THE RELATIONSHIPS BETWEEN CHILDHOOD EXPERIENCES, ATTACHMENT AND WELLBEING IN A SAMPLE OF HELPING PROFESSIONALS

by

RAYISA SHELASHSKA

Bachelor of Science, 2006
Kyiv National Economic University
Kyiv, Ukraine

Bachelor of Science, 2016
National Pedagogical Dragomanov University
Kyiv, Ukraine

Master of Science, 2018
Texas Christian University
Fort Worth, Texas

Submitted to the Graduate Faculty of the
College of Science and Engineering
Texas Christian University
in partial fulfillment of the requirements
for the degree of

Master of Science in Experimental Psychology

August 2023

THE RELATIONSHIPS BETWEEN CHILDHOOD EXPERIENCES, ATTACHMENT AND WELLBEING IN A SAMPLE OF HELPING PROFESSIONALS

by Rayisa Shelashska

Thesis approved:

Major Professor

For The College of Science and Engineering

ACKNOWLEDGMENTS

I would like to express my deep gratitude to my advisor and the director of the Karyn Purvis Institute of Child Development, Dr. Danica Knight, for her invaluable guidance, support, and expertise throughout my thesis journey. Her insights and feedback were instrumental in shaping the direction and quality of this work. I especially appreciate her rigor and kindness, the perfect balance of structure and nurture, which made me feel accepted and empowered. Thank you for seeing the best in me.

I am deeply grateful to Dr. David Cross for his mentorship and positive demeanor, which has significantly impacted my personal and professional growth. His support and guidance throughout my academic journey have been invaluable to me, and I am genuinely grateful to him for being not only a remarkable scientist and inspirational leader but a wonderful human being.

I would also like to thank my thesis committee members, Dr. Cathy Cox and Dr. Naomi Ekas, for their time, feedback, and contributions to my research. I am grateful for their willingness to challenge me to think deeper.

Finally, I would like to thank my family, especially my husband Oleg, for his unconditional love and support, for always putting me first, and for caring for our family. I want to thank my children, Vlad, Rost, Karina, and Roma, for their unwavering love, support, and understanding during challenging times. I want to express my gratitude to my twin sister Anya for her understanding and for always being there for me and to my mom for her inspirational strength and kindness.

I dedicate this work to the people of Ukraine, who have shown remarkable strength and perseverance in the face of war and adversity. Through your bravery and resilience, you have shown the world that even in the darkest of times, hope can still shine through. Your determination to stand up for your freedom and protect your homeland has been a testament to the human spirit and a source of inspiration for me and many people around the globe.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

THE RELATIONSHIPS BETWEEN CHILDHOOD EXPERIENCES, ATTACHMENT AND WELLBEING IN A SAMPLE OF HELPING PROFESSIONALS

Adversities in childhood (e.g., abuse, neglect, family dysfunction) have a pervasive and long-term impact on human development, health, and wellbeing later in life (Bellis et al., 2019; Campbell et al., 2016; Felitti et al., 1998). The prevalence of adverse childhood experiences (ACEs) in the U.S. is high; 61% of adults have experienced at least one type of ACE, and nearly 1 in 6 have experienced four or more types of ACEs before the age of 18 (Centers for Disease Control and Prevention [CDC], 2022). Because parents and caregivers play a vital role in all aspects of child development, the quality of attachment – the emotional bond between child and parent might play an instrumental role in later wellbeing (Ainsworth et al., 1978; Bronfenbrenner & Morris, 2006). Research suggests there is a relationship between ACEs and attachment quality (Martin et al., 2017; Thomson & Jaque, 2017). Moreover, childhood adversity is directly associated with both attachment insecurity and the severity of both physical symptoms and mental health later in life (Le et al., 2021).

It is important to study helping professionals (e.g., social workers) who typically serve children and families in distress because their own history of trauma could impact their personal and professional wellbeing, as well as have an impact on client outcomes. Helping professionals tend to report higher levels of ACEs and higher attachment insecurity compared to the general population (Esaki & Larkin, 2013; Hiles Howard et al., 2013; 2017), but no study has explored the relationship between childhood experiences, attachment, and wellbeing among individuals in the helping professions. The primary purpose of this study was to explore the potential mediating role of anxious and avoidant attachment patterns on the relationships between childhood adversity and outcomes in adulthood, such as psychological wellbeing and hope. Additionally,

the exploratory study aimed to investigate the effects of positive childhood experiences on these relationships.

Adverse Childhood Experiences

Adverse childhood experiences comprise a variety of harmful experiences that occurred prior to age 18, such as physical, sexual, and psychological abuse, neglect, parental mental illness, substance use, incarceration, and separation (Felitti et al., 1998). The original ACEs study, conducted at Kaiser Permanente clinics from 1995 to 1997, surveyed over 17,000 adults about their childhood experiences and examined the association of these experiences with subjects' current health and behaviors. The survey included 10 types of ACEs that covered abuse, neglect, and household dysfunction. Findings revealed a correlation between experiencing multiple ACEs and negative health outcomes later in life, including substance abuse, depression, chronic health condition, and premature mortality (Felitti et al., 1998). The same study indicated that participants with four or more ACEs would be at risk of up to a twelve-fold increase in negative physical and mental health outcomes across the lifespan compared to those who did not experience ACEs. Later research demonstrated that all 10 types of ACEs are highly correlated with each other, meaning that exposure to one ACE increases the risk of being exposed to another (Dong et al., 2004).

Numerous studies over the past two decades have supported the negative association between ACEs with later health outcomes. For example, ACEs are associated with higher stress, anxiety, and depression (Berzenski & Yates, 2011; Kessler et al., 2010; Salinas-Miranda et al., 2015), lower psychological wellbeing (Chen et al., 2021; Nurius et al., 2015), risk of alcohol and drug use, deviant and criminal behaviors (Anda et al., 1999; Reavis et al., 2013), and higher rates of blood pressure, diabetes, strokes, and bowel disease (Afifi et al., 2016; Monnat & Chandler,

2015). The prevalence of childhood adversity is relatively high, as the original ACEs study revealed that 63.9% of respondents experienced at least one ACE, and 12.5% reported four or more ACEs before the age of 18. According to a more recent study by Merrick et al. (2019), about 61% of adults in the United States have experienced at least one ACE, and 16% have experienced four or more ACEs.

Interestingly, workers in helping professions (i.e., case managers, psychologists, social workers, child advocates, clinical supervisors, and educators) tend to have higher ACEs scores compared to the general population. Esaki and Larkin (2013) found that 27.3% of child service providers have four or more ACEs, which is two-fold more than among the general population sample in the Felitti et al. (1998) study. Three more studies demonstrated similar results, revealing that 25.1% (Hiles Howard et al., 2015), 30% (Kessler, 2018), and 23.6% (Steen et al., 2021) of workers in helping professions have four or more ACEs. Multiple research findings indicate that individuals with high childhood adversity might be more likely to choose a career in the helping professions (Elliott & Guy, 1993; Malach-Pines & Yafe-Yanai, 2001; Racusin et al., 1981). Hiles Howard and colleagues (2015) considered several possible explanations for this phenomenon, including (1) a higher level of empathy due to an individual's ability to identify with the population they serve, and (2) positive experiences and assistance from workers in helping professions.

As referenced before, the body of empirical research has shown that ACEs have harmful implications for human health and psychological wellbeing and that workers in helping professions have higher ACEs scores than the general population. However, studies also have shown that people with a history of adversity are not necessarily predestined to have poor outcomes in adulthood, and a variety of processes may potentially alter or modify the effects of

ACEs on developmental outcomes. For example, Narayan et al. (2017) found that those who have four or more ACEs do not necessarily develop life-threatening health issues. Another study found that most people who were maltreated as children do not continue the intergenerational cycle and mistreat their children (Schelbe & Geiger, 2017). Because not all people experience harmful long-term effects of adversity in childhood, it is critical to examine the factors and processes that contribute to these individual differences and buffer the effects of ACEs. Attachment bonds in close relationships may increase an individual's ability to bounce back from adversity and minimize negative outcomes.

Attachment

Attachment is an emotional connection, a bond that forms between an infant and a caregiver (Ainsworth & Bowlby, 1991). Attachment theory (Bowlby, 1969, 1982) proposed an explanation of the influence of early child-caregiver relationships across the lifespan. Additionally, attachment theory can offer a developmental framework to understand the link between childhood experiences and wellbeing in adulthood. The quality of care in close caregiving relationships in early childhood sets the course for psychosocial development (Shaver & Mikulincer, 2002). The quality of care lies in a caregiver's reliability, sensitivity, and responsiveness to a child's states and needs when the basic needs of the child are met with love and affection in a timely and appropriate manner. Based on those early experiences of being cared for in close relationships, children develop internal working models (IWMs) - mental representations of others, the self, and relationships, which encompass individual expectations and beliefs about themselves and others (Bowlby, 1969, 1982).

Based on IWMs, children translate caregiving experiences into attachment styles or patterns (Bowlby, 1969, 1982). Infants who receive sensitive and responsive care tend to develop

secure attachments, while infants who experience rejecting, inconsistent, frightening, or intrusive care often develop various forms of insecure attachment (Weinfield et al., 2008). Secure attachment is marked by a positive perception of others ("They are dependable and trustworthy") and a positive perception of the self ("I am worthy of love"), whereas insecure attachment is marked by the presence of negative perceptions, such as a negative perception of others ("They cannot be trusted") and the self ("I am not worthy of love;" Bartholomew & Horowitz, 1991; Bowlby, 1988). Ainsworth and colleagues (1978) expanded on Bowlby's developmental theory of attachment by identifying different types of child-parent attachment that can form in early relationships. Their observations led to the identification of the following infant attachment status: secure, insecure-avoidant, insecure-resistant, and disorganized.

Further research on attachment has shown that attachment patterns observed in infants carry on through childhood into adulthood as individuals apply their IWMs to non-parental attachment figures (Ainsworth et al., 1978, Mikulincer & Shaver, 2016; Waters et al., 2015). Adult attachment can be assessed by two dimensions of attachment insecurity: anxiety about abandonment and avoidance of intimacy (Brennan et al., 1998). Attachment patterns exist on a continuum, meaning individuals may exhibit traits of each dimension rather than solely fitting into one category. For example, people who are low in attachment anxiety and attachment avoidance can be classified as having secure attachment, and people who are high in attachment anxiety and/or attachment avoidance have corresponding forms of insecure attachment. Bartholomew (1990) proposed four adult attachment classifications: (1) secure (low anxiety and avoidance, positive perception of the self and others); (2) dismissive-avoidant (low anxiety and high avoidance, positive perception of the self and negative perception of others); (3) fearful-avoidant (high anxiety and high avoidance, negative perception of the self and others); (4)

preoccupied (high anxiety and low avoidance, negative perception of the self and positive perception of others). Expanding further, dismissive individuals are considered to display more of the "true" avoidant pattern, while preoccupied individuals are considered to display more of the true "anxious" pattern.

According to Mikulincer and colleagues (2003), individuals who perceive their caregivers as unavailable or unresponsive may develop secondary attachment strategies. Individuals with high levels of attachment anxiety tend to hyperactivate their attachment system by constantly seeking support and reassurance in relationships (Cassidy, 1994; Shaver et al., 2005). In contrast, those with high levels of attachment avoidance tend to deactivate their attachment system and deal with distress alone (Bartholomew & Horowitz, 1991; Cassidy, 1994; Mikulincer et al., 2009). Both attachment anxiety and avoidance have been associated with poorer mental health outcomes (Dagan et al., 2018; Liu et al., 2009), but higher attachment anxiety has been found to be more harmful because individuals with avoidant attachment cope with stress using distancing strategies, such as disengagement and denial (Holmberg et al., 2011; Stanton & Campbell, 2014; Vowels et al., 2022). Furthermore, research has provided strong support for the link between attachment insecurity and poor psychosocial outcomes. A recent Zhang et al. (2022) meta-analysis showed that attachment anxiety and avoidance were positively correlated with negative effects (i.e., depression, anxiety, loneliness) and negatively correlated with positive effects (i.e., life satisfaction, self-esteem).

A few studies have examined attachment representations among helping professionals and found higher attachment insecurity rates than in non-clinical samples. Hiles Howard and colleagues (2013) found that 39% of child welfare professionals had dismissing attachment, which is significantly higher than the 16% of individuals in a non-clinical norm. Additionally,

7% of the study participants had preoccupied attachment, and only 30% of the sample had secure attachment. The findings of another study found similarly higher than expected rates of dismissing attachment among 225 child welfare professionals, with 31% categorized as dismissing and 12% as preoccupied (Hiles Howard et al., 2017). In a recent study by Copeland et al. (2020), 37% of 467 human service providers in child welfare were classified as dismissing and 15% as preoccupied. Previous research indicates that a professional's IWMs of attachment can influence professional relationships and service outcomes (Zegers et al., 2006). In a systematic review, West (2015) indicated that attachment security in helping professions is associated with lower levels of burnout and/or compassion fatigue. Thus, attachment research among helping professionals is essential because their own wellbeing can impact the quality of their work and the wellbeing of the people they serve.

The link between increased ACEs and poorer attachment quality has also been documented (Murphy et al., 2013, 2014; Thomson & Jaque, 2017; Martin et al., 2017; Raby et al., 2017). For example, in a study by Fowler and colleagues (2013), childhood adversity was positively associated with both attachment anxiety and attachment avoidance in adulthood. Moreover, in a recent study by Le and colleagues (2021), childhood adversity was directly associated with both attachment insecurity and the severity of physical symptoms and mental health. Such ACEs as abuse, neglect, or separation disrupt the formation of healthy attachment bonds between children and their primary caregivers. Unsafe relationship experiences affect how children perceive themselves and others (IWMs) and might lead to difficulty in developing trust in others and forming healthy close relationships later in life (Brown, 2023; Dye, 2018; Zheng et al., 2020).

