theory emphasizes the development of relationships with a caregiver to promote healthy emotional and social development (Bretherton, 1992). A trusted adult reduces the impact of adversity on mental well-being, health-harming behaviors, subjective well-being, and psychological distress across socioeconomic populations (Bellis et al., 2017; Corcoran & McNulty, 2018; Qu et al., 2022; Thoma et al., 2021). These relationships can be beneficial for preventing later development of these issues into adulthood. Healthy attachments demonstrate a biological resilience following adversity during childhood that contributes to the role of early caregivers' experiences, physical health, and biological processes (Dagan et al., 2018). Proverbs 22:6 indicates parents should train their children up to support and guide them through life (*English Standard*

Version Bible, 2001). But these processes can be impacted by early trauma exposure with caregivers. An exposure to parental depression and household dysfunction increases the likelihood for a child's internalizing behaviors (Bevilacqua et al., 2021). A mother with early exposure to trauma can negatively impact her children's health and well-being.

Community Support and Involvement

Community support around an individual can significantly impact his or her development. This includes parents, friends, school peers, and neighborhood interactions. The increased support in neighborhoods mitigates adverse effects of ACEs on mental health issues and externalizing problems, such as anxiety and depression (Khanijahani & Sualp, 2022). These connections that can promote positive development also include extended family members and trusted adults. For example, parents and grandparents promote language development through positive attachments and interactions (Reynolds et al., 2018). Communities allow for belongingness and support. One's natural environment and community service-based environments intertwine and interact to promote healthy development.

Mental Health and Treatment

Trauma does not impact only one portion of health or exist as a single event. Rather, trauma influences the whole individual through a multitude of experiences. It is possible to heal from trauma by building resiliency. This may involve various techniques that can aid the individual to build up from these experiences. One way is through community support systems. Communities are a viable aspect to building relationships, social skills, trust, and overall health. This also extends to an individual's relationship

with God. Psalm 46:1 notes that one's relationship with God can provide refuge and strength (*New International Version*, 1978/2011). Another technique for healing from trauma is through service-based support systems, such as mental health treatment. It is necessary for these programs to be informed on the influence that trauma has on an individual. These trauma-informed treatment programs integrate intervention strategies to improve the physical and mental health of participants (Noteboom et al., 2021). Mental health providers, unfortunately, have limitations with addressing the context of abuse and neglect because it presents itself differently across populations. Trauma does not impact one singular group of people, rather it touches many. However, there are differences in the experiences between populations for those with ACEs. There are limitations in the ability of mental health providers, gatekeepers, and preventions to address abuse, deprivation, neglect, and adversity.

Adulthood Social Support

Adults with higher scores of cumulative childhood maltreatment have higher risks for relational problems (Steine et al., 2020). Childhood maltreatment and abuse compromises the development of proximal protective factors, including social support, which are vital for health and stress resilience. Individuals that have documented histories with childhood abuse and neglect report lower levels of social support during adulthood, including belongingness, appraisal, tangible, and self-esteem (Sperry & Widom, 2014). This can make it increasingly difficult to form relationships and attach to different communities. Higher scores with relational problems predict lower perceived social support levels on a longitudinal perspective, but there is variation over time (Steine et al., 2020). Relational problems positively predict mental health symptoms including

depression and anxiety. Low social support can be a consequence due to avoidance of close relationships from the development of trust issues and insecure attachment with parents and caregivers (Steine et al., 2020). In addition, low perceived social support could be from not seeking out socially supportive relationships. Social support can serve as a protective factor against mental health problems when transitioning into adulthood (Scardera et al., 2020).

The central research question for this project is how community involvement and support throughout development impacts mental health outcomes. These factors are understood to be impacted by an individual's adverse childhood experiences. This study utilized the difficult concepts of childhood trauma, adverse childhood experiences, mental health outcomes, the necessity for resiliency, and the importance of positive community involvement. It is grounded in biblical truths through scripture that pinpoints resiliency and perseverance when faced with difficulties through life, including childhood. Everyone is impacted by daily life and should not be overrun by despair or crushed from hardship, but rather lean on the relationship with God to be a resilient individual (2 Corinthians 4:8-9; *New International Version*, 1978/2011).

Problem Statement

Adverse childhood experiences impact individuals and their health across development. The three key categories of adverse childhood experiences are neglect, abuse, and household dysfunction (National Conference of State Legislatures, 2021). Current research on adverse childhood experiences fails to address the full scope of extended family and community influences on childhood development as it relates to

mental health outcomes, specifically depression and anxiety severity during adulthood. A child's attachments to their caregivers, natural community, and service-based community are essential for positive development. Attachment theory emphasizes the role of relationship development that centers on the parent-child, or caregiver and child, to promote social and emotional development (Bretherton, 1992). Community involvement and parental attachment are both vital parts of childhood development with interpersonal relationships. An individual's resilience is necessary to overcome their trauma. But intergenerational trauma often plays a role in the inability to move past the never-ending trauma cycle (Burke et al., 2021). These attachments can further influence how an individual perceives and develops across the lifespan. Insecure attachments can create the potential for further difficulties with relationship formation and community building in adulthood.

In a 2019 CDC analysis of 25 states, approximately two-thirds of the adults that were surveyed had experienced at least one ACE during their life (CDC, 2021). A greater proportion of these participants were women and racial/ethnic minorities. These participants had 4 or more ACEs. In addition, individuals with higher ACEs were at a higher risk for lower education and unemployment. Early exposure to violence within the home may indirectly and directly predict relationship violence with attachment anxiety in adulthood (Godbout et al., 2017). Researchers evaluate the risk factors and protective factors that exist within the complex nature of adversities in childhood and the interrelationships that create positive long-term outcomes into later life (Finkelhor et al., 2013). ACEs prevention strategies involve providing interventions for long-term consequences, which includes economic support, protection from adversity and violence

through social norms, coping skills for emotional difficulties, and community connections (CDC, 2021).

There is a limited amount of research coverage addressing the gaps that exist in prevention, treatment, and interventions for individuals that have experienced ACEs. Risk factors that are presented across development are categorized to understand the individual, family, and community. It is essential to understand and study protective factors because they are vital for an individual's healthy development. This is especially important with environmental and community frameworks as it relates to natural and service-based communities. These environments and support systems may provide the necessary protective factor to ensure positive development and mitigate issues related to childhood trauma and mental health symptomology in later development. A framework that identifies the gaps in mental health services will be beneficial for both the healing of victims and prevention of further issues. The research aimed to explore and understand lived experiences of participants that are related to their abuse, trauma, and neglect during childhood and how this influenced them into adulthood. The target population under investigation were adults with at least one ACE score and varying severity of depression and anxiety. Participants were at least 18 years old and had access to the identifiable social media groups. This population allowed for a sufficient analysis to address the purpose of this study.

Purpose of the Study

The purpose of this phenomenological mixed method study was to investigate adverse childhood experiences and the role that natural communities and service-based

communities play on mental health outcomes, depression, and anxiety, through exploring lived experiences of participants. In addition, the study evaluated whether there was a significant impact of environment and relationships on the relationship between adverse childhood experience and mental health of participants in adulthood. This study aimed to understand adults' perspectives on how/if their trauma had influenced their mental health and the role of their communities.

Research Questions and Hypotheses

Quantitative Research Questions

RQ1: Does perceived natural community support moderate the relationship between ACEs and depression severity?

RQ2: Does perceived natural community support moderate the relationship between ACEs and anxiety severity?

RQ3: Does perceived involvement with service-based community supports moderate the relationship between ACEs and depression severity?

RQ4: Does perceived involvement with service-based community supports moderate the relationship between ACEs and anxiety severity?

Qualitative Research Questions

RQ5: How do adults with at least one ACE score that have been involved in service-based community support describe their perceived natural community support in adulthood?

RQ6: How do adults with at least one ACE score describe perceived natural community support as impactful towards their mental health?

RQ7: How do adults with at least one ACE score describe service-based community support as impactful towards their mental health?

Hypotheses

Hypothesis 1: Perceived natural community support will moderate the relationship between ACE scores and depression severity.

Hypothesis 2: Perceived natural community support will moderate the relationship between ACE scores and anxiety severity.

Hypothesis 3: Involvement with service-based community supports will moderate the relationship between ACE scores and depression severity.

Hypothesis 4: Involvement with service-based community supports will moderate the relationship between ACE scores and anxiety severity.

Assumptions and Limitations of the Study

An assumption that may occur for this study will be that participants will be honest with their answers. The aspect of honesty is important to accurately capture the experiences of those that have experienced trauma. Another assumption for this study will be that participants will be accurate in their telling of experiences. Accurate storytelling allows for accurate data collection and analysis of responses. A potential limitation for this study is the risk for self-reported biases and dishonesty, which can threaten the study's validity and reliability with measurement. This may occur due to the lack of knowledge on the full picture of experiences, social desirability, or self-interest. This study requires participants to rely on their memory, which makes it difficult to have consistency and reliability with responses. Additionally, the scope of recruitment is limited to social media outreach and may limit the number of willing participants.

While the results may show that community support and involvement and the prevalence of adverse childhood experiences can impact mental health outcomes, there will not be the availability to display causality. Furthermore, there may be cultural barriers or a lack of diversity with the participant sample, which may impact the study because some participants may process and perceive their trauma differently compared to other groups. With an online survey, there is less likelihood to ensure for specific participant demographics, and participation by those who do not have consistent Internet access will be limited. In addition, there are limited opportunities for participants to fully express their perceptions without additional questioning from researchers. This may be due to participants different perception of the questions compared to their counterparts. Finally, there may be limitations with the generalization of the participant sample because of the small numbers.

Theoretical Framework

This study is primarily informed by the Ecological Systems Theory and Attachment Theory as it relates to adverse childhood experiences. Research has indicated that ACEs can be a mediator for internalizing behaviors and disorder within neighborhoods (Wang et al., 2020). The relationships within neighborhoods and the family are essential for positive development. This includes establishing healthy relationships, social skills, engagement, and networking (Little et al., 2019). These skills allow for youth to properly reach out when they are struggling with mental health issues. In addition, these connections also extend to neighbors, extended family, local organizations, family friends, and providers. It is vital to understand the foundational

theories of community and relationships to guide this research on the ways to moderate negative outcomes from trauma and negative experiences throughout early development.

First, the Ecological Systems Theory explains that there are levels/systems that interact and influence one another that aid to understand the experiences between social, familial, and individual environments within the cultural and structural environment (Afifi et al., 2020). This theory supports the research with identifying the needs for protective and moderating factors for the prevention of maladaptive problems and behaviors during development. Next, attachment theory further guided this study by emphasizing the role of relationship development between the parent and the child to promote healthy social and emotional development (Bretherton, 1992). Attachment styles include secure, avoidant, anxious, and fearful-avoidant, or disorganized, with secure attachment being the ideal one. This theory is relevant to understanding the link between caregiver attachment and traumatic experiences during childhood and how they can influence mental health outcomes. Both theories come together to fully grasp both the importance of relationships and community involvement, but also what negative relationships could potentially do to an individual's development, including his or her mental health.

Biblical Constructs

There are various biblical constructs that are considered with this study. Many of these constructs are focused on the importance of resilience in the face of adversity and the necessity for positive relationships. Isaiah 41:1 notes that the Lord strengthens and helps his children through hardships (*English Standard Version Bible,* 2001). Individuals

must come together for the common good, especially for one's community and family. God does not make his followers face anything they cannot handle.

Trauma is not limited to a single event, rather it encompasses a large span of an individual's life and experiences. One's community and relationship with God can aid with healing and building resiliency. The Bible mentions a few examples of neglect and abuse during childhood in the home. First, the story of Cain and Abel is centered around sibling jealously and how parental neglect with protection can lead towards negative outcomes. This story emphasizes the role of parents to protect their children and teach them proper communication of emotions. A biblical worldview allows individuals to go past immediate contexts and addresses how trauma, abuse, neglect, and violence impacts everyone.

When safety and protection are challenged there is a gap with overcoming these adverse situations. Adults that have experienced childhood trauma can find themselves in communities that are not supportive due to their cycle of trauma and violence. Positive natural and service-based communities are necessary to promote development across the variety of factors, outcomes, and skills. This study guides itself through biblical constructs and theoretical frameworks to further understand resiliency, community, and strength. These constructs are necessary for guiding research with the various aspects that can contribute to an individual's development.

Definition of Terms

The following list is a definition of relevant terms used through the study.

Adverse Childhood Experiences (ACEs) – various forms of abuse, neglect, and household dysfunction before 18 years old that could be potentially traumatic (National Conference of State Legislatures, 2021).

Anxiety Severity – the severity levels of generalized anxiety, measured using the Severity Measure for Generalized Anxiety Disorder- Adult (American Psychiatric Association, 2013).

Depression Severity – the severity levels of depression symptomatology, measured using the Short Form of the Center for Epidemiologic Studies Depression Scale (CES-D 10-SF) through self-reported symptoms (Gonzalez et al., 2018).

Protective Factor – conditions with families, individuals, communities, and society that allow people to effectively deal with stressful issues and mitigate risks (Larkin et al., 2018).

Natural Community – individuals and support that are naturally available to an individual such as family, relatives, and/or caregivers (American Psychiatric Association).

Service-Based Community – a community that provides services for an individual, which includes behavioral health, mental health, counseling, and/or any interventions (American Psychiatric Association).

Intergenerational Trauma – trauma that is passed from those with direct exposure to incidents onto generations (Borelli et al., 2019).

Resilience – the ability or capacity to quickly recover and adapt from adversity, stress, or trauma (Matlin et al., 2019).

Secure Attachment – autonomous relationships in which children display some level of distress when their caregiver(s) leave but quickly compose when they return (Bretherton, 1992).

Significance of the Study

First, there are gaps in the literature with discussing mental health outcomes as they relate to the environment and moderating effects of environment and relationships. These gaps make it difficult to provide additional research, recommendations, and prevention strategies across fields to serve at-risk communities. Therefore, this study addressed these gaps by pinpointing the perceptions of communities and if their involvement is impactful for an individual's mental health. Next, in practice, the study aids with further understanding of how trauma impacts an individual and the importance of gatekeepers and support systems. This provided a clearer lens to improve trauma-informed care and further research on early childhood trauma.

This study could have implications for trauma informed care as it relates to policy and prevention for ACE screening. Additionally, there could be greater implementations of safeguard programs to promote positive community involvement for various at-risk groups. All the addressed implications can be integrated into prevention strategies to understand trauma as it impacts the whole person, including community involvement and support. This can be further integrated into policy, research, and new programs to support communities.

Summary

Adverse childhood experiences (ACEs) impact various aspects of an individual's development. When provided with safeguards, community, familial support, and

environments that allow for positive development, individuals can thrive despite their trauma. There is a gap in the literature in researching the mental health outcomes as it relates to ACEs and the influence of natural community and service-based community involvement. This study aimed to address these gaps by allowing participants to detail their personal experiences. These processes aid in further understanding the depth of childhood trauma with how it can influence mental health, specifically the severity of depression and anxiety. In addition, the research addressed how self-perceived positive natural communities and service-based communities can aid in moderating the impact that ACEs have on mental health.

CHAPTER 2: LITERATURE REVIEW

Overview

Individuals that have had a history of adverse childhood experiences have an increased risk for developing unhealthy behaviors which is coupled with maladaptive problems and behaviors into adulthood. These problems were common for approximately 60 percent of adults surveyed across 25 states in 2019 that have experienced at least one ACE during their life (CDC, 2021). A greater proportion of these participants are women and racial/ethnic minorities at 4 or more ACEs. The three major categories of adverse childhood experiences are defined as neglect, abuse, and household dysfunction (National Conference of State Legislatures, 2021). Current research on adverse childhood experiences fail to sufficiently address the family and community influences on these experiences and their effect on childhood development as it relates to mental health outcomes, specifically depression and anxiety severity, past adolescence.

Ongoing research must address how extended family and other communal roles contribute to an individual's development and well-being. The CDC (2021) formulated ACEs prevention strategies for strengthening economic support, promoting social norms to protect from adversity and violence, enhancing coping skills for stress and emotions, connecting youth with activities and adults, and creating interventions for immediate and long-term consequences. The current study intends to expand on self-perceived involvement and relationships with communities in relation to mental health outcomes and adversities during childhood. This research will address these gaps that exist with communities as protective factors and severity of depression and anxiety symptoms.

Description of Search Strategy

Liberty University's Jerry Falwell Library database was utilized for most literature searches. There were select terms that were used*: adverse childhood experiences, mental health and attachment, supportive environment and mental health, attachment theory,* and *early childhood trauma*. Literature was limited to being within the past 5 years for most selected articles. There was allowance for 20 percent of articles to be older than 5 years old to allow for historical background. Biblical research was conducted through searching key terms and phrases through Google. These included *family, attachment, mental health, parent and child,* and *biblical scripture on positive youth development*. In addition, Liberty University's Jerry Falwell Library database was utilized to search for Biblical narratives on positive psychology and prevention of mental health issues. This also included utilizing bible gateway for research terms and scriptures for further biblical integrations.

Theoretical Framework

Neighborhoods and the familial context that children grow up in impacts development into adulthood. This study is predominately informed by the Ecological Systems Theory and Attachment Theory as it relates to adverse childhood experiences. Research theorizes that ACEs can serve as mediator for the relationship between externalizing and internalizing behaviors and neighborhood disorder (Wang et al., 2020). Community involvement is highly beneficial in development (Little et al., 2019). These relationships built within communities include with teachers. Communities assist youth with learning and building on life skills and building relationships with various types of

people. The community connections established at a young age provide children with a sense of belonging to nurture social skills, opportunities for collaborative engagement, altruism, and solid networks that carries on past childhood exposure (Little et al., 2019). These connections include extended family and family friends, neighbors, and local organizations. It is necessary to understand these foundational theories to further grasp how communities play a role with moderating negative outcomes from trauma and negative experiences during development. This can allow for further exploration of the relationship between community involvement and support, ACEs, and mental health outcomes.

