

Developmental/Complex Trauma

Developmental/complex trauma is a term used to describe the impact of repeated and prolonged experiences of abuse, neglect, or other forms of harm that happen within a young person's important relationships, usually during early childhood. This type of trauma can have long-lasting effects on a person's psychological and emotional wellbeing. It can impact their relationships and overall quality of life.

Characteristics of Developmental Complex Trauma

There are three unique characteristics associated with developmental/complex trauma.



It typically has an early onset, starting in childhood and continuing over an extended period. This chronic exposure to trauma distinguishes it from single-event



It is inherently interpersonal, often involving caregivers or primary attachment figures. The nature of the trauma being inflicted by those the young person is supposed to trust can dramatically shape their sense of self, core assumptions of the world around them, and their ability to trust and feel safe.

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It has a profound effect on neurodevelopment, potentially disrupting the formation of important brain structures and impacting multiple areas of development and wellbeing.

Causes of Developmental Complex Trauma

Several factors contribute to developmental complex trauma. Being aware of these potential causes helps in understanding the immediate and long-term impact on a young person.

Abuse

e.g., physical, emotional, sexual, cultural and racical abuse by caregivers and/or other.

Neglect

e.g., limited emotional and/or physical care and support from primary caregivers.

Exposure to violence

e.g., witnessing and/or experiencing violence in the home or community.

Disruption of attachment

e.g., inconsistent and/or disrupted attachment relationships with primary caregivers.

Antenatal exposure

e.g., substance, high or excessive maternal stress.



Picture a house with no solid foundation; it's bound to sway, be unstable, and potentially crack, crumble, and may even fall. For young people, these adverse childhood experiences impact their foundations.



Impact on Brain Development

Although the brain commences development in utero, the brain continues to develop after birth, with the first three to four years of life being a critical developmental period. The brain develops in a 'bottom-up' sequence from the most primitive (brain stem) to the most complex (neocortex).

The brainstem (downstairs, reptilian, or caveman brain) is the first part of the brain to develop and is mostly developed by the end of the second trimester. Before a baby is born, their brain is already adapting to the environment in which they'll need to survive. The higher parts of the brain (neocortex), also known as the upstairs, rational or thinker brain, develop throughout childhood and adolescence. These higher parts are responsible for more sophisticated functions, such as empathy, emotional regulation, language, and cause-and-effect thinking. How well the higher parts of the brain function and operate depends on the development of the lower parts of the brain.



The infant brain develops from the 'bottom up'.

- Neocortex. Final regions of the brain to develop.
 Responsible for attention/concentration, learning, thinking, and reflecting, language, reasoning, problem solving etc.
- Midbrain and Limbic. Second region of the brain to undergo development between 6 months and 3 years. These are responsible for attachment and emotional development.
- **Brain Stem.** Develops first and is responsible for basic functioning such as breathing, blinking, digestion, and controls our responses to survival (fight, flight, or freeze).

Optimal/healthy brain development needs environments that are nurturing, supportive, sensitive, and enriching. Exposure to chronic/toxic stress and traumas can cause structural changes in the brain architecture.

Enlargement of the Amygdala (Midbrain/Limbic)

Shrinking of the Hippocampus (Midbrain/Limbic)

Shrinking of the Pre-Frontal Cortex (Neocortex)

Responsible for processing emotions – our alarm/smoke detector.

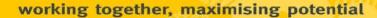
Critical for learning, memory, emotional processing, connecting the lower and upper parts of the brain, and regulating cortisol levels. Responsible for decision making, impulse control, remembering important information.

Impact: difficulties
with emotional
regulation and
distinguishing safe
environments from
potential
risks/threats (like
having a smoke alarm
that goes off even
when there's no fire).

Impact: impaired ability to process and store memories accurately, which may contribute to memory-related issues such as fragmented recollections of events, challenges with concentration and learning new information. This impacts daily life, academic performance, personal responsibilities, and interpersonal relationships.

Impact: impaired capacity to plan, organise and regulate emotions, which impacts personal, social, and professional relationships and environments.

When in survial mode the pre-frontal cortex does not work well.





When the structure of the brain changes, it then impacts how the brain functions. The automatic nervous system becomes more sensitive and reactive – a system that unconsciously controls the fight, flight, or freeze response. The automatic nervous system constantly scans for cues of safety and cues of danger (real or perceived); cues from inside the body, outside in the environment

Cues of safety dampen defensive systems and facilitate social behaviour.

Cues of danger activate defensive systems of facilitate mobilisation (fight/flight) or immobilisation (shutdown, dissociation).

and between people. The automatic nervous system has assessed this information and activates a survival response within 1–5 milliseconds.