In sum, research provides substantial evidence to expect a close association between ACEs, attachment quality, and psychological wellbeing. However, to date, there is little empirical research examining the nature of these relationships—for example, whether anxious and avoidant attachment mediate the relationship between childhood adversity and wellbeing-related outcomes, such as psychological wellbeing and hope in a sample of helping professionals.

Psychological Wellbeing

Psychological wellbeing (PWB) has been described as a diverse and multifaceted concept (Ryff, 1989; Van Eeden & Wissing, 2002). According to Ryff (1995, 2014), psychological wellbeing is a state of positive optimal psychological functioning that supports an individual's ability to overcome challenges. Although PWB represents wellness, life satisfaction, self-efficacy, and happiness, its core aspect lies in positive functioning (Ryff, 1995; Van Eeden & Wissing, 2002). In other words, psychological wellbeing is a combination of feeling good and functioning effectively. Psychological wellbeing is considered to be a comprehensive conceptualization of wellbeing and comprises six dimensions related to positive psychological functioning: a sense of autonomy, purpose, growth and development, self-acceptance, mastery of one's life, and positive relationships with others (Ryff, 1989, 2014). Ryff and Keyes (1995) unfold those dimensions as follows. *Autonomy* refers to the sense of self-direction and the ability to make independent choices based on one's values, interests, and beliefs. The dimension of *purpose in life* focuses on having a clear sense of purpose and direction, and people who perceive their lives as meaningful and purposeful are more motivated, optimistic, and resilient in the face of challenges. *Personal growth and development* reflect an individual's willingness to learn, adapt, and improve over time. *Self-acceptance* involves a positive evaluation and

acceptance of oneself, including one's strengths, weaknesses, and past experiences. *Mastery* of one's life refers to the belief in one's ability to effectively manage and navigate life's challenges and circumstances. *Positive relationships with others emphasize* the importance of positive and meaningful connections with family, friends, and social networks, which facilitate a sense of belonging, empathy, and social support. Each mentioned dimension is interconnected and mutually reinforcing, contributing to an individual's overall happiness, life satisfaction, and resilience[1].

Psychological wellbeing is an indicator of life outcomes and is associated with health, development, and quality of life. High levels of PWB have been associated with better physical and mental health outcomes (Pressman et al., 2019) and life satisfaction (Yesiltepe et al., 2022). In Ryff's (2014) meta-analysis of empirical studies on psychological wellbeing, longitudinal studies demonstrated that high levels of PWB serve as protective factors against psychopathology and mental illness. Further, PWB has a strong positive association with workplace resilience and a negative association with depression (Foster et al., 2020; Delgado et al., 2021), which might have important implications for helping professionals. Finally, a systematic review and meta-analysis by Darling Rasmussen et al. (2019) found that secure attachment is associated with the presence of resilience. Based on the aforementioned research, the current study aims to further explore the role of attachment in the relationships between childhood adversity on psychological wellbeing. Furthermore, the current study targets to investigate an additional wellbeing related outcome – hope.

[1] Resilience can be defined as the ability of individuals or systems to effectively cope with and recover from challenges, disruptions, or adversities in a way that allows them to continue functioning and even grow stronger in the face of adversity (Mastern, 2001)

Hope

Hope is a complex phenomenon, and it is not surprising that there is no consensus among scholars regarding its meaning (Herrestad et al., 2014; Lopez et al., 2003). The landmark study by Snyder and colleagues (1991) has provided a theoretical foundation for hope-related academic literature for over two decades. Snyder (1994) defines hope as a positive motivational state based on a sense of successful goal-directed energy (agency thinking) and planning to meet goals (pathways thinking). Both of those concepts lie in cognitive domains: agency thinking refers to a cognitive assessment of one's ability to start and sustain goal-directed action, and pathways thinking refers to cognitive appraisal and finding ways of achieving the goal (Snyder et al., 1991). Hope is considered a vital aspect of wellbeing as it helps individuals to maintain a positive outlook and to cope with difficult situations (Murphy, 2023; Snyder et al., 1991). Research has shown that hope is associated with a range of psychological, social, and physical wellbeing, such as increased life satisfaction, optimism, social support, and reduced depression, chronic conditions, and a reduction in all-cause mortality (Ciarrochi et al., 2015; Long et al., 2020). Research has also demonstrated hope's association with global wellbeing (Ai et al., 2005), resilience (Munoz et al., 2017; Ong et al., 2018), and self-worth (Curry et al., 1997). Bartholomew and colleagues (2019) found that therapists' hope played an essential role in treatment and client outcomes, as it helps to cultivate hope in clients who feel none. Moreover, research has found that higher levels of hope in helping professionals were associated with a higher level of self-efficacy and lower levels of turnover (Duggleby et al., 2009; Hu et al., 2022).

The developmental origins of hope might help to facilitate a better understanding of the link between childhood adversity and individual differences in hope. Snyder (2000) and Shorey, and colleagues (2018) reasoned that hope is formed by the quality of early child-caregiver

relationships early in life. Children who receive consistent and responsive care from their caregivers are more likely to develop a sense of security and trust, which can provide a foundation for a positive perception of self and others and, therefore, a positive outlook on the future and one's ability to affect outcomes (Bartholomew, 1990; Shorey et al., 2018). Research supports this notion, indicating that childhood adversity tends to drive attachment insecurity, which in turn can generate lower levels of hope (Munoz et al., 2022). Although hope and psychological wellbeing might look similar, they differ in their function: psychological wellbeing could be perceived as a foundation for wellness, while hope is its moving force. Also, hope is considered essential in coping with adversity and is directly linked to positive childhood experiences, as an element of resilience (Hellman & Gwinn, 2017; Munoz et al., 2020).

Positive Childhood Experiences

Benevolent childhood experiences (BCEs) represent favorable experiences before the age of 18, and include individual, relational, and environmental supports and resources, such as supportive adults, good neighbors, and enjoyment in school (Narayan et al., 2018). Benevolent childhood experiences promote wellbeing by fostering resilience and healthy development (Masten, 2001, 2014; Sege & Harper, 2017). Resilience is defined as a dynamic process whereby individuals display successful adaptation to difficult or challenging life experiences and positive functioning despite having experienced stress and trauma (Masten & Cicchetti, 2016). Positive childhood experiences are associated with more favorable long-term outcomes in adulthood (e.g., positive mental and physical health, resilience, and healthy relationships) in individuals with or without ACEs (Crandall et al., 2019; Masten, 2001, 2014). Furthermore, positive childhood experiences tend to occur more often than negative ones (Daines et al., 2021; Redican et al., 2022), and their absence can be more harmful throughout life than the presence of adversity

(Crandall et al., 2019; Wright et al., 2013). Thus, the role of BCEs in later developmental outcomes must be accounted for in order to gain a better understanding of the processes of resilience.

Resiliency theory (Masten & Cicchetti, 2016) provides a framework for exploring the effects of both BCEs and ACEs on various elements of wellbeing (Crandall et al., 2019; Narayan et al., 2018, 2021). Resiliency Theory is grounded in developmental psychopathology and socioecological models and suggests that resilience processes include risk and positive factors and occur across individual, family, and community levels (Masten & Cicchetti, 2016). Risk factors could be any characteristics on the biological, psychological, behavioral, family, community, or cultural level that are associated with an increased likelihood of negative outcomes that directly link to childhood adversity (i.e., gender, race, learning disability, low socioeconomic status, parental misuse of alcohol or drugs, child abuse and neglect, neighborhood poverty and violence, lack of economic opportunities). Positive factors can be promotive or protective and could be divided into internal assets (i.e., coping skills, competence, self-efficacy) and external resources (i.e., parental support, mentoring, community programs; Zimmerman, 2013). Both risk and positive factors are necessary for the cultivation of resilience (Masten, 2001; 2018).

Several studies have explored the effects of both BCEs and ACEs on various elements of wellbeing in the general population. The findings of the following studies have mainly supported the models of Resiliency Theory, indicating that positive factors have a direct and independent effect on an outcome but can still neutralize the effect of adversity (Zimmerman, 2013). For example, Crandall et al. (2019) showed that higher levels of BCEs were associated with improved adult health, and they neutralized the negative impact of ACEs on adult health.

Interestingly, the positive effects of BCEs were weaker for adults who had high levels of ACEs (four and more). In the same study, high BCEs weakened the relationship between ACEs and health outcomes. In another study, higher levels of ACEs predicted poorer sleep quality, while higher levels of BCEs predicted better sleep quality (Nevarez-Brewster et al., 2022). Narayan and colleagues (2018) found that higher levels of BCEs predicted fewer PTSD symptoms and less stressful life events, above and beyond ACEs, offsetting the effects of ACEs on stress and psychopathology. Furthermore, Merrick and colleagues (2019) found that ACEs and BCEs were only modestly negatively associated, which might imply the independence of positive and negative childhood experiences.

Existing studies have demonstrated that BCEs can counterbalance the negative impact of ACEs on adult mental health (Crandall et al., 2019; Narayan et al., 2018, 2021). Although research indicates a link between increased ACEs and poorer attachment quality (Thomson & Jaque, 2017; Martin et al., 2017; Raby et al., 2017), little is known about the moderating role of BCEs in the domains of attachment. The moderation role of BCEs can be justified by Resiliency Theory, which states that positive/promotive factors moderate the relationship between risk factors and outcomes (Zimmerman, 2013). To date, no study has looked specifically at the effects of BCEs in the sample of helping professionals, which creates a gap in understanding the factors and processes that foster resilience and improve wellbeing in individuals with a history of elevated childhood adversity. Furthermore, no existing research has examined the moderating effect of BCEs on the relationship between (1) adverse childhood experiences and attachment, (2) attachment and psychological wellbeing, and (3) attachment and hope. Considering the high prevalence of ACEs in workers in helping professions and the potentially negative impact these could have on clients, this research is of paramount importance.

Research has indicated that attachment quality tends to serve as a mediator between predictor variables and wellbeing outcomes (Jiang et al., 2019; Hinnen et al., 2009; Liang et al., 2021; Roche et al., 1999). In the recent study by Munoz (2022), attachment mediated the relationship between ACEs and levels of hope. Such a role of attachment is understandable as it plays a profound role in the development of an individual's emotional and social functioning (e.g., emotional regulation, self-worth, trust, coping mechanisms), which are directly linked to psychological wellbeing (Bowlby, 1969; Cassidy, 1994; Dye, 2018; Fowler et al., 2013; Le at al., 2021). The quality of attachment relationships might be instrumental in shaping an individual's capacity for resilience and wellbeing outcomes, therefor the mediation role of attachment should be further explored.

Current Study

The current research aims to expand the understanding of the complex interplay among childhood experiences, attachment representation, and wellbeing outcomes, such as psychological wellbeing and hope. The approach includes both primary and exploratory studies and builds on resilience and attachment theories in order to explore the factors and processes that contribute to resilience and wellbeing among workers in helping professions. This is particularly important because helping professionals tend to have a heavier history of childhood adversity and more insecure attachment representation compared to the general population (Esaki & Larkin, 2013; Hiles Howard et al., 2013; 2017). To our knowledge, no study has examined (1) how anxious and avoidant attachment mediates relationships between childhood adversity and psychological wellbeing/hope; and (2) the moderating effects of positive childhood experiences on the various relationships between childhood adversity, attachment, and wellbeing in helping professionals.

Primary study.

The primary study examines the potential mediating effects of attachment on the relationship between childhood adversity and wellbeing (psychological wellbeing and hope). Specifically, the following hypotheses are tested:

Hypothesis 1. Attachment mediates the relationship between childhood adversity and psychological wellbeing (see Figure 1).

a. Childhood adversity has a significant negative indirect effect on psychological wellbeing through anxious attachment.
b. Childhood adversity has a weaker negative indirect effect on psychological wellbeing through avoidant attachment.

Hypothesis 2. Attachment mediates the relationship between childhood adversity and hope (see Figure 2).

a. Childhood adversity has a significant negative indirect effect on hope through anxious attachment.
b. Childhood adversity has a negative indirect effect on hope through avoidant attachment.

Exploratory study.

The exploratory study examines the potential moderating effects of positive childhood experiences on the relationship between childhood adversity and anxious attachment; childhood adversity and avoidant attachment; anxious attachment and psychological wellbeing; avoidant attachment and psychological wellbeing; anxious attachment and hope; avoidant attachment and hope. Specifically, the following hypotheses are tested:

Hypothesis 3. Positive childhood experiences moderate the relationship between childhood adversity and attachment.

a. Positive childhood experiences weaken the negative effect of childhood adversity on anxious attachment. As the level of ACEs increases, the level of anxious attachment also increases, but this effect is moderated by positive childhood experiences, where the effect of ACEs on anxious attachment is stronger at low levels of positive childhood experiences, but weaker at high levels of positive childhood experiences (see Figure 3).
b. Positive childhood experiences weaken the negative effect of childhood adversity on avoidant attachment. As the level of ACEs increases, the level of avoidant attachment also increases, but this effect is moderated by positive childhood experiences, where the effect of ACEs on avoidant attachment is stronger at low levels of positive childhood experiences, but weaker at high levels of positive childhood experiences (see Figure 4).

Hypothesis 4. Positive childhood experiences moderate the relationship between attachment and psychological wellbeing.

a. Positive childhood experiences weaken the negative effect of anxious attachment on psychological wellbeing. The negative relationship between anxious attachment and psychological wellbeing is weaker for individuals with high levels of positive experiences compared to individuals with low levels of positive experience (see Figure 5).
b. Positive childhood experiences weaken the negative effect of avoidant attachment on psychological wellbeing. To be specific, the negative relationship

between avoidant attachment and psychological wellbeing is weaker for individuals with high levels of positive experiences compared to individuals with low levels of positive experience (see Figure 6).

