A Child's Road to Resilience

The science behind the importance of nurturing relationships in child and youth development

SOS CHILDREN'S VILLAGES

Founded in 1949, SOS Children's Villages is the world's largest non-governmental organization focused on supporting children and young people without parental care or at risk of losing it.

Child neglect, abuse and abandonment is everywhere. Families are at risk of separation. Locally led, we work in more than 130 countries and territories to strengthen families who are under pressure so they can stay together. When this is not in a child or young person's best interests, we provide quality care according to their unique needs.

Together with partners, donors, communities, children, young people and families, we enable children to grow up with the bonds they need to develop and become their strongest selves. We speak up for each child's rights and advocate for change so all children can grow up in a supportive environment.

Published by:
SOS Children's Villages International
Brigittenauer Lände 50
1200 Vienna, Austria
https://www.sos-childrensvillages.org

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Publication history
First edition: December 2023
Second edition: June 2026 (Revised to include foreword)

Suggested citation
Granberger, Tyko, and Brezovich, Mary. *A Child's Road to Resilience: The science behind the importance of nurturing relationships in child and youth development*, 2nd ed. Vienna: SOS Children's Villages International, 2026.

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Foreword

This foreword was authored by McNary Group, a multidisciplinary collective specializing in systems reform, policy, evaluation, and community work with children and families, following their independent peer review of *A Child's Road to Resilience.* The related peer review is available here.

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A Child's Road to Resilience: The science behind the importance of nurturing relationships in child and youth development synthesizes interdisciplinary research to explain why stable, supportive relationships are foundational to children's and young people's emotional, cognitive, and social development, as well as to their capacity to adapt and grow when adversity occurs.[1] Grounded in the premise that feeling loved and supported helps build self-worth, the report positions nurturing relationships as a core pathway to resilience in daily life and in the face of trauma. *A Child's Road to Resilience* is especially timely given the extraordinary and interdependent pressures shaping childhood and adolescence today, including poverty, family stress and breakdown, the climate crisis, conflict, displacement, digital risks and other forms of violence against children.[2] The authors take a practical, family-centered lens that emphasizes caregiver well-being and responsive caregiving. In addition, they use applied case stories to translate research into accessible, real-world contexts that reinforce trauma-informed practice and shift attention away from individual blame and toward relational support.

The report is based on an extensive desk review of peer-reviewed academic literature across multiple disciplines, with a particular focus on neuroscience. It is explicitly framed as a synthesis rather than a systematic review. The authors organize the report around three guiding questions: why nurturing relationships matter for development; how relationships build resilience and buffer the impacts of neglect, abuse and trauma; and whether trauma can be transmitted across generations. Importantly, the report avoids deterministic framing by emphasizing brain neuroplasticity and the possibility of recovery and improved well-being despite instances of early childhood trauma. While early intervention matters, healing and growth remain possible across the life course.

At a moment when child- and youth-serving systems are grappling with compounding challenges, A *Child's Road to Resilience's* relational lens is particularly relevant. By centering relationships as a core mechanism for resilience and healing, the manuscript offers a conceptual framework that can inform policy, program design, funding strategies and future research agendas across diverse global contexts.

Implications for Policy, Practice, Research and Funding

The evidence synthesized in *A Child's Road to Resilience* reinforces a central implication for child development: nurturing relationships are not simply supportive conditions. They are foundational mechanisms through which children build the capacities that underlie learning, health, emotional regulation and more throughout their lives. This positioning also matters for the field itself. It supports studying resilience as a developmental and ecological process shaped by relationships and context, not as an individual trait. With this in mind, the following considerations can be taken as a shared framing document for policy, program design, funding strategy and research agendas.

1 In this report, "nurturing relationships" refers to stable, responsive and emotionally supportive relationships with caregivers, other significant adults, and peers across the life course which contribute to children's and young people's safety, development, resilience and recovery.
2 As included in Sustainable Development Goal 16.2 and related goals and targets.

For policymakers, systems leaders and child rights advocates:

- **Name relational stability as a policy outcome.** Embed relationship-centered indicators in child welfare, education and health strategies (for example, stability of caregivers and continuity of key adults).
- **Strengthen relational practice and continuity within child protection and care systems.** Prioritize children's access to stable, trusting relationships alongside safety – through family strengthening, caregiver support and long-term relational stability.
- **Support the concept of caregiver well-being as prevention.** Policies that strengthen and protect caregiver capacity (parental support, mental health services, family stability, crisis support) also protect children. Strengthening caregiver capacity also reinforces their own well-being, creating more stable environments for children.
- **Use the report as a shared evidence base.** Apply it to align cross-sector priorities around family strengthening, prevention, and relational supports, including in alternative care.

For practitioners and organizations:

- **Translate the relational framework into practice.** Prioritize stable, consistent, and responsive relationships across settings (family strengthening, schools, social work, alternative care, mentorship).
- **Emphasize relational repair in trauma-informed services.** Healing is supported when children and youth experience safety, predictability and trustworthy adults over time.
- **Keep the lens family-centered.** Where possible, design supports that strengthen caregivers and family systems, not only individual children.
- **Strengthen caregiver and child and youth care worker competencies in relational practice.** Invest in the ongoing development, supervision, and support of those providing daily care, to ensure they can build, sustain and repair relationships in everyday interactions with children and young people.

For funders and philanthropic partners:

- **Fund relationships as outcomes.** Prioritize models that strengthen relational stability, caregiver well-being and consistent adult support.
- **Use the report to connect adverse childhood experiences (ACEs) and protective experiences.** The report positions nurturing relationships as a key buffer that can interrupt the link between ACE exposure and later outcomes, while PACEs/PCEs[3] reflect protective relational experiences that support recovery. Pair investments that reduce adversity with investments that build positive relational buffering and protective factors.
- **Support implementation tools.** Consider funding companion resources (for example, one-page "how to use" guidance, practice checklists or an "investment menu" tied to key mechanisms).

For researchers and the field:

- **Be explicit about evidence sources.** Clarify how peer-reviewed literature is complemented by practice-based knowledge, lived experience and relevant grey literature.
- **Strengthen global relevance.** More consistently foreground the cultural and geographic limitations of published research and invite evidence from diverse contexts, particularly scholars from non-Western, global majority countries.
- **Identify priority gaps for future learning agendas.** For example: relationship-centered interventions across age groups; stronger integration of qualitative evidence; studies across varied cultural and socioeconomic settings; and practice-informed evidence from global contexts.

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3 PACE refers to Protective and Compensatory Experiences, and PCE refers to Positive Childhood Experiences

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Introduction

Background and purpose

Stable and supportive relationships are essential for nurturing holistic growth in children and young people – emotionally, cognitively and socially. When individuals know they are loved, accepted and supported, they flourish in multiple dimensions: they cultivate a secure sense of self-worth, learn to trust in themselves and others, and engage with the world around them.

This emotional fortress enables children and youth to hone their coping skills and build resilience. The daily hurdles of growing up demand it. And when adversity strikes, those with robust support systems can not only bounce back but also adapt and grow.

Today's children and youth are coming of age in a world filled with extraordinary challenges – the climate crisis, political instability and war, forced migration, poverty, inflation, youth unemployment, the misuse of social media and artificial intelligence. To name a few. They will need all the support they can get to grow up strong and make the transition to independence. Those who experience neglect, abuse or other traumas in childhood will need even more support.

This publication explores the role that nurturing relationships play in child and youth development. By providing scientific evidence, the aim is to contribute to efforts that support children and youth to build the resilience they need to meet life's challenges. Advances in technology, cross-disciplinary studies and multi-country research offer significant opportunities for expanding on evidence-based responses.

Methodology and scope

The research methodology involved an extensive desk review of peer-reviewed studies and other academic literature. The review covered a range of disciplines, with a particular focus on neuroscience. It is important to note that this publication does not constitute a systematic review.

Research questions included:

- Why are nurturing relationships important for a child's development?
- What is the role of nurturing relationships in building resilience and mitigating the impact of neglect, abuse and other traumas?
- Can trauma be passed down through generations?

When considering child development and resilience, there are many factors that come into play such as the role of nutrition, educational opportunities, social support networks, community, available services and the broader economic, policy and social landscape. While we touch on a few of these areas, for the most part these layers remain out of scope. Our focus is on individual connections and relationships – between caregiver and child, teacher and adolescent, parent and social worker, or between friends.

Finally, it is important to acknowledge limitations in the research available to date. The majority of the research surveyed originates from North American and European contexts. Especially when it comes to the design of services, further research from different geographic, cultural and socio-economic backgrounds is needed.

This publication contains four case stories that illustrate different aspects of resilience building. The first three stories are derived from the practice of SOS Children's Villages in Bolivia, Bosnia and Herzegovina and Zimbabwe, respectively. The fourth story comes from a private practice in Sweden. Some names have been changed to protect the individual's privacy.

Who this publication is for

In developing this publication, the authors discovered a wealth of evidence on the role of nurturing relationships in healthy child and youth development. Critically, neuroscience confirms that it is never too late to heal from the past, build resilience and chart a new future. Trusting relationships play a vital role in supporting change.

This publication brings together existing findings and provides a snapshot of current trends in research and practice. In so doing, it is meant to serve as a general introduction for anyone interested in learning more about how relationships in childhood contribute to child development, healing and beyond.

For policymakers and those advocating for policy change – whether in the mental health, family strengthening, alternative care or child development fields – the evidence and further resources presented can help make the case for investing in policies and practices that nurture relationships for children and young people, ultimately contributing to stronger, more resilient societies.

Those working in the child and family welfare sector may find the data and material provided here helpful in developing services and interventions to support children, youth and families.

For individuals and organizations looking to fund efforts to break the cycle of child neglect, abuse and abandonment, the publication presents an overview of complex, interrelated topics that are relevant to healthy child and youth development, and healing.

Finally, the authors extend a special thank you to the individuals whose stories are featured here. By sharing your experiences, you bring to life what science suggests: relationships matter, and change and healing are possible when we are supported and understood.

