

Effects of Early Childhood Trauma on Adult Mental Health

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Abstract: This article centres its focus on the varied manners in which children who undergo early trauma are impacted in the future about their mental health. This encompasses examining biological aspects (such as genetics and physiological systems) and environmental aspects (including social relationships and early attachment patterns). This article provides a concise summary of a substantial body of preexisting research conducted by scholars on diverse forms of childhood trauma that lead to mental disorders and persistent physical discomfort, such as depression, anxiety, and post-traumatic stress disorder (PTSD). Therefore, this article establishes a correlation between childhood trauma and unfavourable outcomes in mental health by expounding on the issues of drug and alcohol misuse. Lastly, this article alleviates the detrimental effects of childhood trauma by providing a summary of therapeutic interventions and discussing the impacts on public health aimed at reducing the prevalence of such issues in adulthood.

Keywords: Child trauma, mental health, psychological intervention, physical health, illness

1. Introduction

Presently, childhood trauma is highly prevalent in today's world [1]. Childhood trauma is defined as a kind of exploitation in risky and stressful situations, which comes with various short-term and long-term consequences [2]. Childhood trauma manifests itself as a form of abuse which involves physical, family or life-threatening events and natural disasters. Examples of this range from sexual abuse, parental divorce, mental illness in the family, and motor vehicle accidents [3]. Adverse childhood experiences (ACE) fall into the category of trauma, which can adversely affect the physiological functioning of children in their development, resulting in cognitive and emotional deficits. ACE involve negligence, domestic violence, incarceration, or physical abuse [4]. Accordingly, ACE predicts poor physical health outcomes in adulthood, which fails to cope with the dangers of a maladaptive behavioural environment. Following the report of the World Health Organization (1999), most of the health issues are correlated with mental disorders, while depression is expected to become a significant health issue worldwide [3]. Depression is a kind of mental disorder. Moreover, mental disorder is a double stress of mental and physical health issues. The research findings regarding the psychological outcomes and mental stress induced by childhood trauma demonstrate that severe mental disorders are correlated with childhood trauma. This involves depression, post-traumatic stress disorder (PTSD), anxiety, and cognitive disorders in adulthood [5]. Such mental disorders will

result in long-lasting effects in adulthood or later years of life. These disorders may re-emerge later in life, even following a brief period of dormancy with therapeutic means.

A great deal of childhood trauma stems from the family, involving parental divorce and sexual abuse of the children, among other things [6]. Nevertheless, given previous studies of children, the majority of childhood trauma stems from “acts of omission”, various forms of parental neglect, as well as the failure to implement protective measures if children are significantly harmed. For instance, children are exposed to cigarette smoke in a particular environment. Even though parents are aware of the adverse effects that smoke may exert on children, they do not responsibly quarantine their children but rather keep on practising it [7]. This kind of negligence not only physically harms the children but also leaves sensitive children with a sense of being ignored or unappreciated. According to studies, the traumas experienced by children involve issues from poverty, culture, and race [8]. These are likely to result from the environment brought to the children by their caregivers in the early years of life. For instance, parents constantly relocate with their children to various places for work due to work issues, which may result in their inability to integrate into a community setting. In the early years, since people in various places may be subjected to a clash of cultural perceptions, this can lead to social exclusion and negligence by others [9]. This kind of social exclusion is likely to have an impact on the mental health of the children, thereby creating a kind of cold violence against them.

Childhood trauma exerts an effect on the physiological aspects of the body. When children are exposed to stress, most develop a combination of hyperarousal and dissociation. In the wake of increased threat and risk, the body releases endogenous opioids and increases circulating adrenocortisol hormones. This may lead to decreased arousal awareness and pain awareness [3]. Physical effects can result in a range of physical health issues. Examples range from phobias, multiple personality disorders, and autoimmune disorders [10]. This can be mirrored in their physiology, such as the accelerated heart rate, increased muscle tone, and faster respiratory rate. The more severe and prolonged the traumatic event, the more likely the neurological changes will take place [3]. The changes in physical pain result in several people opting to abuse alcohol and drugs, which deliver negative results that yield a tremendous impact. The results of this alcohol abuse range from premature death, morbidity, crime, and loss of productivity to harming individuals and society [4]. This is a significant public health issue. For the sake of addressing the risk of trauma posed by physiological and environmental factors and reducing the prevalence of post-traumatic psychiatric disorders, appropriate treatments and intervention strategies are currently needed to prevent and manage the short-term and long-term effects of traumatic experiences.

