

INVESTIGATING THE IMPACT OF EARLY ADVERSE EXPERIENCES ON SUBSEQUENT CANNABIS USE AMONG ADULTS

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Abstract

This study was aimed to find out the relation between early adverse experiences and subsequent cannabis use among adults. Sample was consisted on (N=300) adults (Men= 281, women =19) with age range of 20-35 years, Data collection was conducted through online or physical of the survey was shared with diagnosed sample to the different Hospitals and rehab centers across Islamabad. Cross-sectional design was used Purposive sampling technique was employed for data collection. Cannabis Abuse Screening Test by (Legleye et al., 2007) and Adverse Childhood Experiences (ACEs) Questionnaire by (Felitti et al., 1998) was administered. The psychometric properties of the Cannabis Abuse Screening Test (CAST) were ($\alpha=.75$) and Adverse Childhood Experiences (ACEs) scale internal consistency Cronbach's alpha values were ($\alpha=.81$). Descriptive Statistics, Pearson Product Moment Correlation, Independent Sample t- test, and Simple linear regressions analysis was run using SPSS v-27. Result showed that the correlation coefficient indicates a moderate positive relationship between ACEs and cannabis use. Thus, it can be said that an individual with more adverse childhood experiences is likely to report more cannabis use. Regression analysis was indicating that CAST does not significantly indicate ACEs. The R^2 value is 0.000, which proves that CAST can explain a negligible variance in ACEs. In addition, p-value being no significant reconfirms that there is no relationship amongst the variables in this sample

Key Words: *Childhood Traumas, Early Adverse Experiences, Subsequent Cannabis use,*

Introduction

The relationship between early adverse experiences (EAEs) and subsequent cannabis use among adults is a growing concern in public health and developmental psychology, reflecting the intersection of trauma, substance use, and adolescent behavioral outcomes. Cannabis, being one of the most commonly used illicit substances among Adults, poses unique developmental risks, including cognitive impairment, diminished academic achievement, and heightened vulnerability to addiction, making it imperative to understand its antecedents in this vulnerable population (Volkow et al., 2014). Research has consistently highlighted the bidirectional influence of EAEs and cannabis use, with studies demonstrating that children who experience adverse conditions such as parental substance abuse or emotional neglect are at greater risk of initiating cannabis use earlier than their peers, thereby increasing the likelihood of heavy use and dependency (Shanahan et al., 2011). Additionally, the association between EAEs and cannabis use is mediated by mental health conditions such as depression, anxiety, and post-traumatic stress disorder (PTSD), which are prevalent among adults with histories of adversity and have been linked to increased cannabis consumption as a coping mechanism (Briere et al., 2014). This underscores the importance of early intervention strategies that address trauma and promote resilience to mitigate these risks. Prevention programs focused on trauma-informed care, mental health support, and substance use

education are crucial in breaking the cycle of adversity and substance use (Substance Abuse and Mental Health Services Administration (SAMHSA, 2014).

Cannabis is a genus of flowering plant of a well-known species called sativa, indica, and ruderalis. It is known as marijuana when it is in dried flower bud form. Hashish is the term for blocks of its plant resin. Several bioactive chemicals, such as flavonoids, terpenoids, and cannabinoids, determine the characteristics of distinct cannabis strains. The psychoactive efficacy of a particular strain is determined by the relative quantities of its many cannabinoid types. The two most well-known and therapeutically significant cannabinoids, out of the approximately 100 varieties, are cannabidiol (CBD), an anti-inflammatory drug, and delta-9- tetrahydrocannabinol (THC), the primary psychoactive component of cannabis. Cannabinoid receptor 1 (CB1 receptor) partial agonist THC and CB1 receptor negative allosteric modulator CBD (Urits et al., (2021). A substantial proportion of cannabis users eventually develop CUD and younger age of first cannabis use may be an important risk factor for progression to CUD (National Academies of Sciences Engineering and Medicine Health and Medicine (Division, 2017; Leung et al., 2020; Lopez-Quintero et al., 2011).