1. The architecture of the brain

The development of a child's brain is shaped by an interplay between genetics and early experiences, the results of which influence all future learning, behaviour, relationships and health outcomes. The brain is particularly sensitive to both positive and negative experiences during the early years, when the brain develops particularly rapidly. To a large extent, the quality of early life experiences depends on the quality of the child's relationships with the adults on whom they depend for survival, safety and learning. In short, the love and care we get from the people who look after us shapes our brain.

Early development and the formation of synapses

The field of neuroscience has experienced a boom of research and discovery in the last 25 years, thanks in part to technological advancements in areas such as brain imaging. New, interdisciplinary approaches with other fields such as psychology and computer science have led to a deeper understanding of how the brain develops and functions, and how it can be damaged and heal.

While earlier scientific perspectives offered a localized view of brain function, current research has shifted towards a network-based understanding. In this contemporary view, the brain is not just a series of isolated compartments but instead a web of flexible and interconnected networks joining different areas of the brain to each other.[1]

The early years of a child's life are crucial for the overall development of these networks. During this time, the brain undergoes rapid growth and forms countless connections called synapses, which are the junctions between brain cells.[2] Information is transmitted over these synapses through electrical and chemical signals, allowing different regions of the brain to communicate and work together. This forms the foundation for various cognitive functions, including learning, memory and problem-solving.[3]

The brain's ability to adapt

Practice makes perfect. In neurological terms, this means that when a behaviour is repeated over and over again, the brain becomes more efficient at doing it. Experiences create neural pathways by forming synapses and strengthening them with repetition. Conversely, the pathways that are no longer needed get weaker and are eventually pruned away. The process of synapse formation and pruning is influenced by a combination of genetic factors and the child's experiences and interactions with their environment, referred to as the gene-environment interaction.[4]

This ability of the brain to reorganize and form new neural connections is known as neural plasticity. Simply put, neuroplasticity refers to the brain changes that occur in response to experience. It's particularly active during early childhood, and secure attachments (discussed in more detail in the next chapter) can play a pivotal role in this process, essentially fine-tuning the brain's neural networks for emotional and social intelligence.

1 G. K. H. Zupanc, "Mapping Brain Structure and Function: Cellular Resolution, Global Perspective," *Journal of Comparative Physiology* 203 (2017): 245–264.
2 F. H. Gage, "Neurogenesis in the Adult Brain," *Journal of Neuroscience* 22, no. 3 (2002): 612–613.
3 M. F. Bear, B. W. Connors, and M. A. Paradiso, *Neuroscience: Exploring the Brain*, 4th ed. (Philadelphia: Wolters Kluwer Health, 2016).
4 Bear, Connors, and Paradiso, *Neuroscience*.

The brain experiences an extremely high degree of plasticity during the first few years of life since this is when it is developing most intensively. During this time, more than one million new neural connections are formed every second.[5] Some neural circuitries, such as sensory systems, some aspects of language, motor functions, social development and executive functions have sensitive windows – periods where experience has a particularly strong influence.[6] Although research indicates that these windows are vital for neural development, the brain retains plasticity throughout life, which enables ongoing learning and development, and allows for the brain to recover from various injuries and strokes.[7]

In fact, neuroscience suggests that the potential for the brain to adapt and change has no age limit. A study from 2015 showed that older adults can improve specific cognitive functions through targeted cognitive training.[8] Another study, among Buddhist monks, was conducted by the Waisman Laboratory for Brain Imaging and Behavior at the University of Wisconsin Madison. Through the use of functional magnetic resonance imaging (fMRI) – the study revealed changes in brain function and patterns of neural activity among long-term practitioners of meditation.[9]

These recent advancements in our understanding of how the brain works have profound implications for children, adolescents and adults who may not have had a healthy start in life. For example, when it comes to overcoming trauma or coping with stress, neuroscience now confirms that healing can and does happen, paving the way for further evidence-based research on therapeutic interventions.[10] While change generally becomes progressively more difficult with age, it remains possible thanks to the brain's adaptive abilities.

The role of nurturing relationships in brain development

Synapses start to form long before birth and continue developing throughout childhood. Stimulation is key. Without stimulation, synapses, which enable the brain's functional capacity, cannot form crucial connections. For this reason, scientists warn "severe neglect appears to be at least as great a threat to health and development as physical abuse – possibly even greater." Prolonged neglect damages the developing architecture of the brain and leads to cognitive impairments, language deficits, academic problems, withdrawn behaviour and issues with peer interactions.[11]

Being responsive to a child's needs and engaging in activities that stimulate the senses, such as reading, singing and playing, is crucial. Positive interactions with caregivers influence various interconnected networks in the brain. These networks are responsible for functions like sensory pathways (vision and hearing), language, and higher cognitive functions, which are essential for decision-making and problem-solving skills.

Touch serves as an influential form of communication from birth, offering both connection and comfort. The act of nurturing touch releases oxytocin, a hormone that plays a crucial role in brain development. Besides touch, oxytocin is also released in breastfeeding, during eye contact and even through acts of kindness.

5 Center on the Developing Child at Harvard University, *The Science of Early Childhood Development*, InBrief (2007), https://developingchild.harvard.edu/resources/inbrief-science-of-ecd/.
6 E. I. Knudsen, "Sensitive Periods in the Development of the Brain and Behavior," *Journal of Cognitive Neuroscience* 16, no. 8 (2004): 1412–1425.
7 E. R. Kandel et al., *Principles of Neural Science*, 6th ed. (New York: McGraw-Hill Education, 2022); M. Nayak et al., "Epigenetic Signature in Neural Plasticity: The Journey So Far and Journey Ahead," *Heliyon* 8, no. 12 (December 2022): e12292.
8 N. T. Y. Leung et al., "Neural Plastic Effects of Cognitive Training on Aging Brain," *Neural Plasticity* 2015 (January 2015): 535618.
9 R. J. Davidson and A. Lutz, "Buddha's Brain: Neuroplasticity and Meditation [In the Spotlight]," *IEEE Signal Processing Magazine* 25, no. 1 (2008): 174–176.
10 A. R. Roeckner et al., "Neural Contributors to Trauma Resilience: A Review of Longitudinal Neuroimaging Studies," *Translational Psychiatry* 11, no. 1 (2021): 1–17; N. D. Schiff et al., "Thalamic Deep Brain Stimulation in Traumatic Brain Injury: A Phase 1, Randomized Feasibility Study," *Nature Medicine* (2023): 3162–3174.
11 National Scientific Council on the Developing Child, *The Science of Neglect: The Persistent Absence of Responsive Care Disrupts the Developing Brain: Working Paper* 12 (2012), http://www.developingchild.harvard.edu.

This "magic" hormone not only helps infants bond with their caregivers and other people around them but also impacts brain networks responsible for social awareness, emotional regulation and stress response. In the moment it reduces anxiety and fear and supports the development of empathy and trust.[12]

Finally, the developing brain is unable to fully regulate itself and needs responsive caregivers for co-regulation, a factor that has been well researched.[13] Co-regulation is an interpersonal process involving continuous adjustment of interactions to co-create and maintain a positive emotional state. A hug from a parent or talking through a problem with a friend helps the brain manage thoughts and feelings better. A caregiver can only co-regulate if they themselves are able to regulate their own emotions.

In summary, positive interactions and responsive caregiving are foundational for healthy brain development as they help to form and strengthen synapses, which in turn impacts the development of cognitive and social skills.[14]

The impact of neglect, abuse and other adverse experiences

Likewise, research shows that the lack of positive interactions and responsive caregiving can hinder and alter the development of executive functions such as planning, impulse control and decision-making.[15] Children who experience neglect or abuse may not receive the necessary stimulation to develop these abilities. Conversely, overstimulation of other parts of the brain may cause stress hypersensitivity and emotional reactivity.[16] This can lead to long-term difficulties in areas such as attention, social skills and emotional regulation.[17]

Abuse, neglect and other stressful or traumatic experiences that occur in childhood – referred to as adverse childhood experiences (ACEs) in literature – put high demands on the developing brain. By altering the synaptic networks involved in stress regulation, these experiences can create lifelong negative effects.[18]

Insights from the 1998 adverse childhood experiences study

The seminal adverse childhood experiences (ACEs) study conducted in 1998 by Kaiser Permanente and the US Centers for Disease Control and Prevention is one of the largest studies of the issue.[19]

The study found that exposure to more types of adverse childhood experiences was cumulatively associated with more risk factors for life-shortening health conditions.

12 D. Narvaez et al., "The Importance of Early Life Touch for Psychosocial and Moral Development," *Psicologia: Reflexão e Crítica* 32, no. 1 (2019).
13 S. C. Lin et al., "Research Review: Child Emotion Regulation Mediates the Association between Family Factors and Internalizing Symptoms in Children and Adolescents; A Meta-Analysis," *Journal of Child Psychology and Psychiatry* (2023).
14 J. P. Shonkoff and D. A. Phillips, eds., *From Neurons to Neighborhoods: The Science of Early Childhood Development* (Washington, DC: The National Academies Press, 2000).
15 J. P. Shonkoff et al., "The Lifelong Effects of Early Childhood Adversity and Toxic Stress," *Pediatrics* 129, no. 1 (2012): e232–e246.
16 M. H. Teicher et al., "The Neurobiological Consequences of Early Stress and Childhood Maltreatment," *Neuroscience & Biobehavioral Reviews* 27, nos. 1–2 (January–March 2003): 33–44.
17 A. Matte-Landry et al., "Cognitive Outcomes of Children with Complex Trauma: A Systematic Review and Meta-Analyses of Longitudinal Studies," *Trauma, Violence, & Abuse* 24, no. 4 (2023): 2743–2757.
18 J. P. Shonkoff et al., "The Lifelong Effects of Early Childhood Adversity and Toxic Stress."
19 V. J. Felitti et al., "Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults: The Adverse Childhood Experiences (ACE) Study," *American Journal of Preventive Medicine* 14, no. 4 (1998): 245–258.