Thus, the negative consequences resulting from childhood trauma are apparent in a variety of manners. The majority of current scholarly investigations suggest that childhood trauma is linked to an escalation in psychiatric disorders and persistent discomfort that disrupts normal physiological processes. In response to this, academics have put forth a range of interventions and treatment strategies. However, existing research does not comprehensively explore the enduring impact of childhood trauma on adult mental health. Scholars do not reach a consensus regarding effective therapeutic interventions in this domain. Instead, recent inquiries into childhood trauma have discovered a growing prevalence of mental health disruption caused by early maltreatment, which has become commonplace worldwide. This article presents a thorough examination of the pertinent literature and an overview of the phenomenon of childhood trauma based on the most recent global agreement, aimed at heightening awareness of the mental health implications associated with early traumatic experiences. This article establishes a basis for future extensive clinical diagnostic, therapeutic intervention, and prognostic studies.

2. Literature Review

2.1. Psychological Mechanisms

2.1.1. The Effects of Childhood Trauma on Brain Development

The aetiology of childhood trauma arises from the manifestation of sexually abusive conduct. The experience of sexual maltreatment during childhood is significantly linked to the emergence of psychological disorders and heightened contemplation of self-destructive tendencies [11]. The adolescent brain exhibits distinctive qualities that differentiate it from the adult brain. Previous research has shown that increased brain volume in areas linked to motor functions and language production was found in adolescents who experienced childhood trauma [12]. The cerebral region responsible for the regulation of emotions has been associated with psychiatric disorders and childhood adversity. Childhood trauma has the potential to increase the susceptibility of adults to the emergence of mental disorders. This can be attributed to the fact that childhood trauma elicits a sequence of hormonal and physiological alterations during periods of heightened sensitivity or critical stages, ultimately resulting in excessive overstimulation of neurons and subsequent modifications in brain structure and function [1]. Research findings have revealed notable disparities in neuroanatomy and cognition among individuals who experienced abuse during their childhood [7], implying that those with a history of traumatic childhood encounters exhibit considerable impairments in both the structure and function of their brain. For example, [13] research indicates that individuals who have experienced traumatic events during their childhood displayed diminished volumes in both the hippocampus and amygdala regions of the brain. Furthermore, grey matter decreased in the right dorsolateral prefrontal cortex and right hippocampus of these adult subjects. Currently, the majority of research employs the utilization of neuroimaging techniques to investigate the correlation between modified trajectories of brain development and childhood traumatic encounters. The various forms of childhood adversity might yield unique neurobiological consequences on the brain. [1] the research investigation employed resting-state functional MRI and structural MRI to explore the correlation between childhood trauma, brain function, and architecture in the population of young adults. The primary objective of this study was to discern the cognitive constituents and modifications in brain-behaviour association associated with each category of childhood trauma. The results reveal that distinct influences on brain function and architecture are observed as a result of various subtypes of childhood trauma. The pathogenesis of psychiatric disorders resulting from traumatic experiences is associated with specific brain regions and systems [1].

2.1.2. Interaction between Childhood Trauma and Genetic

An interplay exists between genetic and environmental determinants, contributing to the emergence and expression of diverse psychiatric and complex disorders. Most disorders are associated with genetic influences, whereby certain conditions adhere to Mendelian inheritance patterns while environmental and lifestyle influences shape others. For example, Twin and familial investigations have revealed a pronounced genetic constituent in psychiatric ailments, as evidenced by heritability approximations of schizophrenia and bipolar disorder ranging from 0.6 to 0.8. The concurrent occurrence of these disorders, accounting for approximately 63%, can be attributed to common genetic influences [14]. The lifetime risk of developing schizophrenia depends on the proportion of genes shared with affected individuals. Present research does not ascertain whether genes impede childhood trauma.