Ecological Systems Theory

Bronfenbrenner's Ecological Systems Theory guides this study. This theory is a widely adopted theoretical framework when looking at individuals through an ecological context. There are various levels of ecological systems that interact and influence each other. The Ecological Systems Theory aids in examining the experiences between the individual, familial, and social environments that is embedded within a broad structural and cultural environment (Afifi et al., 2020). This theory was originally proposed in 1979 by Bronfenbrenner and has become widely developed across research. It is suggested that it is difficult to understand development without considering the various influences across environments. The Ecological Systems Theory is applicable for this study because it provides a connection to the different systems that may positively and/or negatively influence an individual's development, which includes early exposure to trauma and violence. Furthermore, this theory supports the various research that is key to

demonstrate the necessity for protective and moderating factors to prevent maladaptive behaviors and problems.

The Ecological Systems Theory has five levels/systems of environments that concurrently influence an individual, including the microsystem, mesosystem, exosystem, macrosystem, and chronosystem (Neal & Neal, 2013). The microsystem is the immediate environment including the family, health services, school, religious organizations, and peers. These are influences in an individual's everyday life. Next, the mesosystem is the associations between the various aspects in the microsystem. This provides a linkage between children and their parents, students with their teachers, medical providers to their patients, and so forth. Then, the exosystem is the broad influences such as mass media, parents' economic situation, extended family and neighbors, and social services and healthcare. These systems can impact development and the functions of the other two levels. The macrosystem comprises cultural influences including attitudes and ideologies. Lastly, the chronosystem is the environmental changes across the life span including historical shifts that influence development.

As it relates to development, Bronfenbrenner's theory indicates that these systems and levels are linked and influence each other and the individual's development across the lifespan. In the context of the individual level, researchers indicated that adverse childhood experiences, such as early exposure to violence and trauma, impact areas of development (Merrick et al., 2018). The Ecological Systems Theory is valuable within the context of mental health, community involvement, and adverse childhood experiences. Ecological systems are networked and interact with one another to influence the individual (Neal & Neal, 2013). The ecological systems theory indicates that a child's

mental health is impacted through the microsystems and both the direct and indirect influences of neighborhoods and society (Khanijahani & Sualp, 2022).

Attachment Theory

Attachment theory also guides this study. This theory emphasizes the role of relationship development that centers on the parent-child, or caregiver and child, relationship to promote healthy social and emotional development throughout the lifespan (Bretherton, 1992). Attachment theory was established by John Bowlby and Mary Ainsworth. The four main attachment styles are secure, avoidant, anxious, and fearful-avoidant, or disorganized (Silverman & Field, 2011). Out of these styles, secure attachment is the ideal one between a child and caregiver. Research has noted there is a large gap between individuals with secure attachments and those that fall within the other three categories. It is estimated that approximately 60 percent of caregiver and child relationships are secure attachments (Rees, 2007). The attachment theory is relevant for this study because it provides a link between how traumatic experiences in childhood are related to caregiver attachment and how these attachments can negatively and positively impact mental health outcomes in adulthood. This approach further supports the literature on how positive attachments and relationships are beneficial for an individual's development with a sense of security and safety.

Secure attachments are autonomous relations, avoidant attachments are dismissive, anxious are preoccupied, and disorganized are unresolved (Silverman & Field, 2011). While no child has a perfect upbringing, a secure emotional bond allows for consistency through a feeling of safety and protection to establish social support systems

as an adult. The interactions that cultivate a supportive environment aid with triggering positive emotions and the resources for problem solving and dealing with adversities to build resilience during development. Individuals with an early exposure to avoidant attachments tend have difficulties with expressing emotions. This can lead towards increased suppression of distress that becomes unresolved and impairs them from facing daily stressors. Anxious-ambivalent attachments are anxious and related to lower self-esteem (Silverman & Field, 2011). This can create a desire to want to be close with others coupled with a fear of being unwanted due to the inconsistencies with the parent-child relationship. Fearful-avoidant attachments are disorganized and are rare and difficult to research (Silverman & Field, 2011). This attachment style is associated with an increase in psychological and relational risks, increase in violence, and difficulties with emotional regulation. Avoidant adult attachments are often associated with childhood abuse while adult anxious attachments are associated with childhood neglect (Baer & Martinez, 2006).

Individuals that are secure-autonomous may view stressors as less overwhelming (Dagan et al., 2018). Through the perception of a secure base there a place for safety, comfort, and support in times of stress that may provide flexibility for problem solving and openness towards other support (Dagan et al., 2018). This allows adequate coping strategies and ability to reach out for additional support. Despite high levels of adversity during childhood, a secure-autonomous attachment can create a sense of earned security that shifts from patterns with insecure attachment during childhood towards the secure-autonomous during later development (Dagan et al., 2018).

The secure attachment development process is linked with emotional functioning (Fuchshuber et al., 2019). Bowlby's research on attachment theory found that infants that did not have secure attachments with their caregivers would have an increased risk for developmental disorders, negative behaviors, and high levels of depression. This assumes that affect regulation has a link with early communication between a primary caregiver and an infant, providing verbal and physical comfort for difficult emotions. Attachment with primary caregiver is important for establishing a secure base for safe emotional regulation in both a functional and autonomous fashion. Research indicates that when individuals have secure attachments, they have greater abilities with maintaining functional and stable relationships, regulating relationships, and altruism as an adult (Fuchshuber et al., 2019).

Review of Literature

Adverse childhood experiences (ACEs) are fairly well researched and discussed within the literature to examine the influence these experiences have on development, functioning, and health. The most well-noted study related to ACEs and trauma was the ACE study through the Centers for Disease Control (CDC), which discussed the relationship with health risk behavior and disease during adulthood as it relates to exposure to childhood abuse and household dysfunction (Felitti et al., 1997). The researchers provided 10 ACE categories that encompassed household dysfunctions, child abuse, and neglect. Abuse and neglect were separated into psychological, physical, and sexual. While household dysfunction was categorized by substance abuse, mental illness, mothers experiencing domestic violence, and criminal behaviors within the household. These experiences occurred before the age of 19 years old. The largest sample size that

was noted was between the ages of 50 to 64 at 2577 participants. Many participants were women, non-Hispanic White, and college graduates. Due to the geographic and racial limitations, it is difficult to generalize these findings across various regions and groups.

This study aims to expand on the knowledge of how environment and communities influence an individual's mental health and their perceptions of their upbringing. The review of the literature will focus on adverse childhood experiences and the potential moderating and protective factors present in development. Throughout a literature review of the existing research there will be discussion and evaluation of the available research, prevention, and gaps within the field of psychology. The following sections are discussions on the specific aspects that are targeted throughout this study. These are adverse childhood experiences, natural community, service-based community, mental health resources, and secure attachments.

Adverse Childhood Experiences

The original ACEs study that was conducted was based majorly on White middle-class Americans that lived in California. This did not accurately reflect the differences with ACEs and prevalence of related problems and behaviors. Research indicates the exposure to ACEs is not equal across races and ethnicities through the United States (Hall et al., 2020). Racial and ethnic minorities, women, and LGBTQ+ youth are at a greater risk for an increased number of ACEs and experiencing health risk behaviors, socioeconomic challenges, and health conditions compared to their counterparts (The National Conference of State Legislatures, 2021; see also Craig et al., 2020). In comparison to White children at approximately 40 percent, 61 percent of Black children

and 51 percent of Hispanic children have experienced at least one ACE in the United States. This is noted with the disproportionate availability of services and opportunities for minority neighborhoods. White youth have lower endorsement of ACEs, better overall health, and greater access to protective factors compared to their counterparts (Liu et al., 2019). Adverse childhood experiences are not limited to a racial issue, but also a societal problem. These experiences are not limited to ones within the home and between their families, but also the lived-in circumstances. If an individual is in a community that is lower income with limited education then they are at an increased risk to experience ACEs. A higher prevalence of ACEs exists in racial and ethnic minority groups and in those of lower socioeconomic status. Previous research on this relationship does not adequately address the issues with access of health care and health insurance status (Monnat & Chandler, 2016).

Literature indicates three essential inputs for successful life outcomes in children as cognitive abilities, executive functioning, and health stock (de Neubourg et al., 2018). All these factors can be directly and indirectly influenced by early childhood adversity, maltreatment, and trauma. Adverse childhood experiences have the potential to significantly impact an individual through exposure to violence, abuse, neglect, and household challenges. Black children and children with mothers with a lack of education are at an increased risk for multiple ACEs (Hunt et al., 2016). Early exposure to ACEs increases risk for lifelong mental health and behavioral issues such as depression, lack of coping strategies, substance abuse, decreased academic achievement, dysfunctional attitudes, and poor social development skills that can create difficulties as an adult (Felitti et al., 1998; Hutchinson et al., 2020; Ju et al., 2020; Salokangas et al., 2018).

Health Outcomes

Adverse childhood experiences involving the family impact adult health outcomes. This is through the relationship between stress-related coping behaviors and adult socioeconomic status and adult health and childhood home (Monnat & Chandler, 2016). Literature suggests a relationship between adult health and adverse childhood experiences (Hughes et al., 2016). Compared to those with no ACES, individuals with four or more within the categories of childhood exposure had an increased risk for drug abuse, depression, and negative health behaviors and illnesses (CDC, 2021). These negative behaviors can continue throughout the lifespan. Additionally, they may cause difficulties with forming and maintaining healthy and stable relationships across the lifespan (CDC, 2021). These difficulties with relationships include romantic relationships, platonic relationships, and first-time interactions. Researchers indicated that there are higher rates of smoking, physical inactivity, poor diet, risky sexual behaviors, and alcoholism for those that have been exposed to and experienced childhood maltreatment or dysfunction within the home (CDC, 2021). There is the potential for the worsening of working memory and increased issues with expressing, identifying, and describing emotions in adulthood for those that have experienced childhood trauma (Rosa et al., 2021).

There is a substantial amount of literature that discusses the associations between childhood household dysfunction and overall well-being during adulthood (Monnat & Chandler, 2016). The physical risks can be present through manifestations of various diseases, illnesses, and behaviors. These physical disorders can be evidenced by understanding the correlation between experiencing ACEs and poor diet, which can lead

to heart disease and diabetes (Nusslock & Miller, 2016; Versteegen et al., 2021). Another pair of examples are smoking and drug usage, which can lead to cancer, heart disease, and other side effects of addiction. These factors may influence development across the lifespan with negative behaviors and health problems including unhealthy lifestyle choices that have been linked with adverse household conditions during childhood (Monnat & Chandler, 2016). As it relates to maternal depression, research notes that women with depression have an increased risk for gestational diabetes mellitus (Versteegen et al., 2021).

Adverse childhood experiences entail a vast range of traumatic events and influence a variety of health issues and developmental problems. Maltreatment during childhood is widely researched for various aspects of adult psychopathology (Fuchshuber et al., 2019). Childhood trauma is related to alterations within the brain, including the hippocampus, corpus callosum, and the prefrontal cortex. Research and evidence show that childhood trauma exposure impacts an adult's emotional cues, conflict processing, and reward response (Fuchshuber et al., 2019). Childhood adversity has been noted to influence the brain in a multitude of ways, which can negatively impact physical health. This exposure has been linked to an accelerated telomere shortening that is a marker for aging of the cells (Dagan et al., 2018). Childhood trauma can be a predictor for the further development of physical disorders in adulthood (Noteboom et al., 2021).

Childhood trauma includes abuse and neglect that is physical, emotional, and sexual, as well as witnessing or experiencing domestic violence, parental incarceration, natural disasters, and familial mental illnesses. An individual with higher ACEs has a greater likelihood of developing depressive symptomatology, anxiety disorders, affective

disorders, emotional regulation problems, and increased behavioral health service usage during adulthood (Chen et al., 2021; Dagnino et al., 2020; Larkin et al., 2018; Westermair et al., 2018). Exposure to ACEs increases the difficulty over executive control with impulses, trust and socialization, and a low tolerance for stress (Bellis et al., 2017).

Mental Health Outcomes

Mental health problems and behaviors typically do not occur without overlap. Issues such as depression, anxiety, and ADHD are highly prevalent and comorbid disorders (Khanijahani & Sualp, 2022). This filters into community interactions and academic performance. Children that have been exposed to ACEs have an increased chance to experience mental health and behavioral health issues that are impactful during both adolescence and adulthood. When an individual is exposed to early childhood trauma, such as foster care, adolescents and young adults have an increased rate of PTSD, major depression, substance dependence, and anxiety disorders as a short-term detrimental health impact (Thoma et al., 2021).

Depression

Researchers note that depression has a negative association with health behaviors. The literature suggests that an early exposure to ACEs is associated with an increased risk of depressive symptoms across the lifespan (Tsehay et al., 2020). The number of ACEs shows to have a graded relationship with the prevalence and severity of depressive symptomology. This risk is not limited to a certain time frame on the impact that it has on individuals exposed to trauma, abuse, and neglect. There is an abundance of research that examines overall mental health and the significant impact that childhood trauma has on

the development of depression. There is a genetic vulnerability for depression for those that experience simultaneous early exposure to trauma (Negele et al., 2015). The association between childhood trauma and increased risk of depression has been confirmed through various cross-sectional and longitudinal studies.

An individual's experiences with multiple forms of trauma may lead to increased symptoms of severe depression, specifically for individuals that have undergone childhood emotional and sexual abuse (Negele et al., 2015). Depression is a burdensome disorder that influences various aspects of health and behaviors. Those with persistent depression are reported to have poorer parental relationships during early childhood and receive less care compared to those with episodic depression (Negele et al., 2015). Parental depression and discord are strongly associated with a child's internalizing behaviors (Bevilacqua et al., 2021). This is reflected through the interactional relationships between the child and parents.

Anxiety

A child's exposure to maternal psychopathology and caregiving behaviors has been shown to be linked with child anxiety (Yirmiya et al., 2021). As it relates to cross-generational transmission, early exposure with anxiety can be introduced by family members without awareness. Families that face mass trauma influence one another's resilience and symptomatology. Research has focused mostly on the influence of war-related trauma as it relates to intergenerational transmission of mental health issues. But, as reflected in research, the mothers and children that show increased levels of anxiety symptoms are ones that have been exposed to various levels of trauma. This expands to

the ‘every day’ trauma within the household such as physical, emotional, verbal, and sexual abuse.

Children’s anxiety symptoms following trauma are exacerbated by increased maternal anxiety and compromised sensitive caregiving. A mother that is faced with abuse, neglect, or trauma is impactful towards the way her children view and perceive themselves and their relationships for what is ‘normal.’ Adverse childhood experiences include exposure and witnessing to violence, not just being on the receiving end. Parents and children have a bi-directional relationship in which there is a mutual influence between the two parties (Shaffer et al., 2013). Parents and caregivers impact their children, and their children also mutually influence the parents and caregivers. This bi-directional relationship shows that parenting practices and behavioral problems of children require interventions that incorporate both parties for the most improvement with conduct issues.

Stress

When exposed to stressful events, individuals enter the fight, flight, or freeze response in which the brain is impacted by corticotrophin-releasing hormone (CRH) (Tsehay et al., 2020). While infrequent exposures to stress is normal, a continual production of CRH and these processes may result in a permanent heightened alertness with an inability to go back to a recovery state. A child or adolescent is at an increased level of stress, which can negatively impact rationality and learning. ACEs can lead to lower levels of tolerance for stress due to maladaptive coping strategies (van der Velden et al., 2021). This can limit adults from recovering from mental health problems and

increase the chance these problems will be chronic. Research indicates how ACEs within the familial context shapes the exposure to direct and indirect health risks including negative behavioral choices during adulthood. Children that have been exposed to ACEs and maltreatment are at heightened risk for various types of negative adult health outcomes. While stress is not a mental health diagnosis, it does intertwine with a multitude of mental health issues that arise during development and can be impactful throughout adulthood. It is necessary to understand how stress impacts the body as it relates to trauma to pinpoint the individualized response to these situations. This allows for concrete and sufficient addressing of the gaps that exist within prevention, intervention, and research. Those that been exposed to trauma, violence, neglect, abuse, and household dysfunction respond to difficult situations in various manners. For example, an individual with PTSD symptoms may negatively react to yelling and physically aggressive response with discipline and may retreat away from these situations rather than facing them head-on. This should be considered when implementing intervention strategies and educating providers on how stress impacts the brain on a chronic level because of prolonged exposure.

Cognitive and Academic Outcomes

Literature has noted that stress is associated with aversive states that allow for releasing neuropeptides and hormones (Tsehay et al., 2020). This release influences the expression of behavioral signs that are consistent with depressive disorders. Extreme stress levels disrupt neurological and physiological development and systems. Chronic levels of stress can create neural abnormalities as well as deficits with the hippocampus and the medial prefrontal cortex. These deficits with development and abnormalities are

linked with higher rates of depression. Allostatic load describes the body's ability to adapt to stress and how these systems are overloaded when faced with cumulative stress experiences (Larkin et al., 2018). This is noted to be associated with an individual's physical and behavioral reactivity. As noted, protective factors through one's community, family, and the individual can strengthen the capacity for managing stressful events both physically and mentally. These factors can reduce the likelihood of an allostatic load and the effects both behaviorally and physically (Larkin et al., 2018). There is a significant association between ACEs and parental report of a child having an individualized educational plan, retaining a grade, and experiencing internalizing and externalizing behaviors (McKelvey et al., 2018). Hunt et al. (2016) indicates that an exposure to ACEs has a strong association with internalizing and externalizing behaviors as well as an ADHD diagnosis during middle childhood. Research supports both associations, but there is discussion on which behaviors have a stronger association.

Trauma

Trauma impacts the whole individual. The comorbidities with substance abuse, high levels of adversity, abuse, and ACEs require trauma-informed care in service-based communities to center around mental health, secure attachments, personality functioning, emotional regulation and functioning, and substance abuse disorder (Fuchshuber et al., 2019; Kim et al., 2021). Trauma is not limited to single-event experiences. Literature expands on this idea through an increased awareness by educators on students' past and current traumatic experiences. These experiences are presented in different ways and literature supports the need for positive and supportive relationships to promote problem solving skills. Religious-backed literature addresses the trauma-informed pedagogy with

the religious aspects of trauma and the support of educators (Stephens, 2020). Schools and educators play a vital role with supporting positive youth development. An individual's community and relationships with God can aid with trauma healing and resiliency.