Hypothesis 5. Positive childhood experiences moderate the relationship between attachment and hope.

a. Positive childhood experiences weaken the negative effect of anxious attachment on hope. The negative relationship between anxious attachment and hope is weaker for individuals with high levels of positive experiences compared to individuals with low levels of positive experience (see Figure 7).
b. Positive childhood experiences weaken the negative effect of avoidant attachment on hope. The negative relationship between avoidant attachment and hope is weaker for individuals with high levels of positive experiences compared to individuals with low levels of positive experience (see Figure 8).

Figure 1

Parallel mediation model with anxious and avoidant attachment as mediators of the relationship between childhood adversity and psychological wellbeing

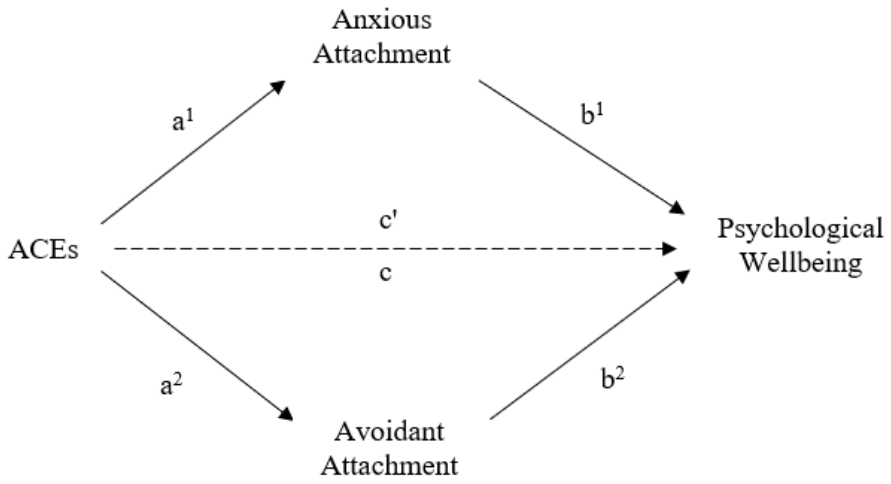


Figure 2

Parallel mediation model with anxious and avoidant attachment as mediators of the relationship between childhood adversity and hope

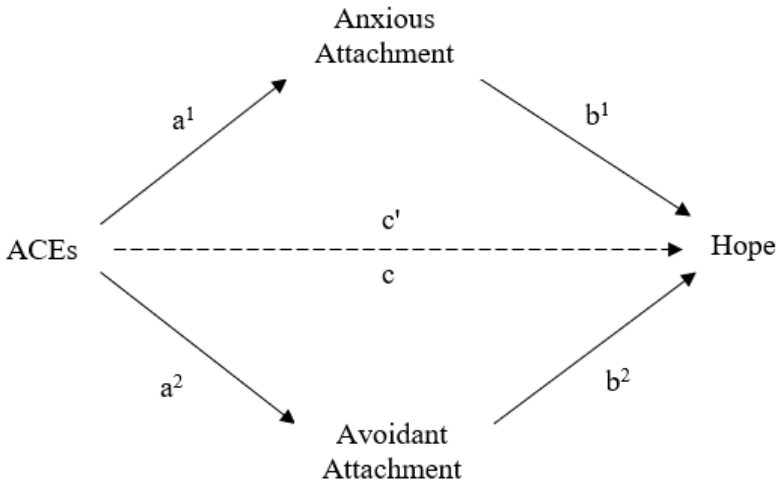


Figure 3

Moderation model with positive childhood experiences as a moderator of the relationship between childhood adversity and anxious attachment

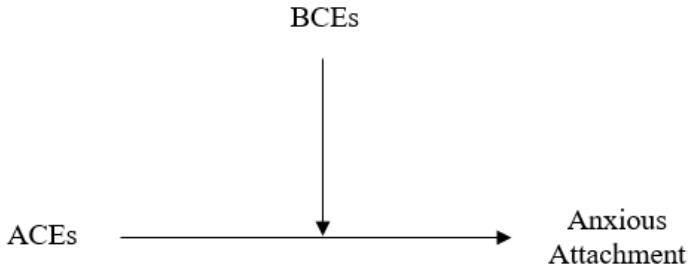


Figure 4

Moderation model with positive childhood experiences as a moderator of the relationship between childhood adversity and avoidant attachment

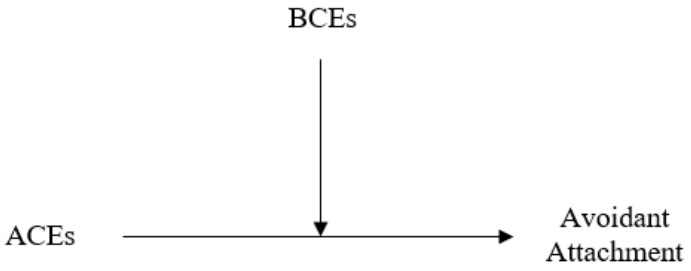


Figure 5

Moderation model with positive childhood experiences as a moderator of the relationship between anxious attachment and psychological wellbeing

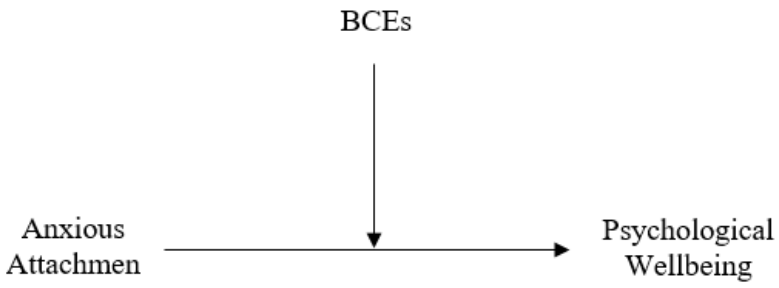


Figure 6

Moderation model with positive childhood experiences as a moderator of the relationship between avoidant attachment and psychological wellbeing

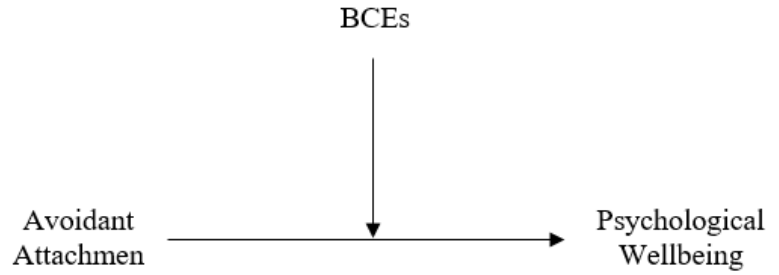


Figure 7

Moderation model with positive childhood experiences as a moderator of the relationship between anxious attachment and hope

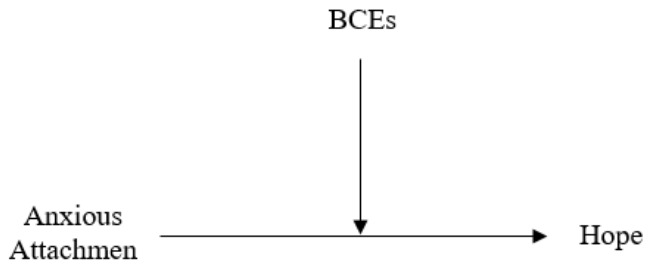
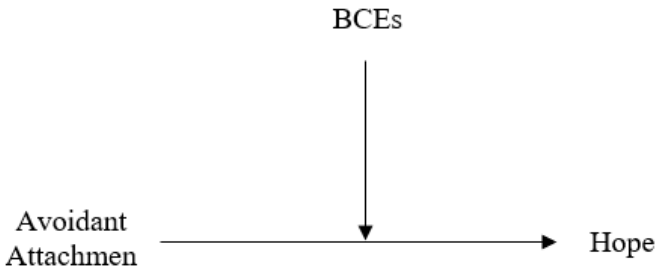


Figure 8

Moderation model with positive childhood experiences as a moderator of the relationship between avoidant attachment and hope



Method

Overall Research Approach

The Karyn Purvis Institute of Child Development (KPICD) at Texas Christian University (TCU) trains approximately 600 people annually in Trust-Based Relational Intervention (TBRI), an attachment-based and trauma-informed intervention designed for caregivers and professionals

to empower them to meet the complex needs of children who experienced adversity. Participants of TBRI training are mostly workers in helping professions working with vulnerable children, youth, and families, such as counselors, social workers, and educators. The sample for the current study was drawn from the 2021 and 2022 cohorts of TBRI practitioners trained nationally. This study was approved by the Institutional Review Board for Human Subjects Research (IRB). The data used in this study were drawn from a larger survey consisting of 12 questionnaires. For the purpose of the current study, a subset of 6 questionnaires was selected for analysis.

Participants

Participants in this study included 398 TBRI Practitioners, with an age range from 22 to 70 years old (mean age 43.08), 87% females, 80% White, and 59% had a Master's degree (see Table 1). All participants were workers in helping professions in the child welfare sector, such as adoption and foster care (37%), clinical and counseling services (29%), education (16%), and the juvenile justice system (9%). Inclusion criteria for participation in the research were as follows: (1) have completed the TBRI Practitioner training in 2021 or 2022; (2) be a worker in a helping profession; and (3) be English-speaking and reside in the United States. The invitation email was sent to 1394 individuals, and 456 (33%) individuals clicked the link and started the survey. Out of 456 exported cases, 58 cases were excluded from analysis: 1 case had no consent, 15 cases were duplicates, and 42 cases were incomplete (response rate 80% or less). A sample of 398 was retained for further statistical analyses.

In terms of sample size determination, *a priori* analysis was conducted through the Monte Carlo Power Analysis online application (Schoemann et al., 2017). The application was used to estimate a sample size for the parallel mediation model used in the primary study. The

sample size was calculated based on a small effect size (.02), power of .80, and a confidence level of 95%. The minimum sample size for the primary study, determined by analysis, was 252. To explore the effect size for the 2-way interaction effect in the exploratory study, an *a priori* power analysis (Faul et al., 2009) showed that 395 participants would be necessary to achieve a power of .80 ($p \leq .05$) with a small effect size (.02). Thus, the current study' sample size is adequate to detect effects of interest in the mediation and moderation models.

Table 1

Demographic Characteristics

	n	%
Gender		
Male	45	11.3
Female	347	87.2
Other[a]	5	1.3
Race		
Black	51	12.8
White	318	79.9
Mixed	5	1.3
Other[b]	22	5.6
Ethnicity		
Hispanic	37	9.3
Non-Hispanic	360	90.5
Education		
Bachelor's	106	26.6

	n	%
Master's	235	59.0
Doctoral	22	5.5
Other[c]	34	8.5

Note: N = 398. Participants were on average 43.08 years old (SD = 10.28)

[a] Prefer to Self-Describe
[b] Prefer to Self-Describe (10), Prefer not to answer (3), Asian (5), Native American or Alaska Native (2), Native Hawaiian or Pacific Islander (2)
[c] High School Degree (7), Associate Degree (10), Other (17)

Procedure

A recruitment email was sent to 2021 and 2022 cohorts of TBRI Practitioners with a personalized link to the Qualtrics survey. The recruitment email described the purpose and timing of this study, the voluntary nature of participation, procedures used to protect confidentiality, and how informed consent would be obtained. The participants interested in the research clicked on the personalized link in the email to access the consent form via Qualtrics. The consent form provided information about study purpose, study details, participants, voluntary nature of participation, confidentiality protection, involvement procedure, withdrawal, risks and benefits of participation, cost, compensation, collected data, contact information, etc. Through the consent form, participants were informed that their participation in the study was voluntary, and they could choose to stop participation and request the exclusion of their data from the database at any time, with no penalty. The survey window was open for 3 weeks. Ten days before the deadline, participants received a reminder about the opportunity to participate in the research study. A second reminder was sent 5 days before the survey closed. Participants were entered into a raffle for a chance to win one of three $100 prizes of TBRI merchandise and

materials. After the close of the survey, three winners were identified via a random number generator, informed of their win, and sent their prizes.

Measures

Sociodemographic Information

A sociodemographic questionnaire included general sociodemographic questions, such as gender, age, race, education, licensing, and services provided.

Childhood Adversity

The Adverse Childhood Experiences Questionnaire (ACE) was used to measure adverse childhood experiences that occurred before the age of 18 years (Felitti et al., 1998). The scale consists of three subscales (10 items), including (1) abuse (physical, emotional, sexual; e.g., "Did a parent or other adult in the household often swear at you, insult you, put you down, or humiliate you?"), (2) neglect (physical, emotional; e.g., "You didn't have enough to eat, had to wear dirty clothes, and had no one to protect you?"), and (3) household dysfunction (parental divorce, incarceration, substance misuse; e.g., "Did you live with anyone who was a problem drinker or alcoholic or who used street drugs?"). Participants indicated whether they experienced each of the 10 types of childhood adversity. Each "Yes" response was scored as 1, and a "No" response was scored as 0. The total score (range 0–10) was calculated by the sum of 10 items, with higher scores indicating greater exposure to adverse events. In a recent Hou et al. (2022) study, the Cronbach alpha of the scale was .73, and in the current study, the internal consistency was also adequate (.76).

Attachment

Attachment was measured by the Adult Attachment Questionnaire (AAQ; Simpson et al., 1996), a 17-item measure that assesses both avoidant and anxious dimensions of attachment. It is

important to note that AAQ assesses general attachment representation rather than relationship specific. The first dimension refers to the tendency to avoid or withdraw from closeness and intimacy in relationships. The second dimension refers to the tendency to have anxious thoughts and feelings about whether others can be dependable in relationships. The scale includes eight avoidance items and nine anxious items. Each item was answered on a 7-point Likert-type scale (1 = *Strongly Disagree*; 7 = *Strongly Agree*). Items 1, 3, 4, 12, 14, 16, and 17 were reverse-scored prior to constructing each scale. The avoidance scale consisted of items 1, 2, 3, 5, 6, 7, 8, and 9, with higher scores on this dimension reflecting greater avoidance. The anxiety scale consisted of items 4, 10, 11, 12, 13, 14, 15, 16, and 17, with higher scores on this dimension reflecting greater anxiety. In the Chiu (2017) study, the Cronbach alpha for the avoidance scale was .72, and for the anxious attachment scale .77. In the current study, the reliability coefficients were .81 and .83, respectively, which indicates good internal consistency.