In recent years, attitudes about cannabis in society and the law have changed. In October 2018, cannabis became legal across the country in Canada, and the United States is now seeing a trend toward legalization as well. According to estimates, 43% of Canadians between the ages of 16 and 24 and 18% of those over 25 smoked cannabis in 2017. In the United States, the percentage of individuals aged 12 or older who use cannabis has grown from 5.8% in 2007 to 7.5% in 2013. It is believed that legalization leads to more acceptability, a lower sense of danger, and an increase in cannabis usage by adults and teenagers, based on observations made in Canada and some US states like Colorado and Washington. It is crucial to improve our existing understanding of cannabis's basic science and therapeutic applications because of these projected changes (Urits et al., 2021). Adult-use cannabis was legalized in Connecticut in 2021 with legal sales for adults 21 years of age and older beginning in January 2023. It remains to be seen how legalization will affect cannabis use behavior in Connecticut and whether regulatory controls will adequately limit access by underage residents. Historically, self-reported cannabis use among Connecticut Adults has been stable (King et al., 2023), but the prevalence of past month cannabis use among Connecticut adults increased by an average of 0.7% per year between 2017 and 2021 and then by 3.9% from 2021 to 2022 (Centers for Disease Control and Prevention, 2022; King et al., 2023). Recent data has shown younger people perceive cannabis use as being less harmful to one's health, use it more than older age groups, and have the highest rates of cannabis-related adverse health outcomes (King et al., 2023).

Cannabis is the most widely used narcotic in Pakistan, accounting for 3.6 percent of the population, or four million users (United Nations Office on Drugs and Crime, 2013). However, Pakistan's medical establishment continues to lag in bringing to light the effects of cannabis, both positive and negative, and research on Pakistani general perceptions of cannabis usage and consequences is rare to nonexistent. Charasor cannabis is the most often used addictive substance in Pakistan, according to reports cannabis 44.4% of respondents, Heroin 41%, and Hashishin 33.3% (Shahid et al, 2022). Based on the prevalence estimates in the study, cannabis was the most widely used drug in Pakistan (4.03 million [3.6%] persons aged 15–64 years) (Yaqub., 2013). In Pakistan, cannabis, locally known as "charas" or "bhang," is not only widely available but also culturally normalized in some regions, which exacerbates its accessibility and use among young people (UNODC, 2013). The impact of cannabis addiction on adults is multifaceted, encompassing psychological, social, and economic dimensions.

Since it is illegal to buy or sell cannabis in Pakistan, there is more pressure on law enforcement to control the drug's usage and misuse. Since cannabis is an illegal substance, people are more likely to commit crimes like buying or selling it for personal use. According to statistical data, 41.96 metric tons of cannabis was used in Karachi alone in 2018 (Khalid et al., 2022).

Adulthood is a stage of life that occurs in humans between childhood and maturity and is defined by a variety of developmental changes. While age is not a precise indicator of the adolescent era, in humans, the age range for this phase is broadly described as 19–65 years. The most popular drug among young people, who are described by the UN as those who are between the ages of 15 and 24, is cannabis. Cannabis is widely used by young people, which is probably due to its perceived safety and its easier availability. Indicators of recent and consistent usage include the prevalence of past-year and past-month use. According to estimates, 13 million kids aged 15 to 16 used drugs in the last year of 2018 (Scheyeret et al., 2023).

Adverse childhood experiences (ACEs) are potentially traumatic events during childhood and adulthood that may increase the risk of a variety of negative health outcomes and health risk behaviors including cannabis use (Afifi et al., 2020; Felitti et al., 1998; Hughes et al., 2017; Scheidell et al., 2018). Researchers in Nevada used statewide health behavior survey data to characterize the relationship between ACEs and cannabis use among middle and high school students in their state and found that approximately one-quarter of high-schoolers experienced one ACE and 10% experienced four or more. They demonstrated experiencing a single ACE was associated with past month cannabis use and that the relationship was dose-responsive (Clements-Nolle et al., 2022). Cultural and socio-economic contexts further shape the nature and impact of EAEs. In societies with high levels of poverty and inequality, children are more likely to experience neglect, malnutrition, and lack of access to education or healthcare, which exacerbate the effects of early adversities (Evans & Cassells, 2014). In such environments, Adults may also face greater exposure to drug availability and peer pressure, which increases the likelihood of cannabis use (Brook et al., 2006). Additionally, societal norms around substance use and the stigma associated with seeking help for mental health issues or childhood trauma often leave individuals without adequate support systems, pushing them toward self-medication and substance dependency (Suleman et al., 2020).