When there are cues of danger, stress chemicals like cortisol are released. Parts of the brain that help with



thinking, learning, and language then start to shut down as the brain is focused on survival and trying to keep us safe. If this keeps happening, especially in early childhood, the brain becomes used to always being on alert – looking/scanning for cues of danger. This makes the amygdala more active, and the brain is flooded with higher levels of stress chemicals, which impact the brain structure further.

Over time, the brain develops in a way that prioritises survival over learning and connecting with others. This means young people are always focusing on personal safety, making it harder to learn, form relationships, and cope with stress. As a result of the faulty alarm system, even in safe environments the brain stays in survival mode. Everyday things, like relationships, moving between classes or hearing a loud voice, can feel like a big threat, causing a strong fear response.



It's like trying to build a house without the proper materials. The foundations are already not solid (adverse childhood experiences), so the walls, plumbing and wiring may then not work well or as intended. The wires and plumbing are in but not connected correctly. The stairs are built, but the first steps may be missing or unstable, and accessing the upstairs (higher

functions of the brain) may be challenging. Every stressor weakens the structure, making it more difficult to function and safely navigate relationships and the world around them.

The age of the young person when trauma/s occurs influences the impact on brain development, functioning and wellbeing. Trauma in utero and within the first few years of life has the most impact on later wellbeing. Given this, care must be taken to ensure that we don't assume young people are simply making 'bad choices', being 'manipulative' etc when they may in fact be unable to respond to stressful situations in ways we would hope.

The Long-Term Impact

The impacts of developmental/complex trauma can be profound and long-lasting, even intergenerational. It can permeate every aspect and domain of a person's life - their foundations are unstable, and the house was built without the proper materials.

Childhood and adolescence are periods of rapid growth, development, and change. The skills and tasks we need to master as adolescents and adults build on what we learned when we were younger. Traumatic events at any age can disrupt this development because they cause lasting structural and functional changes in the brain. When young people experience multiple traumatic events over a long time, the evidence is clear, they will have significant gaps in their development. These early developmental gaps can make it difficult for them to achieve the developmental tasks of adolescence. It's like trying to climb stairs with some steps missing.



The impact of trauma can vary, depending on individuals' personal experiences, coping mechanisms, and the support they receive. However, there are some commonalities. The impact extends beyond the immediate emotional responses and can significantly impact every aspect of a young person's life. These can be captured under six main themes.

Attachment/Relationships

e.g., problems with boundaries, mistrust and suspiciousness, poor peer relationships, interpersonal difficulties.

Behavioural

e.g., impulsive, aggressive, 'people pleasing', difficulty understanding and complying with rules.

Biology / Physical

e.g, hypersensitivity to physical contact, problems with coordination/balance, sleep disturbances.

Cognition/Thinking

e.g., challenges with memory, speech and language, processing new or different information.

Affect Regulation / Emotions

e.g., difficulties understanding emotions of self and others, intense emotions without knowing why.

Self-concept/view of the world

e.g., low self-esteem, selfblaming, intense shame and guilt, world and others are unsafe.

These challenges do not disappear when the young person becomes a young adult. Adults who have experienced childhood trauma very often continue to struggle with profound difficulties in ways that map across the six areas mentioned above. Imagine running a race with a weight strapped to your back.



You can keep going, but it's much harder than it should be. Many live with the heavy baggage of their past traumas, feeling the weight every day making it challenging to process, act and respond to everyday interactions and situations.

For further information, refer to the ETS Some difficulties following trauma factsheet.

Path to Healing and Recovery

Healing/recovering from developmental complex trauma can be a long and challenging journey that requires patience, commitment, and support from the adults around the young person. Key messages from the research highlight:

- With appropriate support/treatment and a safe and nurturing environment, young people who have experienced developmental complex trauma can heal, develop resilience, and regain a sense of hope and wellbeing.
- The importance of support from caregivers, family members, and the community is crucial in creating a safe and nurturing environment for healing.
- Healing and recovery require a holistic, comprehensive, and multidisciplinary approach tailored to the individual's underlying emotional, relational, cognitive, physical, language and social needs that have resulted from their traumatic experiences.
- Early intervention is key in mitigating the long-term effects.

There are a multitude of powerful experiences that can buffer the impact of early adversity/trauma. For further information, please refer to the ETS Nurturing and Protective Positive Childhood Experiences Framework and ETS Aboriginal and Torres Strait Islander Social and Emotional Wellbeing resources.

Developmental complex trauma is a profound experience that shapes lives in many complex ways. Understanding the conditions in which it can occur and the impact it has on young people is the first step. The path for those who have experienced developmental/complex trauma is not always easy, there are often multiple hurdles, but with the right support, healing and recovery is possible.