



The Relationship Between Adverse Childhood Experiences and Antisocial Behavior

Melissa Yu Yun Teo(✉)

Western Academy of Beijing, Beijing 100102, China
melissateo22@gmail.com

Abstract. The impact of adverse childhood experiences (ACEs) is known to be connected to various delinquent behavior throughout one's lifetime. Several studies have shown victims of childhood trauma to have alcohol and substance abuse as well. However, due to past studies being focused on certain at-risk traits, the relationship between ACE and antisocial behavior has been questioned to be only between those specific traits. The objective of this paper is to address these speculations by comparing studies with only specific traits and those with overall antisocial behavior. This study presents and compiles different studies on the relationship between ACEs and substance abuse, juvenile delinquency, and life-course offending, and the possible causes of these relationships to explain the connection between ACEs and antisocial behavior. A wide range of empirical studies from the last 40–50 years show that early adversity is highly associated with detrimental and antisocial behavior including substance abuse, juvenile delinquency, and life-long offending. Some of the speculated causes of the connection between ACEs and antisocial behavior encompasses damaged neurodevelopment and higher chances of being diagnosed with oppositional defiant disorder. The connection between ACEs and recidivism has limitations as studies on recidivism in juvenile offenders with less severe crimes and those in incarceration display different results. Future research to avoid antisocial behavior should be promoted for the wellbeing of youths.

Keywords: adverse childhood experiences · ant-social · violence · juvenile offenders

1 Introduction

The impact childhood trauma has on behavior remains a heavily discussed subject in present day as new evidence of its connection to various negative effects continue to be raised. Adverse childhood experiences (ACEs) refer to experiences ranging from mental and physical abuse, to neglect, impoverishment, and household dysfunction [1]. An ACE scale is used to measure and assess these experiences by documenting one's ACE score through keeping track of the number and types of ACEs they have [1]. Over the last few decades, ACEs have been associated with negative outcomes in later adolescence and adulthood, which includes poor mental and physical health [2], risks of criminality [3], violence [3], juvenile delinquency [4], and antisocial behavior in general.

Antisocial behavior is most often used to describe hostile and disruptive behavior that is unaccepted in society such as violation of social rules, theft, violence, abuse, etc. The consistent association between early adversity and acts of harm towards oneself and society have brought deeper interest in understanding this relationship with hopes of preventing maladaptive behavior. Multiple studies in the past have focused on specific risk traits or only included at-risk groups in the research, hence, leading to speculations around the associations between adverse childhood experiences and antisocial behavior. This paper intends to address the lack of comparison between studies and provide a more wholistic interpretation of the relationship between childhood adversity and antisocial behavior through reviewing studies with different focuses and contradictory results. The importance of providing such a comparison is to further examine the relationship between ACEs and antisocial behavior because antisocial behavior is often a detriment to society with it providing rising criminality and disrupting the productivity of government systems.

2 ACEs and Antisocial Behavior

2.1 ACEs and Substance Abuse

Being exposed to early adversity increases the likelihood of showing antisocial behavior such as substance abuse. Since 1996, studies have shown a connection between ACE risk factors and alcohol abuse in adulthood [5]. However, a majority of these studies have been targeted toward only women or only men, leading to the results being less comparable [6]. This limitation was addressed in a 2018 study by Crouch et al., which assessed the relationship between ACE risk factors and alcohol abuse among South Carolina adults of both sexes [7]. The results were that 37% of male respondents and 22.8% women reported binge drinking and 12.2% of men and 4.1% of women reported heavy drinking [7]. In these cases, increased likelihood of binge and heavy drinking were nearly all in relationship to all categories of ACEs [7]. Specifically, men and women who experience four or more ACEs demonstrated significantly higher odds for alcohol-related risks than those who did not [7].

In addition to alcohol abuse, the abuse of illicit drugs is also highly associated with childhood maltreatment. Studies have examined specific ACE factors such as childhood physical and sexual abuse, which have both shown relation to illegal drug use [8, 9]. An issue with these past studies is that a single ACE risk factor does not provide sufficient data because the results of one factor may not apply to all ACEs. Hence, later studies such as the Dube et al. study in 2003 examined multiple categories of adverse childhood experiences [10]. In the 2003 study, 10 different categories of ACEs were investigated: abuse (physical, emotional, or sexual); neglect (physical or emotional); and growing up in households with substance abuse, criminality, mental illness, and parental conflicts and illicit drug use [10]. The data collected about both ACEs and drug use were self-reported by 8613 adults who attended a primary care clinic in California. It is noteworthy that self-reported results have the possibility of containing bias [10]. Results from this study show that for each ACE, the likelihood of early initiation of illicit drug use, drug use problems, drug addiction, and parenteral drug use rose remarkably [10]. People

with ≥ 5 ACEs were 7- to 10-fold more likely to develop drug-related issues than those without any ACEs [10].

Seeing substance abuse as a highly disruptive behavior that is detrimental to one's health and social acceptance, the strong connection between ACEs and substance abuse must be taken into importance and solutions to avoiding this behavior should be looked into.