A victim of chronic trauma versus single acute trauma can be faced with lifelong challenges without the proper moderators. Research connects these experiences with post-traumatic stress disorder (PTSD) and complex PTSD (cPTSD) (Goldenson et al., 2021). Complex trauma is developmental trauma that shows ongoing abuse that impacts emotional regulation, identity, and attachment. These symptoms impact regulation of affect and impulses, self-perception, attention, somatization, systems of meaning, and relations with others. The research on youth mirrors that of adults to focus on the singular types of traumas that occur during childhood and adolescence (Goldenson et al., 2021). Early childhood trauma can influence an individual's overall health and behaviors. Literature suggests there is a link between cumulative ACEs, irritability scores, predicted depressive disorders, suicidality, anxiety disorders, and PTSD (Goldenson et al., 2021).

For adults, having higher scores of childhood maltreatment and abuse is a strong predictor for relational problems (Steine et al., 2020). This exposure can negatively impact the development of proximal protective factors, including perceived social support and lead to increased relational problems in adulthood. Lower social support can create these further issues with avoidance of close relationships. This can create difficulties due to the development of mistrust and insecure attachment with parents and caregivers (Steine et al., 2020). Supportive relationships and communities are necessary

for positive development across the lifespan, but negative environments, relationships, and support systems can cultivate a cycle of trauma.

Intergenerational Trauma

Intergenerational trauma from abuse, neglect, and household dysfunction creates a cycle that is difficult to break and heal from. Maternal and child exposure to childhood sexual abuse increases the development of psychological difficulties, including higher anxiety symptoms and lower maternal sensitivity (Borelli et al., 2019; Howell et al., 2021; Yirmiya et al., 2021). Intergenerational trauma often plays a role in the inability to move past the never-ending trauma cycle. Trauma reflective functioning decreases exposure to child sexual abuse for children of exposed mothers. This model allows mothers to heal and improve the difficulties of their children within the context of abuse by facilitating adaptation and reducing intergenerational trauma risks (Borelli et al., 2019). These tools need to be taught to guide those to properly cope and respond to adverse experiences. An individual living with their primary caregiver has an increased chance of a higher well-being and parental involvement (Poortman, 2018). This may include their mother, father, grandparents, foster care, and so forth. These can be individualized relationships, but there is necessity for stability, safety, and consistency.

A mother with early exposure to trauma can negatively impact her children without it being purposeful to pass along trauma. Maternal ACEs has the potential to promote negative behaviors and internalizing problems from maternal attachment avoidance, depression, and attachment anxiety from trauma and negative experiences (Cooke et al., 2019). A child's increased levels of anxiety following trauma may be

exacerbated by the influence of increased maternal anxiety and compromised sensitive caregiving. This can filter into the experiences of the children with an exposure to maternal mental health issues. These factors can limit benefits from the parental and mother-child interventions for populations that are trauma-exposed (Yirmiya et al., 2021).

Resiliency

An individual's resilience is necessary to overcome their trauma. Resilience refers to the positive outcomes at the community, group, or individual level that occur despite the threats to healthy development (Matlin et al., 2019). Resiliency can be built up from a supportive community, including the natural community, that allows an individual to overcome adversities. It involves an individual's ability to transform stress that may be toxic into a tolerable stress, thus reducing physiological and psychological harm during development (Bellis et al., 2017). Resilience allows for individuals to bounce back from harmful environments and situations. When faced with adversity it can be difficult to be resilient. But when provided with the necessary safeguards and tools individuals can overcome their adverse experiences.

Dr. Kenneth Ginsburg (2020) established seven 'C's' of resilience, demonstrating that this concept is not simple or one-dimensional. These are competence, confidence, connection, character, contribution, coping, and control. One's emotions have a vital impact on the physiological and neurological reactions to stress. The seven C's provide a guideline for parents to aid with children recognizing their inner resources and abilities. Competence involves the feeling of knowing one can handle situations effectively, such

as focusing on strengths, empowerment, and identifying mistakes. Confidence is the belief about abilities that come from competence, which allows for realistic standards and focusing on the best. Connection develops ties with community and family for a sense of security for strong values and prevention of destruction. This includes physical safety and emotional security with a freedom of expression and open addressing of conflicts for adequate problem solving. Character is established through a set of morals and values for understanding the differences between right and wrong. Contribution is the need for children to realize their value in the world, including modeling generosity. Coping with stress is necessary to aid with overcoming challenges and includes the use of positive guidance. Control over outcomes from one's decisions allow for the ability to bounce back in stressful situations. Children must understand that they are understood, supported, and loved despite their actions (Ginsburg, 2020).

Protective Factors

Protective factors including community and familial support can aid with moderating the impact of adversity and trauma. This social support can create a buffer against the stressful events through enhancing emotional and cognitive processing from adverse childhood experiences for adults (Tsehay et al., 2020). In the context of this study, there is a gap with addressing potential mitigating factors with the negative impact that adverse childhood experiences have on adult outcomes. Research suggests that individuals with stress filled childhoods have an increased chance for criminality, unstable marriages, and difficulties with finances into adulthood (Goldenson et al., 2021).

Some protective factors can serve as a mitigator or buffer for these stressful and adverse childhood experiences. These can include supportive personal relationships, successful careers, and a positive view of the self. Goldenson et al. (2021) indicates that participants that had more protective factors had a greater potential to become well-adjusted and content during adulthood. Additional protective factors that would be applicable are involvement with social programs, caregivers with less mental health issues, and knowledge and teaching of problem-solving skills. These factors additionally aid with increased resiliency when in the face of adversity. Individuals that have higher levels of ACEs had increased levels of stress and lower levels of social support (Tsehay et al., 2020). Childhood traumatic experiences increase the risks of unhealthy behaviors and lower well-being. This can be mediated by social support and behavioral factors during adulthood (Sheikh et al., 2016). This further expresses the need for protective factors within the familial and community levels for early interventions.

Secure Attachment

In youth, secure relationships are essential for healthy development across relationships, behaviors, and aspects of an individual. Attachments with caregivers influences various parts of an individual, including their brain and their responses. Adverse childhood experiences are discussed within the framework of attachment theory as it relates to an increased risk for insecure attachments. These attachments can lead to social and psychological deficits consistent with an individual's criminogenic needs (Grady et al., 2016). These deficits include difficulties with problem solving, social skills, emotional regulation, and arousal control. In addition, these attachment styles impact development and should be understood through the trauma-informed perspective.

Literature suggests a difference in the association between parental stress, temperament, and involvement based on the gender of the parent and child. The perceptions of emotional regulation and father involvement promote attachment between the parent and the child (McBride et al., 2004; Trahan & Cheung, 2018). Relationships between mothers and their children show fewer associations between child temperament and involvement. Girls that are less active may receive lower levels of maternal involvement compared to girl that are more active (McBride et al., 2004), while boys receive attention regardless of activity levels. Societal expectations with the roles of mothers and fathers may be considered with the difference of the relationship between temperament and parental involvement. Fathers were noted to be more influenced by their child's characteristics due to a freedom of defining their role and responsibilities as a parent (McBride et al., 2004).

Early exposure to violence may indirectly and directly predict relationship violence with attachment anxiety in the home environment (Godbout et al., 2017). There is research that attempts to unpack the risk and protective factors within the complex nature of adversities during childhood and interrelationships to create positive long-term outcomes into adulthood (Finkelhor et al., 2013). A secure adult attachment style can be displayed in patterns of comfortableness with relationship intimacy, lower levels of anxiety when faced with rejection, and dependence on others and others' dependence on oneself (Fuchshuber et al., 2019). Internalized adverse childhood experiences can impact one's inner working models and patterns of insecure attachments that influence regulation of emotions, including symptomology of mental health issues. Childhood adversity is associated with symptoms of psychological distress and impaired self-

perceptions in adulthood (Corcoran & McNulty, 2018). Attachment anxiety in general relationships was a moderator for these symptoms. The attachments to an individual's father and romantic partner do not show to be moderators for these associations.

Violence within romantic relationships is prevalent during early adulthood and adolescence and is related to various negative factors and outcomes. Within the scope of attachment theory, researchers have explored the associations between the early exposure to violence, relationship satisfaction, and perpetration of relationship violence (Godbout et al., 2017). Romantic attachments are often a target for prevention and treatments of violence within the scope of intimate relationships. Exposure to intimate partner violence during their development is associated with an increased risk for mental health issues, potential intergenerational violence in romantic relationships, and delinquency (Howell et al., 2016). A large portion of women are impacted in the United States by intimate partner violence (IPV). It is estimated that approximately 30 percent of women have been exposed to a mild form of IPV during their lifetime and approximately 25 percent have been exposed to severe IPV (Howell et al., 2016).

These aspects of violence in romantic relationships are not limited to the relationship itself, but rather can extend to the entire family system. Children witnesses parental violence between 80 to 95 percent of the time (Howell et al., 2016). Millions of children and adolescents across the United States are exposed to violence within the home, communities, and schools as both witnesses and victims (Finkelhor et al., 2009). These traumatic experiences are researched across the world as it relates to the impact IPV has on a child's development, behavioral and emotional adjustment, structural brain development, school performance, cognitive functioning, and physical health. While IPV

typically occurs later in life, this can occur during late adolescence or through vicarious trauma between the caregiver and their child. Research indicates that exposure to violence is related to increased difficulties with emotional regulation and deficits with empathy understanding (Zucchelli & Ugazio, 2019). These problems may filter across abilities to achieve intimacy, feelings of connectiveness, incompatibilities, lack of trust, and emotional distancing in adult relationships. These outcomes can stem from the expectations of danger, potential harm, or betrayal with the vulnerabilities through exposure to violence.

Mental Health Services and Supports

Positive childhood experiences (PCEs) can moderate the influence of adverse childhood experiences on mental health within adolescents and adults (Qu et al., 2022). ACEs are positively correlated with an increased risk for anxiety and depression. Individuals that have lower ACE scores (less than 4) and higher PCE scores (6-7) are at a significantly lower risk of depression and the comorbidity with anxiety (Qu et al., 2022). There are various factors to consider with anxiety, stress, and deprivation. When individuals are placed in deprived environments there is a significant association with increased levels of anxiety and stress (Chung et al., 2020). Mental health services and supports are valuable for moderating the impact that adverse childhood experiences have on an individual's development and mental health outcomes, specifically with depression and anxiety. Chronic mental health problems can impact an individual's use of mental health services. It is noted in research that adverse childhood experiences are associated with higher usage of mental health services (van der Velden et al., 2021). But it is unclear on the extent to which these individuals with an ACE history with chronic mental health

problems, such as depression and anxiety, use these services compared to those without ACEs. There is an increase in contact with mental health professionals for adults with an ACE history compared to their counterparts (van der Velden et al., 2021). Adults that experienced one ACE have an increased prevalence of chronic mental health problems such as chronic depressive and anxiety symptoms.

Community

A community is a social unit or group of people with a commonality such as religion, values, place, or norms. Community involvement and engagement promotes healthy development with communicating needs and interests of participants. One's local community during early childhood allows for a solid, positive, and uplifting environment during development. Communities allow children to learn about themselves as well as how to problem solve, build up their knowledge, and thrive despite challenges. There are various community sectors that include community members, health providers, social service providers, funding services, parents, youth, policymakers, and researchers. These all come together to collectively influence an individual's development. A component of a socio-ecological level of interventions with trauma-informed practices is the community/systems level. This level includes the whole communities and service systems (child welfare, criminal justice, educational, etc.) that influence the individual, community, relational, and organizational responses to trauma (Matlin et al., 2019).

Natural Community

A natural community is defined as the individuals and support that are naturally given to an individual. These individuals can include family, relatives, caregivers, and/or

friends (e.g., parents, grandparents, foster families, uncles, aunts, long-term caregivers, friends, peers, and neighbors). The increased support in neighborhoods mitigates adverse effects of ACEs, including mental health issues and externalizing problems such as anxiety and depression (Khanijahani & Sualp, 2022). Lower support and cohesion in neighborhoods are linked with poorer child outcomes. Adolescents and children are faced with a variety of stressors during development. Constant and daily exposure to stress and strain can lead to further strain and eventual delinquency if it is persistent across development (Bae, 2020). When an individual has weakened ties to society and family, there is an increased risk for delinquency. School dropout weakens social control and social ties, which may lead to an increase in delinquency behaviors in early adulthood (Bae, 2020). While there is limited research, literature has explored the impact of ACEs on delinquency behaviors with students leaving school. This research concluded that ACEs and school disengagement is positively associated with delinquency (Bae, 2020).

Adverse childhood experiences increase an individual's risk for poor mental well-being and health during adulthood (Bellis et al., 2017). Higher ACE counts are also related to an increase in the prevalence of negative health behaviors. A trusted adult can become a moderator against these negative outcomes that develop later in life. Relationships within the natural community impact the individual across areas of development, including emotional, social, and behavioral development. For example, parents and grandparents promote language development through positive attachments and interactions (Reynolds et al., 2018). One's natural environment and community service-based environments intertwine and interact. For example, increased parental involvement promotes decreased psychosocial issues, and increased school engagement

and achievement (Jeynes, 2007; Larson et al., 2017; Wong et al., 2018). This community is essential for healthy development through bonding to promote growth.

Research indicates that there is an association between social support and mental health for both negative indicators and hedonic and eudemonic aspects for positive mental health, including meaningfulness and hope (Jakobsen et al., 2021). The supports from one's natural community can play a role in the long-term effects on later mental development. Perceived social support from friends is positively associated with all indicators for mental health during early adulthood (Jakobsen et al., 2021). This is additionally supported by perceived paternal social support being positively associated with subjective well-being and meaningfulness.

Neighborhoods are an additional factor to consider within the scope of the natural community. While neighborhoods are also considered to be a part of service-based communities, neighborhoods are an integral aspect of communication and relationship formation. Neighbors can positively or negatively impact development. Khanijahani and Sualp (2022) note there is an association with neighborhood disorganization, behavioral outcomes, and negative family characteristics, including ACEs. Research suggests that living in cohesive communities can control crime and violence compared to their counterparts. Neighborhoods with less access to services and resources can create instability within the community. This can create further difficulties with poverty, ethnic heterogeneity, instability of residents, and overall control over crime and violence (Daoud et al., 2017). These issues with instability can create further anxiety, difficulties with relationship formation and maintenance, and issues with behaviors. A moral social order is established through social interactions. These interactions aid with determining

and controlling deviant behaviors that can be displayed in a variety of ways. Collective efficacy, also known as social cohesion, is helpful for maintaining social order and control that depends on feelings of belongingness and identification with collective norms and order (Uchida et al, 2013). Communities and social environments are necessary for establishing these social orders. An individual can adapt to these social norms and orders to determine how to best interact and behave with those around them (CDC, 2021).

Service-Based Community

A service-based community is defined as a community that provides services for an individual, which includes behavioral health, mental health, counseling, and/or any interventions. These communities allow for individuals to be supported and provide a sense of security and consistency in various settings beyond the home. The development of a child varies depending on environmental facilitation (Larkin et al., 2017). These changes depend on the extent that the environment provides various resources to meet the needs of the child that filter into adult development. Larkin et al. (2017) referenced studies on resiliency on Romanian orphans that were adopted. It was determined that pathways of positive development focus on ecological factors. The authors note that these factors are more associated with the individual's growth than individual-level constructs.

Adverse childhood experiences are noted to be associated with an increased usage of behavioral health services (Larkin et al., 2017). An increased usage of behavioral health services and reporting of adverse physical health events requires protective factors through various services. These services are useful for coping with trauma, abuse,

neglect, and household dysfunction to mitigate the damages to development. While many individuals face limitations, service-based communities that nurture positive development aid with moderating negative health behaviors and issues. However, services may be impacted by the limitations of mental health providers. Mott and Martin (2019) note that providers that have a history of adverse childhood experiences also had increased negative compassion outcomes compared to their counterparts. It is necessary to consider these limitations when determining the role that mental health providers can play in moderating the adverse effects of trauma.

As it relates to service-based communities, neighborhoods and environment can influence development. Research focused on neighborhoods note that higher levels of neighborhood crime and violence are related to an increase in intimate partner violence and family violence (Daoud et al., 2017). Individuals have stronger outcomes when community members participate in social groups, have higher social support, and live in a community relative to socioeconomic and sociodemographic status. Children do not get to pick their family or the environment that they grow up in, but they can surround themselves with a supportive environment beyond the natural community throughout their development. A service-based community allows an individual to reach out beyond the limitations within the home and immediate interactions to seek out support. However, there are barriers that may limit this outreach, such as time, money, and access to resources.

Barriers

Barriers are reflected in limited access to care, community, and supportive environments to overcome adversity. Individuals that have or are experiencing poverty struggle with the accessibility and availability of services. This makes it ultimately more difficult to obtain adequate care and treatment to cope with mental health issues that may have been brought up by childhood trauma. As noted, ACEs have different effects on individuals depending on various factors, including sociodemographic profiles. For example, Khanijahani and Sualp (2022) indicate that while girls and boys both experience impairment towards academic functioning from the influence of parental divorce, girls have an additional influence of increased mental health problems.

Deprivation is associated with increased levels of anxiety and stress over time. To address and understand these impacts, policy and prevention strategies must address the inequalities with mental health issues, such as anxiety and stress, as precursors to mental illnesses (Chung et al., 2021). Literature suggests that poverty exposure for low-income families demonstrates a link with externalizing and internalizing symptoms and shaping self-regulation development (Duncan et al., 2010; Kim et al., 2015; Li et al., 2017; Rosen et al., 2018). A chronic level of exposure to poverty from birth to early adolescence is related to an increase in disengagement coping strategies 4 years afterwards. This increased usage of negative coping between 13 to 17 years of age may explain the linkage between poverty exposure at birth and the internalizing and externalizing systems at 17 years of age (Kim et al., 2015). Learned and adapted coping strategies are vital for building resiliency from trauma and difficult situations. Children are inherently resilient

individuals, but many struggle with practicing these skills in real-life interactions and situations that can negatively impact them in adulthood.

