

# The Lasting Impact of Adverse Childhood Experiences on Adult Mental Well-Being

Kexin Li

*College of Arts and Science, New York University, NY 10003, U.S.A.*

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**Abstract:** Adverse Childhood Experiences (ACE) have long been assumed to have significance relating to the long-term consequences for adult mental health. Multiple factors and aspects of one's developmental stage can lead to different outcomes. This paper explores the underlying mechanisms of ACE from attachment styles, parental styles, and substance abuse aspects. Data were analyzed based on different attachment styles with a focus on insecure attachment style and the possible cause, along with potential risks leading to mental disorders. Parental styles were evaluated based on emotional and physical responsiveness and availability. Substance abuse was specifically investigated within the college student population. Researchers mostly employed self-reported questionnaires when collecting data, participants varied across nationality, ethnicity, gender, and age, focusing on the age group of 18-25; some were longitudinal, and most were cross-sectional. Based on the research conducted, evidence indicates that authoritarian parental styles have a higher potential to form insecure attachment styles which is detrimental to future mental health, as well as substance abuse.

## 1 INTRODUCTION

Kaiser Permanente, working with the Centers for Disease Control and Prevention, first introduced the concept of ACE back in 1998. Over the past decades, mental health, especially adolescent mental health, has been a growingly popular topic and has gained an increased amount of attention. One's developmental stage is undoubtedly one of the most crucial stages over the lifespan; it sets the fundamental base for one's future performance.

Built upon an extensive amount of studies on ACE, the study examines the long-lasting physical and psychological effects of chronic stress during participants' developmental stages across multiple aspects of their lives. With a spectrum of potential trauma one could have gone through and witnessed during childhood, such as parental neglect, abuse, dysfunctional or unconventional household, and substance abuse; some individual at risk not only suffers internally but also face difficulties navigating social dimensions daily such as forming relationships with unhealthy attachment styles.

Parenting styles play one of the most significant roles when shaping child development. Many researches have indicated the emotional availability and disciplinary decisions of the primary caregivers

have both direct and indirect impacts on an individual's development; including but not limited to attachment styles, mental health, emotional stability, and future outcomes. The study also states parents who experienced ACEs themselves and the perpetuating cycles that would normally carry on to the next generation of dysfunctional parenting. In detail, this researcher hopes to explore the long-lasting impact of parenting behaviors and their relationship with parental ACEs, and possible ACEs of the next generation.

Lastly, substance abuse is being studied especially on its relationship with Adverse Childhood Experiences. With many studies revealing the positive correlation between two events, researchers aim to target their participants into specific groups based on their life stages. College students across almost all ethnicities and genders, as well as both men and women of age over 50. With distinct study groups and respective impacts, interventions and precautions could be taken at early stages.

## 2 ATTACHMENT STYLES

The Attachment theory developed by John Bowlby indicates that interpersonal emotional bonding

patterns formed during one's early childhood, especially during infancy. Bowlby states the primary caregiver's emotional availability and responsiveness towards the child is the setting stone for one's development of self-worth and expectation. This influence is deeply profound due to the internal methodology that the child would form given whether or not they believe they are worthy of someone else's attention and their level of expectation for emotional responses. Therefore, one's perception, interaction, and roles they will play in close relationships during the foreseeable future would be impacted heavily (Papandrea, 2022).

Fearful and avoidant attachment styles are often formed due to abuse and neglect from both physical and emotional aspects, sexual abuse can be involved as well; the study indicates these variables that cause trauma have a negative correlation to the formation of secure attachment style (Erozkan, 2016). Adults who experience attachment disorders generally receive an "inconsistent and unpredictable" style of care during their childhood, they have been described as those hard to "settle and pacify" when in distressed situations. Children who have experienced trauma which is commonly admitted as the worst factor possible during one's developmental stage, often develop a self-defense mechanism directed toward individuals and environments where they would typically form secure relationships and bonds, particularly with their primary caregiver. Naturally after trauma, "representation of anger and frightening" figures are being established instead of loving and caring, therefore children are constantly under alert when they should have been feeling safe and free to express themselves. Furthermore, the causation of insecure attachment style not only affects one's ability to form close and intimate relationships with others in their life, but also it affects the normal development of their brain.