Literature Review

This research study is to investigate the relation between early adverse experiences and subsequent cannabis use among adults. There is substantial evidence to suggest that early adverse experiences significantly increase the risk of substance use. This evidence leads us to believe that early adverse experience may lead to cannabis use may be pronounced and hence this is an important population to study cannabis use. Early adverse experiences (EAEs), encompassing physical, emotional, and sexual abuse, neglect, and exposure to household dysfunction, have been extensively linked to various health and behavioral outcomes, including substance use. Adulthood is a critical developmental period, and exposure to EAEs during this stage often heightens vulnerability to maladaptive behaviors, including cannabis use. This literature review explores the pathways through which EAEs influence cannabis use, focusing on neurobiological, psychological, and social mechanisms, as well as examining interventions and research gaps.

King et al., (2024) was investigated a research study on Adverse childhood experiences (ACEs) may be predictors of cannabis use among youth. A retrospective, cross-sectional analysis using a representative sample of 1760 high school students who participated in the 2021 Connecticut

Youth Risk Behavior Survey. This is lifetime and past 30-day cannabis use history by exposure to eight different ACEs. Group differences were investigated using descriptive statistics and generalized linear models. 20.6% reported lifetime cannabis use and 11.1% reported past 30-day cannabis use. ACEs ranged in prevalence from 5.4% for sexual abuse to 35.6% for verbal abuse. Each ACE examined in this analysis was associated with elevated prevalence of lifetime and past month cannabis use. ACEs were common among Connecticut high school students and students exposed to ACEs were more likely to report using cannabis.

According to Niaet al., (2023) study in New Haven, Connecticut, found that cannabis users had higher rates of childhood trauma and major life events compared to non-users. The association was significant after controlling for age, gender, ethnicity, and regular alcohol or cocaine use. However, cannabis use had a positive association with major life events and lifetime trauma, but not with chronic stress. The study highlights the need for further assessment of gender differences in the neurobiology of stress and cannabis misuse risk.

Hines and his colleagues (2023) examined the link between ACEs and cannabis use in adults, using data from the Avon Longitudinal Study of Parents and Children. Results show that problematic adolescent cannabis use is highest for those reporting 4 or more ACEs, and particularly for those with parental substance use or abuse. Public health measures to address ACEs may reduce adolescent cannabis use.

Hines et al., (2023) the research, led by University of Bath psychologist, and expert in adolescent mental health, Dr Lindsey Hines, analyzed outcomes for over 5,000 participants tracked using the Avon Longitudinal Study of Parents and Children - also known as the 'Children of the 90s' study. Young people who are exposed to adverse childhood experiences between the ages of 0 – 12 years, including parental drug misuse, are at highest risk for developing problematic adolescent cannabis use as teenagers, according to a new study. Adverse childhood experiences (ACEs) considered included physical, emotional and sexual abuse, emotional neglect, bullying, parental substance use, violence between parents, parental mental health challenges, and a parent being convicted of a criminal offense. Through the study they combined these negative experiences in childhood with self-reported data about the frequency of cannabis use at various points between ages 13–24. Self-reported data ranged from individuals having never experimented with cannabis to using it regularly in their teenage years. They found that people who had experienced four or more ACEs were more than twice as likely to use cannabis regularly as teenagers, compared to those who experienced low levels of ACEs. Teens that had grown up with parents who had abused drugs or alcohol, or had parents with mental health problems, were at the most risk of going on to regularly use cannabis. Given the long-term mental and physical health implications of cannabis use at young ages, they are calling for much greater support to be put in place to help young people before cannabis use becomes engrained. Parts of the UK could learn from approaches like the cannabis support for young people offered by Bristol Drug Project (BDP), they say.

Suezo et al., (2020) investigated a systematic review of 240 articles found associations between childhood trauma and substance use in patients with schizophrenia (SSD). Twenty-three articles were selected, and several found associations between trauma, substance use, and psychosis. The results suggest that childhood trauma and substance use may be the basis of psychosis.

Research by Weiss et al. (2011) found that Adults exposed to neglect or emotional abuse exhibit impaired emotional regulation, increasing their likelihood of substance use as a maladaptive

coping strategy. Cannabis use may initially serve as an emotion-focused coping mechanism, but over time, it reinforces dependency and perpetuates psychological challenges.