The study included experiences such as physical abuse, exposure to domestic violence or living with a household member with substance abuse. According to the study, individuals who had experienced four or more categories of childhood adversity were significantly more at risk of health-harming behaviours in adulthood than those who had experienced none. Specifically, the study found:

- a 4- to 12-fold increase in health risks for alcohol use disorder, drug use, depression and suicide attempts
- a 2- to 4-fold increase in smoking, poor self-rated health and sexually transmitted diseases
- a 1.4- to 1.6-fold increase in physical inactivity and severe obesity

The study also showed that individuals with four or more ACEs were:

- 3.9 times more likely to develop chronic bronchitis or emphysema
- 2.4 times more likely to have a stroke
- 1.9 times more likely to develop cancer

These findings underscore the profound and lasting impact that adverse childhood experiences can have on emotional and physical well-being throughout a person's life. The impact of these negative experiences is cumulative, and risk indicators can be used by clinicians and social service providers to develop effective interventions.

Since publication of the 1998 study, these findings have been replicated in other studies conducted across diverse populations.[20] Importantly, the impact of ACEs is now being studied on the global level. Research published from a review and meta-analysis of 37 studies from countries around the world confirms substantially increased health risks for adults who reported multiple ACEs. The researchers note that the impact of adverse childhood experiences is a global health issue, and call on the global community for a "shift in focus to include prevention of ACEs, resilience building, and ACE-informed service provision."[21]

Summary

By providing a nurturing and supportive environment, adults can significantly contribute to the healthy development of a child's brain. Responsive caregiving and activities that stimulate the senses foster synapse formation as well as the development of executive functioning networks. Engaging in co-regulation helps a child learn to regulate stress, which provides a foundation for physical and psychological well-being. Conversely, neglect, abuse and other traumatic experiences can harm the development of a child's brain and can have detrimental effects that last into adulthood.

20 J. Hays-Grudo and A. S. Morris, *Adverse and Protective Childhood Experiences: A Developmental Perspective* (Washington, DC: American Psychological Association, 2020).

21 K. Hughes et al., "The Effect of Multiple Adverse Experiences on Health: A Systematic Review and Meta-Analysis," *Lancet Public Health* 2, no. 8 (August 2017): e356–e366.

2. The role of attachment

As outlined in the first chapter, nurturing relationships and responsive caregiving contribute to a child's healthy brain development. Attachment is the bedrock of these relationships, and research has consistently shown that secure attachment is crucial for both learning and social growth. However, as brains are adaptable, so too are attachment styles.

What do we mean by attachment?

Attachment is the deep emotional bond between child and caregiver. This bond and sense of security enable the child to explore the world and develop emotionally and socially. Attachment therefore builds the foundation for all future relationships.

Early research in this field (1950s-1980s) focused on the bond between child and mother or primary caregiver. The understanding of attachment has since broadened, and research today includes the wider community of caregivers for a child, for example grandparents, day care providers or siblings. Some academics however argue that current findings do not fully reflect the variety of the world's cultural contexts and approaches to parenting. While confirming "there is no doubt that attachment is a basic human need, a pancultural motivation that babies carry in their genes when entering this world," they call for broader research.[22]

Attachment theory and its implications

Attachment theory, pioneered by John Bowlby[23] and further elaborated by Mary Ainsworth,[24] serves as a cornerstone for understanding the crucial role of nurturing relationships in child development. The well-supported theory asserts that infants have a biological need to form emotional bonds with their primary caregivers. This need for attachment is seen as an evolutionary trait, aimed at ensuring a child's survival through the provision of care and protection. The principles of attachment theory have been integrated into various therapeutic approaches and inform child-rearing practices globally, highlighting the importance of early emotional bonds for lifelong psychological well-being.[25]

According to attachment theory, the key elements of attachment are proximity maintenance, a safe haven, a secure base, and separation distress. Proximity maintenance describes the child's inclination to stay near the caregiver for comfort and reassurance. In this way, the caregiver serves as a safe haven, offering solace and protection during distressing moments. The caregiver becomes the secure base that allows children to venture out into their surroundings, while trusting that they can return for comfort. Finally, separation distress is the manifestation of anxiety and unease when a child is distanced from the caregiver.[26]

22 H. Otto and H. Keller, eds., *Different Faces of Attachment: Cultural Variations on a Universal Human Need* (Cambridge: Cambridge University Press, 2014).
23 J. Bowlby, Attachment and Loss, vol. 1, *Attachment* (New York: Basic Books, 1969).
24 M. D. S. Ainsworth et al., *Patterns of Attachment: A Psychological Study of the Strange Situation* (Hillsdale, NJ: Lawrence Erlbaum Associates, 1978).
25 S. C. Flaherty and L. S. Sadler, "A Review of Attachment Theory in the Context of Adolescent Parenting," *Journal of Pediatric Health* Care 25, no. 2 (March–April 2011): 114–121.
26 Flaherty and Sadler, "A Review of Attachment Theory."

Research pre-dating attachment theory illustrates the protective shield that attachment may offer. In 1944, psychoanalysts Anna Freud and Dorothy Burlingham studied the behaviour of children being cared for in English nurseries who had been repeatedly exposed to wartime bombings but had not been physically injured. The authors observed a lack of traumatic shock in the children: "If these bombing incidents occur when small children are in the care of their own mother, or a familiar mother substitute, they do not seem to be particularly affected by them. Their experience remains an accident, in line with other accidents of childhood."[27]

Styles of attachment can be divided into two broad categories: secure and insecure. Secure attachments, developed through consistent and responsive caregiving, foster resilience and a robust sense of self that persists into adulthood.[28] Securely attached children feel safe to explore their environment and seek help when needed. In contrast, insecure attachments may arise following inconsistent, neglectful or abusive care, often leading to behavioural challenges and difficulty in trusting others and forming stable relationships later in life.[29]

Data collected by the Early Childhood Longitudinal Study programme, which is conducted by the United States Department of Education, shows that approximately 40% of children in the U.S. do not have a secure attachment. Interestingly, evidence from another study suggests that the strongest predictor of insecure attachment is the parents' experience of attachment to their own parents when they were children.[30]

Why are attachments so important for the developing child?

The opportunity of building trust with people early in life provides a framework for healthy relationships in the future. When children feel safe, loved, cared for and supported, they can develop a secure attachment style. Children who have secure attachments with their caregivers tend to exhibit higher self-esteem, better emotional regulation and improved social skills throughout their lives.[31] These skills and traits contribute to mental well-being and influence academic and professional success in adulthood.[32]

Furthermore, neuroscientific studies highlight the connection between attachment and empathy. In one study secure attachment was shown to result in a clearer self-concept, which in turn correlates to empathy. This suggests individuals are better at caring for others when they understand and accept themselves.[33]

On the other hand, when a child feels unloved or rejected, when caregivers are unresponsive or inconsistent in their interactions or when caregivers continuously ignore a child's distress, insecure attachments may develop. The resulting lack of trust in others makes it hard to form trusting relationships later in life and impacts overall emotional and cognitive well-being. However, as will be discussed in chapter 4, attachment styles are fluid. This becomes especially important when considering therapies that support change.

27 A. Freud and D. T. Burlingham, *War and Children*, 2nd ed. (New York: Ernst Willard, 1944), 21.
28 L. A. Sroufe et al., *The Development of the Person: The Minnesota Study of Risk and Adaptation from Birth to Adulthood* (New York: Guilford Press, 2005).
29 R. F. Anda et al., "The Enduring Effects of Abuse and Related Adverse Experiences in Childhood," *European Archives of Psychiatry and Clinical Neuroscience* 256, no. 3 (April 2006): 174–186.
30 S. Moullin, J. Waldfogel, and L. Washbrook, *Baby Bonds: Parenting, Attachment and a Secure Base for Children* (London: Sutton Trust, 2014) (retrieved from University of Bristol).
31 S. Li, G. Ran, and X. Chen, "Linking Attachment to Empathy in Childhood and Adolescence: A Multilevel Meta-Analysis," *Journal of Social and Personal Relationships* 38, no. 11 (2021): 3350–3377.
32 N. Forget-Dubois et al., "Predicting Early School Achievement with the EDI: A Longitudinal Population-Based Study," *Early Education and Development* 18, no. 3 (2007): 405–426.
33 A. I. Kural and M. Kovács, "The Association Between Attachment Orientations and Empathy: The Mediation Effect of Self-Concept Clarity," *Acta Psychologica* 229 (September 2022).

Insights from the Minnesota Longitudinal Study

The Minnesota Longitudinal Study of Parents and Children, an extensive research project initiated in 1975, has been providing invaluable insights into the long-term effects of early attachment.[34] This pioneering study has been following a cohort from the prenatal stages through adulthood and has established links between early-life attachment styles and a range of developmental outcomes. For example, the study has shown various correlations with different types of insecure attachment. Ambivalent attachment in infancy was associated with anxiety disorders during teenage years; avoidant attachment, with various behavioural disorders throughout childhood and adolescence; and anxious attachment, with depression.

Perhaps most strikingly, the study has revealed a generational transmission of attachment patterns. The study observed that the way mothers interacted with their 24-month-old children closely mirrored how those children, as adults more than two decades later, interacted with their own 24-month-old offspring.

These findings suggest an enduring link across generations, highlighting the importance of early emotional bonds and their long-lasting impact on individuals and family dynamics.

While attachment theory provides a comprehensive framework, it's important to note it's not the only lens through which to view child development. However, its implications for long-term cognitive, social, and emotional well-being make it an invaluable tool for anyone invested in fostering healthy childhoods. Further research that includes cultural variations on concepts of good parenting, well-being and developmental achievement would benefit this important field, particularly when it comes to the design of interventions.

Summary

Parents and other caregivers have both a responsibility and opportunity to shape the attachment style of children. Research demonstrates the immense importance of secure attachments between a child and important adults in fostering resilience and life skills. Similarly, the quality of emotional bonds formed in the early years can have far-reaching implications on everything from mental health to academic performance and beyond. Supports that facilitate responsive care and secure attachment not only benefit children's well-being today but also their future lives as adults and their ability to be responsive parents if they have children of their own.

34 Sroufe et al., *The Development of the Person*. As this large study contains smaller sub-studies through the years, more detailed findings and conclusions can be found in specific publications of the sub-studies.

3. Serve and return: responsive interactions

This chapter dives deeper into how nurturing relationships and responsive interactions can provide the stimulation needed for a child's healthy brain development. Importantly, while attachment primarily concerns the main caregivers in a child's life, responsive interactions can be universally applied by any adult interacting with children – teachers, day care providers, child and youth care practitioners, extended family or friends.