This research conducted by Erozkan had 940 participants from the same university where the data of 29 participants were excluded before analysis due to uncompleted instruments and central biases demonstrated (Erozkan, 2016). Therefore, a total of 911 answers were used, containing 54% female and 46% male, all between the age range of 19-24, spreading through freshmen to seniors about 22-30% each. This research employed a cross-section model to navigate through the connection between ACE and attachment style. Participants were required to fill out two self-reported questionnaires: the Childhood Trauma Questionnaire and the Relationship Scales Questionnaire (Erozkan, 2016). In the Childhood Trauma Questionnaire, participants were asked to rate

on a 1-5 scale whether they believe they have been physically, emotionally, sexually abused and neglected. The Relationship Scales Questionnaire contained 30 items in the form of a Likert scale where participants self-reported based on the four different types of attachment. Data were collected and analyzed through SPSS and LISREL, Pearson product-moment correlation analysis, and structural equation modeling. The researcher also applied structural equation modeling to data and qualitative presumptions to find out the causal relationship. The result of the experiments demonstrates the significant relationship between negative childhood experiences and attachment styles. This study supported the provocation of insecure attachment style development linked to childhood trauma empirically. The majority of the participants who reported as insecure and attached have suffered from both neglect and abuse either physically or emotionally and some sexually. Erozkan's study also states that survivors of sexual abuse have a higher level of proneness towards the development of insecure attachment styles. The limitation of this study was the instruments employed where the data were collected solely based on self-reported questionnaires. Generally, it is well known that self-reported data may carry biases of not accurate observations and slightly wrongful self-reflect; especially when answering questions about personal events such as childhood trauma. However, the researchers did utilize multiple modeling to avoid the limitation of cross-sectional study where causal inferences are normally limited.

The role of impaired emotional regulation and insecure or avoidant attachment style were explored regarding ACEs and university students in China. Experiments were conducted in different cultural settings. Data were collected from all three time points, September 2020, two months later, and January 2021, where the questionnaires were conducted, however, the researcher only included answers that participants chose the same topic in all three times. The result shows that although ACEs might not directly link to depression; the insecure attachment style and emotional dysregulation caused by ACE play an indistinct role in one's development of depression in a temporal sequence (Ye et al., 2024).

With Freud's psycho-sexual development theories, a child develops skills that are life-long, significant, and impactful through different stages until the age of 12, the delay caused by any unresolved issue leads to one's fixation at a certain stage permanently causing damage. As this is a rather controversial topic, the empirical proof of trauma-led

distrust, avoidant, anxious, and insecure attachment styles are supported by different researchers. As humans, a child has the nature of seeking comfort and love from a primary caregiver, however, if their need is not fulfilled, due to high expectations, the disappointment would also be higher than being let down by others.

In another research, the relationship between defense mechanisms and attachment styles is studied; 1487 students from two California high schools participated in this research, and they all completed questionnaires corresponding to defense mechanisms, psychiatric symptoms, and attachment styles (Laczkovics et al., 2020). After analyzing the data collected, researchers indicate that a secure attachment style with a positive self-image is correlated with higher levels of mature defense mechanisms; on the other hand, higher levels of underdeveloped defense mechanisms would lead to greater possibility of forming insecure attachment styles and potential risk of psychopathology (Laczkovics et al., 2020).

In conclusion, ACEs have been identified as one of the most significant factors in shaping individual attachment styles, therefore impacting one's mental health state.

### 3 PARENTAL STYLES

Authoritative, Authoritarian, permissive and rejecting-neglecting parenting are different types of parenting styles. Parents who are able to provide timely responses and take on the role of parents in a responsible manner by stating clear expectations to their children are authoritative parents. By providing a warm and supportive environment to nurture, children often become courageous and able to express their emotions freely.

According to Rowell and Neal-Barnett (2022), parenting typically seeks to guarantee child's physical well-being and foster their cognitive, emotional, and social development as they grow into adulthood. Researchers state that salient parenting is not only established beyond emotional availability but also proper discipline strategies (Rowell & Neal-Barnett, 2022). Moran et al. explained the unresolved attachment and adverse childhood experience of the parents generally would carry over to their relationship with their children as well, due to their own deprivations of emotional closeness and accumulated stress (Moran et al., 2008). Rowell and Neal-Barnett stated that all of the factors listed "disengagement, intrusiveness and hostility and

decreased responsiveness, sensitivity and structure" are accounted for reasons leading to insecure attachment styles (Rowell & Neal-Barnett, 2022). As mentioned above in the attachment style section, the lack of attention and abuse could potentially be detrimental to formation of secure attachment style. Moreover, the parents who have experienced ACEs themselves generally struggle with proper discipline measures as they were victims of inappropriate parenting. As most learn from their own experience and what one witnessed, they are lacking necessary information. Due to the impact of ACEs, being a parent, especially when disciplinary decisions are in need, situations are normally stressful; with dysfunctional management of emotions, aggressive behaviors are often employed as the most "direct and effective" parenting styles. "Regarding discipline techniques, parents with a history of adversity, specifically neglect, physical abuse, and sexual abuse, reported an increased use of problematic parenting practices that included permissive and authoritarian styles of discipline, physical punishment" (Rowell & Neal-Barnett, 2022); this result was concluded in their systematic review of 27,645 adult participants, which sixteen of the studies were cross-sectional and 10 were longitudinal (Rowell & Neal-Barnett, 2022). The inconsistency of parental emotions would carry the adversity of emotional disorder and mental illness to the next generation.