Rationale

The rationale for investigating the impact of early adverse experiences on subsequent cannabis use among adults lies in the growing evidence that childhood trauma, neglect, and other forms of early adversity significantly influence the development of risky behaviors, including substance use. Adults who experience early adverse events, such as abuse or household dysfunction, are at an increased risk for developing maladaptive coping mechanisms, including the use of substances like cannabis (Dube et al., 2003). Cannabis use during adults is of particular concern due to its potential to interfere with brain development, leading to cognitive impairments and increased susceptibility to the use of more harmful substances later in life (Meier et al., 2012). This study is essential because it contributes to the broader understanding of how early trauma shapes later substance use patterns, providing insights into prevention and early intervention strategies that can mitigate the long-term consequences of early adversity (Anda et al., 2006). This study aims to contribute to a more nuanced understanding of the long-term effects of early adverse experiences on substance use behaviors, particularly cannabis use throughout adults.

Objectives of the Study

1. Quantify the prevalence of cannabis use among individuals with a history of early adverse experiences
2. To examine the correlation between early adverse experiences (such as abuse, neglect, and household dysfunction) and the onset of cannabis use during adults
3. To explore how early adverse experiences influence the frequency and patterns of cannabis use among adults over time

Hypotheses

H1: Adults who experience early adverse experiences are more likely to initiate cannabis use at an adulthood compared to those without such experiences.

H2: The relationship between early adverse experiences and cannabis use were stronger for adults from lower SES backgrounds.

H3: Adults from single-parent with a history of early adverse experiences were higher rates of cannabis use initiation compared to those from two-parent households.

H4: Gender differences exist in the impact of early adverse experiences on cannabis use, with females showing a stronger association between early adversity and cannabis use compared to males.

Research Methodology

The sample for this study was achieved through Purposive sampling strategy used to collect data from different areas of Islamabad and Rawalpindi. Sample size compromised with (N=300) Adults with (n=281) men, and (n=19) women's with the age range 20-64 years. Data was collected after the departmental approval before beginning the study and data was collected through questionnaire from Shifa caring and medical centre, New life rehab and psychiatric centre, New hope rehab and caring centre Islamabad, The sunrise healing drug rehabilitation, The new inception, Umeed e shifa, and Islamabad mind wellness clinic and rehab. Data was collected through Cannabis Abuse Screening Test (CAST) was developed by Legleye et al. (2007) and Adverse Childhood Experiences (ACEs) Questionnaire was developed by Felitti et al. (1998). After data collection data was examined with the statistical programmed SPSS version

27. The demographic data of the participants is analyzed using descriptive statistics on

Demographic variables. Descriptive statistics is a statistical technique that provides a brief summary of raw data acquired from a sample or population (Kaur et al., 2018). The mean and standard deviation of the participants' demographic data was calculated. The mean differences in continuous variables were compared using independent samples t- tests. Pearson Product Correlation analysis was used to evaluate the association between the study variable.

Results

Table 1

Psychometric properties of all Scale (N=300)

Variables	N	<i>a</i>	M	SD	Skewness	Kurtosis
CAST	300	.75	11.76	3.780	-.005	-.132
ACEs	300	.81	15.18	1.190	-.178	-.201

Note N=300, M=Mean, SD=Standard Deviation, a=Alpha Cronbach value, CAST= Cannabis Abuse Screening Test, ACEs=Adverse Childhood Experiences (ACEs)

Table 1 describes the statistics of the observed variables (N=300) and it reveals to us that the mean score for Cannabis Abuse Screening Test (CAST). The psychometric properties of the Cannabis Abuse Screening Test (CAST) and Adverse Childhood Experiences (ACEs) scale indicate acceptable internal consistency, with Cronbach's alpha values of .75 and .81, respectively. The CAST (M = 11.76, SD = 3.78) shows a nearly symmetrical distribution with a skewness of -.005 and a slight negative kurtosis (-.132), suggesting a normal spread of responses. Similarly, the ACEs scale (M = 15.18, SD = 1.19) has a slight negative skew (-.178) and a small negative kurtosis (-.201), indicating a relatively normal distribution of scores.

