

Adverse Childhood Experiences in Global and Indian Contexts: Implications on Young Adults' Mental Health

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ABSTRACT

Childhood is a critical period of development where early experiences shape mental health, identity, and resilience across the life course. Adverse Childhood Experiences (ACEs), including abuse, neglect, and household dysfunction, are globally recognized as significant determinants of adult psychological and social outcomes. This article undertakes a content analysis combining theoretical and empirical perspectives to examine the long-term consequences of ACEs. Drawing on frameworks such as the Psychosocial Theory, Resilience Theory, Schema Theory, and the Ecological Model, the theoretical review highlights how adverse experiences disrupt cognitive, emotional, and social pathways. The empirical review synthesizes findings from both global and Indian studies, including the landmark CDC-Kaiser ACE study and research conducted in Chennai, Delhi, and Kerala. Key themes emerging from the content analysis include disrupted identity formation, mental health vulnerabilities, impaired social adjustment, and the moderating role of resilience. The article concludes by emphasizing the importance of preventive interventions and counselling support for young adults. Implications for policy, clinical practice, and further research are discussed, particularly the need for culturally grounded intervention models in India.

Keywords: Adverse Childhood Experiences, Mental Health, Identity, Resilience, Content Analysis

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INTRODUCTION

Childhood often conceptualized as the foundation of human development, shaping an individual's psychological, emotional, and social capacities. Experiences during these formative years profoundly influence patterns of thought, emotional regulation, coping strategies, and interpersonal relationships. However, not all childhoods are characterized by safety and nurturing. For many children, adverse experiences such as abuse, neglect, poverty, and family dysfunction leave indelible marks that carry into adulthood. These are referred to as Adverse Childhood Experiences (ACEs).

The original CDC-Kaiser ACE study [1] demonstrated a strong, graded relationship between ACEs and adult health outcomes, including mental illness, substance abuse, and chronic physical diseases. Subsequent research across cultures has consistently shown that ACEs disrupt developmental pathways and increase vulnerability to psychopathology. In India, where structural inequalities, poverty, and patriarchal norms intersect, the experience of adversity during childhood is widespread yet underexplored in systematic ways. ACEs are not isolated incidents but rather part of a broader socio-ecological context. Children raised in environments of abuse, neglect, or chronic stress often experience distorted self-image, impaired emotional maturity, and challenges in forming secure attachments. As they transition into young adulthood, these unresolved developmental crises manifest in identity struggles, poor resilience, and vulnerability to mental health issues. Understanding these linkages requires integrating theoretical insights with empirical findings to capture both psychological mechanisms and real-world outcomes.

The study used content analysis to systematically review and integrate theoretical frameworks with empirical studies on ACEs. It aimed to explore the theoretical underpinnings of how childhood adversity shape's identity, mental health, and resilience, synthesize global and Indian empirical evidence on the consequences of ACEs and identify common themes and gaps in the literature and discuss implications for social work interventions, particularly in the context of young adults in higher education. Through this integration, the study contributes to the growing body of literature that views childhood adversity not merely as an individual issue but as a public health and social justice concern requiring systemic responses.

METHODOLOGY

This study adopted a content analysis approach to systematically examine both theoretical and empirical literature on Adverse Childhood Experiences (ACEs). Content analysis, as a qualitative research method, enabled the systematic categorization, coding, and interpretation of academic texts to identify recurring patterns, latent themes, and interrelationships between variables. The aim was to synthesize the fragmented body of knowledge on ACEs across global and Indian contexts, thereby generating an integrated framework for understanding their implications on mental health, identity development, and resilience in young adults.

Data Sources

Data were obtained from multiple repositories, including peer-reviewed journals, books, dissertations, government publications, and reports from international organizations such as the World Health Organization (WHO) and UNICEF. In addition, empirical evidence from India was retrieved from nationally indexed journals, NIMHANS reports, and regional case studies. Search engines and databases such as PubMed, Scopus, JSTOR, and Google Scholar were used.

Theoretical literature was identified using search terms such as childhood adversity, psychosocial development, resilience theory, schema theory, and developmental psychology. Empirical studies were retrieved using keywords including Adverse Childhood Experiences, India, child abuse, trauma, mental health outcomes, resilience, and social adjustment. This strategy ensured both breadth and depth of coverage.