What is serve and return?

Trust between caregiver and child is built when the child feels seen. The serve and return metaphor illustrates how this process of noticing and responding occurs. The metaphor, coined by the Center on the Developing Child at Harvard University, was developed to help parents, caregivers and care providers understand the importance of sensitive and responsive early caregiving. In a nutshell, the serve begins when a child looks at or observes something and makes an utterance, and the return is when the caregiver notices the child doing these things and responds to the child. Additional elements of serve and return include taking turns with the volley, waiting for the next impulse from the child, and being sensitive to the natural ending of the session.[35]

Language learning and cognitive development

Language serves as a bedrock for cognitive skills such as memory, attention, and reasoning, and research shows that children with robust language skills often perform better academically.[36]

Young children have a remarkable ability to acquire language quickly. In fact, studies suggest that infants may start learning to recognize their native language even before they are born.[37] However, simply hearing speech is not sufficient for language development; interactive communication is key. For a child to effectively learn language, there needs to be a reciprocal exchange with their caregiver. This involves the caregiver actively engaging in conversation with the child. Through these interactions, children not only learn language but also start to categorize objects, comprehend cause and effect, and develop critical thinking skills.[38]

This mental organization is enhanced by serve and return interactions, as caregivers provide a rich linguistic environment filled with meaningful context. By expanding the child's vocabulary and enhancing their comprehension skills, adults help children make more precise "serves," or initiations, and "returns," or responses.[39] Emotional support plays a vital role in this development. When a caregiver is responsive to a child's cues, such as crying or cooing, it signals to the child that their needs are being met, creating a sense of security and trust. When children feel secure, they are more inclined to take risks in their linguistic expression, which enables them to develop a more nuanced emotional vocabulary.[40]

35 National Scientific Council on the Developing Child, *Young Children Develop in an Environment of Relationships: Working Paper* 1 (2004), http://www.developingchild.harvard.edu.
36 S. Pinker, *The Language Instinct: How the Mind Creates Language.* (New York: Harper Perennial Modern Classics, 2007).
37 B. Mariani et al., "Prenatal Experience with Language Shapes the Brain," *Science Advances* 9, no. 47 (2023).
38 Pinker, *The Language Instinct.*
39 National Scientific Council on the Developing Child, *Supportive Relationships and Active Skill-Building Strengthen the Foundations of Resilience: Working Paper* 13 (2015), http://www.developingchild.harvard.edu; National Scientific Council on the Developing Child, *The Science of Neglect.*
40 L. F. Berrett, *How Emotions Are Made: The Secret Life of the Brain* (New York: Houghton Mifflin Harcourt, 2017).

As caregivers provide guidance and encouragement, children can experiment with new words and with increasingly nuanced emotional expressions. Children become better at knowing themselves, articulating their needs and receiving valuable feedback.[41]

Neuroscientific research on responsive relationships

While serve and return interactions provide the stimulation needed for synapses to form and neural pathways to be strengthened, there is other compelling evidence from neuroscience for the importance of responsive caregiving. Studies have shown that when caregivers respond promptly and sensitively to a child's needs, this activates crucial brain regions such as the hippocampus and prefrontal cortex. This neural activation is vital for developing the child's executive function and self-regulation skills. When these brain areas are adequately stimulated, children become more proficient at recognizing, communicating and meeting their needs effectively, which contributes to their overall well-being.[42]

The role of toxic stress

For the developing child, the impact of a lack of response from a caregiver is twofold. Not only is brain development hindered as synapses do not form and the activation of certain regions does not take place, but additionally, the body's stress system is activated. In small doses, mild, manageable stress helps children develop skills and learn how to deal with new or threatening situations.[43] But extreme or chronic stress can harm a child's body and brain when they don't have a trusted adult who can give them enough support. This type of stress on the developing brain is referred to as toxic stress.

By activating the body's "fight or flight" response too often and for too long, toxic stress can cause a cascade of biological, emotional and behavioural changes over time.[44] It can also adversely affect the formation of important circuits in a child's developing brain that are responsible for making predictions about the world and constructing emotional experiences.[45] By adapting to toxic stress, a child becomes more prone to anticipate threats even in environments that are not perceived as threatening by others, which means the child experiences even more stress. Toxic stress also suppresses the immune system and causes persistent inflammation. As a result, it is associated with major causes of adult mortality such as heart disease and diabetes.[46]

Further implications

Understanding the serve and return approach is helpful for a broad range of individuals interacting with children. While the term was coined to refer to interactions in early childhood, the concept of responsive, sensitive and nuanced interactions can be applied across all ages. Noticing and responding builds trust. For adolescents this can include connecting over sharing a favourite song together, talking about a social issue at school or engaging in activities such as playing a video game or cooking food together. For young adults it might include helping out if they are moving to a new place, offering a listening ear and asking open-ended questions to help them think through an issue, or engaging in a mutual hobby together. These shared experiences continue to be vital for a person's well-being throughout their life.

This concept is important to bear in mind when considering how to support children and young people who may not have experienced responsive interactions in childhood.

41 Shonkoff and Phillips, *From Neurons to Neighborhoods*.
42 Shonkoff and Phillips, *From Neurons to Neighborhoods*.
43 E. M. J. Peters et al., "To Stress or Not to Stress: Brain–Behavior–Immune Interaction May Weaken or Promote the Immune Response to SARS-CoV-2," *Neurobiology of Stress* 14 (May 2021).
44 M. Bucci et al., "Toxic Stress in Children and Adolescents," *Advances in Pediatrics* 63, no. 1 (August 2016): 403–428.
45 Fridman, J. et al., "Applying the Theory of Constructed Emotion to Police Decision Making," *Frontiers in Psychology* 10 (2019).
46 M. Bucci et al., "Toxic Stress in Children and Adolescents."

Summary

Responsive interactions are foundational for healthy brain development. Serve and return is a technique to support parents and other caregivers in providing a nurturing environment for growth. Serve and return is particularly relevant for the development of language skills and the associated cognitive functions. When practiced with listening and nuance, the approach contributes to a child's emotional security and self-awareness. Serve and return can be applied by anyone interacting with children. Additionally, the philosophy behind the approach can be extended to other age groups.

4. Mental health of parents and other caregivers

A key factor that influences caregiving and the ability to create nurturing environments for growth is the mental well-being of parents and other caregivers. The mental state of the caregiver plays a vital role in shaping a child's attachment style and significantly affects the quality of serve and return interactions. Additionally, in a crisis situation, parental mental health and the ability to cope with stress influence how children experience such crises and can thus minimize or amplify the impact of trauma on a child.

Correlation with a child's mental health

Research shows a strong correlation between parental mental health problems and child mental health outcomes.[47] Factors such as maternal and paternal depression are associated with behavioural and emotional problems in children, such as aggression or symptoms of anxiety and depression.[48] Current research shows that children of parents with severe mental health conditions face significantly higher risks of developing mental health problems than previously thought.[49] This underlines the need for interventions targeting not just individuals but whole families. Helping parents manage and treat their mental health conditions could substantially mitigate the risks their children face.

To develop secure attachments, children need emotionally and physically available caregivers who can serve as safe havens and provide comfort when they are distressed. A caregiver who is struggling with depression, anxiety or other mental health issues may have difficulty providing consistent and responsive care. This can lead to insecure attachments, where the child develops behaviours in order to adapt to the unpredictable emotional availability of the caregiver.

Caregivers who have a clear self-concept and are mindful of their mental well-being can also model empathy and effective coping mechanisms, which are essential in nurturing the child's capacity to form healthy attachments and build trust throughout their lives.[50]

The fluid nature of attachment

Nurturing healthy attachments is an ongoing process. Research shows that attachment is not a static construct but rather a fluid one, susceptible to changes over a lifetime. Changes in environmental conditions can shift a child's attachment style from secure to insecure and vice versa.[51] The mental health of caregivers may influence this fluidity and has been shown to impact the intergenerational transmission of attachment patterns. However, future research is needed to understand this link.[52]

47 M. Stracke et al., "Mental Health Is a Family Affair – Systematic Review and Meta-Analysis on the Associations between Mental Health Problems in Parents and Children during the COVID-19 Pandemic," *International Journal of Environmental Research and Public Health* 20, no. 5 (March 2023): 4485.

48 S. H. Goodman et al., "Maternal Depression and Child Psychopathology: A Meta-Analytic Review," *Clinical Child and Family Psychology Review* 14, no. 1 (2011): 1–27;
P. Kane and J. Garber, "The Relations among Depression in Fathers, Children's Psychopathology, and Father-Child Conflict: A Meta-Analysis," *Clinical Psychology Review* 24, no. 3 (July 2004): 339–360.

49 D. Rasic et al., "Risk of Mental Illness in Offspring of Parents with Schizophrenia, Bipolar Disorder, and Major Depressive Disorder: A Meta-Analysis of Family High-Risk Studies," *Schizophrenia Bulletin* 40, no. 1 (2014), 28–38

50 Kural and Kovács, "The association between attachment orientations and empathy."

51 Slade, A., "Attachment and Adult Psychotherapy: Theory, Research, and Practice," in *Handbook of Attachment: Theory, Research, and Clinical Applications,* ed. J. Cassidy and P. R. Shaver, 3rd ed. (New York: Guilford Press, 2016), 762.

52 A. Risi, J. A. Pickard, and A. L. Bird, "The Implications of Parent Mental Health and Wellbeing for Parent-Child Attachment: A Systematic Review," *PLoS ONE* 16, no. 12 (2021): e0260891.

It is important to bear in mind that a caregiver's own experience of attachment in childhood affects their parenting and their ability to navigate life's challenges. Securely attached individuals often have better mechanisms for coping with stress and forming healthy relationships, and they're also more likely to seek out support.[53]

Strategies to support parents and other caregivers

Because attachment is not set in stone, insecure patterns can shift to more secure patterns, through life experiences, mindful interventions, treatment and support.[54] For example, if a caregiver receives treatment for mental health issues and becomes more emotionally available, a child's attachment style can shift to more secure patterns. Strategies that enable caregivers to understand their own attachment style can also support. Interventions such as attachment-focused therapy may facilitate the transition from insecure to secure attachment styles, extending beyond individual therapy as well as the parent-child relationship to include the whole family-system.[55] This therapeutic approach focuses on trust-building, emotional regulation and communication skills, helping individuals heal and foster healthier relationships.[56] Such interventions can improve parental mental health and thus enhance the quality of serve and return interactions between caregivers and children.

