CHAPTER 2

Impact of Abuse and Neglect on Child Development

For some children, the effects of abuse, neglect, and witnessing violence can be buffered by close personal relationships they form with trusted adults. Social supports can even help them recover from such traumatic events, particularly when current attachments to safety figures outweigh the terrors of the past, according to trauma researcher Dr. Bessel van der Kolk.[39]

For too many children, however, these experiences result in scars that, if not indelible, are exceedingly difficult to erase. This is particularly true when abuse, neglect, or trauma from violence occurs by age three.[40] Experts say that traumatic early experiences can cause a normal child to become developmentally delayed or develop serious emotional problems. Research has established that early childhood trauma has a profound impact on the emotional, behavioral, cognitive, social, and physical functioning of children.[41]

A 1995 Baylor University study found that children who were rarely touched or spoken to and who were not allowed to explore and experiment with toys developed brains that were 20 to 30 percent smaller than normal for children their age.[42] The study conducted by Dr. Bruce Perry also found that, "multiply abused infants and toddlers often experience developmental delays across a broad spectrum, including cognitive, language, motor, and socialization skills."[43]

In a sample of sexually abused children,[44] victimized children were found to display the following symptoms and behaviors:

* 61% exhibited anxiety symptoms
* 41% depressive symptoms
* 31% regressive behaviors
* 36% inappropriate sexual behaviors

Other symptoms, such as eating disorders, have also been found to relate to child physical and/or sexual abuse.[45] In addition, maltreated children have been found to develop a variety of psychiatric conditions, including Attention Deficit and Hyperactive Disorder (ADHD), Oppositional Defiant Disorder, Conduct Disorder, Separation Anxiety/Overanxious, Phobias, and Posttraumatic Stress Disorder (PTSD).[46]

Impact of Abuse and Neglect on Early Brain Development

The human brain is not fully developed at birth and represents only 25 percent of its approximate weight at adulthood. It depends upon individual experiences to guide its growth and development. Experiences and sensory inputs organize the brain's patterns of communication between neurons and determine how we think, feel, and behave.[47]

As the brain develops, it begins to organize and eliminate unnecessary, rarely used neural connections.[48] Connections that are used repeatedly during the early years of a child's life become the life-long foundation of the brain's organization and function.[49] By three years old, a child's brain has reached approximately 90 percent of its full potential. To reach this optimal stage, the brain requires good health and nutrition, as well as a great deal of stimulation and support.[50] Thus, a loving, secure, stimulating environment fosters healthy development, while a continually neglectful, physically or emotionally abusive environment can create significant, long-term harm.[51] The quality of a child's earliest experiences, including the quality of infant and toddler childcare, plays a crucial role in the overall development of the brain.[52]

Early trauma alters the development of the brain. Failure to properly nourish a child, inflicting physical pain and injury or simply ignoring the emotional needs of a small child can cause trauma.

Damage can be significantly more detrimental than other diseases that affect the brain and can often be corrected through drugs or surgery. Influencing the way the brain functions in repeatedly harmful ways can result in permanent and irreversible injury.[53,54]

The neural connections established during the early years of life respond to certain patterns. Traumatic experiences, for example, when a child endures physical or sexual abuse, or witnesses violence, can increase the production of cortisol, a brain hormone that can lead to a destruction of neurons and a reduction in synapse formation, thus altering brain function. Chemical levels in the brain and blood play a role in determining how a person will respond to challenges in the environment. When a child lives in constant fear or has experienced trauma, they live in a state of chronic stress. Research has found that children with chronically high levels of cortisol demonstrate more cognitive, motor, and social delays than other children.[55]

Serotonin and noradrenaline also play significant roles in brain function. Serotonin modulates emotions, including aggression, while noradrenaline regulates responses to fear and anger. Under normal circumstances, these hormones work harmoniously. However, traumatic events and/or chronic stresses can alter levels of these hormones, resulting in a variety of emotional, behavioral, and cognitive problems.

Children who are physically abused in early life develop brains that are highly attuned to aggression and danger. It has been found that, "early, frequent, and intense stress tunes the brain to set stress regulation mechanisms at high levels."[56] As a result, the child often lives life in a perpetual state of fear. A child of this type may behave more aggressively to environmental stress and may have difficulty controlling his or her aggressive actions.