Psychological Wellbeing

The Psychological Wellbeing scale (SPWB -18 item; Ryff et al., 2010; Ryff & Keyes, 1995) assessed an individual's psychological wellbeing along six dimensions: self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth. Some example items included: “I like most parts of my personality” (the self-acceptance domain); “I live life one day at a time and don't really think about the future” (the purpose in life domain); and “I have confidence in my own opinions, even if they are different from the way most other people think” (the autonomy domain). Participants rated how strongly they agreed or disagreed with the statements on a 7-point Likert scale (from 1 = *Strongly Agree* to 7 = *Strongly Disagree*). To calculate wellbeing scores for each participant, all answers were summed within each domain, with higher scores representing higher levels of psychological wellbeing (possible

total score range is from 18 to 126). For the current study, only the total scale was used. The scale, in prior work, has demonstrated good internal consistency of .82 (Bayani et al., 2008). In the current study, the internal consistency was also good (.83).

Hope

To measure individual differences in hope, a 12-item Dispositional Hope Scale (DHS; Snyder et al., 1991) was utilized. DHS consists of four items that assess hope agency (2, 9, 10, and 12), four that assess hope pathways (1, 4, 6, and 8), and four filler items (3, 5, 7, and 11). Responses for each item are captured with an 8-point Likert response format (1 = *Definitely False*, 8 = *Definitely True*). The sum of the hope agency and hope pathways items together represent the hope score. Total scores can range from 8 to 64, with higher scores indicating higher levels of hope. The reliability study of Hellman and collogues (2013) indicated good internal consistency (.82) of the scale. The DHS also demonstrated good reliability (.86) in the current study.

Positive Childhood Experiences

The Benevolent Childhood Experiences (BCEs; Narayan et al., 2018) scale was used to measure positive childhood experiences occurring between birth and 18 years. This 10-item scale assesses the four aspects of BCEs, such as (1) internal perceived safety (e.g., “Did you have beliefs that gave you comfort”), (2) external perceived safety (e.g., “Did you have at least one caregiver with whom you felt safe”), (3) security and support (e.g., “Was there an adult who could provide you with support or advice?”), (4) positive and predictive life quality (e.g., “Did you have a predictable home routine, like regular meals and a regular bedtime”). Each “Yes” response was scored as a 1, and a “No” response was scored as a 0. A total score of BCEs was summed by 10 items (range 0–10), and the higher score reflects more positive childhood

experiences. In a recent Hou et al. (2022) study, the Cronbach alpha of the scale was .73, and in the current research, the reliability was also acceptable (.73).

Analytic Plan

The Statistical Package for the Social Science software (SPSS, IBM, version 27) was used to conduct all statistical analyses.

Preliminary analyses

Prior to conducting statistical analyses, the following analytical procedures were performed: (1) calculation of descriptive statistics to describe demographic characteristics; (2) calculation of descriptive statistics for target variables to assess analyses-related assumptions and to identify and address outliers; (3) correlational analyses to define preliminary relationship among the variables and identify possible covariates; (4) calculation of Cronbach's alphas for each scale to assess internal reliability; (5) checking for regression assumptions: linearity, normality, multicollinearity, and homoscedasticity to meet the conditions for mediation and moderation. All assumptions were met except normal distributions for ACEs and BCEs. Adverse childhood experiences and BCEs, as a rule, are not normally distributed because most individuals have low levels of childhood adversity and high levels of positive childhood experiences (Almeida et al, 2021; Felitti et al., 1998; Merrick et al., 2019). Demographic variables, such as age, gender, and race, were tested as potential covariates. The results revealed a statistically significant ($p \leq .05$) but weak correlation between age, psychological wellbeing, and anxious attachment; therefore, age was included as a covariate in the relevant study analyses (see Table 3). All scores were calculated according to the scoring instructions described in the methods section. For the current study purposes, two attachment dimensions (anxious and

avoidant) were used in the analyses as they are, without further classification into four patterns of adult attachment or secure-insecure categorization.

Primary study analyses

For the primary study's hypotheses, to evaluate whether attachment mediates the association between predictor (childhood adversity) and outcomes (psychological wellbeing/hope), a parallel mediation model (Model 4) was used within SPSS PROCESS macro (v4.0; Hayes, 2022). Mediation analyses allow the researcher to test how or why independent and dependent variables might be related. A mediating (third) variable intervenes in the relationship between two other variables, acting as a mechanism through which one variable's effect is transmitted to another (MacKinnon, 2007). Mediation is present when a predictor variable (X) affects a mediator (M), which in turn, affects the outcome variable (Y; MacKinnon, 2007). In the current study's Hypothesis I, the total effect of adversity (X) on psychological wellbeing (Y) is hypothesized to be mediated by anxious attachment (M1) and avoidant attachment (M2; see Figure 1). In Hypothesis II, the total effect of adversity (X) on hope (Y) is hypothesized to be mediated by anxious attachment (M1) and avoidant attachment (M2; see Figure 2).

Exploratory study analyses

For the exploratory study's hypotheses, to evaluate the moderation effect of positive childhood experiences on the relationship between targeted variables, a moderation model (Model 1) was used within SPSS PROCESS macro (v4.0; Hayes, 2022).

Moderation analysis allows testing of whether a third variable (moderator; W) affects the direction and strength of the relationship between a predictor variable (X) and the outcome variable (Y; Hayes, 2022). In this exploratory study, positive childhood experiences are

hypothesized to influence the relationship between (1) childhood adversity and anxious attachment (see Figure 3); (2) childhood adversity and avoidant attachment (see Figure 4); (3) anxious attachment and psychological wellbeing (see Figure 5); (4) avoidant attachment and psychological wellbeing (see Figure 6); (5) anxious attachment and hope (see Figure 7); (6) avoidant attachment and hope (see Figure 8). Independent continuous variables were centered for the statistical analysis, and the moderating variable was conditioned (+1 *SD*, Mean, -1 *SD*) to further explore relationships in cases where 2-way interactions were statistically significant.

Results

Descriptive Statistics

Descriptive statistics were generated from the full sample (n = 398) and are presented in Table 2, along with reliability coefficients for each measurement scale used in the analysis. The internal consistency of scales lies in a good or acceptable range (between .73 and .86). Total numbers of ACEs and BCEs experienced in childhood are shown in Table 3.

Table 2

Descriptive statistics and reliability coefficients of the independent, dependent, mediating, and moderating variables

Variables	*M*	*SD*	Min	Max	Cronbach alpha
ACEs	2.75	2.40	0	9	.76
AAQ-Anx.	26.36	9.39	9	55	.81
AAQ-Av.	23.06	7.59	6	50	.83
PSWB	103.09	11.58	62	125	.83
DHS	47.25	5.94	27	64	.86
BCEs	8.85	1.67	0	10	.73

Note. *M* = mean, *SD* = standard deviation, Min = minimum score, Max = maximum score

Table 3

Total number of ACEs and BCEs experienced in childhood

Number of experiences	*n*	%
ACEs		
Zero	90	22.6
One	63	15.8
Two	53	13.3
Three	51	12.8
Four or more	141	35.4
BCEs		
Ten	209	52.5
Nine	71	17.8
Eight	45	11.3
Seven	32	8.0
Six or less	41	10.3

Correlations

Bivariate Pearson correlation was conducted to define relationships among the target variables. As shown in Table 4, statistically significant correlations were observed among most of the main variables.

Table 4

Correlations

Variables	AAQ-Anx.	AAQ-Av.	ACEs	BCEs	PSWB	DHS	Age
AAQ-Anx.	1						
AAQ-Av.	.366**	1					
ACEs	.250**	.321**	1				
BCEs	-.242**	-.346**	-.475**	1			
PSWB	-.519**	-.440**	-.136**	.319**	1		
DHS	-.403**	-.294**	-.075	.223**	.710**	1	
Age	-.115*	.027	.002	-.057	.102*	.008	1

Note. ** $p \leq .01$, * $p \leq .05$ (2-tailed)

Primary study: Attachment as a mediator

For parallel mediation analyses of the primary study, the number of bootstrap resamples was set to 5,000 with 95% confidence intervals, and age was included in the model as a covariate.

Adversity and Psychological Wellbeing (H1)

A parallel mediation model examined the relationship between childhood adversity (predictor) and psychological wellbeing (outcome) with anxious attachment (mediator 1) and avoidant (mediator 2) attachment as mediators in the statistical model. See Table 5 for inferential statistics and Figure 9 for the path model. The results revealed a significant *a* path for both mediators: anxious attachment (a_1 path) and avoidant attachment (a_2 path). Specifically, higher levels of ACEs were associated with higher levels of attachment anxiety and avoidance. Further, the results revealed that an increase in anxious attachment (b_1 path) was associated with a

decrease in the level of psychological wellbeing in adulthood, and likewise, an increase in the avoidant attachment (b_2 path) was associated with a decrease in the level of psychological wellbeing. The age variable was not significant in predicting wellbeing. The indirect effect with 95% confidence intervals with 5,000 reiterations on the data found that both mediators were significant: anxious attachment, 95%, CI [-.75, -.29], avoidant attachment, 95%, CI [-.71, -.30]. These findings suggested that childhood adversity was associated with increased levels of anxious and avoidant attachment, and, in turn, avoidant and anxious attachment were associated with decreased levels of psychological wellbeing in adulthood.

Table 5

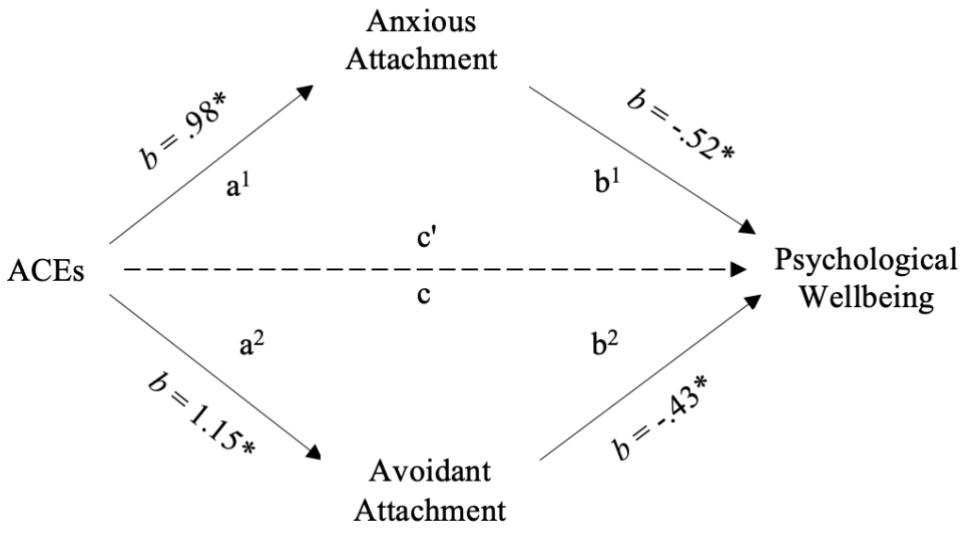
Inferential statistics of the parallel mediation regression predicting psychological wellbeing

	b	*SE*	*t*	*p*	LLCI	ULCI
a_1 path	*.98*	.19	5.10	≤ .001	.60	1.35
a_2 path	1.15	.17	6.70	≤ .001	.81	1.49
b_1 path	-.52	.05	9.51	≤ .001	-.62	-.41
b_2 path	-.43	.06	7.07	≤ .001	-.55	-.31
c' path	.33	.21	1.59	.113	-.08	.74
c path	-.66	.24	2.75	.006	-1.14	-.19

Note. LLCI – lower limit confidence interval, ULCI – upper limit confidence interval, 95% CI

Figure 9

Mediational model of the relationship between childhood adversity and psychological wellbeing as a function of anxious and avoidant attachment



Note. *$p \leq .001$. c' - total effect, b = -.66, SE = .24, p = .006;

c - direct effect, b = .33, SE = .21, p = .113

Adversity and Hope (H2)

A parallel mediation model examined the relationship between childhood adversity (predictor) and hope (outcome) with two mediators: anxious attachment (mediator 1) and avoidant attachment (mediator 2). See Table 6 for inferential statistics and Figure 10 for the path model. The results revealed a significant *a* path for both mediators, where higher levels of ACEs were associated with higher levels of anxious attachment (a_1 path) and higher levels of avoidant attachment (a_2 path). Further, the results revealed that higher levels of anxious attachment were associated with lower levels of hope (b_1 path). Similarly, higher levels of avoidant attachment were associated with lower levels of hope (b_2 path). Further, the results of the bootstrap

procedure revealed a significant indirect effect of both mediators: anxious attachment, 95%, CI [-.37, -.13] and avoidant attachment, 95%, CI [-.29, -.08]. The age variable was not significant in predicting hope. These findings suggested that childhood adversity was associated with higher levels of anxious and avoidant attachment, and, in turn, avoidant and anxious attachment were associated with lower levels of hope.