Biblical Foundations of the Study

This study addresses childhood trauma, the influences of community, and mental health, and highlights resilience and the cycle of trauma in the perspective of adults. The biblical worldview extends past the immediate social, cultural, and personal contexts to find meaning in one's life (Cantz & Kaplan, 2017). Communities allow for belongingness and support. Scripture addresses the necessity of maintaining resilience during difficult times. God tells his followers that we all will be faced with hard times, but He will remind us He is always present and that His followers should maintain strength and seek peace. Resilience is consistently mentioned through scripture when individuals are faced with adversity. Isaiah 41:10 notes that the Lord strengthens and helps his children through hardships (*English Standard Version Bible,* 2001). This principle is vital with constructing this study. The Bible backs up the need and duty for people to participate in society to come to a common good and well-being of those around them. One's family and community are necessary to ensure healthy development. Romans 12:16 instructs that God's followers to live in harmony with one another and give themselves to humble tasks (*New International Version*, 1978/2011).

Throughout scripture there is an emphasis on overcoming adversity and hardships. God would not give mankind more than they could handle. 1 Corinthians 10:13 supports this by reassuring mankind that God will not provide temptations beyond what one can bear without providing paths to endure it (*New International Version*,

1978/2011). An individual will face many adversities. It is necessary to follow religious-backed literature to understand the religious aspects of trauma through the support of educators (Stephens, 2020). Educators within the community should understand the variety of expressions of trauma to support others. Generational trauma infiltrates communities, which limits opportunities and creates maladaptive patterns and behaviors. God knows what it feels to be human and to suffer (Hebrews 4:15, Hebrews 2:17-18; *New International Version*, 1978/2011). Adversity allows individuals to grow and maintain their resilience.

When considering biblical stories on adverse childhood experiences, it would be beneficial to consider how neglect and abuse comes from the home. The first story about children in the Bible is centered around child abuse to show the true vulnerability of children. This is the story of Cain and Abel. The story is centered around Cain killing his brother because of the jealousy over Abel's sacrifices being liked more than Cain's. Child abuse is not limited to parents, but also with siblings. This shows the impact of parental neglect to protect their children from abuse and being taken advantage of. Cain and Abel are an early biblical example of a failure to communicate emotions, such as anger, resulting in the harm of those around oneself. God created us in his image, including all sorts of emotions. It is necessary to be provided a space and sense of safety to freely express emotions through the reflection of God.

Throughout this study there is consideration and connection with Biblical principles. Childhood trauma, communities, mental health, and resiliency all are referenced within the Bible through numerous stories to overcome adversities. A biblical worldview goes beyond the immediate contexts to find meaning despite challenges.

Trauma impacts an individual across their development and filters across their experiences. As noted in various Biblical stories, trauma, abuse, neglect, and violence is not limited to adults, but also in youth. When children have their safety and protection challenged it is difficult to overcome these experiences. In the context of trauma in adult life, David was faced with prolonged and repetitive traumatic events with his interactions with King Saul, King Saul's mental illness, and the attempt to kill him (1 Samuel, 18:10-11). David additionally had a neglectful childhood and his relationship with King Saul was toxic and mirrored the one with his father. He did not break himself free of this relationship despite these issues. This could be related to his failed relationship with his caregiver, further promoting an insecure attachment with King Saul.

Adults with childhood trauma may find themselves in unsupportive communities and environments. Natural and service-based communities are essential for promoting healthy development across factors. This is additionally important for further relationship formation, behavioral outcomes, academic success, and utilization of supportive services. Communities are not limited to inside the familial home, but also their neighbors, providers, school, and friends. This study is based on various biblical scriptures and stories that support resilience, community, and strength when faced with adverse events. Adults that have faced various levels of trauma are encouraged to persevere and allow themselves to be connected to their supportive communities when they are struggling with their mental health. While trauma's impact on an individual may not be evident in early life, it can come about later in life. When an individual lacks guidance, they may fall, but through an abundance of counselors there is safety (Proverbs 11:14; *New International Version*, 1978/2011).

Summary

Adverse childhood experiences are widely researched regarding general influences of trauma on development. But, with the complexities of these experiences, there is a need to address the multi-faceted aspects that impact the individual and ways to off-set them. The central research question for this project is how community involvement and parental support throughout development impact mental health outcomes. These factors are understood to be impacted by an individual's adverse childhood experiences. There are gaps and limitations with mental health providers, gatekeepers, and preventions to address abuse, deprivation, neglect, and adversity. These are continually being noted, researched, and implemented into resources and policy interventions as it relates to mental health. Trauma is not a single event that only impacts an individual for this point in time. Research and literature address the need to understand trauma as it relates to mental health symptomology with depression and anxiety, but there are limitations with pinpointing possible moderators.

Literature must expand to address and identify the issues that influence an individual's development of mental health problems. Through an extensive review, the literature does support the influence of adverse childhood experiences on the overall well-being of individuals. But there is a need to address how various types of communities and environments are valuable as moderators for trauma and mental health issues, specifically depression, anxiety, and stress. These communities are broken down into the natural community and the service-based community. The natural community is defined as individuals 'naturally' given community including their family, relatives, and/or caregivers (e.g., foster families, parents, grandparents, long-term caregivers, peers,

and friends). The neighborhood can overlap between the natural community and the service-based community depending on the purpose. The service-based community is defined as a community that provides for an individual including behavioral health, mental health, counseling, and/or any interventions. This research could expand the literature on the influence of ACEs and community on mental health. It is necessary to understand the impact of both the natural and service-based communities for those that suffer with mental health issues. By studying the potential protective factor of community, providers and preventionists can further address additional steps to best support this population.

CHAPTER 3: RESEARCH METHOD

Overview

The purpose of this phenomenological mixed methods study was to explore the role that adverse childhood experiences and natural and service-based communities play on mental health outcomes, specifically depression and anxiety, through exploring lived experiences of participants. In addition, the study evaluated whether there was a significant impact of environment and relationships on the association between ACEs and the mental health of participants. Literature supports ACEs influence on mental and physical health and well-being. However, further research was needed on how relationships and communities can serve as a protective factor from ACEs and mental health outcomes.

A moderation analysis was utilized for measuring the relationship between ACE scores and mental health severity scores and the moderating effect of perceived natural community support and perceived involvement with service-based community supports in adulthood. The mental health severity scores were separated into two separate analysis, depression severity and anxiety severity. The study additionally used an open-ended questionnaire to understand how adults describe relationship quality and involvement in service-based community supports and how this impacts their mental health. The narrative analysis identified key words and phrases and sorted them into identifiable themes. These themes were sorted in positive and negative perceptions. Two separate word cloud visualizations were utilized to display the results.

Research Questions and Hypotheses

Quantitative Research Questions

RQ1: Does perceived natural community support moderate the relationship between ACEs and depression severity?

RQ2: Does perceived natural community support moderate the relationship between ACEs and anxiety severity?

RQ3: Does perceived involvement with service-based community supports moderate the relationship between ACEs and depression severity?

RQ4: Does perceived involvement with service-based community supports moderate the relationship between ACEs and anxiety severity?

Qualitative Research Questions

RQ4: How do adults with at least one ACE score that have been involved in service-based community support describe their perceived natural community support in adulthood?

RQ5: How do adults with at least one ACE score describe perceived natural community support as impactful towards their mental health?

RQ6: How do adults with at least one ACE score describe service-based community support as impactful towards their mental health?

Hypotheses

This proposed research aimed to explore if the relationship between ACE scores and depression and anxiety severity scores is moderated by perceived relationship quality with natural community and service-based community supports for adults with at least one ACE.

$H1_0$: There will be no moderating effect of perceived natural community support on the relationship between ACE scores and depression severity scores**.**

$H1_a$: Perceived natural community support will moderate the relationship between ACE scores and depression severity.

$H2_0$: There will be no moderating effect of perceived natural community support on the relationship between ACE scores and anxiety severity scores**.**

$H2_a$: Perceived natural community support will moderate the relationship between ACE scores and anxiety severity scorers.

$H3_0$: Involvement with service-based community supports will not moderate the relationship between ACE scores and depression severity.

$H3_a$: Involvement with service-based community supports will moderate the relationship between ACE scores and depression severity.

$H4_0$: Involvement with service-based community supports will not moderate the relationship between ACE scores and anxiety severity.

$H4_a$: Involvement with service-based community supports will moderate the relationship between ACE scores and anxiety severity.

Research Design

The mixed methods design is the integration of both quantitative and qualitative methods that has been well utilized and recognized since the 1980s (Molina-Azorin, 2016). Mixed methods design research allows for research questions to capture both qualitative and quantitative perspectives to have a better understanding of complex phenomena. This will aim to provide validity to the research in ACEs. In this study,

ACEs, mental health scores, natural community support, and service-based community support are the variables of focus.

A moderation analysis was used for the study to explore the relationships between individual's ACE scores, depression severity, anxiety severity, self-perceived relationship quality with natural community, and service-based community involvement. This method explored if the relationship between ACE scores and mental health scores will be moderated by perceived relationship quality with natural community or involvement in service-based community. For each type of community support, this study completed two moderation analyses, one to investigate the influence on the relationship between ACEs and depression severity, and another to investigate the influence on the relationship between ACEs and anxiety severity. Participants self-reported their ACE scores, depression severity, anxiety severity, involvement in service-based community supports, and natural community supports. Qualitative analysis was used to understand individuals' perceptions of the relationship quality with natural community and if community impacts their mental health. This method allowed individuals to share their personal and lived experiences.

Participants

Data was collected from individuals that were least 18 years old and reported at least one ACE score. Based on the power analysis for the quantitative piece, an F-test for a linear regression model with a medium effect size of 0.15, an alpha of .05, and power of 80 percent, 55 participants are needed to run the study. To increase the strength of the study, a sample of 73 individuals were recruited. The total participants for this study in

Phase 1 was 61 after 12 were excluded for having less a zero ACE score. For the qualitative portion of the study, participants that indicated 'Yes' to being involved in service-based community supports on the background questionnaires were asked additional questions. Qualitative studies use a variety of sample sizes between 10 to 40 (Mason, 2010). There were 34 participants that indicated service-based community involvement and 21 that completed Phase 2. Of those 21, a total of 20 randomly selected participants were used for the qualitative analysis to meet data saturation.

Participants were recruited from online social media groups that offer support for individuals that have suffered with childhood trauma. Inclusion criteria required participants (a) to be a part of social media groups for adults that have experienced childhood trauma, (b) have at least one ACE score, and (c) be at least 18 years old. Exclusion criteria consisted of (a) individuals that have zero on their ACE score assessment and (b) those that are under the age of 18 years old. For the quantitative measure, participants completed multiple online surveys that evaluated ACE scores, depression severity, anxiety severity, natural community support, and service-based community support. The qualitative measure utilized an open-ended questionnaire to identify key words and themes about community involvement, community influence, and the impact of trauma on depression and/or anxiety. In addition, the participants were asked to provide their personal perceptions on their relationships with their communities. Coding was utilized to identify themes. The narrative analysis was useful to understand participants' stories based on their first-hand experiences.

Advertisement and Recruitment. The researcher contacted the moderators of social media groups for support from childhood trauma seeking permission to post a

recruitment flyer (see Appendix A: Recruitment Flyer) on their community page for the study. The social media groups on Facebook that were contacted to distribute the recruitment letter were: 'Trauma Informed,' 'Women's Mental Health Support,' NAASCA-public 'Stop Child Abuse Now,' and 'Adverse Childhood Experiences-Trauma-Informed Community UK.' Participants remained anonymous and could willingly decide to participate in the study. The ACE questionnaire was utilized to determine if the participant could continue with the study as participants needed to report at least one ACE score.

Study Procedures

The mixed study design recruited participants through social media groups that connect individuals that have experienced childhood trauma. Recruitment flyers were created and posted on the community post via the moderators of the groups. The flyer briefly described the purpose of the research study, the exclusion and inclusion criteria, what was required and asked from the participants, the email address for the researcher if there were additional questions, and the survey link information. There was a QR code option provided alongside the survey link for accessing the anonymous survey that was generated through Qualtrics and did not collect personally identifiable information about the participants. The recruitment flyer is included in Appendix (A): Recruitment Flyer. This was posted twice in the 3-week timeline to reach the necessary number of participants for analysis.

Participants were asked to use the anonymous link that was created through Qualtrics to access the survey that granted access to the Consent Form (Appendix B),

Demographics Form (Appendix C), the Adverse Childhood Experience Questionnaire (Appendix D), the Center for Epidemiologic Studies Depression Scale Revised (CESD-R- 10) (Appendix E), the Severity Measure for Generalized Anxiety Disorder—Adult (Appendix F), the Multidimensional Scale of Perceived Social Support (Appendix G), and an Open-ended Questionnaire (Appendix H). The Demographics Form and the Open-ended Questionnaire were created by the researcher for the purpose of the research study.

Participants that decided to complete the survey were able scan the QR code that was provided in the recruitment flyer and were taken to the Consent Form (Appendix B: Consent). After reading through the contents of the Consent Form, individuals that decided to participate would click "Yes, continue to the survey." Those that did not wish to continue could select "No, I do not wish to participate," or they could close out of the survey. For participants that decided to continue and provide their consent, they proceeded to the next screen, the Demographics Form. The Demographics Form gathered preliminary information such as race, age, gender, education level, and if they were involved in a service-based community ("Yes or "No"). After the Demographics Form, participants proceeded to the Adverse Childhood Experience Questionnaire where they indicated their total ACE score. For individuals that indicated less than one ACE score, the survey concluded immediately. Those indicating one or more ACEs proceeded to the remaining quantitative surveys. Individuals that did not indicate involvement with service-based community support on the Demographic Questionnaire would finish the survey at Phase 1. For those moving on to Phase 2, the open-ended questionnaire would be presented immediately following the remainder of the quantitative surveys.

The completed surveys were downloaded from Qualtrics into a spreadsheet while incomplete surveys were removed from the dataset. These surveys did not collect any personally identifiable information from the participants. The completed surveys were analyzed through a moderation analysis and a narrative analysis. A moderator analysis (Phase 1) was conducted to determine if perceived relationship quality with natural community influences the relationship between ACE scores and mental health outcomes. In addition, there was a moderator analysis to determine if perceived involvement with service-based community support affected the relationship between ACE scores and mental health outcomes, specifically depression and anxiety severity scores.

A narrative analysis was utilized to determine key words and themes based on randomly selected participants that were involved in service-based community supports. Participants that did not indicate they have participated in service-based support were not part of this analysis in Phase 2. The participants were asked questions to detail their experiences and specific examples on how/if service-based and natural communities have impacted their mental health. This was broken down into how these communities have impacted their severity of depressive and anxiety symptoms. In addition, participants were asked to detail their perceptions on their relationships with both communities.

Instrumentation and Measurement

Demographics Form

The Demographics Form was utilized for collecting data on participants to guarantee that participants meet the inclusion criteria for the study. This form was created for this research study by the researcher. The form collected data on the participant's age

(at least 18), race, education level, employment type, and if the participant had been involved in a service-based community. The age of participants was placed in ranges for later analysis. These were 18 to 25, 26 to 32, 33 to 39, 40 to 46, 47 to 53, then 54 and over. Education level, race, and employment type were organized into categories for participants to select. For example, unemployed, employed, retired, student, seeking opportunities, and prefer not to say. A definition was included for service-based communities to define the specific programs, organizations, or types of involvement that is considered under this factor. Participants were asked whether they perceived to have been involved with service-based supports by answering either 'Yes' or 'No.' This was used to determine whether participants will move to Phase 2 of the study. There was an optional open-ended section that allowed participants to indicate the specific supports they may have participated in. A copy of this form is in Appendix C: Demographics Form.

Adverse Childhood Experience Questionnaire (Zanotti et al., 2018)

The Adverse Childhood Experience Study Questionnaire is a 10-item questionnaire that assessed the various types of ACEs before the age of 18 years old. Participants indicated either a 'yes' (scored as a 1) or 'no' (scored as a 0). Participants that scored at least 1 ACE were allowed to continue with the research study. In previous research, the greater the ACE score, the higher the risk for negative mental health outcomes, increased usage of service-based community support, and differences in self-perceived relationships with one's natural community (Merrick et al., 2017). A copy of this form is in Appendix D: Adverse Childhood Experience Questionnaire. The internal consistency of the ACE questionnaire was good at 0.84, the test-retest reliability

coefficient was good at 0.79 for the original scale, and convergent validity ranged from 0.75 to 0.93 (Karatekin & Hill, 2019).

Center for Epidemiologic Studies Depression Scale Revised (CESD-R- 10) (Eaton et al., 2004)

The Center for Epidemiologic Studies Depression Scale Revised (CESD-R- 10) is a self-report 10-item Likert scale questionnaire that is used to assess depressive symptoms. This includes depressed affect, positive affect, and somatic symptoms. Participants rated the various ways they have felt or behaved in the past week between 0 to 3 to represent rarely, some of the time, occasionally, and all the time. The internal consistency for the CESD-R-10 is good at 0.86, test-retest reliability at 0.85, convergent validity at 0.91, and divergent validity at 0.89 (Björgvinsson et al., 2013; Miller et al., 2008). A copy of this form is in Appendix E: Center for Epidemiologic Studies Depression Scale Revised (CESD-R- 10).