2.2 ACEs and Juvenile Delinquency

Juvenile delinquency, offensive behavior during youth, is a form of antisocial behavior that childhood adverse experiences are often associated with. It was researched that youths involved in juvenile justice are more likely to have experienced various forms of childhood adversity in comparison to the rest of the youth population [11]. More than one third of youths in juvenile justice are reported to have experienced multiple types of ACEs each year [12]. Furthermore, a survey from the Administration for Children and Families (2008) shows 16.7% of children who were referred to Child Protective Services (CPS) had been under arrest for once or more in the year before. The annual arrest rate for this same group is 4 times the national rate for the people ages 18–24 with the arrest rate of 480 per 1,000 people [13]. Building on top of this, a 2013 study also shows involvement in child welfare and protective systems caused by parental maltreatment had a contribution of more than 90,000 official delinquent youths with an equal number of comparison population [14]. Youths with maltreatment allegations also have a 38% higher chance of engaging in violent crime than youths without such allegations [15]. In 2016, 3,382 juvenile offenders in Texas were examined and it was found that youths with higher levels of traumatic experiences had more accumulated incidence of misconduct and sexual misconduct than juvenile offenders with low trauma [16].

Although there is a wide range of evidence showing the connection between ACEs and juvenile delinquency, the sample group for many of these studies are at-risk groups, making it more unclear whether or not the results are affected by the limited sample. The association between early adversity and increased juvenile delinquency presents the detriments ACE causes to the lives of youths; thus, ways of preventing ACEs from leading to juvenile delinquency needs to be examined and investigated in the future.

2.3 ACEs and Life-Long Offending

Not only do ACEs impact juvenile delinquency, but it also stretches to the extent of life-course offending. An analysis of the Florida Department of Juvenile adjudicated delinquents exhibits that more exposure to ACEs leads to higher chances of re-arrest and a decrease in the length of time to re-arrest [17]. It was also found in this study that ACEs are more prevalent in adjudicated delinquents and youths with more ACEs were likely to be more violent and chronic offenders [17]. The sample used in this study does have limitation because only analyzing delinquents raise speculations as to whether the results were based on ACEs or if it is merely because delinquents are in general more likely to re-offend [17]. Life-course offending was further examined in a 2017 study that focused on using respondents from the Cambridge Study in Delinquent Development (CSDD) [4]. It was seen that CSDD respondents who experienced more than 2 ACEs

before age ten had a higher risk for late-middle age offending than those who experienced fewer [4]. Another study from 2020 on recidivism shows that an incarcerated offender's ACE score does not significantly affect the risk of recidivism and cannot predict re-arrest [18]. Therefore, it can be seen that ACE could affect life-course offending for juvenile delinquents, but not to the extent of incarcerated offenders. However, the overall higher likelihood of life-long offending shows that ACEs have long-term detriments and research needs to be conducted to address this issue.

3 Possible Causes of the Relationship Between ACEs and Antisocial Behavior

Possible causes of the relationship between ACEs and antisocial behavior (specifically substance abuse, juvenile delinquency, and life-long offending) include information from neuroscience and found associations between ACEs and disorders. Adverse experiences can negatively affect the development of the central nervous system and impact the development of brain patterns that help decision-making, self-regulation, and judgement [19]. For instance, it is found that experiences of child abuse increase patterns of hypervigilance to threat and hostile attributional bias, hence, relating to the connection between ACE and aggressive behavior in later-life [20]. There are also similar outcomes of ACEs impacting cognitive processes from studies such as the 2012 study by Spann et al., which highlighted child abuse as being related to decreased cognitive flexibility during standardized tests [21]. The deterioration of self-regulation and emotion control skills caused by negative events during childhood can also lead to antisocial behavior [22]. It could lead to behavior such as alcohol and drug abuse to regulate emotional states [22]. In 2018, it was proposed that neurocognitive development such as threat processing and impulse control is damaged by stressful events [23]. This theory was further applied to explain the results of a child growing up under chronic adversity who leans towards distractibility and impulsivity as a way of coping [24]. People tend to turn to avoidance coping strategies due to poor self-regulation and impulse control, hence, creating a vicious cycle because these strategies would further prevent the development of self-regulation [25]. Another possible cause is that ACEs are associated with higher chances of being diagnosed with the oppositional defiant disorder and ADHD [26]. The former especially relates to the context of life-course offending. The oppositional defiant disorder is a disorder that leads to an argumentative attitude and defiance towards authority, which could lead to people with the disorder to defy laws and commit to antisocial behavior such as crime [26]. These possibilities of causes give insight into the ways of avoiding the negative effects of the connection between negative experiences during childhood and antisocial behavior.

4 Conclusion

Through the comparison of various studies evaluating different ACEs, risk factors, and samples, it is found that there is a strong relationship between ACEs and antisocial behavior, emphasizing the importance of more research on solutions and prevention.

Early adversity is highly associated with detrimental and antisocial behavior including substance abuse, juvenile delinquency, and life-long offending. These associations are exhibited through various empirical studies throughout the time span of the last 30 to 40 years. Some of the speculated causes of the connection between ACEs and antisocial behavior encompasses damaged neurodevelopment and higher chances of being diagnosed with the oppositional defiant disorder. Taking into account of the relationship between ACEs and antisocial behavior and the possible causes, there should be future research on recidivism and buffering effects of social bonds and other factors. The connection between ACEs and recidivism has limitations as studies on recidivism in juvenile offenders with less severe crimes and those in incarceration display different results.

This paper still has gaps in providing further research on recidivism and the role of counseling in the further prevention of antisocial behavior. There is also a lack of comparison with studies taking samples of children from similar socioeconomic classes. Therefore, future research would benefit from using different offender samples to further investigate the differences between them and determine a clearer causal relationship. Furthermore, social bonds and other factors that impact the negative outcomes related to ACEs should be researched to search for solutions and ways to weaken the detriments brought by ACEs. This research would be highly impactful for policymakers aiming to decrease behavior of juvenile delinquency, substance abuse, criminality, etc. to raise positive outcomes in the health and security of societies. Therefore, future research to avoid antisocial behavior should be promoted for the well-being of youths.

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