Table 6

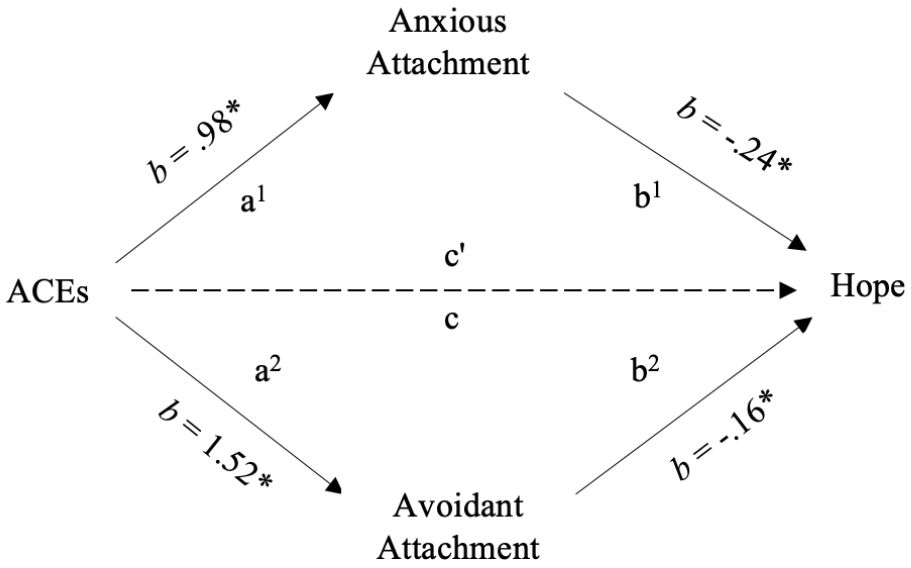
Inferential statistics of the parallel mediation regression predicting hope

	b	*SE*	*t*	*p*	LLCI	ULCI
a_1 path	.98	.19	5.13	≤ .001	.60	1.36
a_2 path	1.52	.17	6.73	≤ .001	.82	1.49
b_1 path	-.24	.03	7.07	≤ .001	-.31	-.18
b_2 path	-.16	.38	4.07	≤ .001	-.23	-.08
c' path	.21	.13	1.56	.119	-.05	.47
c path	-.21	.14	1.53	.126	-.48	.06

Note. LLCI – lower limit confidence interval, ULCI – upper limit confidence interval, 95% CI

Figure 10

Mediational model of the relationship between childhood adversity and hope as a function of anxious and avoidant attachment



Note. *$p \leq .001$. c' - total effect, $b = -.21$, $SE = .14$, $p = .126$;

c - direct effect, $b = .21$, $SE = .13$, $p = .119$

Exploratory study: Positive Childhood Experiences as a Moderator

For moderated regression analyses of the exploratory study, the number of bootstrap resamples was set to 5,000 with 95% confidence intervals, moderator and predictor variables were centered, and age was included in the model as a covariate.

Adversity and Anxious Attachment (H3a)

A moderated regression model examined the influence of positive childhood experiences (moderator) and childhood adversity (predictor) on the anxious attachment (outcome; see Figure 3 for moderation model). The results revealed that the overall model significantly predicted anxious attachment, $F(3, 393) = 12.26$, $p < .001$, $R^2 = .09$. Although positive childhood

experiences had a significant negative influence on anxious attachment, b = -1.08 (SE = .03), t = 3.14, p = .002, and childhood adversity significantly positively predicted anxious attachment, b = .69 (SE = .21), t = 3.22, p = .001, the 2-way interaction between positive childhood experiences and childhood adversity was not statistically significant, b = .15 (SE = .12), t = 1.24, p = .217. Thus, there was no moderation effect of positive childhood experiences on the relationship between adversity and anxious attachment.

Adversity and Avoidant Attachment (H3b)

A moderated regression model examined the influence of positive childhood experiences (moderator) and childhood adversity (predictor) on the avoidant attachment (outcome; see Figure 4 for moderation model). The results revealed that the overall model significantly predicted avoidant attachment, $F(3, 394) = 23.72$, $p < .001$, $R^2 = .15$. Although positive childhood experiences had a significant negative influence on avoidant attachment, b = -1.41 (SE = .30), t = 4.62, $p < .001$, and childhood adversity significantly positively predicted avoidant attachment, b = .74 (SE = .19), t = 3.86, $p < .001$, the 2-way interaction between positive childhood experiences and childhood adversity was not statistically significant, b = .095 (SE = .11), t = .88, p = .379. Thus, there was no moderation effect of positive childhood experiences on the relationship between adversity and avoidant attachment.

Anxious Attachment and Psychological Wellbeing (H4a)

A moderated regression model examined the influence of positive childhood experiences (moderator) and anxious attachment (predictor) on psychological wellbeing (outcome; see Figure 5 for moderation model). The results revealed that the overall model significantly predicted psychological wellbeing, $F(3, 392) = 59.17$, $p < .001$, $R^2 = .31$. While positive childhood experiences had a significant positive influence on psychological wellbeing, b = 1.31 (SE = .31),

t = 4.26, p < .001, and anxious attachment significantly negatively predicted psychological wellbeing, b = -.57 (SE = .05), t = 10.77, p < .001, the 2-way interaction between positive childhood experiences and anxious attachment was not statistically significant, b = .03 (SE = .03), t = 1.18, p = .239. Therefore, there was no significant moderation effect of positive childhood experiences on the relationship between anxious attachment and psychological wellbeing.

Avoidant Attachment and Psychological Wellbeing (H4b)

A moderated regression model examined the influence of positive childhood experiences (moderator) and avoidant attachment (predictor) on psychological wellbeing (outcome; see Figure 6 for moderation model). The results showed that the overall model significantly predicted psychological wellbeing, F(3, 393) = 38.09, p < .001, R^2 = .22. Though positive childhood experiences had a significant positive influence on psychological wellbeing, b = 1.34 (SE = .36), t = 3.71, p < .001, and avoidant attachment significantly negatively predicted psychological wellbeing, b = -.50 (SE = .06), t = 7.91, p < .001, the 2-way interaction between positive childhood experiences and avoidant attachment was not statistically significant, b = -.01 (SE = .04), t = .28, p = .782. Consequently, we observed no moderation effect of positive childhood experiences on the relationship between avoidant attachment and psychological wellbeing.

Anxious Attachment and Hope (H5a)

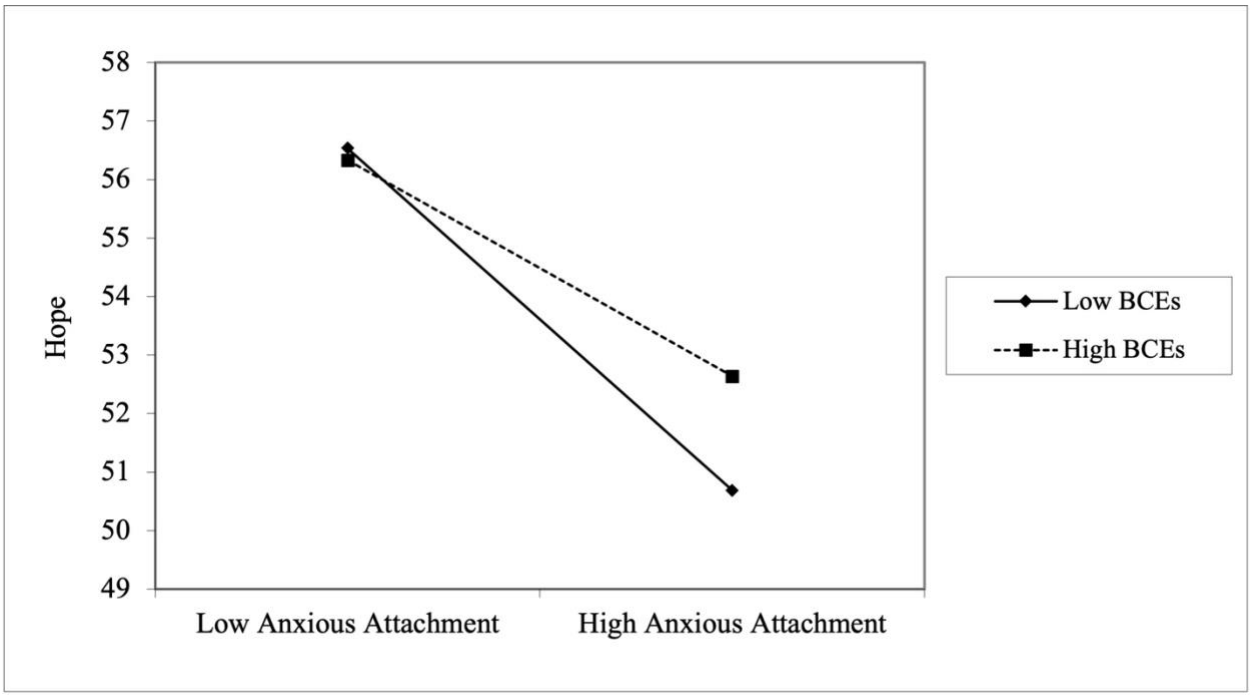
A moderated regression model examined the influence of positive childhood experiences (moderator) and anxious attachment (predictor) on hope (outcome; see Figure 7 for moderation model). The results revealed that the overall model significantly predicted hope, F(3, 393) = 31.75, p < .001, R^2 =.19. Positive childhood experiences had a significant positive influence on

hope, b = .37 (SE = .19), t = 1.98, p = .048, and anxious attachment significantly negatively predicted hope, b = -.25 (SE = .03), t = 7.73, p < .001. Furthermore, the results revealed a significant 2-way interaction between positive childhood experiences and anxious attachment, b = .05 (SE = .02), t = 2.80, p =.005 (See Figure 11 for interaction plot). Age was not significant in predicting hope.

To explore the significant moderation effect, follow-up tests were used to determine whether anxious attachment was related to hope at high, moderate, and low levels of positive childhood experiences. When examining the conditional effects of anxious attachment on hope at different levels of the moderator, results showed that overall, as positive childhood experiences increase, the effect of anxious attachment on hope decreases. Moreover, the relationship between anxious attachment and hope was significant at low (-1SD), b = -.34 (SE = .04), t = 7.90, p < .001, 95% CI [-.42, -.25], moderate, b = -.25 (SE = .03), t = 7.73, p < .001, 95% CI [-.32, -.19], and high (+1SD), b = -.20 (SE = .04), t = 4.91, p < .001, 95% CI [-.327, -.12] levels of positive childhood experiences (see Figure 10). Taken together, these results suggested that, within this sample, higher levels of positive childhood experiences were associated with lower anxious attachment scores on hope.

Figure 11

Conditional effects of anxious attachment on hope at low and high levels of positive childhood experiences



Avoidant Attachment and Hope (H5b)

A moderated regression model examined the influence of positive childhood experiences (moderator) and avoidant attachment (predictor) on hope (outcome; see Figure 8 for moderation model). The results showed that the overall model significantly predicted hope, $F(3, 394) = 15.34$, $p < .001$, $R^2 = .10$. Although positive childhood experiences had a significant positive influence on hope, $b = .47$ ($SE = .22$), $t = 2.12$, $p = .035$, and avoidant attachment significantly negatively predicted hope, $b = -.19$ ($SE = .04$), $t = 4.87$, $p < .001$, the 2-way interaction between positive childhood experiences and avoidant attachment was not statistically significant, $b = .02$ ($SE = .02$), $t = .69$, $p = .487$. Thus, there was no moderation effect of positive childhood experiences on the relationship between avoidant attachment and hope.

Discussion

The current research aimed to examine the complex relationship between childhood experiences, attachment representation, and wellbeing outcomes (psychological wellbeing and hope). As such, the current study examined how people's negative experiences in childhood affect their sense of wellbeing and hope later in life, what role attachment avoidance and anxiety play in those relationships, and whether positive experiences in childhood can help them to cope better with later challenges. Overall, the primary study results supported Hypothesis 1, where both anxious and avoidant attachment mediated the relationship between childhood adversity and psychological wellbeing. The results also supported Hypothesis 2, where anxious and avoidant attachment mediated the relationship between childhood adversity and hope. In the exploratory study, positive childhood experiences were found to moderate only the relationship between anxious attachment and hope (Hypothesis 5a). However, positive childhood experiences had a significant positive influence on psychological wellbeing and hope and a significant negative influence on anxious and avoidant attachment.

The descriptive statistical analysis results revealed a high prevalence of ACEs in the current sample. Specifically, 35.4% of helping professionals reported that they experienced four or more ACEs before the age of 18, which aligns with previous research (Esaki & Larkin, 2013; Hiles Howard et al., 2015; Kessler, 2018; Steen et al., 2021), although the number of ACEs in the current sample was higher than in previous studies (from 5.4% to 11.8% higher). Considering that the mean number of ACEs is relatively low (M = 2.75, SD = 2.40), it might indicate that ACEs are nested together, which means that exposure to one ACE increases the risk of exposure to another (Dong et at., 2004). In other words, some individuals had zero ACEs (22.6%) or one ACE (15.8%), whereas those with multiple ACEs were at risk of being exposed to more

adversity. Regarding positive childhood experiences, 52.5% of helping professionals reported that they experienced all 10 BCEs, and only 10.3% reported that they experienced six or fewer BCEs. No known study has explored BCEs in a sample of helping professionals, so it is hard to be definitive about the meaning of this statistic. In the recent study on BCEs by Crandall and colleagues (2019), the mean score of BCEs among the general population was 8.15 (*SD* = 2.30), whereas, in the current study, the average number of BCEs was 8.85 (*SD* = 1.67). Future research should further explore positive childhood experiences among helping professionals and the interplay of BCEs and ACEs to understand resilience mechanisms better.

Findings of the current study indicate that individuals who experienced childhood adversity were more likely to develop attachment avoidance and/or attachment anxiety, which is consistent with previous research (Le et al., 2021; Martin et al., 2017; Thomson & Jaque, 2017). Thus, our results also support prior research demonstrating that attachment avoidance and anxiety are detrimental to psychological wellbeing in adulthood (Chen et al., 2021; Nurius et al., 2015). Results also supported the hypothesis that attachment mediates the relationship between childhood adversity and hope. Childhood adversity had a significant negative indirect effect on hope through both anxious and avoidant attachment. Specifically, higher levels of childhood adversity were associated with higher levels of anxious and avoidant attachment, which, in turn, were associated with lower levels of hope in adulthood. These results align with previous research documenting a relationship between anxious attachment and hope (Munoz et al., 2022) and add to the literature by demonstrating the mediating role of avoidant attachment in those relationships. This is not surprising given the known effect of ACEs and attachment on wellbeing (Bellis et al., 2019; Chen et al., 2021; Martin et al., 2017), therefore, this study helps to shed light on the mechanism through which attachment operates in these relationships.