Severity Measure for Generalized Anxiety Disorder—Adult (Craske et al., 2013)

The Severity Measure for Generalized Anxiety Disorder—Adult (SMGAD) is a rating scale for assessing symptom severity for generalized anxiety disorders in adults. It is a 10-item self-report Likert scale questionnaire for an individual's thoughts, behaviors, and feelings that are associated with school, work, finances, family, and health within the past two weeks. The internal consistency was excellent at 0.92, test-retest reliability was good at 0.83, and procedural validity was good at 0.83 (Spitzer et al., 2006). Scores on this scale range from 0 (never) to 4 (all of the time). A copy of this form is in Appendix F: Severity Measure for Generalized Anxiety Disorder—Adult.

Multidimensional Scale of Perceived Social Support (Zimet et al., 1988)

The Multidimensional Scale of Perceived Social Support (MSPSS) is a 12-item measure for perceived social support. Participants are asked various questions on how they feel about statements involving their family, friends, and significant other. These are ranked from 1 (very strongly disagree) to 7 (very strongly agree). An example question is 'my friends really try to help me.' The MSPSS has high internal reliability at 0.87, 0.85, and 0.91 for the subscales (Poudel et al., 2020). A copy of this form is in Appendix G: Multidimensional Scale of Perceived Social Support.

Open-ended Questionnaire

The open-ended questionnaire used for Phase 2 of the study was adopted from a study that investigated ACES among a community of resilient elderly individuals (Spencer-Hwang et al., 2018). Participants that indicated involvement with service-based community services were able to complete the open-ended questionnaire. The questions that were asked aided the researcher to further understand specific examples of the influence of communities and ACES on mental health. In addition, it allowed for a further understanding of the perceived relationships between an individual's communities. For example, one of the questions asked the participant to "Detail specific examples on how/if service-based community has impacted your mental health?" Participants were asked to detail specific examples of 'life-changing' events during childhood and how they perceive them in present day. A qualitative analysis does not require a minimum of 55 participants as the quantitative portion. For example, Spencer-Hwang et al. (2018) breaks down participants' responses into categories and subdomains

including food deprivation, low household income, parental physical abuse, and witnessing violence through utilizing 10 participants. These subdomains were utilized in the narrative analysis for the researcher's study. Open-ended questionnaires do not limit participants to responses, which allows for higher validity in responses. But, since these responses rely on the participant, it can negatively impact the reliability of answers. A copy of this form is in Appendix H: Open-ended Questionnaire.

Operationalization of Variables

Adverse Childhood Experiences (ACEs)- is a ratio variable and will be measured using the total score for the Adverse Childhood Experience Study Questionnaire (ACE-SQ Questionnaire; Zanotti et al., 2018).

Participation in service-based community support- is a nominal variable that will be measured by participants selecting either “yes” or “no” to the applicable question on the Demographic Questionnaire.

Depression Severity- is an ordinal variable that will be measured by the Center for Epidemiologic Studies Depression Scale Revised (CESD-R- 10) (Gonzalez et al., 2018).

Anxiety Severity- is an ordinal variable that will be measured by the Severity Measure for Generalized Anxiety Disorder—Adult (American Psychiatric Association, 2013).

Perceived natural community support- is an ordinal variable that will be measured by the Multidimensional Scale of Perceived Social Support (Zimet et al., 1988).

Data Analysis

SPSS was used for the moderator analysis. Data was collected on the variables of ACEs, perceived natural community support, participation in service-based community support, depression severity, and anxiety severity through questionnaires and surveys for statistical testing purposes. Data regarding perceived natural community support and involvement in service-based community support was additionally collected from an open-ended questionnaire for a narrative analysis to pull key words out of responses. Responses for the open-ended questionnaire were analyzed through coding general categories of participant responses. These responses identified key words and sorted the words into either ‘positive’ or ‘negative’ word choice. Two separate word cloud visualizations were utilized to display the results. All the participants’ responses were anonymous and confidential. Due to the smaller random sample of 20 participants, there was no additional software needed for coding and themes. The purpose of the research study required a mixed methods approach to both gather and analyze data to understand the relationship between variables while also considering individualized perceptions.

There were two key hypothesized moderators for this study. These were a) perceived relationship quality with natural community and b) perceived involvement with service-based community involvement. The perceived relationship quality with natural community is a continuous variable. The researcher calculated an interaction between the standardized values as variables for ACE scores and perceived relationship quality with natural community. A linear regression analysis tested the interaction effect in SPSS. This analysis allowed the researcher to determine if perceived relationship quality with natural community moderates the relationship between ACE scores and mental health

severity. In addition, it indicated if there is a strong association between the ACE scores and mental health severity. The perceived involvement with service-based community involvement is a dichotomous variable defined with a 'Yes' or 'No' answer to indicate involvement. First, it was necessary to transform the perceived involvement with service-based community involvement into 'involvement (1)' and 'no involvement (0).' The researcher analyzed the interaction between ACE scores and involvement and the interaction between ACE scores and no involvement. A linear regression was then run in SPSS. The researcher utilized the dummy variable involvement and ACE scores as the independent variables in the linear regression and mental health severity as the dependent variable. Furthermore, the interaction between ACE scores and involvement was added in the existing regression model. Through the regression, the researcher was able to determine the variation by the addition of the interaction and if it is does moderate the relationship between ACE scores and depression and/or anxiety severity. These moderating relationships were split into 4 separate analyses. The first two analyses focused on if natural community support moderates the relationship between ACEs and depression and/or anxiety severity. The last two analyses focused on if service-based community support moderates the relationship between ACEs and depression and/or anxiety severity.

The narrative analysis included 20 random participants from the sample pool. Participants were allowed to complete the open-ended questionnaire if they indicated they have been involved with service-based community support. Their responses to the open-ended questionnaire were coded into subthemes for natural community and service-based community perceptions. Then the researcher identified themes for each community

perception. Since data saturation had not been met with a sample of 10 random participants, an additional 10 individuals were pulled from the sample to meet data saturation. This analysis identified reoccurring themes as it relates to perceived relationship quality and involvement with communities. To complete the analysis, the researcher read the participant responses for each question and identified key terms for each response in an Excel spreadsheet. These terms were broken down between service-based and natural community perceptions. The researcher then identified subthemes for both communities and group responses. Lastly, the researcher grouped the subthemes into themes for each community perception. In addition, participants could provide in-depth examples on how communities influenced their mental health and perceptions of their experiences.

There are eight assumptions that had to be considered for this study for a moderator analysis. First, the dependent variable should be on a continuous scale. The dependent variable is mental health severity scores for depression and anxiety, which meet this criterion. Assumption two is that one independent variable is continuous and one of the moderating variables are dichotomous. The moderator of perceived relationship quality with natural community is a continuous variable. The other moderator of involvement in service-based community is a dichotomous variable that was separated through participants answering ‘Yes’ (1) or ‘No’ (0) to if they have been involved in service-based communities. Next, assumption three is there is independence of observations. Assumption four is the need for a linear relationship between the independent variable and the dependent variable for each of dichotomous moderator variable groups. The data must show homoscedasticity through showing error variances

as the same through the various combinations of independent and moderator variables. Then, the data must avoid multicollinearity that occurs from independent variables being highly correlated with one another. Assumption seven indicates that the data should not have significant outliers due to the negative effect that they can have on a regression equation. Lastly, assumption eight is to check the residual errors that must be normally distributed. This can be achieved either graphically or numerically. This study met assumptions 3 through 8.

Delimitations, Assumptions, and Limitations

Delimitations noted in this study by the researcher are as follows: participants must a) be at least 18 years old, and b) have at least one ACE score. The delimitations are necessary because the study aims to look at the relationship of ACEs, community involvement, and mental health outcomes. In addition, the researcher assumed that participants will honestly and accurately answer the questions that reflect their personal experiences. Potential limitations for the study may include generalizability and the biases with self-reporting in surveys. Another limitation to consider is the area of recruitment for the participants. The overall scope of recruitment is limited to social media outreach and could limit the number of willing participants. There may be additional confounding variables that could contribute to the results. Finally, due to the research design, this study is not able to draw conclusions regarding causality.

Summary

In conclusion, chapter three discussed the proposed study's research questions, hypotheses, participants, and data analysis. The research design highlighted the necessity for a mixed methods design for a quantitative moderator analysis and a qualitative

narrative analysis with open-ended questioning. The quantitative research study required deductive reasoning for formulating hypotheses, collection of numerical data, data analysis for predictions, and questionnaires for the purpose of data collection. The research study explored the relationship between ACE scores and mental health scores and the moderating effects of perceived relationship quality with natural community and involvement with service-based community support.

Study procedures described how the researcher recruited the participants, ensured inclusion criteria had been met, and used self-report surveys to collect the data on ACEs, relationship quality perception, and mental health severity. In addition, the study procedures discussed how the data was collected on the influence of community support on mental health. Finally, chapter three explored the noted research variables and mentioned the potential delimitations, assumptions, and limitations. Chapter four provides further presentation and the reported results of the data.

CHAPTER 4: RESULTS

Overview

The purpose of this phenomenological mixed method study was to investigate adverse childhood experiences and the role that natural communities and service-based communities played on mental health outcomes, specifically depression and anxiety, through exploring lived experiences of participants. In addition, the study examined whether there was an impact of environment and relationships on the relationship between adverse childhood experience and mental health of participants in adulthood. This study aimed to understand adults' perspectives on if and how their trauma influenced their mental health and the role of their communities.

An online survey utilized a Demographic Questionnaire, the Adverse Childhood Experiences Questionnaire (Zanotti et al., 2018), Center for Epidemiologic Studies Depression Scale Revised (CESD-R- 10) (Eaton et al., 2004), Severity Measure for Generalized Anxiety Disorder—Adult (Craske et al., 2013), the Multidimensional Scale of Perceived Social Support (Zimet et al., 1988), and an Open-ended Questionnaire. The responses from participants that were at least 18 years old and had a score of at least 1 on the ACE Questionnaire were used to evaluate the research questions and hypotheses for this study. This chapter will discuss the results, hypotheses, and descriptive statistics that are associated with the study.

Research Questions

The study investigated the following quantitative and qualitative research questions:

Quantitative Research Questions

RQ1: Does perceived natural community support moderate the relationship between ACEs and depression severity?

RQ2: Does perceived natural community support moderate the relationship between ACEs and anxiety severity?

RQ3: Does perceived involvement with service-based community supports moderate the relationship between ACEs and depression severity?

RQ4: Does perceived involvement with service-based community supports moderate the relationship between ACEs and anxiety severity?

Qualitative Research Questions

RQ5: How do adults with at least one ACE score that have been involved in service-based community support describe their perceived natural community support in adulthood?

RQ6: How do adults with at least one ACE score describe perceived natural community support as impactful towards their mental health?

RQ7: How do adults with at least one ACE score describe service-based community support as impactful towards their mental health?

Hypotheses

Through the survey research, the expectations of the study are as follows:

$H1_a$: Perceived natural community support will moderate the relationship between ACE scores and depression severity.

$H2_a$: Perceived natural community support will moderate the relationship between ACE scores and anxiety severity scorers.

$H3_a$: Involvement with service-based community supports will moderate the relationship between ACE scores and depression severity.

$H4_a$: Involvement with service-based community supports will moderate the relationship between ACE scores and anxiety severity.

Descriptive Results

The following section will provide an overview of the descriptive results from the demographic characteristics from this study. This study consisted of 73 participants. Twelve participants were removed because they reported an ACE score of 0, which was an exclusion criterion. The final dataset consisted of response data for 61 participants. The study required 55 participants for 80 percent power. Participants were recruited through social media. Many of the participants were employed (n = 45, 73.8 %), White (n = 39, 63.9 %), female (n = 48, 78.7 %), between the ages of 18 to 25 (n = 32, 52.5 %), with at least a Bachelor's degree (n = 38, 62.3 %), and had been involved in service-based community supports in adulthood (n = 34, 55.7 %). Table 1 provides descriptive statistics for the demographic characteristics of the study.

Table 1. *Demographic Statistics for Demographic Characteristics*

Variable	*n*	*%*
Age		
18 to 25	32	52.5
26 to 32	16	26.2
33 to 39	1	1.6
40 to 46	4	6.6
47 to 53	4	6.6
54 and over	4	6.6
Gender		
Female	48	78.7
Male	11	18.0
Prefer not to answer	2	3.3
Race		
White	39	63.9
Black or African American	1	1.6
Asian	6	9.8
Hispanic or Latino	14	23.0
Prefer not to say	1	1.6
Employment		
Unemployed	1	1.6
Employed	45	73.8
Student	11	18.0
Seeking opportunities	2	3.3
Prefer not to say	2	3.3
Education		
High school	14	23.0
Associate or Technical degree	8	13.1
Bachelor’s degree	24	39.3
Master’s degree	11	18.0
Professional degree	1	1.6
Doctorate degree	2	3.3
Prefer not to say	1	1.6
Involved with service-based community supports		
Yes	34	55.7
No	27	44.3

Instruments

The Adverse Childhood Experience Study Questionnaire is a 10-item questionnaire that assessed the various types of ACEs before the age of 18 years old (Zanotti et al., 2018). Participants indicated either a 'yes' (scored as a 1) or 'no' (scored as a 0) for each item. All 61 participants had at least 1 ACE score. The total ACE score mean for the participants was 3.56 (see Table 2). Over half (53.38 %) of participants had an ACE score between 1 and 3. Only 2 (3.28 %) participants had a score of 7 or higher.

The Center for Epidemiologic Studies Depression Scale Revised (CESD-R- 10) is a 10-item self-report Likert scale questionnaire that is used to assess depressive symptoms (Eaton et al., 2004). The mean score for CESD for 61 participants was 27.75 (see Table 2). Most participants had a score between 0 to 30 (57.38 %).

The Severity Measure for Generalized Anxiety Disorder—Adult (SMGAD) is a 10-item self-report Likert scale measure for assessing symptom severity for generalized anxiety disorders in adults (Craske et al., 2013). The mean score for SMGAD for 61 participants was 14.90 (see Table 2). Most participants had a score between 0 to 20 (73.77 %).

Table 2: *ACEs, CESD-R, and SMGAD Measures*

Measures	*Mean*	*Standard Deviation*
ACEs	3.56	2.05
CESD-R	27.75	13.46
SMGAD	14.90	8.93

The Multidimensional Scale of Perceived Social Support (MSPSS) is a 12-item measure for perceived social support (Zimet et al., 1988). The mean score for MSPSS for participants was 40.02 and standard deviation of 17.59. The MSPSS can be broken down into three categories. These social supports are family, friends, and significant others. Each group has 4 questions associated with them, with a total of 18 points per group. Participants had higher scores related to social support for significant others (mean of 16.31) compared to social support scores for friends (mean of 12.62) and family (mean of 12.44; see Table 3).

Table 3: *MSPSS Subscales*

MSPSS	*Mean*	*Standard Deviation*
Total MSPSS	40.02	17.59
MSPSS Subscales		
Significant Others	16.31	7.73
Friends	12.62	7.04
Family	12.44	6.58

The open-ended questionnaire used for Phase 2 of the study was adopted from a study that investigated ACES among a community of resilient elderly individuals (Spencer-Hwang et al., 2018). Participants that indicated involvement with service-based community services were able to complete the open-ended questionnaire. There were 34 participants (55.7 %) that indicated involvement, and 21 went on to complete the open-ended questionnaire. Of these, responses from 20 participants were randomly selected for

qualitative analysis. Results from this questionnaire are discussed following the quantitative study findings below.

Study Findings

Quantitative Research Questions

The study aimed to answer four quantitative research questions: 1) Does perceived natural community support moderate the relationship between ACEs and depression severity, 2) does perceived natural community support moderate the relationship between ACEs and anxiety severity, 3) does perceived involvement with service-based community supports moderate the relationship between ACEs and depression severity, and 4) does perceived involvement with service-based community supports moderate the relationship between ACEs and anxiety severity. A multiple regression analysis was conducted to determine if the independent variable (ACEs) was a significant predictor of mental health severity scores. The use of a multiple regression analysis allowed for the investigation of moderator variables for the study.

In the multiple regression analysis, ACE scores statistically predicted depression severity scores, $F(2,57) = 12.381$, $p < .001$, $R^2 = .303$, and statistically predicted anxiety severity scores $F(2,58) = 7.404$, 1, $p = .001$, $R^2 = .203$. Participants that reported higher ACE scores were more likely to report higher depression and anxiety severity scores. scores. When adding perceived natural community support as a moderating variable, no statistical significance was detected on the relationship between ACE scores and depression severity scores; $\beta = -1.383$, $t = -1.056$, $p = 2.95$. This indicated that perceived natural community support was not a moderator for this relationship, and that there was

no significant interaction between depression severity and ACE scores when natural community was added (see Figure 1). As noted, participants that reported higher depression severity scores experienced higher ACE scores. This is displayed as y= 15.051+ 3.467*x. When natural community was added, there was a slight weakening in the relationship, but it was not statistically significant. This is displayed as y= 11.584+ 2.084*x. These results are displayed in Table 4 and Figure 1.