The role of stress

Parents' or other caregivers' ability to employ positive parenting practices depends to a large extent on the amount of stress they themselves are experiencing or have experienced throughout their lifetime, what resources are available to them, and how well they can adapt to stress. Parenting stress, here defined as when the experienced demands of being a parent exceed the perceived resources as a parent, has been frequently associated with negative outcomes for children, including depression and anxiety.[57] Therefore, it is vital for caregivers to build skills to manage stress.

That being said, some life circumstances can result in stress that far outstrips a person's capacity to cope, which affects both the caregiver and the children in their care. Economic deprivation, lack of opportunity, discrimination, war, famine, earlier traumatic experiences, poor health and other factors increase the risk of poor outcomes for both parents and children. As mentioned in the introduction, these factors at the macro level remain out of scope of this publication, but it is important to acknowledge that they play a critical role in child and youth development.

Saltzmann's family-focused study

A study by William R. Saltzman in 2013 demonstrated the efficacy of interventions to improve family functioning and reduce child trauma symptoms.[58] Families in which parents were trained to manage stress and improve communication showed significant reductions in child trauma symptoms compared to control groups. This landmark study underscores the crucial role parents play in a child's mental well-being and serves as empirical evidence for the importance of parental mental health in child development.

53 S. Shokatpour Lofti, L. Moghtadar, and B. Akbari, "Comparing the Effectiveness of Parent-Child Interaction Training, Attachment-Based Therapy and Self-Regulation Skill Training on Children's Emotion Control," *Journal of Adolescent and Youth Psychological Studies* 4, no. 2 (May 2023): 159–173.
54 Lyons-Ruth and Jacobvitz, "Attachment Disorganization.
55 D. A. Hughes, *Attachment-Focused Family Therapy* (New York: W. W. Norton & Company, 2007).
56 A. Slade and J. Holmes, "Attachment and Psychotherapy," *Current Opinion in Psychology* 25 (February 2019), 152–156.
57 Stracke et al., "Mental Health Is a Family Affair."
58 W. R. Saltzman et al., "Enhancing Family Resilience through Family Narrative Co-construction," *Clinical Child and Family Psychology Review* 16, no. 3 (2013): 294–310.

Building on the insights from studies like Saltzmann's, today's approaches have evolved to include a range of practical strategies to support parents and other caregivers in strengthening relationships with children and managing stress. These include building self-regulation skills, practicing self-care, cultivating open and honest communication, engaging external support and support systems, celebrating achievements, instituting predictable routines and setting healthy boundaries.

These practical strategies align with broader principles found in various therapeutic modalities. They can be applied by parents and extended family, foster parents, and professionals caring for children and youth in alternative care programmes. Naturally, they can also be applied by anyone working with children – including teachers, counsellors, coaches, doctors, and religious leaders. Research continues on building evidence-based programmes and interventions aimed at bolstering family resilience and child development.

Case story

Eliodora Yucra, caregiver

Eliodora is a professional caregiver. She used to find it difficult to recognize and process her own emotions. As a result, she sometimes made mistakes in interpreting the feelings and needs of the children in her care and responding to challenging behaviour.

Eliodora attended training on self-care in trauma-informed practice, which included mindfulness exercises. The training taught her to observe and acknowledge her thoughts and feelings. "I realized that there was so much I was not understanding. I have been practicing the breathing exercises and I can consciously breathe – before I could not even notice that I was breathing, it was automatic," she says.

The training has given Eliodora a better understanding of how her emotions affect her behaviour. She has learned to be present. She says she feels happier and has become better at coping with stress. She has also noticed changes in her relationship with the children: "There is no fear between us because we can talk about how we feel and understand that the feeling is normal, but we can always make a decision to act positively on our feelings." Eliodora hopes to set a good example among fellow caregivers and has been sharing her experience with them.

Impact of parental mental health in crisis

A parent's mental state and their ability to cope with stress can play a significant role in how a child experiences a crisis or potentially traumatic event. This becomes even more relevant when considering the potential long-term impact of adverse childhood experiences.

In a study of Central American children and parents affected by war, researchers noted a connection between the effects of war on children's mental health and that of their mothers.[59] While overall rates of post-traumatic stress disorder (PTSD) among the children studied were low, where a child did exhibit symptoms of PTSD, the study found that the mother's level of PTSD symptoms was a strong predictor.

59 C. J. Locke et al., "The Psychological and Medical Sequelae of War in Central American Refugee Mothers and Children," *Archives of Pediatrics and Adolescent Medicine* 150 (1996): 822–828.

More recently, a rapid review of studies from Nordic countries found that parents' ability to manage stress influenced children's reactions to pandemic restrictions.[60]

Fortunately, there is evidence that targeted interventions can help improve outcomes. For example, in a study involving war-affected Bosnian refugees, a mental health intervention showed improvements not only in the mental health of the mothers but also in the physical and emotional health of their children.[61] Over the six months of intervention, the children demonstrated better weight gain and lower reports of emotional and behavioural problems compared to the children of mothers receiving health services alone.

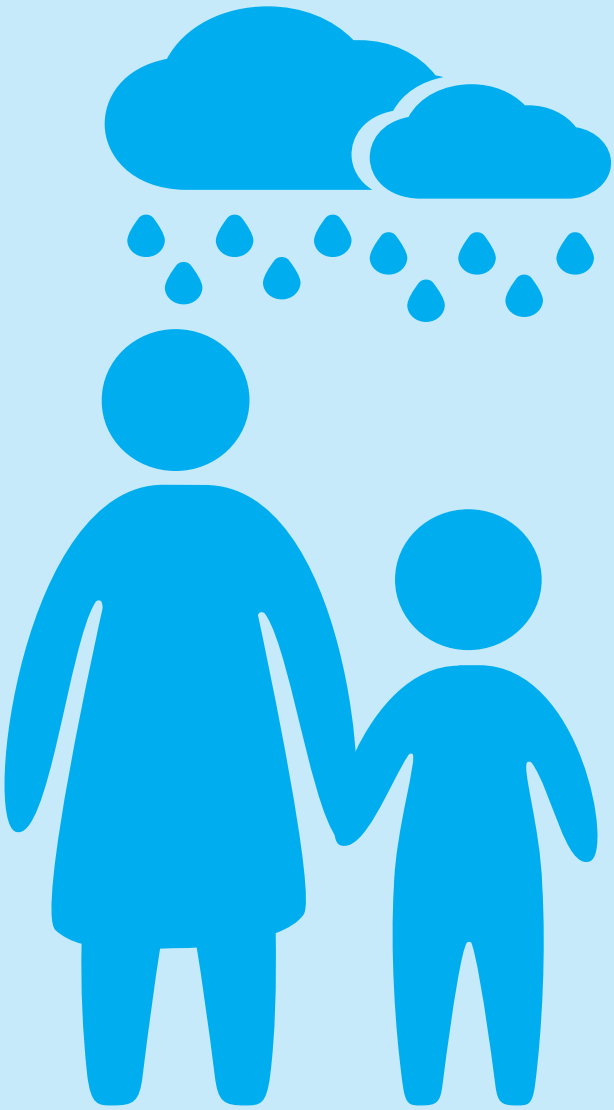
Thus, efforts that support parents and other caregivers in crisis situations can minimize the long-term impact of trauma on children.

Summary

A parent or other caregiver's mental well-being affects their ability to provide sensitive, responsive caregiving and develop trusting relationships with children and youth. Through practical strategies and targeted interventions, caregivers can mitigate stress, improve communication and enrich their relationships. Such efforts create a resilient family environment where secure attachments can thrive. Enhancing parental mental health not only helps the parents themselves but also allows them to significantly improve attachment patterns and serve and return interactions with their children. During crises, caregiver mental health is especially important and can minimize the impact of trauma on a child. Supporting resilience in parents and other caregivers supports resilience in children.

60 H. Nøkleby et al., «Konsekvenser av covid-19-pandemien for barn og unges liv og psykiske helse: Andre oppdatering av en hurtigoversikt» [Consequences of the COVID-19 Pandemic on Children and Youth's Life and Mental Health: Second Update of a Rapid Review] (Oslo: Folkehelseinstituttet, 2023).

61 R. Dybdahl, "Children and Mothers in War: An Outcome Study of a Psychosocial Intervention Program," *Child Development* 72, no. 4 (2001): 1214–1230.



5. Intergenerational trauma

Now that we have discussed the impact of a parent or other caregiver's mental well-being on a child, it becomes essential to look at how negative patterns and experiences may continue to be passed down from generation to generation. Intergenerational trauma is a field of study in its own right and examines how traumatic events can affect the children and grandchildren of those who experienced the trauma first hand. This can include a wide range of traumatic experiences, such as war, genocide, natural disasters, or personal trauma caused by abuse, neglect or violence.

Intergenerational trauma adds another layer to the complexities involved in developing nurturing relationships and may shape the dynamics of caregiving and building trust.

Introduction to trauma and its long-term impact

According to the U.S. Substance Abuse and Mental Health Service Administration, "individual trauma results from an event, series of events, or set of circumstances that is experienced by an individual as physically or emotionally harmful or life threatening and that has lasting adverse effects on the individual's functioning and mental, physical, social, emotional, or spiritual well-being."[62] If left unresolved, trauma affects not only an individual's immediate reactions but also their future capacity to handle stress, emotions and relationships. Central to the impact of trauma is the foundational breach of trust it often entails.