As predicted, positive childhood experiences moderated the relationship between anxious attachment and hope. The conditional effects of anxious attachment on hope at different levels of positive childhood experiences showed that as positive childhood experiences increased, the effect of anxious attachment on hope decreased. Moreover, the relationship between anxious attachment and hope was moderated by positive childhood experiences at low, moderate, and high levels, meaning that positive childhood experiences weaken the negative effect of anxious attachment on hope. It is interesting that benevolent childhood experiences moderated the relationship between anxious attachment and hope, but not any other relationships examined in this study. This might be explained by the nature of hope and anxious attachment – they both stretch into the future. Anxious attachment is associated with worrying about the causes and consequences of threatening events (Trillingsgaard et al., 2011), and hope is associated with a future-oriented positive outlook and sense of control over one's future (Snyder et al., 1994). In contrast, further results did not indicate a significant moderation effect of positive childhood experiences on the relationship between avoidant attachment and hope. Despite the non-significant 2-way interaction, the moderator had a significant positive effect on hope, which is consistent with previous research indicating that positive childhood experiences are associated with better mental health outcomes in adulthood (Hou et al., 2022).

Results did not support the hypothesis that positive childhood experiences would weaken the negative effect of childhood adversity on either anxious or avoidant attachment. On the one hand, such findings are surprising, given that previous research demonstrates the protective role of positive childhood experiences in buffering the negative effects of childhood adversity (Crandall et al., 2019; Merrick et al., 2019; Narayan et al., 2018). On the other hand, attachment is relational in nature, and if the attachment figure is the source of ACEs (e.g., abuse, neglect),

then positive childhood experiences might not be fully effective in moderating the relationship between adversity and attachment. Furthermore, the ACE scale mainly measures aspects of family dysfunction, while the BCE scale mainly focuses on the experiences outside the family. Although ACE and BCE are negatively correlated (-.475), they rely on different rather than opposed types of experiences (Almeida et al., 2021; Crandall et al., 2019;). Hence, there is a need for further research on how positive childhood experiences can offset childhood adversity in terms of attachment relationships. Perhaps, a new measurement approach could be utilized, which focuses on two domains of childhood experiences: within a family (caregiver and siblings) and outside a family (peers, teachers, neighbors). Finally, despite the non-significant interaction effect, the main effect of positive childhood experiences on anxious and avoidant attachment was significant.

Further, the moderating role of positive childhood experiences on the relationship between attachment and psychological wellbeing was found non-significant, but, again, positive childhood experiences were found to have a significant positive influence on psychological wellbeing. These findings could be explained by the substantial role of attachment and the notion that childhood experiences within a family (measured by ACE) may be more powerful in shaping attachment than experiences outside a family (measured by BCEs; Ainsworth & Bowlby, 1991). Future research is needed to further explore the types, frequency, intensity, and developmental timing of benevolent and adverse childhood experiences and their effects on attachment security and wellbeing outcomes in adulthood. Specifically, different types of experiences might predict different long-term outcomes, and the developmental timing of those experiences might play an imperative role in their effects. In addition, research might explore the

mediating role of attachment on the relationships between adversity and other wellbeing related outcomes in adulthood.

Limitations and Future Directions

While the current results enhance the understanding of relationships between childhood experiences, attachment representation, and wellbeing outcomes, it is important to note potential limitations. First, the study was limited to a relatively small and homogenous sample, which is limited by geographical area (U.S.), gender (87% female), race (80% White), and highly educated sample (59% Master's degree), which in turn limits the generalizability of the findings to a broader not only general population but helping professionals too. The sample of helping professionals in this study is somewhat unique, as individuals self-selected to receive training in trauma-informed care, which might indicate their awareness of the impact of childhood adversity. Their BCEs, psychological wellbeing, and hope mean scores were high (BCEs 8.83 out of 10 possible, PWB 103.1 out of 126 possible, and Hope 53.8 out of 64 possible), which might indicate that professionals with high levels of BCEs and consequently wellbeing-related outcomes are more likely to seek training on trauma-informed intervention. In addition, the current study's sample was surveyed months after extensive training on trauma-informed intervention, which also could have potentially influenced their level of hope and psychological wellbeing. Future research might benefit from a more extensive and diverse sample representing a broader population.

Second, the current study used only self-reported measures, which might lead to common response bias and potentially inflate the strength of the association between explored variables. Also, because of the retrospective reporting of childhood experiences, answers to questions about childhood might be incomplete due to underreporting, misremembering, forgetting, or

recollection bias. Future research using multiple methods of assessment would be helpful in addressing this limitation. Third, the study used a cross-sectional design where the outcome measures were gathered at the same time as data for predictor measures, making it difficult to draw causal conclusions about the relationships between childhood adversity, attachment, and wellbeing. Future research with longitudinal designs may strengthen support for the proposed linear relationship between the variables and would allow for a measure change over time.

It is important to note that as researchers investigate attachment-related phenomena within a lifetime, there are discrepancies regarding using different attachment measurements. George and West (1999) argue that there is minimal overlap between measurements used by developmental and social-personality psychology approaches, as attachment categorical (attachment styles) and dimensional (attachment avoidance and anxiety) measurements do not necessarily examine the same aspects of mental representation. As the social-personality view focuses on avoidance and anxiety dimensions, it might have limitations on capturing the essential features of attachment relationships as described by Bowlby (Crowell & Treboux, 1995; George & West,1999; Shaver et al., 2000). On the other hand, dimensional measures are sometimes preferable as they have psychometric benefits, such as allowing for comparing measures across various relationships and periods (Thompson et at., 2022). Thompson noted that the researcher's choice of measurement depends on the purpose and goals of the study and the strength of the measurement strategy. Thus, future studies would benefit from using categorical adult attachment measurements to explore how different attachment patterns mediate relationships between adversity and wellbeing. Utilizing the proposed by Bartholomew (1991) approach, which also includes a perception of self and others, could lead to informative conclusions. Moreover, examining the possible mediating role of secure attachment between adversity and

wellbeing would further advance the understanding of resilience mechanisms. Further, exploring attachment patterns within positive and adverse childhood experiences would allow examining how particular childhood experiences affect attachment and various aspects of wellbeing (e.g., sense of autonomy, purpose, growth and development, self-acceptance, mastery of one's life).

Conclusion

The current study sought to explore the role of attachment and childhood experiences in later wellbeing-related outcomes in life. The findings suggest that individuals who experienced childhood adversity are more likely to develop attachment anxiety or avoidance, which is detrimental to psychological wellbeing and hope in adulthood. Additionally, the present findings highlight the importance of positive childhood experiences in mitigating the negative effects of childhood adversity. These results could raise awareness of mental health and child welfare professionals, inform their practice, and help them tailor their interventions to help their clients overcome the repercussions of early trauma's repercussions. Overall, these findings contribute to the literature on attachment and childhood adversity and underscore the importance of trauma-informed care, attachment focus interventions, and the promotion of positive childhood experiences.

REFERENCES

Afifi, T. O., MacMillan, H. L., Boyle, M., Cheung, K., Taillieu, T., Turner, S., & Sareen, J. (2016). Child abuse and physical health in adulthood. *Health Reports, 27*(3), 10-18.

Ai, A. L., Cascio, T., Santangelo, L. K., & Evans-Campbell, T. (2005). Hope, meaning, and growth following the September 11, 2001, terrorist attacks. *Journal of Interpersonal Violence*, 20, 523–548. http://dx.doi .org/10.1177/0886260504272896

Ainsworth, M. D. S., & Bowlby, J. (1991). An ethological approach to personality development. *The American Psychologist, 46*(4), 333-341. https://doi.org/10.1037/0003-066X.46.4.333

Ainsworth, M. D. S., Blehar, M. C., Waters, E., & Wall, S. (1978). *Patterns of attachment: A psychological study of the strange situation.* Lawrence Erlbaum.

Almeida, T. C., Guarda, R., & Cunha, O. (2021). Positive childhood experiences and adverse experiences: Psychometric properties of the benevolent childhood experiences scale (BCEs) among the Portuguese population. *Child Abuse & Neglect*, 120, 105179-105179. https://doi.org/10.1016/j.chiabu.2021.105179

Anda, R. F., Croft, J. B., Felitti, V. J., Nordenberg, D., Giles, W. H., Williamson, D. F., & Giovino, G. A. (1999). Adverse childhood experiences and smoking during adolescence and adulthood. *JAMA : The Journal of the American Medical Association, 282*(17), 1652-1658. https://doi.org/10.1001/jama.282.17.1652

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of*

Personality and Social Psychology, 51(6), 1173-1182. https://doi.org/10.1037/0022-3514.51.6.1173

Bartholomew, K. (1990). Avoidance of Intimacy: An Attachment Perspective. *Journal of Social and Personal Relationships,* 7(2), 147–178. https://doi.org/10.1177/0265407590072001

Bartholomew, K., & Horowitz, L. M. (1991). Attachment styles among young adults: A test of a four-category model. *Journal of Personality and Social Psychology, 61*(2), 226-244. https://doi.org/10.1037//0022-3514.61.2.226

Bartholomew, T. T., Gundel, B. E., Li, H., Joy, E. E., Kang, E., & Scheel, M. J. (2019). The meaning of therapists' hope for their clients: A phenomenological study. *Journal of Counseling Psychology,* 66(4), 496-507. https://doi.org/10.1037/cou0000328

Bayani, A. A., Kouchaki, A. M., & Bayani, A. (2008). Reliability and validity of Ryff's psychological well-being scales. *Iranian Journal of Psychiatry and Clinical Psychology*, 14 (2), 146-151

Bellis, M. A., Hughes, K., Ford, K., Ramos Rodriguez, G., Sethi, D., & Passmore, J. (2019). Life course health consequences and associated annual costs of adverse childhood experiences across Europe and North America: A systematic review and meta-analysis. *The Lancet. Public Health, 4*(10), e517-e528. https://doi.org/10.1016/S2468-2667(19)30145-8

Berzenski, S. R., & Yates, T. M. (2011). Classes and consequences of multiple maltreatment: A person-centered analysis. *Child Maltreatment, 16*(4), 250-261. https://doi.org/10.1177/1077559511428353

Bowlby, J. (1969). *Attachment and loss*. Basic Books.

Bowlby, J. (1982). Attachment and loss: Retrospect and prospect. *American Journal of Orthopsychiatry, 52*(4), 664–678. https://doi.org/10.1111/j.1939-0025.1982.tb01456.x

Bowlby, J. (1988). Developmental psychiatry comes of age. *The American Journal of Psychiatry, 145*(1), 1-10. https://doi.org/10.1176/ajp.145.1.1

Brennan, K. A., Clark, C. L., & Shaver, P. R. (1998). Self-report measurement of adult attachment: An integrative overview. In J. A. Simpson & W. S. Rholes (Eds.), *Attachment theory and close relationships* (pp. 46–76). The Guilford Press.

Bronfenbrenner, U., & Morris, P. (2006). The bioecological model of human development. In R. M. Lerner, & W. Damon (Eds.), *Theoretical models of human development* (5 ed., pp. 793-828). (Handbook of Child Psychology; Vol. 1). Wiley.

Brown, D. (2023). Childhood experiences, growing up "in care," and trust: A quantitative analysis. *Children and Youth Services Review, 144*, 106734. https://doi.org/10.1016/j.childyouth.2022.106734

Campbell, J. A., BS, Walker, R. J., PhD, & Egede, Leonard E., MD, MS. (2016). Associations between adverse childhood experiences, high-risk behaviors, and morbidity in adulthood. *American Journal of Preventive Medicine, 50*(3), 344-352. https://doi.org/10.1016/j.amepre.2015.07.022

Cassidy, J. (1994). Emotion regulation: Influences of attachment relationships. *Monographs of the Society for Research in Child Development*, 59(2-3), 228-249. https://doi.org/10.1111/j.1540-5834.1994.tb01287.x

Centers for Disease Control and Prevention (2022). *Fast Facts: Preventing Adverse Childhood Experiences.* Retrieved April 20, 2023 from https://www.cdc.gov/violenceprevention/aces/fastfact.html

Chen, Y., Hua, K., Huang, C., Zhou, G., & Wang, J. (2021). Adverse childhood experiences and psychological well-being in Chinese college students: Moderated mediation by gender and resilience. *Frontiers in Psychiatry, 12*, 710635-710635. https://doi.org/10.3389/fpsyt.2021.710635

Chiu, C., Lin, C., Mahoney, G., Cheng, S., & Chang, S. (2017). Pivotal behavior as the mediator of the relationship between parental responsiveness and children's symbolic behavior. *Infant Behavior & Development*, 48, 157-163. https://doi.org/10.1016/j.infbeh.2017.04.004

Ciarrochi, J., Parker, P., Kashdan, T. B., Heaven, P. C. L., & Barkus, E. (2015). Hope and emotional well-being: A six-year study to distinguish antecedents, correlates, and consequences. *The Journal of Positive Psychology*, 10(6), 520-532. https://doi.org/10.1080/17439760.2015.1015154

Copeland, R., Stearns, L., Howard, A. R. H., & Call, C. (2020). Attachment classification and years of service in a sample of human service providers working in child welfare. *Journal of Human Behavior in the Social Environment, 30*(5), 621-634. https://doi.org/10.1080/10911359.2020.1732256

Crandall, A., Miller, J. R., Cheung, A., Novilla, L. K., Glade, R., Novilla, M. L. B., Magnusson, B. M., Leavitt, B. L., Barnes, M. D., & Hanson, C. L. (2019). ACEs and counter-ACEs: How positive and negative childhood experiences influence adult health. *Child Abuse & Neglect*, *96*, 104089-104089. https://doi.org/10.1016/j.chiabu.2019.104089