Inclusion and Exclusion Criteria

- Theoretical frameworks that explicitly addressed childhood experiences, resilience, psychosocial or identity development.
- Empirical studies published between 1998 and 2025, as the landmark CDC-Kaiser ACE study (1998) marked the beginning of systematic research on this subject.
- Research that investigated ACEs and their outcomes in terms of mental health, social functioning, or resilience among children, adolescents, and young adults.
- Both global and Indian contexts to enable cross-cultural comparison.
- Exclusion criteria included studies unrelated to ACEs, papers without empirical or theoretical grounding, and works lacking methodological clarity.

Coding and Analytical Process

The literature was subjected to manual and computer-assisted coding. Using the principles of inductive and deductive content analysis, categories were pre-determined based on theoretical constructs while allowing new themes to emerge organically.

Four primary coding categories were established:

- Theoretical insights: conceptual frameworks and models explaining the influence of ACEs.
- Risk factors: forms of abuse, neglect, and adverse socio-economic conditions.
- Protective factors: resilience-building mechanisms, family cohesion, peer and community support.
- Outcomes: short- and long-term consequences on mental health, identity, interpersonal relationships, and social adjustment.

Through thematic clustering and constant comparison, convergences and divergences between theory and empirical data were identified. Special attention was paid to the cultural specificities of Indian research, where socio-economic and familial structures uniquely shaped experiences of adversity.

Rationale behind Methodology

The use of content analysis was justified as it enabled the integration of diverse forms of literature, facilitating both theoretical abstraction and practical contextualization. This approach also allowed for identifying gaps in Indian research while situating findings within the broader global discourse on ACEs.

Theoretical Reviews

Psychodynamic Theory

Freud's psychodynamic perspective emphasized how unresolved childhood conflicts shaped adult personality. ACEs such as abuse and neglect were understood to contribute to repressed emotions and maladaptive coping patterns, which later reappeared as anxiety, depression, or relational difficulties [2].

Psychosocial Theory

Erikson's psychosocial model explained how early crises influenced later development. When children experienced adversity, they often failed to resolve stages like trust vs. mistrust or identity vs. role confusion. This made young adults more vulnerable to insecurity, poor self-concept, and difficulty adapting to social demands [3].

Cognitive and Schema Theory

Beck's cognitive approach suggested that ACEs contributed to the development of negative thought patterns. Schema theory extended this by showing how early adverse experiences generated maladaptive schemas of mistrust, abandonment, or defectiveness, which shaped social adjustment and mental health outcomes [4].

Attachment Theory

Bowlby's attachment theory highlighted how ACEs disrupted caregiver-child bonds. Neglect, inconsistent care, or abuse often produced insecure or disorganized attachments. These attachment patterns persisted into adulthood, affecting intimacy, trust, and emotional regulation [5].

Humanistic Theory

Humanistic perspectives stressed the role of a supportive environment in identity formation. ACEs undermined unconditional acceptance, leaving individuals with fragile self-esteem and impaired self-concept. Yet this theory also pointed to the potential for growth when supportive conditions were later provided.

Resilience Theory

Resilience theory explained how protective factors moderated the effects of ACEs. Family and community support, coping skills, and positive relationships reduced the risk of long-term harm. Cultural and familial contexts shaped resilience differently, especially in Indian settings [6].

Ecological Systems Theory

Bronfenbrenner's model located ACEs within interconnected systems such as family, school, and community. Structural conditions like poverty, inequality, and limited resources interacted with family dynamics to deepen or mitigate the effects of adversity [7].

Neurodevelopmental Perspectives

Research in developmental neuroscience showed how chronic stress during childhood altered brain structures. ACEs affected areas such as the amygdala and prefrontal cortex, leading to impaired regulation of emotions, cognition, and behaviour into adulthood [8].

Empirical Reviews

The empirical literature on childhood experiences emphasized both adverse childhood experiences (ACEs) and positive childhood experiences (PCEs), highlighting their respective roles in shaping developmental trajectories, mental health, and resilience outcomes. Studies conducted globally and within the Indian context demonstrated that while adverse experiences are associated with significant risks to lifelong health and psychosocial functioning, positive experiences serve as protective and compensatory factors that buffer against these risks.