Table 4. *Depression Severity Scores and Natural Community*

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics			
					R Square Change	F Change	df1	df2	Sig. F Change
1	.550[a]	.303	.278	11.35673	.303	12.381	2	57	<.001

a. Predictors: (Constant), INT, Total ACE score

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3193.659	2	1596.829	12.381	<.001[b]
	Residual	7351.591	57	128.975		
	Total	10545.250	59			

a. Dependent Variable: CESDTotal

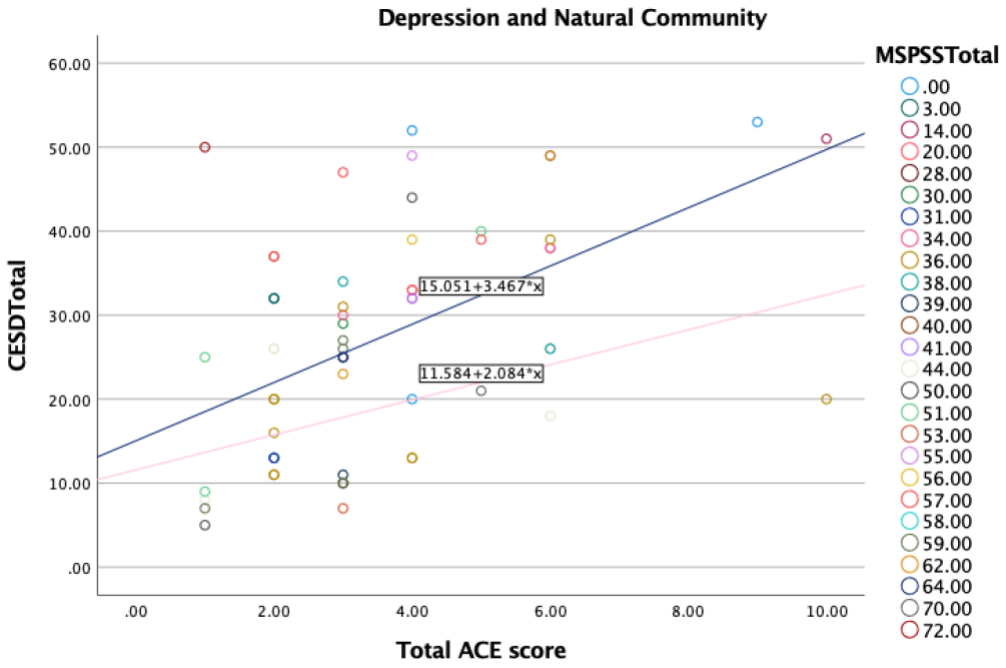
b. Predictors: (Constant), INT, Total ACE score

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	15.051	3.284		4.583	<.001
	Total ACE score	3.467	.865	.486	4.008	<.001
	INT	−1.383	1.309	−.128	−1.056	.295

a. Dependent Variable: CESDTotal

Figure 1: *Depression Severity Scores and Natural Community*



When adding natural community support as a moderator variable, there was a statistical significance detected on the relationship between ACE scores and anxiety severity scores; β = -1.876, t = -2.031, p = .047. When exploring the interaction between anxiety severity and ACE scores, there was a moderate reversal of the relationship when natural community was added (see Figure 2). Participants that reported higher anxiety severity scores experienced higher ACE scores. This is displayed as y= 9.940+ 1.278*x. When natural community was added, there was a significant decrease in anxiety severity scores as it relates to ACE scores. This is displayed as y= 11.218-0.598*x. This demonstrates that natural community significantly weakened and reversed the strength of the relationship between anxiety severity scores and ACE scores. Participants that had

natural community supports had better outcomes. These results are presented in Table 5 and Figure 2.

Table 5. *Anxiety Severity Scores and Natural Community*

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.451[a]	.203	.176	8.06637	.203	7.404	2	58	.001

a. Predictors: (Constant), INT, Total ACE score

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	963.560	2	481.780	7.404	.001[b]
	Residual	3773.850	58	65.066		
	Total	4737.410	60			

a. Dependent Variable: SMGADTotal

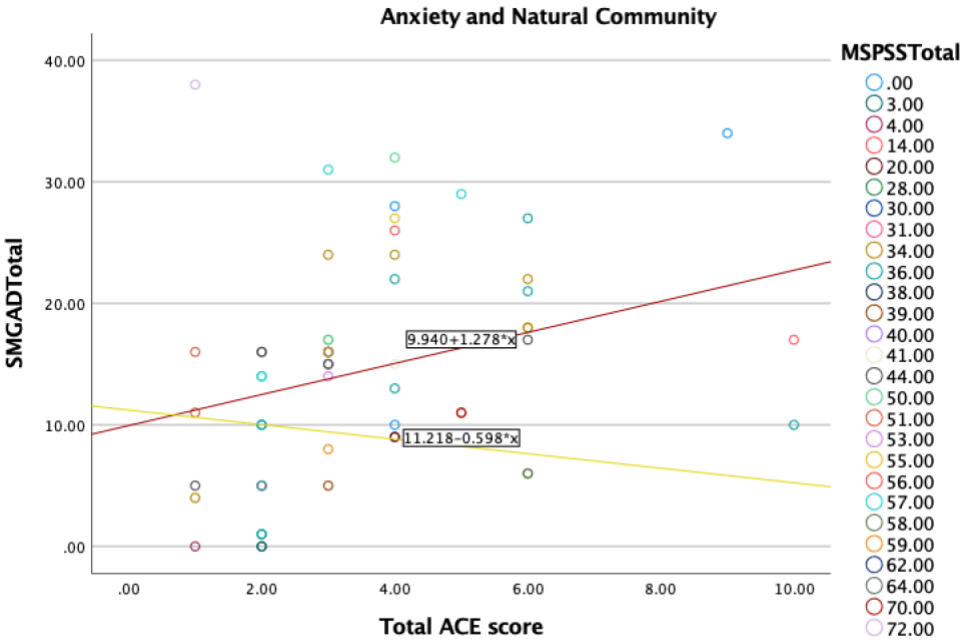
b. Predictors: (Constant), INT, Total ACE score

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	9.940	2.298		4.326	<.001
	Total ACE score	1.278	.611	.271	2.092	.041
	INT	−1.876	.924	−.263	−2.031	.047

a. Dependent Variable: SMGADTotal

Figure 2: *Anxiety Severity Scores and Natural Community*



When adding involvement with service-based community supports as a moderating variable, there was no statistical significance detected on the relationship between ACE scores and depression severity scores; β = -0.970, $t(58)$ = -0.611, p = 0.543. This indicated that service-based community support was not a moderator for this relationship. Participants that reported higher depression severity scores experienced higher ACE scores. This is displayed as y= 8.488 + 3.967*x. When service-based community was added, there was a slight decrease in depression severity scores for those with high depression severity and high ACE scores, but this was not statistically significant. This is displayed as y= 21.396+ 2.997*x. Figure 4 shows that participants had similar depression outcomes related to ACEs regardless of whether or not they were involved in service-based community support. These results are presented in Table 6 and Figure 3.

Table 6. *Depression Severity Scores and Service-Based Community Involvement*

Model Summary[c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics: R Square Change	F Change	df1	df2	Sig. F Change
1	.643[a]	.414	.393	10.41517	.414	20.107	2	57	<.001
2	.646[b]	.418	.386	10.47285	.004	.374	1	56	.543

a. Predictors: (Constant), Question_6=Involvement, Total ACE score
b. Predictors: (Constant), Question_6=Involvement, Total ACE score, INTAI
c. Dependent Variable: CESDTotal

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4362.135	2	2181.068	20.107	<.001[b]
	Residual	6183.115	57	108.476		
	Total	10545.250	59			
2	Regression	4403.140	3	1467.713	13.382	<.001[c]
	Residual	6142.110	56	109.681		
	Total	10545.250	59			

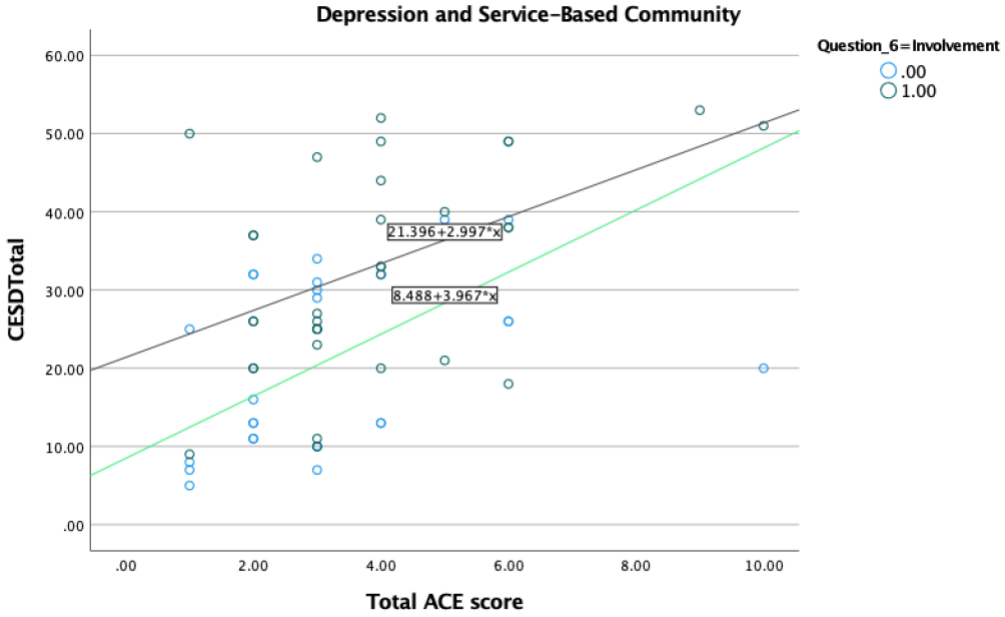
a. Dependent Variable: CESDTotal
b. Predictors: (Constant), Question_6=Involvement, Total ACE score
c. Predictors: (Constant), Question_6=Involvement, Total ACE score, INTAI

Coefficients[a]

Model		Unstandardized Coefficients: B	Unstandardized Coefficients: Std. Error	Standardized Coefficients: Beta	t	Sig.	95.0% Confidence Interval for B: Lower Bound	95.0% Confidence Interval for B: Upper Bound	Collinearity Statistics: Tolerance	Collinearity Statistics: VIF
1	(Constant)	10.525	3.080		3.418	.001	4.358	16.692		
	Total ACE score	3.313	.740	.464	4.478	<.001	1.832	4.794	.958	1.044
	Question_6=Involvement	9.642	2.772	.360	3.478	<.001	4.091	15.193	.958	1.044
2	(Constant)	8.488	4.548		1.866	.067	-.622	17.599		
	Total ACE score	3.967	1.302	.556	3.046	.004	1.358	6.576	.313	3.199
	Question_6=Involvement	12.908	6.024	.482	2.143	.037	.840	24.975	.205	4.875
	INTAI	-.970	1.587	-.178	-.611	.543	-4.149	2.208	.123	8.163

a. Dependent Variable: CESDTotal

Figure 3: *Depression Severity Scores and Service-Based Community*



When adding involvement with service-based community supports as a moderating variable of the relationship between ACE scores and anxiety severity scores, there was a statistical significance detected; β = -2.800, $t(58)$ = -2.456, p = 0.017. When exploring the interaction between anxiety severity and ACE scores, there was a significant weakening of the relationship when service-based community was added (see Figure 3). Participants that reported higher anxiety severity scores experienced higher ACE scores. This is displayed as y= 1.319+ 3.371*x. When service-based community was added, there was a significant decrease in anxiety severity scores. This is displayed as y= 15.343+ 0.571*x. Figure 3 shows that participants with service-based community supports had better outcomes. These results are presented in Table 7 and Figure 4.

Table 7. *Anxiety Severity Scores and Service-Based Community Involvement*

Model Summary[c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.462[a]	.214	.187	8.01346	.214	7.887	2	58	<.001
2	.538[b]	.289	.252	7.68692	.075	6.032	1	57	.017

a. Predictors: (Constant), Question_6=Involvement, Total ACE score
b. Predictors: (Constant), Question_6=Involvement, Total ACE score, INTAI
c. Dependent Variable: SMGADTotal

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1012.913	2	506.456	7.887	<.001[b]
	Residual	3724.497	58	64.215		
	Total	4737.410	60			
2	Regression	1369.356	3	456.452	7.725	<.001[c]
	Residual	3368.054	57	59.089		
	Total	4737.410	60			

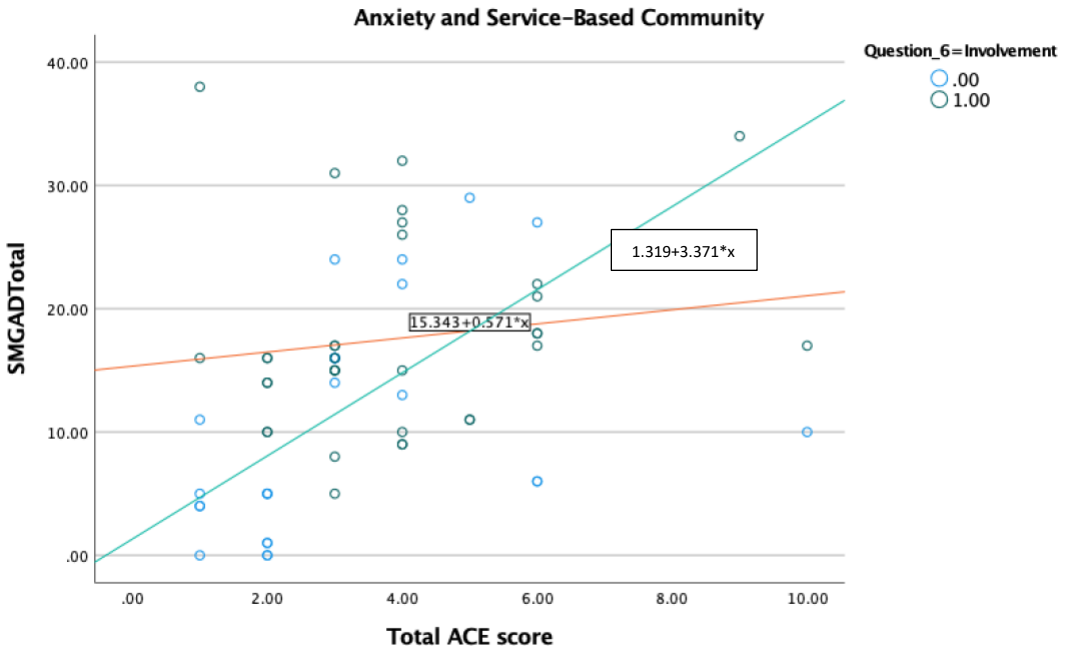
a. Dependent Variable: SMGADTotal
b. Predictors: (Constant), Question_6=Involvement, Total ACE score
c. Predictors: (Constant), Question_6=Involvement, Total ACE score, INTAI

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	6.926	2.303		3.007	.004	2.316	11.536		
	Total ACE score	1.524	.563	.323	2.707	.009	.397	2.652	.950	1.053
	Question_6=Involvement	4.715	2.120	.266	2.224	.030	.471	8.958	.950	1.053
2	(Constant)	1.319	3.177		.415	.680	-5.042	7.680		
	Total ACE score	3.371	.926	.715	3.641	<.001	1.517	5.224	.323	3.092
	Question_6=Involvement	14.023	4.301	.790	3.260	.002	5.411	22.636	.212	4.712
	INTAI	-2.800	1.140	-.772	-2.456	.017	-5.082	-.517	.126	7.924

a. Dependent Variable: SMGADTotal

Figure 4: *Anxiety Severity Scores and Service-Based Community*



Hypotheses

The first hypothesis predicted that perceived natural community support would moderate the relationship between ACE scores and depression severity. There was a statistically significant positive association between ACE scores and depression severity scores, but perceived natural community support did not moderate the relationship. Therefore, the hypothesis was rejected.

The second hypothesis predicted that perceived natural community support would moderate the relationship between ACE scores and anxiety severity scorers. There was a statistically significant positive association between ACE scores and anxiety severity scores. When the moderating variable of perceived natural community support was added, there was a statistically significant moderation of the relationship and a significant decrease in anxiety severity scores as it relates to ACE scores. This demonstrates that natural community support significantly weakened and reversed the strength of the relationship between anxiety severity scores and ACE score. Additional results demonstrated that those that have higher reported natural community supports have lower anxiety severity scores. Therefore, the hypothesis was accepted.

The third hypothesis predicted that involvement with service-based community supports would moderate the relationship between ACE scores and depression severity. When the involvement with service-based community supports was added, there was no significant moderation of the relationship. Therefore, the hypothesis was rejected.

Lastly, the fourth hypothesis predicted that involvement with service-based community supports would moderate the relationship between ACE scores and anxiety

severity. When the moderating variable of involvement with service-based community supports was added, there was a moderation of the relationship and there was a significant decrease in anxiety severity scores. Additional results demonstrated that those that have service-based community supports have lower anxiety severity scores. Therefore, the hypothesis was accepted.

Qualitative Research Questions

Research supports that approximately 10 participants are necessary for the qualitative analysis. Data saturation was evaluated after randomly selecting 10 participants. The researcher added 10 additional participants to achieve data saturation. Spencer-Hwang et al. (2015) notes that breaking down the participants' responses into categories and subdomains will allow researchers to complete a narrative analysis. The qualitative research questions were explored through a narrative analysis of responses from participants who completed the open-ended questionnaire following their indication of involvement with service-based community support.

The narrative analysis identified key words and phrases and the researcher sorted them into identifiable themes. The study aimed to answer three qualitative research questions: 1) how adults with at least one ACE score that have been involved in service-based community support describe their perceived natural community support in adulthood, 2) how adults with at least one ACE score describe perceived natural community support as impactful towards their mental health, and 3) how adults with at least one ACE score describe service-based community support as impactful towards their mental health.

Themes were found through analyzing word choices throughout the open-ended questionnaire. The questionnaire had 8 questions that allowed participants to identify specific examples and personal perceptions about community support. Through the narrative analysis, the researcher identified the following subthemes for natural community perception (Figure 1): 1) helpful, 2) positive, 3) peaceful, 4) connected, 5) knowledgeable, 6) supportive, 7) manipulative, 8) lacking, 9) distrust, 10) negative, 11) guarded, 12) isolated, 13) critical, 14) avoidance, and 15) independent. In addition, the researcher identified the following subthemes for service-based community perception (Figure 2): 1) validated, 2) confidence, 3) hope, 4) distrust, 5) unimpactful, 6) stable, and 7) difficult.

Figure 5: *Word Cloud Visualization; Natural Community*

Figure 6: *Word Cloud Visualization; Service-Based Community*

A word cloud visualization is a commonly used technique for text visualization that allows researchers to present keywords in a direct way (Yang et al., 2020). This technique presents keywords in various font sizes to reflect relevance. But, in addition to a word cloud visualization it is necessary to provide context to responses. These will be provided in the discussion of the research questions. Participants varied their responses with their relationships with their communities.