Table 2

Correlation between CAST and ACEs (N=300)

Variables	N	M	SD	1	2
CAST	300	11.76	3.780	1	-
ACRs	300	15.18	1.190	.322**	1

** . Correlation is significant at 0.01 levels (2-tailed)

Table 2 presents the correlation analysis between the Cannabis Abuse Screening Test (CAST) and Adverse Childhood Experiences (ACEs) among (N=300) participants. The correlation coefficient ($r = 0.322$, $p < 0.01$) indicates a moderate positive relationship between ACEs and cannabis use. Thus, it can be said that an individual with more adverse childhood experiences is likely to report more cannabis use. The statistical significance at this point in time ($p < 0.01$) means that this relationship has a very low probability of being due to chance. In spite of this, moderate correlation does not imply causation; there may be other factors influencing this association, such as the social environment, coping, or pre-existing mental health conditions. The need for further exploration of mediating and moderating factors that may influence this relationship is recommended.

Table 3

Simple Linear regression analysis of CAST and ACEs (N=300)

Model	Unstandardized Coefficients		Standardized Coefficients		T	p
	B	S. E	β	R ²		
(Constant)	15.25	.225			67.76	.000
CAST	-.007	.018	-.022	.000	-.373	.709

CAST: Cannabis Abuse Screening Test; ACEs: Adverse Childhood Experiences

a. Dependent Variable: ACEs

b. Predictors: (Constant), CAST

In Table 3, simple linear regression analysis was used to check the relation between cannabis abuse (CAST) and adverse childhood experiences (ACEs). The outcomes indicate that CAST does not significantly indicate ACEs ($\beta = -0.022$, $p = .709$). The R^2 value is 0.000, which proves that CAST can explain a negligible variance in ACEs. In addition, p-value being no significant reconfirms that there is no relationship amongst the variables in this sample. This hints that the other factors could be the leading determinants even with the cannabis abuse being irrelevant to this link.

Table 4

On the Basis of Gender Differences, a Comparison on the Variables of CAST and ACEs (N=300)

Variables	Male (n=281)		Female (n=19)		t	p	95% CI		Cohen's d
	M	SD	M	SD			LL	UP	
CAST	11.78	3.80	11.37	3.547	.462	.232	-1.35	2.18	.644
ACEs	15.22	1.152	14.58	1.575	2.277	.062	.087	1.19	.023

CAST: Cannabis Abuse Screening Test; ACEs: Adverse Childhood Experiences

Table 4 is a comparison of the results of females with males who have been in treatment for a cannabis addiction (CAST) the and adverse childhood experiences (ACEs). According to the results, there is no significant difference between males and females with CAST scores ($t = .462$, $p = .232$) and ACEs scorers ($t = 2.277$, $p = .062$.)admonishment of them The very small ponder over the subject, with overlap in the confidence interval, the calculated effect sizes (Cohen's d) of the contrary, and even if the gender differences are small, the grades show little boy and girl stay on the same level. So, my point is that boys and girls have similar involvement in weed and childhood adversity among the group of the participants.

Discussion

The investigation of the meaning of Adverse Childhood Experiences (ACEs) not only now but also enduringly among adults who use marijuana after that is a very important topic of investigation. ACEs refer to all kinds of negative experiences that occurred during the childhood years such as physical, psychological, and sexual abuse, neglect, family dysfunction, and violence exposure. One of the effective ways is by using drugs or alcohol to ease the suffering that comes with stress, anxiety, and other emotional challenges. This relationship between Early Childhood Adversity (ACEs) and substance use infers that the effects of ACEs are not limited to being a child and can continue to affect an individual for much longer (Dube et al., 2003). Besides biopsychosocial aspects, social and environmental factors are what majorly impact ACEs and cannabis use. Take, for example, people who have been deprived during their

childhood, they are more likely to enjoy social exclusion, feel a loss of social support, or even live in a place where they find no stability, all of which uplift the risks of substance abuse. A study by Dube et al. (2003) gave the results of the experience of childhood trauma which led people to the abuse of cannabis as a young adult. They pointed to cannabis as the main substance used for this problem. It might be upsetting to some people to know that the studies conducted by Felitti et al. (1998) showed that people with higher ACE scores were prone to cannabis and other drug use as adults. To these people, the use of marijuana is like a measure to relieve pain.