Positive Childhood Experiences (PCEs)

Narayan and others [9] introduced the concept of Positive Childhood Experiences (PCEs), also referred to as Counter-ACEs, to describe experiences that counteract the risks posed by adversity and promote protective factors in development. Seven key PCEs were identified: (i) the ability of children to openly communicate feelings with family; (ii) trust in family support during hardships; (iii) participation in cultural or community traditions; (iv) sense of belonging and confidence during school years; (v) warmth and support from friends; (vi) presence of at least two non-parental adults who genuinely cared for them; and (vii) feeling safe and protected by an adult at home. Empirical evidence demonstrated that these PCEs were strongly associated with better mental health outcomes, healthier social relationships, and improved coping mechanisms in adulthood, irrespective of the number of ACEs experienced. Importantly, the absence of PCEs was found to be more detrimental to long-term health outcomes than the mere presence of ACEs, suggesting that protective and nurturing experiences play a decisive role in resilience.

Protective Factors

Protective factors operated at the individual, family, and community levels. At the individual and family level, consistent caregiving, positive peer networks, safe and stable family relationships, supportive mentors, stable employment of caregivers, and effective conflict resolution were identified as important in buffering the effects of adversity [10]. Families that provided for basic needs, engaged children in meaningful activities, and emphasized education were shown to promote resilience.

At the community level, protective environments included safe housing, access to healthcare, quality education, after-school programs, childcare services, and family-friendly work policies [11]. These factors collectively mitigated risks and promoted children's emotional competence, thereby reducing the likelihood of engaging in maladaptive behaviours in later stages of life.

Although empirical studies on PCEs were limited, the available evidence indicated that positive experiences alone did not guarantee well-being. Some individuals with strong PCEs continued to exhibit poor outcomes, suggesting the importance of contextual, genetic, and socio-cultural variables. This highlighted the need for further exploration of the nuanced relationship between PCEs and resilience in diverse populations, including India.

Adverse Childhood Experiences (ACEs)

The term Adverse Childhood Experiences (ACEs) was first introduced through the CDC-Kaiser Permanente ACE Study [1], which surveyed over 17,000 adults and established a graded relationship between cumulative childhood adversities and increased risks of poor physical and psychological outcomes in adulthood. ACEs typically included physical, sexual, and emotional abuse; physical and emotional neglect; parental separation or divorce; household substance abuse; mental illness; incarceration of a family member; and domestic violence.

The original ACE framework was further expanded to include community violence, bullying, discrimination, and collective trauma, thereby acknowledging broader ecological influences [12]. Evidence consistently demonstrated that higher ACE scores predicted elevated risks of cardiovascular disease, obesity, diabetes, cancer, depression, anxiety, substance misuse, violence, and premature mortality.

Prevalence and Global Evidence

Authors [13] reviewed 38 global studies and estimated that nearly 1 billion children worldwide, more than half of all children aged 2–17 years experienced some form of violence annually. A UNICEF study in Serbia reported that approximately 40% of participants experienced four or more ACEs, which were significantly associated with higher levels of dissociation, trauma-related mental health problems, and substance misuse. Similar patterns emerged in multiple global studies, linking ACE exposure to alcoholism, sleep disorders, and interpersonal difficulties [14].

Importantly, studies [15] noted that while ACE scores were predictive of population-level risk, they were not deterministic at the individual level. This suggested that while higher ACE exposure increased vulnerability, not all individuals developed adverse outcomes, reinforcing the moderating role of protective factors and resilience.

Types Of Adverse Childhood Experiences

The types of Adverse Childhood Experiences presented below are the various types of ACE: [16]

- Physical abuse of a juvenile, described as the deliberate use of physical force against a juvenile that results in harming the child's survival, growth, respectability, and well-being. Physical Abuse involves hitting, beating, kicking, trembling, biting, strangling, scalding, burning, poisoning, and suffocating.
- Sexual abuse involving engaging a child in sexual acts with or without consciousness or consent where the developmental preparedness not evolved that includes fondling, rape, and exposing a child to other sexual activities.
- Emotional and Psychological abuse refers to acts that affect a child's self-esteem or emotional well-being such as shaming, rejection, withholding love, and threatening by parents or other caregivers.
- Neglect - ignorance or negligence that fails to meet a juvenile's basic needs include Shelter, food, clothing, education, and medical care.