Nonetheless, [15] notes that early life experiences and trauma can augment the likelihood of adults developing mental illness, which is mainly observable in mood disorders. Consequently, early trauma constitutes one of the circumstances wherein environmental factors can trigger mental illness. If the

likelihood of experiencing trauma within a family history surpasses the occurrence in the general population of individuals with the ailment, consider the interplay between genetic predisposition and adversarial environmental factors.

2.2. The Relationship between Childhood Trauma and Adulthood

2.2.1. Attachment and Relationship Patterns

Attachment can be described as the inclination of individuals to form reliance and confidence in their nurturers after their entrance into the world, from whom they obtain a feeling of safety [16]. This bond has the potential to facilitate the cultivation of an emotional regulation mechanism and a consistent pattern of self-psychological security, enabling one to adjust effectively within challenging surroundings, thereby affecting cognitive and behavioural dimensions. The attachment style of young children is categorized as secure, anxious-avoidant, anxious-ambivalent, and disorganized. The disorganized attachment style may overlook past relationships and is characterized by mistrust and emotional detachment from others. It is noteworthy that a majority of individuals who have experienced childhood adversity typically exhibit disorganized attachment styles and may consequently perpetuate the same traumatic experiences onto their offspring [16]. As a result, they are prone to encountering disorganized relationships during adulthood. For instance, a study conducted by [17] explored whether mothers' attachment models and traumatic childhood experiences were similarly manifested in their offspring. The result reveals that Childhood trauma and insecure attachment styles exhibit higher rates among women afflicted with psychiatric disorders and their offspring in comparison to control groups. An intergenerational transmission of trauma and insecure attachment is potentially at play in these cases. Indeed, early childhood attachment styles shape children's patterns of relating to others in their interactions, and their ease of trusting others is related to caregiver patterns of relating and various environmental factors in early childhood. Bowlby's theory posits that infants are naturally inclined towards establishing close connections with supportive figures, and this inclination extends to other relationships as they grow [18].

As a consequence, individuals who experienced early trauma during their childhood may encounter difficulties in establishing trust and establishing intimate connections with their partners in subsequent relationships following instances of abuse and neglect perpetrated by their parents. In such instances, the child is inclined to develop altered perceptions and emotions regarding their parents and themselves when faced with stressful circumstances. Conversely, adolescence represents a crucial stage wherein a child's cognitive development undergoes a process of reassessment and integration of information from childhood, ultimately leading to the construction of new beliefs [17].

2.2.2. Development of Mental Health Disorders

The research findings reveal that childhood trauma is likely to result in mental health issues in adulthood, which encompasses post-traumatic stress disorder (PTSD), depression, anxiety, and cognitive disorders [19]. Children with early traumatic experiences are more likely to develop mental illness in adulthood. Previous studies have indicated that childhood maltreatment may be an essential risk factor for the development of psychiatric disorders. For instance, the study of [20] demonstrated that the utilization of bootstrapping techniques enabled the identification of a comprehensive indirect impact of post-traumatic stress disorder (PTSD) on the correlation between child abuse and psychotic disorder. This study uncovered that the avoidance and numbing symptoms of PTSD are distinctively correlated with psychiatric disorders.

Moreover, childhood trauma is a significant predictor of triggering PTSD. As a consequence, it can be hypothesized that children experience betrayal and abuse by their caregivers during their traumatic periods. Childhood trauma is prone to provoke psychiatric disorders in them when they are

threatened by identical environmental factors in the future [11]. A study was mentioned that compared victims with early trauma to non-abused children, which identified that victims with early trauma were 8 times and 4 times more likely to have dissociative and PTSD symptoms, respectively. Meanwhile, the likelihood of delusional hallucinations was five times higher than in non-abused children [21]. For the sake of symptomatic relief, most victims prefer to suppress their mental illnesses with medication.