In childhood, the impact of trauma can be particularly profound when it is caused by those expected to provide protection and care. Abuse and neglect have consistently been found to contribute to many negative outcomes in childhood and adolescence, from emotional and behavioural problems, including suicidal behaviour, to cognitive delays and educational failure.[63] In adulthood, untreated trauma can contribute to substance use, suicidality, serious mental health conditions and long-term physical health factors associated with early death.[64]

Intergenerational links have also been found. A study from 2009 showed a correlation of increased risk of premature death for household members of respondents in the study who reported more than four adverse childhood experiences – the highest risk correlation occurring when respondents reported having been physically neglected and living with substance-abusing or criminal family members during childhood.[65]

62 Substance Abuse and Mental Health Service Administration, *Practical Guide for Implementing a Trauma-Informed Approach*, (Rockville, MD: National Mental Health and Substance Use Policy Laboratory. Substance Abuse and Mental Health Services Administration, 2023).

63 L. S. Ethier, J. P. Lemelin, and C. Lacharité, "A Longitudinal Study of the Effects of Chronic Maltreatment on Children's Behavioral and Emotional Problems," *Child Abuse & Neglect* 28, no. 12 (2004): 1265–1278;
R. de Araújo and D. Lara, "More than Words: The Association of Childhood Emotional Abuse and Suicidal Behavior," *European Psychiatry* 37 (2016): 14–21;
L. Strathearn et al., "Long-Term Cognitive, Psychological, and Health Outcomes Associated with Child Abuse and Neglect," Pediatrics 146, no. 4 (2020): e20200438.

64 Felitti et al., "Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults: The Adverse Childhood Experiences (ACE) Study."
I. Angelakis, E. Gillespie, and M. Panagioti, "Childhood Maltreatment and Adult Suicidality: A Comprehensive Systematic Review with Meta-Analysis," *Psychological Medicine* 49, no. 7 (May 2019): 1057–1078.

65 R. F. Anda et al., "The Relationship of Adverse Childhood Experiences to a History of Premature Death of Family Members," *BMC Public Health* 9 (2009): 106.

Epigenetics

From a behavioural perspective, the cycle of neglect, abuse and abandonment is well documented. People who lacked nurturing parenting may struggle to provide care and comfort to children. Parents who experienced abuse in childhood are also at a higher risk of abusing their own children.[66] But there is evidence to suggest that cycles of trauma may go even deeper, right down to the genetic level. Researchers theorize that a parent's traumatic experiences may cause epigenetic changes – changes in the way genes are turned on and off – in offspring.

Rachel Yehuda's studies among Holocaust survivors, for example, have found that children of Holocaust survivors have altered levels of cortisol, a stress hormone, which is believed to be a result of epigenetic changes passed down from parents who experienced extreme stress or trauma.[67] Another study connected epigenetic changes related to immune function in children whose mothers experienced trauma during pregnancy due to the 1998 Quebec ice storm.[68] In a study in Tanzania, researchers found that child abuse was associated with changes in a gene related to how well the body handles stress, which can lead to mental health issues.[69]

However, more research is required to definitively confirm epigenetic transmission.

The ripple effects of trauma

When considering how parenting patterns may be passed down, it becomes clear that trauma – including experiences of neglect and abuse in childhood – can have a domino effect, impacting the emotional and relational landscape of subsequent generations in various ways. Trauma can influence attachment patterns and coping mechanisms across generations. As discussed earlier, attachment disruptions can have far-reaching consequences, compromising a child's ability to trust, form healthy bonds, and manage emotions effectively. While this publication remains focused on the individual relationships, it is important to note that research and prevention work on intergenerational trauma is now also targeting the community level.

Therapeutic approaches to support trauma recovery

As established earlier, the brain maintains the ability to adapt throughout a person's lifetime, enabling healing from trauma. To mitigate the impact of intergenerational trauma, evidence-based models that specifically address trauma are imperative.[70] For example, trauma-informed care focuses on creating emotionally safe environments, providing specialized care and minimizing the risk of re-traumatization. It brings the ideas of trauma, healing and resilience to the forefront, with its three pillars: safety, connections, and managing emotions.[71] Various other therapeutic modalities can be employed to support trauma recovery, for example internal family systems therapy or inner child therapy.

66 N. M. Morelli et al., "Intergenerational Transmission of Abusive Parenting: Role of Prospective Maternal Distress and Family Violence," *Child Maltreatment* 26, no. 2 (2021): 172–181.

67 R. Yehuda and A. Lehrner, "Intergenerational Transmission of Trauma Effects: Putative Role of Epigenetic Mechanisms," *World Psychiatry* 17, no. 3 (2018): 243–257

68 L. Cao-Lei et al., "DNA Methylation Signatures Triggered by Prenatal Maternal Stress Exposure to a Natural Disaster: Project Ice Storm," *PloS ONE* 9, no. 9 (2014): e107653.

69 Hecker, T et al., "Associations among Child Abuse, Mental Health, and Epigenetic Modifications in the Proopiomelanocortin Gene (POMC): A Study with Children in Tanzania," *Development and Psychopathology* 28, no. 4 pt 2 (2016): 1401–1412.

70 M. Harris and R. D. Fallot, eds., *Using Trauma Theory to Design Service Systems* (San Francisco, CA: Jossey-Bass, 2001).

71 U. D. Parameswaran, J. Molloy, and P. Kuttner, "Healing Schools: A Framework for Joining Trauma-Informed Care, Restorative Justice, and Multicultural Education for Whole School Reform," *The Urban Review: Issues and Ideas in Education* (2023).

Additionally, interventions can be designed to address both individual trauma recovery and the intergenerational transmission of trauma.[72] These approaches suggest that the cycle of trauma can be interrupted, paving the way for nurturing and emotionally rich relationships.

Case story

Mirza and Haris, father and son

Mirza*, now in his sixties, was a soldier in the Bosnian war in the 1990s. He lives with his son, Haris*. Mirza and his wife divorced when Haris was still a baby, and Mirza describes the custody process as psychologically challenging. "The first thing I had to learn was to hold him," Mirza recalls. "Then I had to learn everything about how to take care of a child." Raising his son alone was not always easy. The worst moment came after Mirza learned that 11-year-old Haris and a friend had stolen a plastic gun at the market. Mirza beat his son and spent a night in jail as a result. Child welfare authorities placed Haris in a children's home for six months.

Father and son were subsequently reunited and enrolled in a programme designed to improve the home situation and their relationship. They both received individual psychological counselling and participated in activities in parents' and children's groups. Psychological and emotional support was important for them both: Mirza was experiencing symptoms of post-traumatic stress disorder from the war, and Haris' behaviour was not the same after the violent incident with his father. "I try to teach him not to repeat what I did and be a good person," says Mirza. "If I had only known a different approach… maybe we wouldn't have had these problems." The support he received from social workers and other specialists was the first he had had in raising his son. "I wasn't ever expecting help and didn't ask for it because my family did not help me."

The relationship between father and son has much improved. Haris learns quickly and does well in school. He also plays basketball and does taekwondo. Mirza works hard to ensure that Haris' life is different from his own. "I don't care if I don't have anything to eat," he says. "But I don't want my son to miss anything."

*Names changed for privacy protection

Genetics and tailored interventions

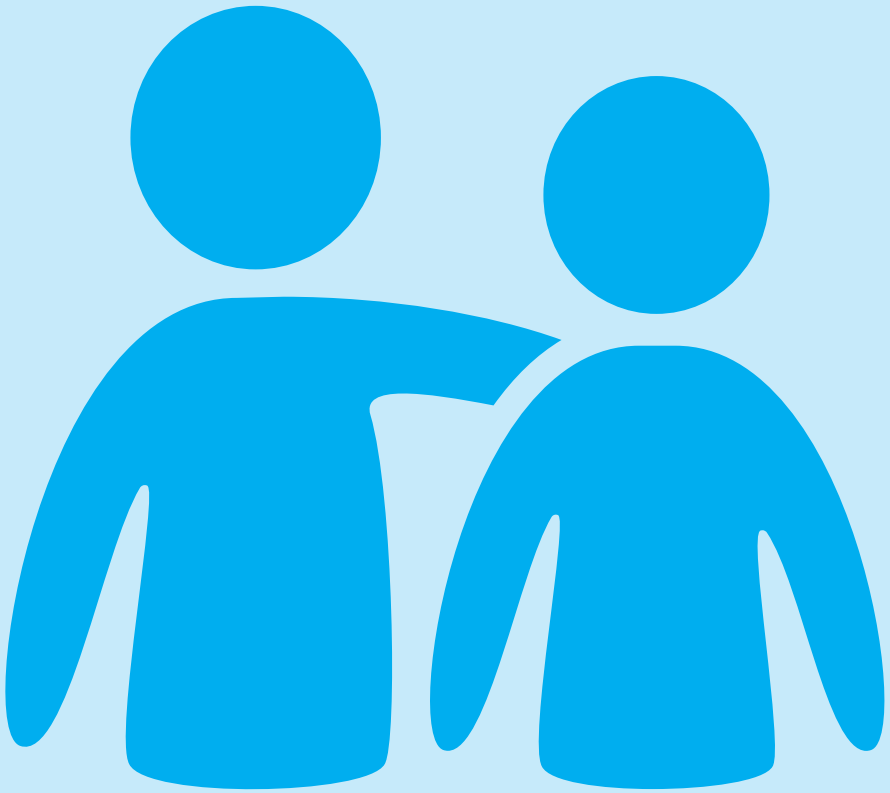
Emerging genetic research suggests that it might be possible to tailor therapeutic interventions that are based on individual genetic makeup. For example, research has shown that variations in genes associated with the "bonding" hormone oxytocin are linked to differences in parenting behaviour. While these genetic factors may not determine a child's attachment style, they seem to play an important role in the caregiving environment.[73] Other research suggests that nurturing and supportive environments may mitigate the impact of genetic predisposition to depression.[74]

Although it is important to remember that genes do not predestine a particular outcome, recognizing these genetic underpinnings may have pivotal practical applications. For example, professionals aware of these biological differences could adapt their approaches and the intensity of interventions accordingly.

72 J. Friend, "Mitigating Intergenerational Trauma within the Parent-Child Attachment," *Australian and New Zealand Journal of Family Therapy* 33 (2012): 114–127.
73 R. Feldman, "Oxytocin and Social Affiliation in Humans," *Hormones and Behavior* 61, no. 3 (2012): 380–391.
74 A. Caspi et al., "Influence of Life Stress on Depression: Moderation by a Polymorphism in the 5-HTT Gene," *Science* 301, no. 5631 (2002): 386–389.