The Adverse Childhood Experiences (ACEs) Pyramid Framework, originally developed by the Centers for Disease Control and Prevention and the Kaiser Permanente. The model illustrates the cumulative pathway through which adverse childhood experiences influence health and well-being across the lifespan. The pyramid begins with Generational Embodiment Trauma and Social Conditions, highlighting how broader societal and intergenerational factors shape childhood environments. These factors contribute to Adverse Childhood Experiences, which may disrupt normal neurodevelopment and subsequently lead to social, emotional, and cognitive impairments. Such impairments increase the likelihood of adopting health-risk behaviours, which can result in disease, disability, and social problems, ultimately contributing to early death. The vertical arrow from conception to death emphasizes that the effects of childhood adversity extend throughout an individual's life course. The framework demonstrated that ACEs are not isolated childhood events but fundamental determinants of lifelong physical, psychological, and social well-being. This model has been widely used to explain the long-term consequences of childhood adversity and to advocate for preventive and trauma-informed interventions.

Risk Factors for ACEs

The UCL Institute of Health Equity outlined key risk domains:

- Social risks such as poverty, unemployment, discrimination, and community disruption.
- Household risks such as domestic violence, substance misuse, mental illness, and parental separation.
- Family risks including poor parenting skills, young parental age, and disrupted family structures.
- Intergenerational risks where parents' own adverse experiences perpetuated cycles of trauma.
- Downey and Crummy [17] further emphasized that trauma occurred across all social classes but was magnified in contexts where support services were inaccessible or inadequate.

Impacts of ACEs

Evidence consistently showed that ACEs negatively impacted physical, mental, and social outcomes across the lifespan.

- **Physical Health:** ACEs disrupted neurobiological and stress-regulation systems, resulting in impaired cortisol regulation, immune dysregulation, and increased vulnerability to chronic illnesses [18].
- **Mental Health:** Multiple studies linked ACEs to heightened risks of depression, anxiety, PTSD, and suicidal ideation [19-20]. Kim and others [21] found that self-esteem mediated the relationship between ACEs and depressive symptoms, underscoring the psychological pathways through which adversity operates.
- **Behavioural Outcomes:** ACEs were associated with substance use, criminal involvement, risky behaviours, and poor academic performance [22]. Attachment disruptions and maladaptive coping strategies, such as denial, isolation, and drug misuse, were commonly observed [23].
- **Family and Social Relationships:** Negative childhood experiences undermined healthy family functioning and intergenerational stability, while positive experiences promoted resilience and healthier adult family life [24].

Adverse Childhood Experiences in India

Indian literature on ACEs remained comparatively limited, largely due to the absence of a comprehensive surveillance database and the lack of a standard definition of child maltreatment within the ACE framework [25]. Available evidence, however, pointed to high prevalence and significant consequences. Ahmad and others [26] demonstrated that exposure to trauma in conflict-affected Kashmir was strongly associated with major depressive disorder and PTSD in adulthood. Fernandes and others [27], using data from the Consortium on Vulnerability to Externalizing Disorders and Addictions (cVEDA), reported that half of Indian adolescents and young adults experienced ACEs, most frequently abuse and domestic violence. Males were disproportionately affected, particularly in relation to substance misuse.

UNICEF [28] documented that in India, violence remained a culturally embedded disciplinary practice, with over 30 forms of physical and verbal abuse routinely used on children aged 0–6 years. These included beating, burning, verbal humiliation, and restrictions on food or movement. Such experiences were normalized under the guise of discipline but had long-term psychological consequences.

Synthesis of Empirical Findings

Across global and Indian contexts, empirical evidence confirmed that childhood experiences—both adverse and positive—had significant and lasting effects on developmental outcomes. ACEs were consistently linked with negative health, psychosocial, and behavioural outcomes, whereas PCEs functioned as protective mechanisms that buffered against these risks. Importantly, empirical research demonstrated that outcomes were not predetermined by ACE scores alone, as the presence of protective factors, resilience, and contextual influences shaped individual trajectories.

For India, where empirical work remained sparse, existing studies underscored the urgency of developing ACE-informed public health and educational policies. Given the prevalence of violence, abuse, and neglect, Indian research needs to not only document ACEs systematically but also explore how cultural practices, gender norms, and socio-economic disparities shape resilience and vulnerability.