The purpose of utilizing a word cloud visualization was to present the key terms in a digestible way to show the stark differences between those that have experienced trauma and seek service-based community supports. By providing an open-ended questionnaire for participants, it allowed them to freely discuss their own experiences and provide specific examples. While the sample was small, it was clear there were common themes amongst participants. But this sample size does limit the transferability of the results for those that have ACE scores and have received service-based community supports. The researcher meticulously went through all the responses for the open-ended questionnaire for all 20 participants to ensure that participants understood the questions.

Lastly, the results were able to be confirmed due to the questionnaire being electronic and requiring the participants to type their responses.

Research Questions

Through the analysis, the researcher sought to evaluate three research questions for adults that have been involved in service-based community supports. These were how these participants 1) describe their perceived natural community support in adulthood, 2) describe perceived natural community support as impactful towards their mental health, and 3) describe service-based community support as impactful towards their mental health.

Natural Community

Participants detailed perceptions about their natural communities that were both negative and positive. The 15 subthemes are as follows: 1) helpful, 2) positive, 3) peaceful, 4) connected, 5) knowledgeable, 6) supportive, 7) manipulative, 8) lacking, 9) distrust, 10) negative, 11) guarded, 12) isolated, 13) critical, 14) avoidance, and 15) independent. Upon further analysis, these subthemes were consolidated into the overall themes of 1) instrumental and 2) disconnect. Instrumental encompasses the positive aspects of natural community and includes the subthemes helpful, positive, peaceful, connected, knowledgeable, and supportive. Disconnect encompasses the negative aspects of natural community and includes the subthemes manipulative, lacking, distrust, negative, guarded, isolated, critical, avoidance, and independent. A few excerpts from participant responses about their natural community that fell within the themes identified by the researcher are described below.

Participants provided perceptions that indicated the positive influence that their natural community had on them and their mental health. Participants reported that these communities were instrumental in providing a place of supportive connection that provided guidance to navigate the world, although this varied depending on the nature of the relationship. Family, friends, and significant others were influential and played a functional role for participants' development with a consistent support system. For example, one participant noted that her family has "positively support[ed] [her] aspirations, but negatively [impacted her] emotions," and her friends always gave her "positive support." Another participant indicated she has "great relationships with [her] family and partner but not as close with friends." This demonstrates the wide variety of support that exists across the natural community. A participant indicated that her "community [has] helped [her while] growing up" because of her "close supportive family and friends." These support networks gave this participant "advice throughout life with decisions such as university and jobs." Through these responses, it became clear that natural community support could be used as an instrumental source of support for participants' mental health, behaviors, and decision-making.

Conversely, participants provided perceptions that indicated the negative influence that their natural communities have had on them and their mental health by making them feel disconnected and isolated from their communities. Participants indicated feelings of isolation, distrust, and manipulation as it relates to their natural community. One participant indicated her "worst issue from childhood" was her "conflict resolution skills" and she will "shut down because that's all [she] could do as a child" because her parents would not "[allow her] to have emotions." Another participant

expressed her intense levels of trauma when detailing her personal experiences of sexual abuse and a negative relationship with her father by stating that her father told her and her siblings that they "[were] the reason he didn't want to live." Lastly, a participant stated that her experiences with "extreme parental neglect has made [her more] self-sufficient." Through these responses, it became clear that natural community support can also negatively impact participants' mental health when this community leads to feelings of disconnection. Participants identified the long-lasting impact this disconnect has on their problem-solving, their relationships, and their ability to ask for help.

Service-Based Community

Participants detailed their perceptions about their service-based communities that were both negative and positive. The 7 subthemes are as follows: 1) validated, 2) confidence, 3) hope, 4) distrust, 5) unimpactful, 6) stable, and 7) difficult. These subthemes are consolidated into the overall themes of 1) validation and 2) distrust. Validation encompasses the positive aspects of service-based community and includes the subthemes validated, confidence, stable, and hope. Distrust encompasses the negative aspects of service-based community and includes the subthemes distrust, unimpactful, and difficult. A few excerpts from participants about their service-based community that fell within the themes identified by the researcher are described below.

Participants reported that their service-based communities had a positive impact by validating their trauma experiences and mental health issues. These participants reported that their service-based community provided them validation, support, and guidance for their mental health. For example, one participant indicated that his

experiences with “counseling helped [him] to control [his] anxiety” to be “confident in [his] ability to make good decisions.” Another participant indicated that his “outpatient therapy has helped” him make peace with his “childhood trauma” for “moving forward.” Lastly, one participant stated that his service-based community made him feel “validated in [his] feelings and that [his] anxiety was real.” Through these responses, it was identified that service-based community support can provide individuals with validation to work through their trauma to create healthy coping strategies.

Conversely, participants also reported negative impacts of service-based community support centered around the theme of Distrust. These participants described that their service-based community had a detrimental influence on their mental health because it led to feelings of distrust or that these services were unimpactful. For example, one participant noted that she had a Christian-based therapist and she “had immediate distrust in those therapists.” This participant further discussed that her parents were “authoritative and conservative” and how they were against Christian-based therapists due to past negative experiences. The participant indicated that her therapist would “force [her] to show [them her] art” rather than focusing on their issues. The participant indicated that this experience made her feel unsure about pursuing future therapists. Another participant indicated that she thought she “could use someone but [doesn’t] have the best relationship[s]” from past individuals that provided “very shallow insights” that she thought she was “far beyond.” A participant noted she had negative experiences due to not click with any past therapists and noted feeling “patronized or that they [would] prescribe whatever to get [her] out the door without fully explaining the side effects.” She additionally stated that she was “often on waiting lists for months to get in” and felt that

she had to “shop around for the right fit.” Through these responses, it was clear that service-based community supports could be the source of distrust to seek out help, which could be negatively impacting participants’ mental health.

These excerpts demonstrate the varying degree of perceptions of both types of community support on an individual’s mental health. These results provide a greater context beyond the data points in the quantitative research analysis. Participants were able to provide details about their trauma that may have been missed in qualitative research. While these randomly selected participants may have received lower scores on mental health severity scores, they still have exposure to trauma and their community can influence their mental health into adulthood.

Summary

There was statistically significant positive association between ACE scores and depression severity scores. Neither perceived natural community support nor service-based community involvement significantly moderated this relationship. There was also a statistically significant positive association between ACE scores and anxiety severity scores. Both perceived natural community support and service-based community involvement produced a statistically significant moderation of this relationship.

Through the narrative analysis, the researcher aimed to explore how adults that have been involved in service-based community supports describe the impacts of both their perceived natural community and their involvement in service-based community support. Through the narrative analysis, the researcher identified the following subthemes for natural community perception (Figure 1): 1) helpful, 2) positive, 3)

peaceful, 4) connected, 5) knowledgeable, 6) supportive, 7) manipulative, 8) lacking, 9) distrust, 10) negative, 11) guarded, 12) isolated, 13) critical, 14) avoidance, and 15) independent. These subthemes were consolidated into the two major themes of Instrumental and Disconnect. In addition, the researcher identified the following subthemes for service-based community perception (Figure 2): 1) validated, 2) confidence, 3) hope, 4) distrust, 5) unimpactful, 6) stable, and 7) difficult. These subthemes were consolidated into the two major themes of Validation and Distrust.

CHAPTER 5: DISCUSSION

Overview

This research investigates adverse childhood experiences and the role that natural communities and service-based communities play on mental health outcomes, depression, and anxiety. Additionally, the researcher evaluated the influence of environment and relationships on the relationship between adverse childhood experience and mental health of participants in adulthood. A summary of findings, discussion, limitations, implications, and recommendations for additional research will be discussed in this section.

Summary of Findings

The research was split into two analyses, a quantitative and qualitative analysis. This quantitative analysis included a statistical analysis using the moderator model to evaluate the association between ACE scores and mental health severity scores and how adding moderating variables influence this relationship.

Quantitative Analysis

In hypothesis 1 it was proposed that perceived natural community support will moderate the relationship between ACE scores and depression severity. There was a statistically significant positive association between ACE scores and depression severity scores. However, when the moderating variable of perceived natural community support was added, there was no significance found.

Hypothesis 2 proposed that perceived natural community support will moderate the relationship between ACE scores and anxiety severity scorers. There was a statistically significant positive association between ACE scores and anxiety severity scores. When the moderating variable of perceived natural community support was added, there was a statistically significant moderating relationship. Natural community significantly weakened and reversed the strength of the relationship between anxiety severity scores and ACE score.

In hypothesis 3 it was proposed that involvement with service-based community supports will moderate the relationship between ACE scores and depression severity. There was a statistically significant positive association between ACE scores and depression severity scores. When the moderating variable service-based community involvement was added, there was a not a statistically significant moderating relationship.

Hypothesis 4 proposed that involvement with service-based community supports will moderate the relationship between ACE scores and anxiety severity. The study found a statistically significant positive association between ACE scores and anxiety severity scores. When the moderating variable service-based community involvement was added, the study found there was a statistically significant moderating relationship. Service-based community support significantly weakened the relationship between ACE scores and anxiety severity, and there was a significant decrease in anxiety severity scores.

Qualitative Analysis

After reviewing the open-ended questionnaire, several themes were identified that described participants' perceptions about their supports. These included the following

themes that were identified for natural community perceptions (Figure 1): 1) helpful, 2) positive, 3) peaceful, 4) connected, 5) knowledgeable, 6) supportive, 7) manipulative, 8) lacking, 9) distrust, 10) negative, 11) guarded, 12) isolated, 13) critical, 14) avoidance, and 15) independent. These subthemes were consolidated into the two major themes of Instrumental and Disconnect. The following themes for service-based community perception were additionally identified (Figure 2): 1) validated, 2) confidence, 3) hope, 4) distrust, 5) unimpactful, 6) stable, and 7) difficult. These subthemes were consolidated into the two major themes of Validation and Distrust. There were varying responses of the perceptions of both natural and service-based community supports' impact on participants' mental health. These experiences varied from personal details about abuse within a participant's natural community to the communities being supportive and providing confidence.

Discussion of Findings

Adverse childhood experiences have great deal of literature that centers around relationships and mental health outcomes. However, there was a gap in the number of studies and research related to how community involvement can be a moderating factor in the relationship between mental health outcomes and ACEs. These experiences can make it difficult for individuals to make connections, develop relationships, or cope with issues that arise without a supportive community around them. To add to the literature, this mixed method phenomenological study explored the relationship between ACE scores and mental health severity with community supports, natural and service-based, as a moderating factor. The researcher used self-report questionnaires to provide a space for

participants to openly express their experiences and if they believed their community has influenced their mental health.

It was hypothesized that ACEs would have an association with mental health severity, depression and/or anxiety, and that natural community and/or service-based community involvement would moderate this relationship. The findings of the study indicated there was a relationship between ACE scores and mental health severity, including both depression and anxiety levels. These results demonstrate that the presence of more ACEs predicted higher severity for depression and anxiety. This finding supports the literature that individuals with higher ACEs have a greater likelihood of developing depressive symptomatology, anxiety disorders, affective disorders, emotional regulation problems, and increased behavioral health service usage during adulthood (Chen et al., 2021; Dagnino et al., 2020; Larkin et al., 2018; Westermair et al., 2018).

The reviewed research additionally shows that service-based communities can nurture positive development by moderating negative health behaviors and issues. Research notes that individuals have stronger outcomes when they participate in social groups, have higher social support, and live in a community relative to socioeconomic and sociodemographic status (Daoud et al., 2017). The current study supports this in relation to moderating anxiety severity but not depression severity. Participants that had service-based community involvement had lower anxiety severity scores compared to those that were not involved, and the relationship between ACEs and anxiety was weakened. These results suggest that the presence of ACEs had less of an impact on participants when they had indicated involvement with service-based community support. In addition, participants with higher natural community support had lower anxiety

severity scores. The presence of natural community support weakened and reversed the relationship between ACEs and anxiety severity. These findings suggest that the presence of both service-based and natural community support may act as a protective factor against the development of anxiety in relations to ACEs, and that these supports may lead to better mental health outcomes despite past ACEs.

Overall, research has demonstrated that community aids those with mental health issues and that participants that have more protective factors have a greater potential to become well-adjusted and content during adulthood (Goldenson et al., 2021). One potential explanation for the lack of moderating effects related to depression is that there could be gap in these participants wanting to participate in service-based community involvement due to distrust in the system. The study did not collect where individuals lived, but research suggests that living in deprived communities increases an individual's depressive symptoms, diminishes social support, and yields higher distrust for their communities (Aiaksinen et al., 2015). Research on anxiety and distrust focuses on the distrust of media, government, and the overall system rather than the individual experience (Van Scoy et al., 2021). Another explanation could be the differences of treatment of symptoms for depression. Participants may have varied on their treatment types, such as medication versus therapeutic measures. These individuals may perceive their symptoms as more intensive due to these differences in treatment. Participants self-assessed their symptoms and could have scored themselves differently than if they received an official diagnosis. Since depression and anxiety diagnoses and symptoms are often comorbid, this can impact an individual to be at a higher risk for being treatment resistant (Ballenger, 2000). In 1996, researchers found that between 29 to 46 percent of

depressed individuals are treatment resistant (Fava & Davidson, 1996). There are various forms of depressive disorders that are more resistant to antidepressants, such as bipolar depression and depression during childhood (Coplan et al., 2006). Treatment resistance in those with depression may make it more difficult for community supports to act as a protective factor.

Small sample size may have also impacted the study's results. When comparing the anxiety severity standard deviation with the depression severity standard deviation, depression severity was larger. This demonstrates that there was a wider range of depression severity scores. If there was a larger sample size, there may have been significant moderation on depression severity. Regarding the natural community moderation, participants gave varying scores across subscales (i.e., significant others, friends, and family). This could have impacted moderation due to participants reporting higher support for one subscale and drastically lower for other subscales. The difference in scores may demonstrate a different perception of support depending on the presence of anxiety versus depression symptoms, which may have impacted the moderating role of overall natural community support.

For the qualitative analysis, the researcher completed a narrative analysis to identify the themes in participants' perceptions about their supports. These included the following subthemes for natural community perceptions (Figure 1): 1) helpful, 2) positive, 3) peaceful, 4) connected, 5) knowledgeable, 6) supportive, 7) manipulative, 8) lacking, 9) distrust, 10) negative, 11) guarded, 12) isolated, 13) critical, 14) avoidance, and 15) independent. These subthemes were brought together into two major themes of Instrumental and Disconnect. The following themes for service-based community

perception were additionally identified (Figure 2): 1) validated, 2) confidence, 3) hope, 4) distrust, 5) unimpactful, 6) stable, and 7) difficult. These subthemes were consolidated into the two major themes of Validation and Distrust.

The results from the narrative analysis demonstrated that the randomly selected participants did indicate that their natural and/or service-based community supports influenced their mental health. A few participants indicated that their communities allowed them to have confidence and feel validated despite their experiences with ACEs. These experiences, while significant, can be downplayed when reflecting on them as adults. The current research findings challenged the understanding of ACEs and mental health by pinpointing the need for further and wide-scope research on community involvement that goes beyond parental relationships. Participants referenced their friends, family, and significant others as impactful towards their mental health. Overall, there is much research that focuses on parental relationships, but the current research contributes to the understanding of various psychological constructs. The study was informed by the Ecological Systems Theory and Attachment Theory. This research additionally supports the influence of relationships of communities on mental health for both the qualitative and quantitative analyses. The study contributed to understanding possible moderating factors on an individual's trauma and negative experiences during development. While research did not focus on identifying specific attachments with parents, it was found through an open-ended questionnaire that participants overwhelmingly expressed more negative perceptions. This potentially could be due to the sample that was targeted. These participants were in social media groups that openly discussed their trauma for support from strangers. Participants could have likely had more ineffective support across

communities, which would lead to skewing the data. There were positive perceptions for both natural community and service-based community as well, but these participants could potentially have had differing levels of ACEs scores. Generally, it was noted that participants with higher ACEs scores had more negative perceptions about their communities. Participants indicated various life-changing events related to their natural community that included bullying, extreme parental neglect, parental divorce, being home alone, and death of family members. These vary on severity, but do demonstrate the wide variety of trauma that individuals faced in this study.

The results from the study showed that those that experience more ACEs show increased depression scores, but neither perceived natural community or service-based community involvement significantly impacted this relationship. These results suggest that those with depression may lack truly supportive communities and utilize other aspects for coping. Participants with higher depression scores were more likely to report being involved in service-based community supports, but there was no significant correlation between depression scores and levels of natural community support.

Participants could use different forms of natural community, such as friends, that are supportive but overall, their natural community may not impact their mental health in terms of depression and its relationship to ACEs, although it may impact other aspects of their health. Results also demonstrated that those that experience more ACEs have higher anxiety severity scores, and both perceived natural community support and service-based community involvement significantly impacted this relationship. These findings suggest that those with higher anxiety severity may have different levels of trauma and trust as it relates to their communities. Participants may hold their communities as impactful to

their mental health when anxiety is present, but may consider other aspects of their life as well. This includes physical health, hobbies and activities, and their jobs.

While faith was not directly mentioned in survey responses, this study was grounded in biblical truths in scripture. The central scripture that grounds this research is about resiliency and perseverance when faced with hardship. Trauma can impact anyone, even children. Everyone is faces difficulties and hardships but should not be overrun with their despair or crushed by them. Rather they should lean on the relationship with God to be a resilient individual (2 Corinthians 4:8-9; *New International Version*, 1978/2011). Community involvement is not limited to mental health providers or family but should also include an individual's relationship with God and the Church.

Implications

The main implication from the current study is that ACEs do influence an individual's mental health severity. Although community does not always moderate the influence ACEs have on mental health severity, it does appear that community involvement, whether it be natural community or service-based community, could later aid those mental health issues and development of relationships. The results from an open-ended questionnaire demonstrated that participants have varying perceptions about their communities. Quantitatively, participants reported higher scores related to social support from significant others compared to social support scores from friends and family. Similarly, in the narrative analysis, participants provided more negative relationships with their families compared to their friends and significant others. This

highlights the value of providing support through various communities to compensate for unsupportive areas.