Summary

The scope of trauma often extends beyond an individual's lifetime. The transmission of trauma from a parent to a child may not be limited only to behaviour; research within the field of epigenetics indicates that traumatic experiences may also affect gene expression. Regardless of the exact mechanisms involved in the intergenerational effects of trauma, a variety of therapeutic approaches can be employed to break the cycle of trauma and pave the way for healthier, more secure relationships. As research progresses, professionals may be able to craft more precisely tailored interventions to tackle trauma and its intergenerational effects.



6. The healing power of secure relationships

As we have established, the presence of a supportive, responsive and caring adult is fundamental for a child's growth and ability to manage the daily stressors of life. What happens though when children do not have these relationships, which are so vital to their development? What is the role that secure relationships play after a child or young person has experienced neglect, abuse, trauma or other adversities?

Early intervention

The scientific community broadly agrees on the importance of early identification and intervention for children who have experienced neglect, abuse or other trauma, so that harm caused by extreme stress can be prevented or reversed. Providing adequate support services at the earliest opportunity can substantially improve development outcomes for children and youth and reduce health risks. As discussed in chapter 1, the brain retains plasticity throughout childhood and even adulthood, making it possible to recover from trauma.

The Bucharest Early Intervention Project

A watershed moment in understanding the transformative power of secure relationships was the Bucharest Early Intervention Project, a randomized controlled trial of foster placement as an alternative to institutionalization of young children.[75]

Initiated in 2000, the project studied 136 children, 6 to 31 months old at the time of the initial assessment, who had been placed in children's institutions in conditions of severe psychosocial deprivation. Half of the group were randomly assigned to be placed in high-quality foster care, after which the development of both groups was periodically assessed.[76] The children in foster care developed secure attachments and improved cognitively. They exhibited significant improvements in IQ, social-emotional health and brain development compared to their counterparts in institutional settings.

This study confirmed the plasticity of the human brain, especially during early childhood. It also provided empirical support for the healing role that secure relationships can play for children who have experienced trauma.

Other studies echo these findings. For example, a 1998 study on children orphaned by war in Eritrea compared the mental health of children living in two children's institutions with similar resources, but different management styles. The style of one site was to address the basic needs of children, but for the staff to remain emotionally aloof. The other site encouraged staff to become more involved and develop relationships with the children.

75 C. H. Zeanah et al., "Designing Research to Study the Effects of Institutionalization on Brain and Behavioral Development: The Bucharest Early Intervention Project," *Development and Psychopathology* 15, no. 4 (2003): 885–907.

76 L. S. King et al., "A Comprehensive Multilevel Analysis of the Bucharest Early Intervention Project: Causal Effects on Recovery from Early Severe Deprivation," *American Journal of Psychiatry* 180, no. 8 (August 2023): 525–623.

The study showed that the children in the setting characterized by personal interaction and more caring relationships between staff and children had significantly fewer behavioural symptoms of emotional distress.[77] Additional studies in a range of countries would be of benefit to expand on the Bucharest project's findings and explore the implications for interventions for children who have lost parental care in various contexts.[78]

Other research confirms the healing power of connection for children, when it comes to mitigating the impact of trauma. A 2006 survey of war-affected youth in northern Uganda looked at long-term mental health outcomes of 741 male former child soldiers who were reintegrated back into families. The survey found that those who had high family connectedness and social support were more likely to have lower levels of emotional distress and better social functioning.[79]

Providing frameworks for supportive relationships in alternative care

In situations where a child or a young person experiences neglect, abuse, or other trauma, frameworks that enable secure relationships to be built and strengthened become critical. These secure relationships are the pathways through which trust can be rebuilt and recovery from painful experiences can begin.[80] In this way, they offer a healing counterbalance to the effects of trauma and provide the child or young person with a sense of safety, predictability and care that they might have missed.

For children and young people living in alternative care, opportunities for lasting, trust-based relationships are vital for their overall well-being and a smooth transition to independent life.

According to the United Nations Convention on the Rights of the Child, children have the right to maintain a relationship with their parents even when they are separated from them, provided this is in the child's best interests.[81] The Guidelines for the Alternative Care of Children further state that "regular and appropriate contact between the child and his/her family specifically for the purpose of reintegration should be developed, supported and monitored."[82]

Even when returning to the biological family is not possible, evidence shows that positive relationships with family while in care or in transitioning to independence contributes to a positive self-identity and self-confidence, and overall better outcomes.[83]

Similarly, positive relationships with people who serve as mentors can be of benefit to young people in care or leaving care. Studies have shown that successful relationships with mentors are associated with building resilience and better emotional, educational and behavioural outcomes in adulthood.[84]

77 P. H. Wolff and G. Fesseha, "The Orphans of Eritrea: Are Orphanages Part of the Problem or Part of the Solution?" *The American Journal of Psychiatry* 155, no. 10 (1998): 1319–1324.

78 M. Giraldi et al., "Residential Care as an Alternative Care Option: A Review of Literature within a Global Context," *Child & Family Social Work* 27, no. 4 (2022): 825–837.

79 T. S. Betancourt and K. T. Khan, "The Mental Health of Children Affected by Armed Conflict: Protective Processes and Pathways to Resilience," *International Review of Psychiatry* 20, no. 3 (2008): 317–328

80 K. Winter, *Supporting Positive Relationships for Children and Young People Who Have Experience of Care, Insights: Evidence Summaries* to Support Social Services in Scotland, no. 28 (Glasgow: Institute for Research and Innovation in Social Services, 2015).

81 United Nations, "Convention on the Rights of the Child," *Treaty Series*, vol. 1577 (November 1989), 3.

82 United Nations General Assembly, Resolution 64/142, "Guidelines for the Alternative Care of Children," 24 February 2010.

83 P. Mendes, G. Johnson, and B. Moslehuddin, "Young People Transitioning From Out-of-Home Care and Relationships with Family of Origin: An Examination of Three Recent Australian Studies," *Child Care in Practice* 18, no. 4 (2012): 357–370.

84 M. Stein, "Resilience and Young People Leaving Care," *Child Care in Practice* 14, no. 1 (2007): 35–44.

For example, a study of 310 young people with care experience found that those who had a non-parental adult mentor in their teenage years reported better overall outcomes, including better physical health and psychological well-being and a lower likelihood of participating in unhealthy behaviours.[85] Beneficial mentorship relationships can include mentoring by other young people who have experienced care.[86]

Within care settings, young people report that meaningful mentor relationships with care staff evolve when staff are available and when they apply a positive, non-judgemental approach that makes young people in care feel deeply cared for and loved.[87]

Case story

Anne, child in alternative care

Anne* was only four years old when she lost her mother. After her father remarried, Anne's stepmother was physically and emotionally abusive, and her father did not protect her. Anne lived in fear and uncertainty. She felt alone and rejected. When she eventually entered alternative care at the age of 6, it was difficult for her to trust anyone because nobody had explained what was happening to her or asked her what she wanted.

Now 15, Anne says her caregiver, Esther*, received her with great kindness. She made her feel important, valued, and loved. She gave her a voice. Her caregiver's respect and compassion created a safe environment in which Anne could start to learn to trust again despite the many betrayals she'd experienced earlier in life. Anne says she feels very close to Esther and can talk to her about anything.

Today, Anne enjoys her classes in high school. She wants to make a difference in the lives of others, especially those who have experienced adversity. She has been able to develop her social skills and has learned to appreciate herself more. She feels safe enough to trust. She would like all children to have someone who would love them unconditionally and make them feel seen – someone like Esther.

*Names changed for privacy protection

Summary

There is no doubt that secure relationships with caring adults can mitigate negative consequences and support recovery and improved outcomes following abuse, neglect and other traumas. While the human brain exhibits most plasticity during early childhood, as illustrated in the Bucharest study, we now know that some degree of plasticity remains with us throughout our lives. In this way, children who did not have secure relationships in their formative years can still benefit from them later in life. This offers new insights into working with children and young people who have experienced trauma. Mentor relationships, high-quality foster care, family-strengthening programmes, and trauma-informed care offer not just hope but measurable improvements in well-being.[88] These interventions benefit children and youth and support caregivers to create nurturing environments for healing by equipping them with emotional and cognitive tools.

85 K. R. Ahrens et al., "Youth in Foster Care with Adult Mentors during Adolescence Have Improved Adult Outcomes," *Pediatrics* 121, no. 2 (2008): e246–e252.

86 Stein, "Resilience and Young People Leaving Care."

87 Y. Sulimani-Aidan, "'She Was Like a Mother and a Father to Me': Searching for the Ideal Mentor for Youth in Care," *Child & Family Social Work* 22 (2017): 862–870.

88 M. Dozier and M. Rutter, "Challenges to the Development of Attachment Relationships Faced by Young Children in Foster and Adoptive Care," in *Handbook of Attachment: Theory, Research, and Clinical Applications,* ed. J. Cassidy and P. R. Shaver, 3rd ed. (New York: Guilford Press, 2016); M. R. Sanders et al., "The Triple P-Positive Parenting Program: A Systematic Review and Meta-Analysis of a Multi-Level System of Parenting Support," *Clinical Psychology Review* 34, no. 4 (2014): 337–357

7. Building resilience

Researchers today no longer view resilience as an inherent personality trait but rather as a capacity that can be nurtured. Resilience science offers a lens through which we can understand the factors involved in promoting this capacity in children and youth. These factors are especially relevant for children and youth growing up in environments where their development may be at risk and for those who have experienced trauma. In this final chapter, we explore the concept of resilience and the role of connection and nurturing relationships.

The science of resilience

Resilience is the result of a complex blend of genetic predispositions, environmental factors and adaptive skills. Resilience is about bouncing back but maybe more importantly growing stronger through life's challenges. Biologically, resilience is an adaptive response to stress.[89] It evolves through an increasing sense of inner control, for example by developing self-regulation skills and abilities honed by exposure to manageable stressors over time.[90] These skills and abilities help us adapt and cope with stress better in the future, and can support us in dealing with adversity. Resilience can therefore be developed and improved. Examples of such adaptive, resilience-building skills are planning, problem-solving or impulse control, skills that can evolve throughout a person's life.