Nevertheless, most people progressively become addicted to drugs, while suppressing mental illnesses for an extended period may cause them to become increasingly severe. Victims are more prone to engage in self-harming behaviours, attempts, or suicides after substance abuse [11]. Consequently, early traumatic experiences are capable of increasing the likelihood of triggering psychiatric disorders, which can, in turn, undermine the mental health of the people.

2.3. Explore Mental Health in Adulthood

2.3.1. Social Relationships and Challenges

It has been identified that trauma suffered during childhood impedes social and interpersonal relationships [4]. Children who experience trauma early in life have difficulty establishing trusting relationships and intimacy with others as a result of their childhood attachment patterns. As stated above, children with traumatic experiences tend to lose trust in their caregivers after being neglected and abused by them. This situation makes them grow up with a sense of establishing boundaries with anyone to prevent others from victimizing them. This is a mechanism to protect themselves, also called a sense of security [8]. Children with traumatic experiences who experienced caregiver abuse and negligence early in life may contemplate whether they are not making enough of a difference. At the same time, they tend to develop low self-esteem. This can persist into adulthood, in which they seek out people to whom they feel a greater sense of attachment. For instance, the attachment of a woman in adulthood shifts from her caregiver to her partner with attachment anxiety and attachment avoidance, such as the fear of being abandoned by her partner for something she has done wrong and avoidance of being close to others [8]. It is mentioned that secure attachment allows children to explore the world with a sense of trust, self-esteem and efficient stress tolerance.

In contrast, children without a sense of secure attachment are more prone to bad moods with no tolerance for stimulation and stress. When they are subjected to identical environments and stimuli as childhood trauma later in life, they develop aggressive behaviours toward others to make themselves feel secure. This aggressive behaviour can also be passed on to the next generation, resulting in abuse and neglect of their children as mothers [3]. For instance, research has revealed that mothers with a history of childhood abuse have higher levels of emotional disturbance in 6-month-old infants, where mothers invisibly inflict their depression and PTSD stress on their infants [10]. For this reason, children who experienced trauma early in life find it difficult to establish social relationships with their peers in adulthood, which involves aspects of life in school with classmates, at work with colleagues, at home with loved ones, and in life with friends. As far as they are concerned, it is a significant challenge for them to build trusting relationships and independent self-confidence.

2.3.2. Chronic Disease and Physical Health

Children who experience childhood trauma stand a higher risk of developing depression and post-traumatic stress disorder (PTSD) in adulthood [22]. Mental illnesses developed in childhood are significantly correlated with subsequent mental and physical illnesses (eating disorders, substance abuse, alcoholism). Studies have suggested that childhood maltreatment is strongly related to the development of chronic disease [3]. For instance, [6] mentions that childhood abusers are more likely to suffer from migraines, respiratory and gastrointestinal issues, gynaecological issues, and

neurological symptomatic issues in comparison to those who have not been abused. Abused individuals tend to develop dysregulated neuroendocrine responses that damage physiological systems in the body, thereby contributing to increased vulnerability to the development of chronic pain disorders. Children who underwent early trauma grow up in high-pressure environments, in contrast to normal children, are prone to triggers that remind them of their early traumatic experiences when they are in high-stress environments. The “relapse” of prolonged trauma may lead them to undergo significant pain, resulting in the development of chronic disorders. The impact of childhood maltreatment on physical health, however, is a gradual transition from adolescence to adulthood. During this process, the development of chronic illnesses is intensified and broadened [6]. Chronic illnesses as a result of physical abuse during adolescence appear to be symptomatic. A previous study suggested that children with early experiences of abuse were more likely to be maltreated at 7 years of age. All but one showed symptoms that included fears, developmental delay, enuresis, insomnia, anxiety, over-compliance, impulsivity, head banging and rocking. By 18 years of age, all showed symptom pictures that included anxiety, self-doubts, self-criticism, perfectionism, compulsivity, tension, feeling physically vulnerable, poor self-esteem, uneven concentration, depression, longings for tenderness, emotional restriction, passivity, lack of direction, suspiciousness and impulsivity [23]. These symptoms can persist and affect them well into their later years, with the potential to keep getting worse.