Similar to adult veterans of war, children exposed to trauma may experience symptoms of Posttraumatic Stress Disorder (PTSD). PTSD is a syndrome that occurs in response to a highly distressing event. After the occurrence of a traumatic event, the child frequently re-experiences the event through nightmares or intrusive thoughts. As a result of the stress on the child, symptoms such as jumpiness, sleep disturbance, and poor concentration undermine his or her stability.

Immediate and Long Term Behavioral Effects of Abuse and Neglect

Several immediate responses to child abuse trauma have been identified in children. Many show difficulty remaining calm when faced with emotional challenges, and develop what are termed "arousal disorders." Others have the tendency to overreact or freeze in uncomfortable situations. Children may also experience attention difficulties that make it hard to focus on and complete tasks.[57] Other physiological responses include increased heart rate, temperature, and blood pressure. Many children also continuously scan their environment for danger and over-interpret the actions of others.[58]

Traumatic experiences in childhood increase the risk of developing future psychiatric symptoms in adolescence and adulthood.[59] Depending on the frequency, nature, severity, and pattern of traumatic experiences, at least half of all exposed children are at risk of developing considerable neuropsychiatric conditions.[60] Most researchers agree that the difficulties of abused and neglected children intensify over time, particularly when abuse is longstanding and no formal intervention occurs.[61]

Some of the long-term problems experienced by children who have been traumatized include difficulties forming and maintaining stable relationships with others, as well as problems meeting their own personal needs. Affected brain development, especially at an early age, can have long-term effects on cognition, the regulation of emotions, and social interactions. Problems that abused and neglected children face as they grow into adulthood can include:

* Increased prevalence of drug or alcohol dependence
* Increased rate of status offenses - running away, truancy
* Delinquent behavior and adult criminal behavior
* Growing up to repeat abusive and neglectful parenting behaviors

* Lost future earnings
* Recurring health problems - physical and mental

The "Adverse Childhood Experiences Study" described in Chapter 1 has also documented the link between abuse in childhood and risk factors for adult disease. The U.S. Centers for Disease Control and Prevention, joined by other leading health researchers, confirm: there is a significant graded relationship between the extent of exposure to emotional, physical, sexual abuse and household dysfunction during childhood and multiple risk factors for the leading causes of deaths in adults -including, ischemic heart disease, cancer, chronic lung disease and liver disease.[62]

A study completed in 1983, following up on 97 boys who in 1943 had been abused and neglected, found that 45 percent had become criminals, alcoholics, mentally ill, or had died before the age of 35.[63] According to researcher Widom, being abused and neglected as a child can increase the likelihood of arrest as a juvenile by 53 percent, and arrest as an adult for violent crime by 38 percent.[64]

Most tragically, if the cycle of violence is not interrupted, child abuse and family violence can be perpetuated for generations. Parents that abuse their own children, and the victims and perpetrators of other forms of domestic violence, are frequently survivors of maltreatment in their own childhoods.[65]

Trauma and Learning

Maltreated children have greater behavioral problems and perform significantly worse in school, according to a study by Dr. van der Kolk:

* 30% of abused children have some form of language or cognitive disability;
* 50% or more have difficulty in school, including poor attendance and misconduct;
* 22% or more have a learning disorder;
* 25% require special education services at some time.[66]

Significant differences in academic performance are also found between maltreated and non-maltreated groups of children.[67] The constant threats experienced by an abused child can result in the child being fearful and over-vigilant, even in situations that present no risks. Concentrating on the emotional and physical cues of other people, including teachers, the abused child may have difficulty taking in academic information and may fail to develop appropriate problem-solving and language skills. In one study, the cortex, or thinking part of the brain, was 20 percent smaller on average in abused children than in those children who had not been victimized.[68]

Resiliency and Early Intervention

Resiliency can be defined as "strength under adversity." It is the capacity to withstand the effects of adverse conditions. According to childhood trauma expert Mark Katz, PhD, "There is a myth that children are resilient. If anything, we now know that children are more vulnerable to trauma than adults."

The brain's agility provides potential for positive experiences to lessen the damage of trauma.[69] These protective influences can be found in families, communities and schools, but too often they are lacking.[70] For example, it is not uncommon to hear of children who are berated or punished in school for poor concentration and aggressive behavior that are themselves the results of previous trauma and violence. In such instances, the school fails to be a supportive environment and a protective influence, and becomes yet another traumatizing influence on already vulnerable children.

It is important to note that resiliency decreases, as children get older. Increased exposure to risk and the severity of risk also decreases resiliency. This demonstrates the critical need for early intervention in the lives of abused or neglected children in order to minimize these damaging effects.

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