Curry, L. A., Snyder, C. R., Cook, D. L., Ruby, B. C., & Rehm, M. (1997). Role of hope in academic and sports achievement. *Journal of Personality and Social Psychology*, 73, 1257–1267. http://dx.doi.org/10.1037/ 0022-3514.73.6.1257

Dagan, O., Facompre, C. R., & Bernard, K. (2018). Adult attachment representations and depressive symptoms: A meta-analysis. *Journal of Affective Disorders*, 236, 274-290. https://doi.org/10.1016/j.jad.2018.04.091

Daines, C. L., Hansen, D., Novilla, M. L. B., & Crandall, A. (2021). Effects of positive and negative childhood experiences on adult family health. *BMC Public Health, 21*(1), 651-651. https://doi.org/10.1186/s12889-021-10732-w

Darling Rasmussen, P., Storebo, O. J., Lokkeholt, T., Voss, L. G., Shmueli-Goetz, Y., Bojesen, A. B., Simonsen, E., & Bilenberg, N. (2019). *Attachment as a core feature of resilience: A systematic review and meta-analysis*. SAGE Publications. https://doi.org/10.1177/0033294118785577

Delgado, C., Roche, M., Fethney, J., & Foster, K. (2021). Mental health nurses' psychological well-being, mental distress, and workplace resilience: A cross-sectional survey. *International Journal of Mental Health Nursing, 30*(5), 1234-1247. https://doi.org/10.1111/inm.12874

Dong, M., Anda, R. F., Felitti, V. J., Dube, S. R., Williamson, D. F., Thompson, T. J., Loo, C. M., & Giles, W. H. (2004). The interrelatedness of multiple forms of childhood abuse, neglect, and household dysfunction. *Child Abuse & Neglect, 28*(7), 771-784. https://doi.org/10.1016/j.chiabu.2004.01.008

Duggleby, W., Cooper, D., & Penz, K. (2009). Hope, self-efficacy, spiritual well-being and job satisfaction. *Journal of Advanced Nursing*, 65(11), 2376-2385. https://doi.org/10.1111/j.1365-2648.2009.05094.x

Dye, H. (2018). The impact and long-term effects of childhood trauma. *Journal of Human Behavior in the Social Environment, 28*(3), 381–392. https://doi.org/10.1080/10911359.2018.1435328

Elliott, D. M., & Guy, J. D. (1993). Mental health professionals versus non-mental-health professionals: Childhood trauma and adult functioning. *Professional Psychology: Research and Practice*, 24(1), 83. https://doi.org/10.1037/0735-7028.24.1.83

Faul, F., Erdfelder, E., Buchner, A., & Lang, A. (2009). Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, 41, 1149-1160. doi:10.3758/brm.41.4.1149

Esaki, N., & Larkin, H. (2013). Prevalence of adverse childhood experiences (ACEs) among child service providers. *Families in Society*, 94(1), 31-37. https://doi.org/10.1606/1044-3894.4257

Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., Koss, M. P., & Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults. The Adverse Childhood Experiences (ACE) Study. *American Journal of Preventive Medicine*, *14*(4), 245–258. https://doi.org/10.1016/s0749-3797(98)00017-8

Foster, K., Roche, M., Giandinoto, J., & Furness, T. (2020). Workplace stressors, psychological well-being, resilience, and caring behaviours of mental health nurses: A descriptive correlational study. *International Journal of Mental Health Nursing*, *29*(1), 56-68. https://doi.org/10.1111/inm.12610

Fowler, J. C., Allen, J. G., Oldham, J. M., & Frueh, B. C. (2013). Exposure to interpersonal trauma, attachment insecurity, and depression severity. *Journal of Affective Disorders, 149*(1), 313-318. https://doi.org/10.1016/j.jad.2013.01.045

Hayes, A. F. (2022). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach* (3rd edition.). The Guilford Press.

Hellman, C. M., & Gwinn, C. (2017). Camp HOPE as an intervention for children exposed to domestic violence: A program evaluation of hope, and strength of character. *Child & Adolescent Social Work Journal,* 34(3), 269-276. https://doi.org/10.1007/s10560-016-0460-6

Hellman, C. M., Pittman, M. K., & Munoz, R. T. (2013). The first twenty years of the will and the ways: An examination of score reliability distribution on Snyder's dispositional hope scale. *Journal of Happiness Studies*, 14(3), 723-729. https://doi.org/10.1007/s10902-012-9351-5

Herrestad, H., Biong, S., McCormack, B., Borg, M., & Karlsson, B. (2014). A pragmatist approach to the hope discourse in health care research. *Nursing Philosophy,* 15(3), 211–220. https://doi.org/10.1111/nup.12053

Hiles Howard, A. R., Call, C. D., McKenzie, L. B., Hurst, J. R., Cross, D. R., & Purvis, K. B. (2013). An examination of attachment representations among child welfare professionals. *Children and Youth Services Review*, 35(9), 1587-1591. https://doi.org/10.1016/j.childyouth.2013.06.010

Hiles Howard, A. R., Parris, S., Hall, J. S., Call, C. D., Razuri, E. B., Purvis, K. B., & Cross, D. R. (2015). An examination of the relationships between professional quality of life, adverse childhood experiences, resilience, and work environment in a sample of human

service providers. *Children and Youth Services Review, 57,* 141-148. https://doi.org/10.1016/j.childyouth.2015.08.003

Hiles Howard, A. R., Razuri, E. B., Copeland, R., Call, C., Nunez, M., & Cross, D. R. (2017). The role of attachment classification on disclosure of self and rater-reported adverse childhood experiences in a sample of child welfare professionals. *Children and Youth Services Review,* 83, 131-136. https://doi.org/10.1016/j.childyouth.2017.10.041

Hinnen, C., Sanderman, R., & Sprangers, M. A. (2009). Adult attachment as mediator between recollections of childhood and satisfaction with life. *Clinical Psychology & Psychotherapy: An International Journal of Theory & Practice*, *16*(1), 10-21. https://doi.org/10.1002/cpp.600

Holmberg, D., Lomore, C. D., Takacs, T. A., & Price, E. L. (2011). Adult attachment styles and stressor severity as moderators of the coping sequence. *Personal Relationships,* 18(3), 502-517. https://doi.org/10.1111/j.1475-6811.2010.01318.x

Hou, H., Zhang, C., Tang, J., Wang, J., Xu, J., Zhou, Q., Yan, W., Gao, X., & Wang, W. (2022). Childhood experiences and psychological distress: Can benevolent childhood experiences counteract the negative effects of adverse childhood experiences? *Frontiers in Psychology, 13,* 800871-800871. https://doi.org/10.3389/fpsyg.2022.800871

Hu, H., Wang, C., Lan, Y., & Wu, X. (2022). Nurses' turnover intention, hope and career identity: The mediating role of job satisfaction. *BMC Nursing*, 21(1), 43-43. https://doi.org/10.1186/s12912-022-00821-5

IBM Corp. Released 2020. IBM SPSS Statistics for Windows, Version 27.0. Armonk, NY: IBM Corp.

Jiang, L., Bohle, S. L., & Roche, M. (2019). Contingent reward transactional leaders as "Good parents": Examining the mediation role of attachment insecurity and the moderation role of meaningful work. *Journal of Business and Psychology, 34*(4), 519-537. https://doi.org/10.1007/s10869-018-9553-x

Keesler, J. M. (2018). Adverse childhood experiences among direct support professionals. *Intellectual and Developmental Disabilities, 56*(2), 119-132. https://doi.org/10.1352/1934-9556-56.2.119

Kessler, R. C., McLaughlin, K. A., Green, J. G., Gruber, M. J., Sampson, N. A., Zaslavsky, A. M., … Williams, D. R. (2010). Childhood adversities and adult psychopathology in the WHO World Mental Health Surveys. *The British Journal of Psychiatry*, 197(5), 378–385 https://doi.org/10.1192/bjp.bp.110.080499

Le, T. L., Geist, R., Bearss, E., & Maunder, R. G. (2021). Childhood adversity and attachment anxiety predict adult symptom severity and health anxiety. *Child Abuse & Neglect, 120*, 105216-105216. https://doi.org/10.1016/j.chiabu.2021.105216

Liang, H., Zhang, B., Jiang, H., & Zhou, H. (2021). Adult attachment: Its mediation role on childhood trauma and mobile phone addiction. *Journal of Psychology in Africa, 31*(4), 369-374. https://doi.org/10.1080/14330237.2021.1952706

Liu, Q., Nagata, T., Shono, M., & Kitamura, T. (2009). The effects of adult attachment and life stress on daily depression: A sample of Japanese university students. *Journal of Clinical Psychology*, 65(7), 639-652. https://doi.org/10.1002/jclp.20572

Long, K. N. G., Kim, E. S., Chen, Y., Wilson, M. F., Worthington Jr, E. L., & VanderWeele, T. J. (2020). The role of hope in subsequent health and well-being for older adults: An

outcome-wide longitudinal approach. *Global Epidemiology*, 2, 100018. https://doi.org/10.1016/j.gloepi.2020.100018

Lopez, S. J., Snyder, C. R., & Pedrotti, J. T. (2003). Hope: Many definitions, many measures. In S. J. Lopez (Ed.), *Positive psychological assessment: A handbook of models and measures* (pp. 91–106). https://doi.org/10.1037/10612-006

MacKinnon, D. P., Fairchild, A. J., & Fritz, M. S. (2007). Mediation analysis. *Annual review of psychology* (pp. 593-614). Annual Reviews. https://doi.org/10.1146/annurev.psych.58.110405.085542

Malach-Pines, A., & Yafe-Yanai, O. (2001). Unconscious determinants of career choice and burnout: Theoretical model and counseling strategy. *Journal of Employment Counseling*, 38(4), 170-184. https://doi.org/10.1002/j.2161-1920.2001.tb00499.x

Martin, J., Raby, K. L., Labella, M. H., & Roisman, G. I. (2017). Childhood abuse and neglect, attachment states of mind, and non-suicidal self-injury. *Attachment & Human Development, 19*(5), 425-446. https://doi.org/10.1080/14616734.2017.1330832

Masten, A. S. (2001). Ordinary magic: Resilience processes in development. *The American Psychologist, 56*(3), 227-238. https://doi.org/10.1037/0003-066X.56.3.227

Masten, A. S. (2014). Global perspectives on resilience in children and youth. *Child Development, 85*(1), 6-20. https://doi.org/10.1111/cdev.12205

Masten, A. S. (2018). Resilience theory and research on children and families: Past, present, and promise. *Journal of Family Theory & Review, 10*(1), 12-31. https://doi.org/10.1111/jftr.12255

Masten, A. S., & Cicchetti, D. (2016). Resilience in development: Progress and transformation. In D. Cicchetti (Ed.), *Developmental psychopathology: Risk, resilience, and*

intervention (pp. 271–333). John Wiley & Sons, Inc.. https://doi.org/10.1002/9781119125556.devpsy406

Merrick, J. S., Narayan, A. J., DePasquale, C. E., & Masten, A. S. (2019). Benevolent childhood experiences (BCEs) in homeless parents: A validation and replication study. *Journal of Family Psychology, 33*(4), 493-498. https://doi.org/10.1037/fam0000521

Mikulincer, M., Shaver, P. R., Sapir-Lavid, Y., & Avihou-Kanza, N. (2009). What's inside the minds of securely and insecurely attached people? The secure-base script and its associations with attachment-style dimensions. *Journal of Personality and Social Psychology,* 97(4), 615-633. https://doi.org/10.1037/a0015649

Mikulincer, M., & Shaver, P. R. (2016). *Attachment in adulthood: Structure, dynamics, and change (2nd ed.).* New York: The Guilford Press.

Mikulincer, M., Shaver, P., & Pereg, D. (2003). Attachment theory and affect regulation: The dynamics, development, and cognitive consequences of attachment-related strategies. *Motivation and Emotion,* 27(2), 77-102. https://doi.org/10.1023/A:1024515519160

Monnat, S. M., & Chandler, R. F. (2015). Long-term physical health consequences of adverse childhood experiences. *Sociological Quarterly, 56*(4), 723-752. https://doi.org/10.1111/tsq.12107

Munoz, R. T., Brady, S., & Brown, V. (2017). The psychology of resilience: A model of the relationship of locus of control to hope among survivors of intimate partner violence. *Traumatology*, 23(1), 102–111. https:// doi.org/10.1037/trm00 00102

Munoz, R. T., Hanks, H., & Hellman, C. M. (2020). Hope and resilience as distinct contributors to psychological flourishing among childhood trauma survivors. *Traumatology,* 26(2), 177–184. https://doi.org/10.1037/trm0000224

Munoz, R. T., Pharris, A. B., & Hellman, C. M. (2022). A linear model of adverse childhood experiences (ACEs) as drivers of lower hope mediated by lower attachment security in an adult sample. *Journal of Family Violence, 37*(4), 671-679. https://doi.org/10.1007/s10896-021-00282-5

Murphy, A., Steele, M., Dube, S. R., Bate, J., Bonuck, K., Meissner, P., Goldman, H., & Steele, H. (2013;2014;). Adverse childhood experiences (ACEs) questionnaire and adult attachment interview (AAI): Implications for parent child relationships. *Child Abuse & Neglect, 38*(2), 224-233. https://doi.org/10.1016/j.chiabu.2013.09.004

Murphy, E. R. (2023). Hope and well-being. *Current Opinion in Psychology,* 50. https://doi.org/10.1016/j.copsyc.2023.101558

Narayan, A. J., Ippen, C. G., Harris, W. W., & Lieberman, A. F. (2017). Assessing Angels in the Nursery: A Pilot Study of Childhood Memories of Benevolent Caregiving as Protective Influences: Assessing Angels in the nursery. *Infant Mental Health Journal, 38*(4), 461-474. https://doi.org/10.1002/imhj.21653