2.4. Solution

2.4.1. Therapeutic Intervention

Early childhood trauma is strongly associated with physical health in adulthood [1]. Moreover, it has been noted that a growing number of adults worldwide have suffered from some form of childhood trauma, paralleling the increase in psychiatric disorders in adulthood. To effectively control the prevalence of childhood trauma, appropriate therapeutic interventions are necessary. However, there is limited research evidence on the effectiveness of these treatments, and a lack of professional consensus on the most suitable treatment modality [6].

Recent research has evaluated various interventions. Studies on Dialectical Behaviour Therapy (DBT) have shown that it significantly improves emotional functioning, with positive outcomes in areas such as self-harm, relational difficulties, and substance abuse [24]. Similarly, the application of the Attachment, Regulation, Competency (ARC) model has been found to enhance behavioural and emotional regulation in children [25].

Social-emotional competence (SEC) is defined as the successful management of emotional arousal and active participation in social activities. It has shown promise in supporting resilience against trauma in children [26]. Previous studies have examined school-based interventions aimed at improving SEC for children with traumatic experiences, finding that children who received the intervention showed significant improvements in SEC, with a particularly strong effect among girls. No substantial effects were noted in terms of ethnicity, age at enrolment, or the interaction between intervention and gender, confirming the efficacy of the intervention in enhancing SEC [26].

Neuro-Physiological Psychotherapy (NPP) is a psychological counselling approach that integrates the relationship between mind, brain, body, environment, social interactions, and well-being. This attachment-focused intervention is often used for emotional and behavioural reactions clinically [24]. A study found that after NPP therapy, children exhibited great improvements in executive functioning and behavioural regulation. The NPP model focuses on regulation strategies, including sensory and somatic bodywork. Attachment-focused therapy aids in developing secure coping mechanisms for distress. The use of the NPP model resulted in positive cognitive and social changes, with significant

reductions in externalising and internalising difficulties, aggressive behaviours, and anxiety and depression in children, potentially decreasing the likelihood of psychiatric disorders.

2.4.2. Public Health Interventions

Many children are exposed to abuse or violence, which potentially harmful effects on their healthy development. To reduce mental illness and improve well-being, effective public health strategies for prevention and intervention are essential. Communities need interventions to address the effects of childhood trauma. For example, improved primary care and medical home models can help identify risk factors and support providers. Children at high risk can be referred to specialised psychotherapists for treatment [27]. School health programmes can educate children and adolescents about maintaining mental health and developing healthy relationships. Parents should be supported in efforts to improve their parenting skills to create a stable environment and build positive relationships with their children. Communities should offer free educational seminars for child caregivers. In medical clinics and nursing homes, staff should be trained in trauma assessment, using methods such as structured interviews [19]. Finally, it is worth noting that many trauma and mental illness triggers are associated with environmental stress [6]. Therefore, policy interventions such as fairer wages and paid vacations could reduce stress and help families to maintain harmonious relationships.

3. Conclusion

This article has provided a detailed review of research on the long-term effects of childhood trauma on adult psychological well-being, considering both physiological and environmental factors. It has drawn on research from leading academics and examines various kinds of early abuse, analysing their complex consequences on potential psychopathological conditions, including depression, anxiety, and post-traumatic stress disorder. The study has also explored how childhood trauma affects the development of social bonds, trust in others, and the establishment of personal boundaries, using the theory of attachment styles as a framework.

The article has also outlined effective therapeutic interventions and public health approaches, and discussed challenges in their implementation; these are chiefly due to a lack of public awareness about the risks associated with trauma and mental health issues. Educating the public about the relationship between well-being and illness and providing a limited number of clear interventions is therefore paramount. However, such therapeutic interventions require considerable effort, and, in many cases, professional expertise. More concerted efforts to improve interventions are therefore necessary. This in turn, calls for further research to develop more appropriate interventions and treatments.

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