Psychologists that serve those with ACEs and mental health issues can benefit from understanding the aspects of this study to aid them with identifying various support systems to enhance resilience. A professional would benefit from acknowledging their role to provide consistent, reliable, and valuable support to uplift individuals that may lack support systems. Policymakers that focus on prevention would benefit from understanding the necessity of trauma informed care with ACE screening. These individuals can implement programs to provide safeguard programs promoting positive community involvement for various at-risk groups. This can facilitate change by supporting at-risk populations and contribute to stopping the cycle of violence and trauma.

The church would benefit from understanding the influence of ACEs on mental health by recognizing the role that they play as a community support for individuals. This community could provide trauma-focused peer support groups that are faith-based to alleviate stressors and provide health coping skills. Through providing a support group that leans on faith, an individual can connect with those with similar experiences while also leaning on God's word to promote resilience and inner strength.

Limitations

After reviewing the results from the study, it is necessary to discuss the relevant limitations. The limitations that were presented may have influenced the study. These

included sample size, self-reporting accuracy, diversity of participants, and online distribution.

The first limitation was the small sample size of 61 participants. A smaller sample size means that the study may not be representative or generalizable to all those with ACEs and that have depression and/or anxiety. While this study demonstrates the relationship between ACEs and mental health, the study is not able to draw conclusions regarding causality. This could suggest there are potential confounding variable that could be contributing to mental health severity that is unrelated to ACE scores. Additionally, there was a lack of diversity in the participants. Participants were predominately female, young, white, educated, and employed. This may further limit the generalizability of the data. It is possible that these results would differ with a large sample size and increased diversity in participants. The study was not generalizable across populations, but it did show the importance of various community involvement, support, and perceptions have on an individual's well-being and health overall.

Next, the online survey used for data collection was fast, efficient, and anonymous for participants, but this did present limitations. All the participants were recruited using social media, which made it difficult for the researcher to know whether participants were providing valid self-reports. When the survey was distributed, a lengthy time for completion was anticipated and communicated in the consent form. This may have caused a lesser number of participants to complete the survey. In addition, this scope of recruitment limited the number of participants based on the type of groups the survey was distributed to. Lastly, the open-ended questionnaire was online which limited the researcher's ability to ask follow-up questions or gain more in-depth qualitative data.

Recommendations for Future Research

The results that were provided from the current study could be valuable for future research regardless of the limitations noted above. There is plentiful literature discussing adverse childhood experiences related to relationships and mental health outcomes. However, there is a gap in research related to how community involvement can be a moderating factor in the relationship between mental health outcomes and ACEs. Furthermore, studies lack a full coverage of the scope in which extended family and community influence childhood development as it relates to mental health outcomes, specifically depression and anxiety severity. The literature must expand to examine the influence of relationships during childhood and how they impact perceptions during adulthood for those with ACE exposure.

Future research would benefit from utilizing more mixed method data collection designs like the current study. A mixed method design can provide a holistic and accurate understanding of a study's phenomenon (Ponterotto et al., 2013). A mixed methods design allows researchers to integrate qualitative and quantitative methods together to better address research problems and complex phenomena compared to utilizing one approach (Molinda-Azorin, 2016). Researchers can utilize qualitative methods in combination with quantitative to have focused and open-ended questions for participants to provide insights with the gaps in research. In addition, qualitative methods can give insight on participants traumatic experiences and personal examples.

The study gathered a small size sample during data collection. Future research would benefit from gathering a larger sample size for generalizability to participants with

ACEs and mental health issues. As there is increasing research on the influence of adverse childhood experiences, future researchers may be able to provide research and programmatic changes to further aid those with childhood trauma. Future research that would target a larger population could garner more male participants and increased racially diversity. A mixed methods study that could personally interview participants may allow for a more robust conversation and deep dive into participants' perspectives. For example, Asberg et al. (2020) investigated university students' experiences of health behaviors, and barriers and facilitators for behavior change, by personally interviewing 24 students. They utilized both individual and group interviews. Asberg et al. (2020) noted that personal interviewing allowed them to improve their understanding of individualized needs and their perceptions. The study would benefit from a greater outreach of participants that would go beyond limited social media groups. For a larger scope study, participants could be recruited from a wider variety of groups and have in-person recruitment.

Summary

Results from the statistical analysis indicated that there was a significant relationship between ACEs and mental health severity scores, specifically depression and anxiety. The study found that those with a higher ACEs score have higher depression and anxiety severity scores. Perceived natural community support and service-based community supports did not appear to influence the relationship with ACE scores and depression severity, but these supports were influential on anxiety severity. The researcher found common themes for participant perceptions that showed the various ways that community impacts individuals' mental health both positively and negatively.

These statistically significant results demonstrate a need for additional programs, policies, screening, and prevention to support communities that have faced trauma. This can allow individuals to have safeguard programs for positive community involvement and educate policymakers and preventionists. Furthermore, faith-based programs can integrate this knowledge to better support their own communities and uplift them. Individuals with childhood trauma should be provided positive support systems and relationships with their communities. Childhood psychological trauma impacts the whole individual and with further research on how to best understand and aid these individuals there is the potential to limit long-lasting issues across the lifespan.

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APPENDIX A: RECRUITMENT FLYER

Research Participants Needed

Mental health outcomes from adverse childhood experiences and the role of natural and service-based community involvement

- Are you 18 years of age or older?
- Do you have reliable access to the Internet?

If you answered yes to all of the questions listed above, you may be eligible to participate in a research study.

The purpose of this research study is to investigate adverse childhood experiences and the role that natural communities and service-based communities play on mental health outcomes, depression, and anxiety, through exploring lived experiences of participants.

Participants will be asked to complete:

- The Consent Form. The form will take approximately two minutes to complete.
- The Demographics Form. The form will take approximately five minutes to complete.
- The ACE Questionnaire. The questionnaire will take approximately five minutes to complete.
- Two Questionnaires on Depression and Anxiety symptoms. These will take approximately five minutes to complete total.
- A questionnaire on social and community support. The questionnaire will take approximately five minutes to complete.
- An Open-ended Questionnaire. The questionnaire will take approximately fifteen minutes to complete.

Benefits to society include providing information on the role that community influence mental health severity (depression and anxiety).

Participants will not be compensated for participating in this study.

If you would like to participate, please click here [include hyperlink to online survey]. Or scan the QR code below.

Sydney Quinones, Doctoral candidate in the Psychology Department at Liberty University, is conducting this study. Please contact Sydney at [redacted] for more information. study.

Liberty University IRB - [redacted]

APPENDIX B: CONSENT FORM

Consent

Title of the Project: Mental health outcomes from adverse childhood experiences and the role of natural and service-based community involvement
Principal Investigator: Sydney E.W. Quinones, Doctoral Student, Liberty University

Invitation to be Part of a Research Study

You are invited to participate in a research study. To participate, you must be 18 years old, be part of a support group on Facebook for those that have experienced childhood trauma and have reliable access to the Internet. Taking part in this research project is voluntary.

Please take time to read this entire form and ask questions before deciding whether to take part in this research.

What is the study about and why is it being done?

The purpose of the study is to investigate adverse childhood experiences and the role that natural communities and service-based communities play on mental health severity. The study will additional explore the lived experiences of participants. In addition, the study will determine whether there is a significant impact of community on the relationship between adverse childhood experiences and mental health severity.

What will happen if you take part in this study?

If you agree to be in this study, you will be asked to complete the following things:

1. The Demographics Forms. The form will take approximately five minutes to complete.
2. The ACE Questionnaire. The questionnaire will take approximately five minutes to complete.
3. Two Questionnaires on Depression and Anxiety symptoms. These will take approximately five minutes to complete.
4. A questionnaire on social and community support. The questionnaire will take approximately five minutes to complete.
5. An Open-ended Questionnaire. The questionnaire will take approximately fifteen minutes to complete.

How could you or others benefit from this study?

Participants should not expect to receive a direct benefit from taking part in this study. A key benefit to society this study allows is understanding the role that community plays on the influence of adversity and trauma on depression and anxiety severity.

What risks might you experience from being in this study?

The risks involved in this study are minimal, which means they are equal to the risk you would encounter in everyday life. But there can be discomfort with answering questions related to childhood trauma that can be triggering to participants.

How will personal information be protected?

The records of this study will remain anonymous. Published reports will not include any identifiable information. The online Qualtrics survey will remain anonymous with no personally identifiable information. Data will be stored on a password-locked computer and may be used in

future presentations. Non-identifying data will be used in future presentations and submitted for future publication.

How will you be compensated for being part of the study?

Participants will not be compensated for participating in this study.

Is study participation voluntary?

Participation in this study is voluntary. Your decision to participate will not affect your current or future relations with Liberty University. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

What should you do if you decide to withdraw from the study?

If you choose to withdraw from the study, please exit the survey and close your internet browser. Your responses will not be recorded or included in the study.

Whom do you contact if you have questions or concerns about the study?

The researcher conducting this study is Sydney Quinones. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact her at [redacted]
You may also contact the researcher's faculty sponsor, [redacted]

Whom do you contact if you have questions about your rights as a research participant?

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the Institutional Review Board, [redacted]

Disclaimer: The Institutional Review Board (IRB) is tasked with ensuring that human subjects research will be conducted in an ethical manner as defined and required by federal regulations. The topics covered and viewpoints expressed or alluded to by student and faculty researchers are those of the researchers and do not necessarily reflect the official policies or positions of Liberty University.

Your Consent

Before agreeing to be part of the research, please be sure that you understand what the study is about. You will be given a copy of this document for your records/you can print a copy of the document for your records. If you have any questions about the study later, you can contact the [researcher or faculty sponsor using the information provided above.

☐ *I have read and understood the above information. I have asked questions and have received answers. I consent to participate in the study.*

_____
Date

APPENDIX C: DEMOGRAPHICS QUESTIONNAIRE

1. What is your gender?

- Male

- Female

- Prefer not to answer

2. What is your age?

- 18 to 25
- 26 to 32
- 33 to 39
- 40 to 46
- 47 to 53
- 54 and over
- Prefer not to say

3. What best describes your race/ethnicity?
- White
- Black or African American
- American Indian or Alaskan Native
- Asian
- Native Hawaiian or other Pacific Islander
- Hispanic or Latino
- Other (please specify)
- Prefer not to say

4. What is your current employment?
- Unemployed
- Employed
- Retired
- Student
- Seeking opportunities
- Prefer not to say

5. What is your current level of education?
- High school
- Associate degree/ Technical certification

- Bachelor's degree
- Master's degree
- Professional degree
- Doctorate degree
- Prefer not to say

6. Have you been involved in service-based community supports during adulthood? This is defined as a community that provides services for an individual which includes behavioral health, mental health, counseling, and/or any interventions.
   -Yes
   -No
7. If you have been involved in service-based community supports during adulthood, what are/were they? This can include counseling/ therapy, medications, mental health institutions, community service boards, Social Services, etc.

APPENDIX D: ACE QUESTIONNAIRE

Adverse Childhood Experience (ACE) Questionnaire

Finding your ACE Score ra hbr 10 24 06

While you were growing up, during your first 18 years of life:

1. Did a parent or other adult in the household **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 No If yes enter 1 _____

2. Did a parent or other adult in the household **often** …
   Push, grab, slap, or throw something at you?
   or
   Ever hit you so hard that you had marks or were injured?
   Yes No If yes enter 1 _____

3. 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
   Try to or actually have oral, anal, or vaginal sex with you?
   Yes No If yes enter 1 _____

4. Did you **often** feel that …
   No one in your family loved 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 No If yes enter 1 _____

5. Did you **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 No If yes enter 1 _____

6. Were your parents **ever** separated or divorced?
   Yes No If yes enter 1 _____

7. Was your mother or stepmother:
   Often pushed, grabbed, slapped, or had something thrown at her?
   or
   Sometimes or 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 No If yes enter 1 _____

8. Did you live with anyone who was a problem drinker or alcoholic or who used street drugs?
   Yes No If yes enter 1 _____

9. Was a household member depressed or mentally ill or did a household member attempt suicide?
   Yes No If yes enter 1 _____

10. Did a household member go to prison?
    Yes No If yes enter 1 _____

Now add up your "Yes" answers: _____ This is your ACE Score

APPENDIX E: CESD-R

Center for Epidemiologic Studies Depression Scale – Revised (CESD-R)

Below is a list of the ways you might have felt or behaved. Please check the boxes to tell me how often you have felt this way in the past week or so.	Last Week				Nearly every day for 2 weeks
	Not at all *or* Less than 1 day	1 - 2 days	3 - 4 days	5 - 7 days	
My appetite was poor.	0	1	2	3	4
I could not shake off the blues.	0	1	2	3	4
I had trouble keeping my mind on what I was doing.	0	1	2	3	4
I felt depressed.	0	1	2	3	4
My sleep was restless.	0	1	2	3	4
I felt sad.	0	1	2	3	4
I could not get going.	0	1	2	3	4
Nothing made me happy.	0	1	2	3	4
I felt like a bad person.	0	1	2	3	4
I lost interest in my usual activities.	0	1	2	3	4
I slept much more than usual.	0	1	2	3	4
I felt like I was moving too slowly.	0	1	2	3	4
I felt fidgety.	0	1	2	3	4
I wished I were dead.	0	1	2	3	4
I wanted to hurt myself.	0	1	2	3	4
I was tired all the time.	0	1	2	3	4
I did not like myself.	0	1	2	3	4
I lost a lot of weight without trying to.	0	1	2	3	4
I had a lot of trouble getting to sleep.	0	1	2	3	4
I could not focus on the important things.	0	1	2	3	4

APPENDIX F: SEVERITY MEASURE FOR GAD-ADULT

Severity Measure for Generalized Anxiety Disorder—Adult

Name:_____ **Age:** _____ **Sex: Male** ❑ **Female** ❑ **Date:**_____

Instructions: The following questions ask about thoughts, feelings, and behaviors, often tied to concerns about family, health, finances, school, and work. **Please respond to each item by marking (✓ or x) one box per row.**

							Clinician Use
	During **the PAST 7 DAYS**, I have…	**Never**	**Occasionally**	**Half of the time**	**Most of the time**	**All of the time**	**Item score**
1.	felt moments of sudden terror, fear, or fright	❑ 0	❑ 1	❑ 2	❑ 3	❑ 4	
2.	felt anxious, worried, or nervous	❑ 0	❑ 1	❑ 2	❑ 3	❑ 4	
3.	had thoughts of bad things happening, such as family tragedy, ill health, loss of a job, or accidents	❑ 0	❑ 1	❑ 2	❑ 3	❑ 4	
4.	felt a racing heart, sweaty, trouble breathing, faint, or shaky	❑ 0	❑ 1	❑ 2	❑ 3	❑ 4	
5.	felt tense muscles, felt on edge or restless, or had trouble relaxing or trouble sleeping	❑ 0	❑ 1	❑ 2	❑ 3	❑ 4	
6.	avoided, or did not approach or enter, situations about which I worry	❑ 0	❑ 1	❑ 2	❑ 3	❑ 4	
7.	left situations early or participated only minimally due to worries	❑ 0	❑ 1	❑ 2	❑ 3	❑ 4	
8.	spent lots of time making decisions, putting off making decisions, or preparing for situations, due to worries	❑ 0	❑ 1	❑ 2	❑ 3	❑ 4	
9.	sought reassurance from others due to worries	❑ 0	❑ 1	❑ 2	❑ 3	❑ 4	
10.	needed help to cope with anxiety (e.g., alcohol or medication, superstitious objects, or other people)	❑ 0	❑ 1	❑ 2	❑ 3	❑ 4	
						Total/Partial Raw Score:	
						Prorated Total Raw Score: (if 1-2 items left unanswered)	
						Average Total Score:	

APPENDIX G: MULTIDIMENSIONAL SCALE OF PERCEIVED SOCIAL SUPPORT

Multidimensional Scale of Perceived Social Support (Zimet, Dahlem, Zimet & Farley, 1988)

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**

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

The items tended to divide into factor groups relating to the source of the social support, namely family (Fam), friends (Fri) or significant other (SO).

APPENDIX H: OPEN-ENDED QUESTIONNAIRE

1. How have your natural community supports impacted/influenced you into adulthood? This community is one that is naturally available to you, such as your family or friends. These influences can be either positive or negative.
2. How do you perceive your relationships with your natural community in adulthood?
3. Detail specific examples on if/how your natural community has impacted your mental health during childhood and into your adulthood.
4. How have your service-based supports impacted/influenced you into adulthood? This community provides services to you such as counseling. These influences can be either positive or negative.
5. How do you perceive your relationships with your service-based community in adulthood?
6. Detail specific examples on how/if service-based community has impacted your mental health during childhood and into adulthood?
7. Detail specific examples of ‘life-changing’ events during childhood and how you perceive them in present day.
8. Do you believe that your childhood experiences have impacted your relationships, both natural and service-based, into adulthood?

APPENDIX I: CONTACT WITH MODERATORS IN FACEBOOK GROUPS

I am conducting research as part of the requirements for a Doctorate in Developmental Psychology at Liberty University. The purpose of my research is to investigate adverse childhood experiences and the role that natural communities and service-based communities play on mental health outcomes, depression, and anxiety, through exploring lived experiences of participants. To participate, participants must be 18 years of age or older, to be a part of social media groups for adults that have experienced childhood trauma and have at least one ACE score. Participants will be asked to complete the Demographics Form (approximately 5 minutes) and the ACE Questionnaire (approximately ten minutes) to determine eligibility. If they qualify for the study they will continue and take the Center for Epidemiologic Studies Depression Scale Revised (approximately ten minutes), the Severity Measure for General Anxiety Disorder- Adult (approximately ten minutes), Multidimensional Scale of Perceived Social Support, Short Form (approximately ten minutes), and an Open-ended Questionnaire (approximately fifteen minutes). Participants' responses will remain anonymous and will not require me to interact with them. The survey is online, and they will be provided a link and a QR code. A consent document will be provided as the first page of the survey. Participants will not be compensated for their participation in the study.