Narayan, A. J., Lieberman, A. F., & Masten, A. S. (2021). Intergenerational transmission and prevention of adverse childhood experiences (ACEs). *Clinical Psychology Review, 85,* 101997-101997. https://doi.org/10.1016/j.cpr.2021.101997

Narayan, A. J., Rivera, L. M., Bernstein, R. E., Harris, W. W., & Lieberman, A. F. (2018). Positive childhood experiences predict less psychopathology and stress in pregnant women with childhood adversity: A pilot study of the benevolent childhood experiences (BCEs) scale. *Child Abuse & Neglect, 78,* 19-30. https://doi.org/10.1016/j.chiabu.2017.09.022

Nevarez-Brewster, M., Aran, O., Narayan, A. J., Harrall, K. K., Brown, S. M., Hankin, B. L., & Davis, E. P. (2022). Adverse and benevolent childhood experiences predict prenatal sleep quality. *Adversity and Resilience Science, 3*(4), 391-402. https://doi.org/10.1007/s42844-022-00070-0

Nurius, P. S., Green, S., Logan-Greene, P., & Borja, S. (2015). Life course pathways of adverse childhood experiences toward adult psychological well-being: A stress process analysis. *Child Abuse & Neglect, 45*, 143-153. https://doi.org/10.1016/j.chiabu.2015.03.008

Ong, A. D., Standiford, T., & Deshpande, S. (2018). Hope and stress resilience. In M. W. Gallagher & S. J. Lopez (Eds.), *The Oxford Handbook of Hope*. (pp. 255–286). Oxford University Press. https://doi.org/10.1093/oxfordhb/9780199399 314.013.26

Pressman, S. D., Jenkins, B. N., & Moskowitz, J. T. (2019). Positive affect and health: What do we know and where next should we go? *Annual Review of Psychology, 70*(1), 627-650. https://doi.org/10.1146/annurev-psych-010418-102955

Raby, K. L., Labella, M. H., Martin, J., Carlson, E. A., & Roisman, G. I. (2017). Childhood abuse and neglect and insecure attachment states of mind in adulthood: Prospective, longitudinal evidence from a high-risk sample. *Development and Psychopathology, 29*(2), 347-363. https://doi.org/10.1017/S0954579417000037

Racusin, G. R., Abramowitz, S. I., & Winter, W. D. (1981). Becoming a therapist: Family dynamics and career choice. *Professional Psychology*, 12(2), 271. https://doi.org/10.1037/0735-7028.12.2.271

Reavis, J. A., Looman, J., Franco, K. A., & Rojas, B. (2013). Adverse childhood experiences and adult criminality: How long must we live before we possess our own lives? *Permanente Journal, 17*(2), 44-48. https://doi.org/10.7812/TPP/12-072

Redican, E., McBride, O., Bunting, L., Murphy, J., & Shevlin, M. (2022). Prevalence and predictors of benevolent childhood experiences among a representative sample of young people. *The British Journal of Psychology,* https://doi.org/10.1111/bjop.12607

Roche, D. N., Runtz, M. G., & Hunter, M. A. (1999). Adult attachment: A mediator between child sexual abuse and later psychological adjustment. *Journal of Interpersonal Violence*, *14*(2), 184-207. https://doi.org/10.1177/08862609901400200

Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, *57*(6), 1069–1081. https://doi.org/10.1037/0022-3514.57.6.1069

Ryff, C. D. (1995). Psychological well-being in adult life. *Current Directions in Psychological Science: A Journal of the American Psychological Society*, 4(4), 99-104. https://doi.org/10.1111/1467-8721.ep10772395

Ryff, C. D. (2014). Psychological well-being revisited: Advances in the science and practice of eudaimonia. *Psychotherapy and Psychosomatics, 83*(1), 10-28. https://doi.org/10.1159/000353263

Ryff, C. D., & Keyes, C. L. M. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology*, *69*(4), 719–727. https://doi.org/10.1037/0022-3514.69.4.719

Ryff, C. D., Almeida, D. M., Ayanian, J. S., Carr, D. S., Cleary, P. D., Coe, C., … Williams, D. (2010). *National Survey of Midlife Development in the United States (MIDUS II), 2004-*

2006: Documentation of psychosocial constructs and composite variables in MIDUS II Project 1. Ann Arbor, MI: Inter-university Consortium for Political and Social Research.

Salinas-Miranda, A. A., Salemi, J. L., King, L. M., Baldwin, J. A., Berry, E. L., Austin, D. A., Scarborough, K., Spooner, K. K., Zoorob, R. J., & Salihu, H. M. (2015). Adverse childhood experiences and health-related quality of life in adulthood: Revelations from a community needs assessment. *Health and Quality of Life Outcomes, 13*(1), 123-123. https://doi.org/10.1186/s12955-015-0323-4

Schelbe, L., Geiger, J.M. (2017). What is Intergenerational Transmission of Child Maltreatment? In: *Intergenerational Transmission of Child Maltreatment. Springer Briefs in Social Work.* Springer, Cham. https://doi.org/10.1007/978-3-319-43824-5_1

Schoemann, A. M., Boulton, A. J., & Short, S. D. (2017). Determining power and sample size for simple and complex mediation models. *Social Psychological and Personality Science*, 8, 379-386.

Sege, R. D., & Harper Browne, C. (2017). Responding to ACEs with HOPE: Health outcomes from positive experiences. *Academic Pediatrics, 17*(7), S79-S85. https://doi.org/10.1016/j.acap.2017.03.007

Shaver, P. R., Belsky, J., & Brennan, K. A. (2000). The Adult Attachment Interview and self-reports of romantic attachment: Associations across domains and methods. *Personal Relationships*, 7, 24–43.

Shaver, P. R., & Mikulincer, M. (2002). Attachment-related psychodynamics. *Attachment & Human Development,* 4(2), 133-161. https://doi.org/10.1080/14616730210154171

Shaver, P. R., Schachner, D. A., & Mikulincer, M. (2005). Attachment style, excessive reassurance seeking, relationship processes, and depression. *Personality & Social Psychology Bulletin*, 31(3), 343-359. https://doi.org/10.1177/0146167204271709

Shorey, H. S., Bisgaier, S., & Thien, S. (2018). Attachment processes and the social/developmental bases of hope. In M. W. Gallagher & S. L. Lopez (Eds.), *The Oxford Handbook of Hope.* (pp. 313–326). Oxford University Press. https://doi.org/10.1093/oxfordhb/9780199399314.013.26

Simpson, J. A., Rholes, W. S., & Phillips, D. (1996). Conflict in close relationships: An attachment perspective. *Journal of Personality and Social Psychology*, 71(5), 899-914. https://doi.org/10.1037/0022-3514.71.5.899

Snyder, C. R. (1994). *The psychology of hope: You can get there from here.* New York, NY: The Free Press.

Snyder, C. R. (2000). *Handbook of hope: Theory, measures, and applications*. Academic Press.

Snyder, C. R., Harris, C., Anderson, J. R., Holleran, S. A., Irving, L. M., Sigmon, S. T., Yoshinobu, L., Gibb, J., Langelle, C., & Harney, P. (1991). The will and the ways: Development and validation of an individual-differences measure of hope. *Journal of Personality and Social Psychology*, 60(4), 570–585. https://doi.org/10.1037/0022-3514.60.4.570

Stanton, S. C. E., & Campbell, L. (2014). Perceived social support moderates the link between attachment anxiety and health outcomes. *PloS One*, *9*(4), e95358-e95358. https://doi.org/10.1371/journal.pone.0095358

Steen, J. T., Senreich, E., & Straussner, S. L. A. (2021). Adverse childhood experiences among licensed social workers. *Families in Society, 102*(2), 182-193. https://doi.org/10.1177/1044389420929618

Thomson, P., & Jaque, S. V. (2017). Adverse childhood experiences (ACE) and adult attachment interview (AAI) in a non-clinical population. *Child Abuse & Neglect, 70*, 255-263. https://doi.org/10.1016/j.chiabu.2017.06.001

Thompson, R. A., Simpson, J. A., & Berlin, L. J. (2022). Taking perspective on attachment theory and research: Nine fundamental questions. *Attachment & human development, 24*(5), 543-560. https://doi.org/10.1080/14616734.2022.2030132

Trillingsgaard, T., Elklit, A., Shevlin, M., & Maimburg, R. D. (2011). Adult attachment at the transition to motherhood: Predicting worry, health care utility and relationship functioning. *Journal of Reproductive and Infant Psychology*, *29*(4), 354-363. https://doi.org/10.1080/02646838.2011.611937

Van Eeden, C., & Wissing, M. P. (2002). Empirical clarification of the nature of psychological well-being. *South African Journal of Psychology, 32*(1), 32-44. https://doi.org/10.1177/008124630203200105

Vowels, L. M., Carnelley, K. B., & Stanton, S. C. E. (2022). Attachment anxiety predicts worse mental health outcomes during COVID-19: Evidence from two studies. *Personality and Individual Differences, 185*, 111256-111256. https://doi.org/10.1016/j.paid.2021.111256

Waters, E., Bretherton, I., & Vaughn, B. E., (2015). Preface. In M. D. S. Ainsworth, M. C. Blehar, E. Waters, & S. N. Wall (Eds.). *Patterns of Attachment: A psychological study of the strange situation.* Psychology Press

Weinfield, N. S., Sroufe, L. A., Egeland, B., & Carlson, E. (2008). Individual differences in infant-caregiver attachment: Conceptual and empirical aspects of security. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (pp. 78–101). The Guilford Press.

West, A. L. (2015). Associations among attachment style, burnout, and compassion fatigue in health and human service workers: A systematic review. *Journal of Human Behavior in the Social Environment, 25*(6), 571-590. https://doi.org/10.1080/10911359.2014.988321

Wright, M.O., Masten, A.S., Narayan, A.J. (2013). Resilience Processes in Development: Four Waves of Research on Positive Adaptation in the Context of Adversity. In: Goldstein, S., Brooks, R. (eds) *Handbook of Resilience in Children*. Springer, Boston, MA. https://doi.org/10.1007/978-1-4614-3661-4_2

Yesiltepe, A., Sayar, S., & Cal, A. (2022). Investigation of the effect of the life satisfaction and psychological well-being of nursing students on their happiness levels. *Perspectives in Psychiatric Care, 58*(2), 541-548. https://doi.org/10.1111/ppc.13012

Zegers, M. A. M., Schuengel, C., IJzendoorn, M. H. v., & Janssens, Jan M. A. M. (2006). Attachment representations of institutionalized adolescents and their professional caregivers: Predicting the development of therapeutic relationships. *American Journal of Orthopsychiatry, 76*(3), 325-334. https://doi.org/10.1037/0002-9432.76.3.325

Zhang, X., Li, J., Xie, F., Chen, X., Xu, W., & Hudson, N. W. (2022). The relationship between adult attachment and mental health: A meta-analysis. *Journal of Personality and Social Psychology, 123*(5), 1089-1137. https://doi.org/10.1037/pspp0000437

Zheng, S., Masuda, T., Matsunaga, M., Noguchi, Y., Ohtsubo, Y., Yamasue, H., & Ishii, K. (2020). Oxytocin Receptor Gene (OXTR) and Childhood Adversity Influence Trust.

Psychoneuroendocrinology, 121, Article 104840. https://doi.org/10.1016/j.psyneuen.2020.104840

Zimmerman, M. A. (2013). Resiliency theory: A strengths-based approach to research and practice for adolescent health. *Health Education & Behavior, 40*(4), 381-383. https://doi.org/10.1177/1090198113493782

VITA

Personal Background	Rayisa Shelashska Born June 19, 1982, Kyiv, Ukraine Daughter of Sergiy Yakushev and Lubov Lebedenko Yakusheva
Education	Bachelor of Science, Management, Kyiv National Economic University Kyiv, Ukraine, 2006 Bachelor of Science, Psychology, National Pedagogical Dragomanov University Kyiv, Ukraine, 2016 Master of Science, Developmental Trauma, Texas Christian University Fort Worth, Texas, USA, 2018
Experience	Teaching Assistant, Texas Christian University, Vulnerable Child I, Fort Worth, Texas, 2017 Senior Seminar in Child Development, Fort Worth, Texas, 2018 Graduate Research Assistant, Texas Christian University, Karyn Purvis Institute of Child Development, Fort Worth, Texas, 2021-present
Professional Memberships	American Psychological Association Association for Psychological Science

ABSTRACT

THE RELATIONSHIPS BETWEEN CHILDHOOD EXPERIENCES, ATTACHMENT AND WELLBEING IN A SAMPLE OF HELPING PROFESSIONALS

by Rayisa Shelashska, M.S., 2023
Department of Psychology
Texas Christian University

Thesis Advisor: Danica Kalling Knight, Director of Karyn Purvis Institute of Child Development

Adverse Childhood Experiences (ACEs) and insecure attachment can have a significant impact on the wellbeing of helping professionals and individuals they serve. This study examined the relationships among childhood experiences, attachment, and adulthood wellbeing outcomes in a sample of helping professionals. Specifically, research questions examined the role of avoidant and anxious attachment on the relationships between childhood adversity and psychological wellbeing/hope; and the influence of positive childhood experiences on explored relationships. The sample for the current study comprised 398 participants drawn from the 2021 and 2022 cohorts of Trust-Based Relational Intervention (TBRI) practitioners. Parallel mediation and moderation regression analyses were utilized to examine the relationships among target variables. Results indicated that higher levels of childhood adversity were associated with higher levels of attachment avoidance and anxiety, which in turn were associated with lower levels of psychological wellbeing and hope. In addition, positive childhood experiences had a positive influence on wellbeing outcomes and a negative impact on anxious and avoidant attachment but only diminished the relationship between anxious attachment and hope. These results can be used to raise awareness of child welfare and mental health professionals, inform their practice, and promote trauma-informed interventions.