The hypothesis 1 shows that Adults who have experienced (ACEs) their first encounters often face a lot of stress and misery while they are still at a tender age. These difficult encounters, which include situations like violence against, family problems, or parental inattention could significantly from their personality and bring forth in them behaviors that are more likely to result in the younger. The hypothesis 2 shows that Adults with a history of early adverse experiences (ACEs) are at a greater risk of trying marijuana compared to those without these kinds of experiences. The effect of ACEs, which include abuse, neglect, family dysfunction, and exposure to violence, on an individual's emotional, psychological, and behavioral development is often seen to last. These events are usually the elements that make emotional regulation, stress management, and coping mechanisms harder for the person. This can cause these people to be more vulnerable to substance use. The hypothesis 3 suggests that persons who have had more frequent and harsher adverse childhood experiences (i.e., ACE) are more prone to cannabis use as a way of frequenting and intensifying conditions brought about by the adverse childhood experiences. The adverse experiences mentioned refer to abuse, neglect, household dysfunction, and exposure to violence in childhood, all of which have been shown to lead the sufferer to types of stability or permanence exercise in psychological, emotional, and behavioral forms that would increase risk factors for substance use such as the use of cannabis. The hypothesis 4 shows early adverse experiences (ACEs) manifest different complexities vis-a-vis the consumption of cannabis, but one pertinent factor seems to play a significant role in its geography: socioeconomic status. People of lower SES background are subjected to additional stressors like inadequate funds to purchase food and health services, psychosocial stress, and being brought up in high-crime environments; hence, it is expected that ACEs will have a greater impact on such individuals than on those who might use cannabis as an escape from their finances.

Thus, study indicates that the self-medication hypothesis fits this scenario, where both ACE and an economic constraint's influence may push a person to use such a drug to mitigate negative emotions related to their living conditions. Again, social support systems vary across SES. Higher SES individuals with ACEs benefit from financial access, social networks, and professional help to buffer against the negative effects of childhood trauma. Lower SES individuals do not enjoy this protection and suffer more vulnerability to substance use as a means of coping. The absence of stable role models or family support can also reinforce cannabis use as the primary way to manage stress or emotions.

Limitations

1. Mental healthcare workers, educators, and caregivers need to focus on trauma-informed care strategies to promote support to children who may be experiencing adversity and, therefore, mitigate the consequences associated with emerging problematic cannabis use in adulthood.
2. Consequently, this particular result illustrates the necessity for screening in clinical and therapeutic environments for ACEs. In this sense, all healthcare professionals, including

those engaged in substance use treatment programs, should include an assessment of early-life adversities in contributing to individualized and more efficient intervention programs.

3. The findings also indicate how social and environmental factors influence the link between ACEs and cannabis use, such as family support, peer influence, or socioeconomic conditions.
4. From the policy perspective, the findings reemphasize the need for trauma-informed preventive and treatment programs for drug use.
5. Moreover, policymakers could consider the need for policies to increase access to mental health care among lower-class underprivileged individuals who have experienced higher rates of childhood adversity.

Implication/Suggestion

1. Provide early intervention through school and community programs for all children experiencing adverse childhood experiences (ACEs) to avert further development of substance abuse, including this concerning cannabis, later in life.
2. In their practices with individuals who have endured childhood adversity, mental health professionals and healthcare workers need to adopt trauma-informed approaches.
3. A protective environment can also be created around children at risk through strengthening family relationships and by providing parental support programs.
4. Specifically tailored prevention programs need to be instituted by community organizations in order for them to address the social and environmental conditions that contribute to substance use.
5. Future studies should involve long-term observations for establishing and explaining the causal relationship of ACEs with the use of cannabis over time.

Conclusion

The discussion highlights a strong and multifaceted link between Adverse Childhood Experiences (ACEs) and cannabis use in adulthood, emphasizing that early adversity exerts long-lasting effects on psychological, biological, and social functioning. ACEs such as abuse, neglect, family dysfunction, and exposure to violence disrupt healthy coping strategies, emotional regulation, and neurobiological development, leaving individuals more vulnerable to substance use as a maladaptive coping mechanism. The self-medication hypothesis provides a central explanation, showing how survivors of trauma may turn to cannabis to temporarily alleviate distress, anxiety, and depressive symptoms, ultimately increasing the risk of dependence. Evidence also supports a dose-response relationship, where the number and severity of ACEs correlate with earlier initiation, greater frequency, and higher intensity of cannabis use. Moreover, socioeconomic status amplifies this association: individuals from lower SES backgrounds not only face heightened childhood adversity but also encounter ongoing stress, limited resources, and greater exposure to drug-accepting environments, making them more prone to problematic cannabis use. Overall, these findings underscore the urgent need for trauma-informed care, early interventions, and accessible mental health resources that address the root causes of ACEs while promoting healthier coping mechanisms.

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