Authoritarian parents often ask more than provide. They are "non-negotiable and expect obedience even if there is a lack of explanation for the rules" (Kazourra, 2024). Children are less likely to share their personal emotions as they have low expectations towards responding. As many studies explore the lack of emotional connection between parents and child and an excessive amount of control, children would develop passive attitudes.

As humor brings people closer by sharing laughter, researchers find that individuals raised with authoritative parenting style have affiliative humor where both foster strong emotional bonds under supportive and positive environments. Kazourra's study explores the relationship between ACEs, parenting styles and personality, also humor type; it is believed that by making self-defeating jokes, one is intentionally trying to cope, however due to the maltreatment experienced, improper adaptation is formed (Kazourra, 2024).

## 4 SUBSTANCE ABUSE

"Approximately 50% of students acknowledged a history of family-based ACE and 23% reported multiple ACE, findings that substantiate prior work documenting a relatively high prevalence and co-occurrence of family stressors among students" (Forster et al., 2018). The study analyzed data from the 2015 American College Health Association's National College Health Assessment II which consists of a diversified race at California State University; 2953 participants were college students since the researchers believed that they are particularly vulnerable to substances since they are experiencing higher than ever pressure in their lives (Forster et al., 2018). On top of the original survey, 6 questions regarding the topic of ACE were added, for example, if they have lived with someone who drank too much, used illegal drugs, or if they have been swayed at in their own home by a parent or any adult; or if they have ever been physically and verbally abused. Moreover, participants were asked amount of days within the past 30 days they have consumed substance, alcohol or marijuana. By taking into consideration the ethnicity and gender of the participants, the result shows that "one in four students reported using illicit drugs or misusing prescription medications and approximately 25% engaged in the use of more than one substance within the last year is concerning" (Forster et al., 2018).

Limitations to this study are similar to those of other researchers mentioned above, due to the nature of cross-sectional design, it does not allow causal conclusions; though the participants were widely diversified within race; the outcome is presumably only to the liking of those who are college students and live in a similar urban setting. However, the target of this study is to shed light on this extremely important transitional phase of someone who is stepping out into the real world that requires "greater responsibility and independence". By linking the impact of ACEs and the significant correlation to substance abuse, early interventions and screening of ACE should be prioritized due to the multiple strong relationships between mental disorders and substance abuse.

Older adults and issues raised within their community are often overlooked. According to data, the amount of mental and substance use disorders (MSUDs), is steadily increasing. Study reveals that under comparison, women were more likely to be the victim of ACEs in the group of age 50+ participants, however, researchers also found "the association between some ACEs and mental disorders was also

stronger among men than among women, even though women had significantly higher rates of mental disorders than men" (Choi et al., 2017). Researchers found that nearly 51.7% of the participants have experienced one or more types of ACEs, in all, parental substance abuse was one of the most common ACEs reported. Individuals who experienced parental abuse and neglect, as well as witnessed parental substance abuse typically associated with a significant increase in possible MSUDs. Choi N. G, et al, state in their research that the strength between the positive association of ACEs and MSUDs remains consistent for all MSUDs (Choi et al., 2017). This particular study shares common limitations of cross-sectional data and misconceptions about self-awareness in self-reported surveys. Moreover, Cavanaugh et al., also discussed the relationship between ACEs and MSUDs (Cavanaugh et al., 2015).

## 5 DISCUSSION

Based on prior research, the crucial association between ACE and the emergence of mental disorders is studied and highlighted from aspects such as parenting, attachment styles, and substance abuse. The long-lasting childhood trauma has a profound impact on adulthood from multiple different aspects including being unable to engage in healthy intimate relationships due to insecure attachment styles formed under authoritarian parenting styles. Parents who were exposed to ACEs themselves when they were children have difficulties breaking the cycle since they lack role models. Study indicates the direct correlation with heightened susceptibility to mental disorders including depression and anxiety and exposure to abuse and neglect from both physical and emotional aspects. With the lack of guidance to develop appropriate coping strategies and critical emotional regulation, one would experience higher levels of mood swings therefore causing more possibility in seeking comfort elsewhere such as misuse of substances to escape from their unbreathable reality. Future research should focus more on longitudinal studies to explore more causality and collect data beyond self-reported surveys.

## 6 CONCLUSION

These researches are consistent with prior research, by reiterating these issues from detailed aspects, researchers can reinforce populations' understanding of ACEs and their unavoidable long-lasting impacts. To solve insecure attachment styles, parents cannot overlook their responsibility, emotional availability, and demands daily as part of their parenting strategies. Being able to provide a loving and supportive environment creates a safe nest for children to explore their surroundings and express their curiosity freely. These researchers, hope to shed light on ACE so early interventions can be put in place before unsavable damages are done.

Moving forward, research regarding attachment styles should be conducted beyond self-reported questionnaires and employ longitudinal study as much as possible due to the limitation of cross-sectional experiments.

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