Analysis

The content analysis synthesized both theoretical and empirical literature to identify recurring themes on how Adverse Childhood Experiences shaped identity, mental health, and resilience. Theoretical perspectives consistently emphasized the role of early adversity in disrupting developmental pathways, whether through unresolved psychosocial crises, insecure attachments, maladaptive schemas, or compromised ecological contexts. These frameworks provided explanatory mechanisms for why individuals exposed to ACEs developed difficulties in trust, self-concept, and coping.

Empirical research, both global and Indian, confirmed these theoretical propositions. The CDC–Kaiser study and subsequent international surveys established the dose–response relationship between ACEs and

poor health outcomes, while Indian studies revealed the cultural embeddedness of abuse and disciplinary violence. Importantly, the analysis demonstrated convergence between theory and empirical data on three key points: (i) ACEs impaired emotional regulation and identity formation, (ii) resilience and PCEs moderated negative outcomes, and (iii) socio-structural factors shaped vulnerability and protective pathways.

However, divergences were also noted. While Western studies often focused on individual-level psychological outcomes, Indian research highlighted collective and structural determinants such as poverty, patriarchy, and community-level violence. This revealed the necessity of culturally grounded approaches when applying global ACE frameworks to local contexts.

Findings

The content analysis yielded the following key findings:

- **Disrupted Developmental Pathways:** ACEs undermined psychosocial and cognitive development, leading to distorted self-image, impaired emotional maturity, and maladaptive coping strategies.
- **Mental Health Vulnerabilities:** Depression, anxiety, PTSD, and substance misuse were consistently associated with cumulative ACE exposure across contexts.
- **Impact on Identity and Social Adjustment:** ACEs disrupted the transition into young adulthood, resulting in identity confusion, poor resilience, and challenges in forming healthy relationships.
- **Protective Role of Positive Childhood Experiences (PCEs):** Nurturing relationships, supportive community engagement, and stable caregiving buffered the adverse effects of ACEs.
- **Cultural Specificities in India:** Violence as discipline, gender disparities, and socio-economic inequalities uniquely shaped Indian children's vulnerability to ACEs.
- **Resilience as a Dynamic Process:** Resilience emerged not as a fixed trait but as an outcome shaped by individual, familial, and ecological supports.
- **Policy and Research Gaps in India:** There remained limited systematic data, absence of national surveillance systems, and a lack of trauma-informed interventions for young adults in higher education.

Recommendations

Based on these findings, the following recommendations were proposed:

- **Preventive Interventions:** Strengthening the child protection policies to prevent abuse, neglect, and household dysfunction. Promote awareness against violence as a disciplinary practice in India.
- **Trauma-Informed Care:** Integrate trauma-informed frameworks into mental health services, particularly in higher education institutions where young adults continue to deal with the consequences of ACEs.
- **Strengthening Resilience:** Develop programs that foster Positive Childhood Experiences (PCEs), such as mentoring, peer support, and community participation.
- **Capacity Building for Social Workers:** Train social workers, counsellors, and educators in identifying ACE-related symptoms, providing early interventions, and using casework and group work methods effectively.
- **Cross-Sectoral Collaboration:** Encourage cooperation between health, education, and social welfare systems to address ACEs holistically.
- **Research Priorities in India:** Establish national databases on ACEs, conduct longitudinal studies, and examine culturally specific resilience mechanisms to design context-appropriate interventions.

CONCLUSION

This article demonstrated, through content analysis of theoretical and empirical literature, that Adverse Childhood Experiences have profound and enduring consequences on mental health, identity, and resilience. Theoretical frameworks such as psychosocial, attachment, schema, resilience, and ecological models explained the pathways through which adversity disrupted development, while empirical studies confirmed these associations across diverse cultural contexts. Findings highlighted that ACEs increased vulnerability to depression, anxiety, PTSD, and social maladjustment, while Positive Childhood Experiences and resilience factors played a crucial moderating role. In India, the prevalence of violence, gender disparities, and socio-economic inequalities further compounded the risks, underscoring the urgency of culturally sensitive interventions. The analysis concluded that ACEs must be viewed not only as individual or familial challenges but also as systemic public health and social justice concerns. Effective responses require prevention, trauma-informed care, and resilience-building strategies. Strengthening child protection systems, embedding counselling in higher education, and prioritizing culturally grounded research are essential steps toward mitigating the lifelong impacts of childhood adversity.

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