According to Ann Masten, a researcher of resilience in human development, there has been a shift in study towards the protective forces that strengthen resilience and away from deficit models that focus only on what is wrong or lacking. Masten documents four waves of resilience science, starting in the 1960s. The first two waves looked at what resilience is, how it can be measured and how processes of building resilience work. The third wave focused on research into interventions that promote resilience. The fourth (and current wave) is informed by technological advancements in genetics, statistics and neuroscience, examining questions such as the role of genetics in responding to interventions, as well as the role of community and society in nurturing resilience.[91]

Laying the foundations: the buffering effect of positive experiences

Researchers are specifically looking into resilience-building factors that mitigate the harm caused by adverse childhood experiences, such as abuse or neglect or living in an unstable environment (ACEs as discussed in chapter 1). For example, it has been shown that protective childhood experiences – such as having friends, experiencing unconditional love, being part of a community, as well as everyday positive events – can have just as much cumulative impact over time as adverse ones. Just like with adverse experiences, the effects of protective experiences accumulate over time, offering long-term benefits.[92]

89 S.-Y. Dong et al., "Stress Resilience Measurement with Heart-Rate Variability during Mental and Physical Stress," *2018 40th Annual International Conference of the IEEE Engineering in Medicine and Biology Society* (EMBC), Honolulu, HI, USA, 5290–5293.

90 M. V. Baratta, M. E. P. Seligman, and S. F. Maier, "From Helplessness to Controllability: Toward a Neuroscience of Resilience," *Frontiers in Psychiatry* 14 (2023): 1170417.

91 A. Masten, *Ordinary Magic: Resilience in Development* (New York: Guilford Press, 2014).

92 A. S. Morris and J. Hays-Grudo, "Protective and Compensatory Childhood Experiences and Their Impact on Adult Mental Health," *World Psychiatry* 22, no 1. (February 2023):150–151.

One study showed that adults who had experienced childhood adversity but reported higher positive childhood experiences at the same time were 72% less likely to have depression or poor mental health versus those who reported few. They were also more likely to be receiving social and emotional support in their life.[93]

Another study found that family strengths during childhood (such as closeness, support, loyalty or responsiveness to health care needs) protect women with experiences of childhood adversity against adolescent pregnancy in the short term and serious problems with jobs, family and finances, and mental well-being in the long term.[94]

Accumulated positive childhood experiences are associated with more nurturing parenting attitudes, buffering the effects of adversity. Consistent with the view that resilience is a capacity that can be built, it is worth noting here that research indicates adults can benefit from current positive experiences too – not just ones from their childhood.[95]

The role of nurturing relationships

Science consistently shows that an important component of resilience is the presence of nurturing relationships, whether it's with a parent or other caregiver, a teacher, a therapist, friends, mentors or even pets.[96] In fact, research shows that the overall most potent factor associated with resilience against childhood trauma is the consistent presence of an adult who is sensitive, nurturing and responsive.[97]

In studies on resilience in children in vulnerable domestic environments, evidence indicates that high-quality parent-child relationships are a strong protective factor.[98] In a study conducted with families living in a homeless shelter, close parent-child relationships and parental involvement in the child's education were associated with school success. Interestingly, parents' intellectual functioning, education level, psychological distress and disciplinary practices were unrelated to their child's academic success.

Importantly, there is considerable evidence that "parenting practices and the parent-child relationship qualities are malleable through intervention and that improvements in the parenting system predict better child outcomes."[99]

Creating a supportive community environment

The presence of a responsive caregiver is an important factor that can buffer the effects of stress, but it is not the only one. Human development in general and child development in particular is influenced by interconnected systems ranging from the family to the community and society.[100]

93 C. Bethell et al., "Positive Childhood Experiences and Adult Mental and Relational Health in a Statewide Sample: Associations across Adverse Childhood Experiences Levels," *JAMA Pediatrics* 173, no 11. (November 2019): e193007.

94 S. D. Hillis et al., "The Protective Effect of Family Strengths in Childhood against Adolescent Pregnancy and Its Long-Term Psychosocial Consequences," *The Permanente Journal* 14, no. 3 (2010):18–27

95 A. S. Morris et al., "Adverse and Protective Childhood Experiences and Parenting Attitudes: The Role of Cumulative Protection in Understanding Resilience," *Adversity and Resilience Science* 2, no. 3 (2021):181–192.

96 E. B. Barklam and F. M. Felisberti, "Pet Ownership and Wellbeing during the COVID-19 Pandemic: The Importance of Resilience and Attachment to Pets," *Anthrozoös* 36, no. 2 (2023): 215–236.

97 National Scientific Council on the Developing Child, *Excessive Stress Disrupts the Architecture of the Developing Brain: Working Paper 3*, updated edition (2005/2014), http://www.developingchild.harvard.edu.

98 D. Miliotis, A. Sesma, and A. S. Masten, "Parenting as a Protective Process for School Success in Children from Homeless Families," Early *Education and Development* 10, no. 2 (1999): 111–133.

99 Masten, *Ordinary Magic*, 96.

100 U. Bronfenbrenner, *The Ecology of Human Development: Experiments by Nature and Design* (Cambridge, MA: Harvard University Press, 1979).

A socially cohesive community, such as a school, religious organization, sports centre or even an online community, builds strong bonds based on trust, mutual support and sense of belonging.[101] Individuals in such communities are more likely to share resources and offer emotional support, providing a safety net during times of adversity.

These community bonds serve as an extension of the immediate family, creating additional support for children to navigate life challenges. In this way, community and society at large can be seen as vital layers in the ecological system that nurtures resilience.

How to foster resilience

As we have established, resilience is not about toughing it out, but rather about harnessing a variety of internal and external resources to adapt and recover from adversity.[102] For example, the Bucharest Early Intervention Project is proof of the transformative impact of a high-quality foster care setting.[103] The project also noted that adolescence may offer a window of recovery for children if they are placed in a nurturing environment. Today, we know much more about the protective factors and interventions that foster resilience, and research is still ongoing.

Attachment and trauma awareness

One of the most salient findings in resilience research is the importance of secure attachments. In essence, they have a dual function: emotional security, rooted in trust, and a framework for constructive exploration. Since attachment patterns are changeable throughout a person's lifetime, appropriate interventions that address attachment problems can provide caregivers with the tools they need to foster resilience in children and youth.

Awareness of trauma enables caregivers to respond sensitively to a child's needs and triggers, thus facilitating healing and resilience. By offering emotional validation, setting consistent yet flexible boundaries and encouraging autonomous problem-solving, caregivers can nurture a child's sense of self-worth and adaptive coping mechanisms – key components of resilience.

As discussed earlier, trauma-informed care prioritizes creating an environment that cultivates safety, trust and empowerment for both children and adults. This facilitates the formation of secure attachments, enabling individuals to establish trust and engage in healthy relationships. Techniques such as deep breathing exercises, mindfulness practices and consistent routines can help create a predictable, calm environment.[104] A wide range of services, including individual therapy sessions, support groups and counselling, can provide the tools needed to navigate and heal from trauma.

Trauma-informed practices are important not only at home but also in educational settings. Teachers are often the frontline caregivers outside the home and have a significant role in identifying signs of trauma. By adopting trauma-informed approaches, they can offer emotional support, create a secure environment and use positive reinforcement to build trust.[105]

101 A. Kearns and R. Forrest, "Social Cohesion and Multilevel Urban Governance," *Urban Studies* 37, nos. 5–6 (2000): 995–1017.
102 S. M. Southwick et al., "Resilience Definitions, Theory, and Challenges: Interdisciplinary Perspectives," *European Journal of Psychotraumatology* 5, no. 1 (2014).
103 M. Wade et al., "The Bucharest Early Intervention Project: Adolescent Mental Health and Adaptation Following Early Deprivation," *Child Development Perspectives* 16, no. 3 (2022): 157–164.
104 B. A. an der Kolk, *The Body Keeps the Score: Brain, Mind, and Body in the Healing of Trauma* (New York: Viking, 2014).
105 S. E. Craig, T*rauma-Sensitive Schools: Learning Communities Transforming Children's Lives, K-5* (New York: Teachers College Press, 2016).

The power of play

From a scientific viewpoint, play is a complex learning and healing process. It engages multiple areas of the brain and releases neurotransmitters such as dopamine, which not only makes play enjoyable but also encourages neural connections. Play allows children to simulate different scenarios and outcomes, providing a safe space to navigate emotional and social landscapes. During play, children can process emotions, experiences and even trauma. Play therapists, with specialized training, offer an array of materials and activities designed to facilitate this transformative process.

A project for children living in a hospital where they were experiencing chronic neglect and abuse showed remarkable results when play-based therapeutic methods were employed to aid in recovery. The children's social skills, communication and language, motor skills and even muscular-skeletal development improved. The playworkers' caring and respectful treatment of the children and the children's interactions with each other facilitated by play are thought to have contributed to the progress.

The author of the study notes, "the most powerful healing factor was the unfettered playful interaction between the children themselves. In other words, the children in a very real sense may have healed each other while playing."[106]

Validation and self-regulation skills

As we have seen in earlier chapters, the development of self-regulation skills and executive functions, which include impulse control and decision-making, is vital for resilience. These skills are influenced by a complex interplay of different factors such as genetic predispositions, individual experiences, attachments and social support structures. Within the framework of dialectical behaviour therapy, a therapeutic approach designed to develop healthy coping mechanisms, Marsha Linehan posits that validation and skill-building are two sides of the same coin.

Her work with suicidal patients showed that real change was possible, but only after acknowledging that their feelings and behaviours made sense given their suffering. Linehan's approach emphasizes that validation is not only a form of emotional support but also a critical tool for encouraging adaptive behaviours and enhancing self-regulation. Although the effectiveness of this approach can vary among individuals, this synergistic relationship between validation and skill-building exemplifies how nuanced approaches can effectively cultivate resilience.[107]

In the same way that serve and return interactions provide a mirror to the child of what they are experiencing, the importance of validation lies in the feeling of being seen and understood. When a child or young person feels seen, they can develop self-trust: another critical component in building resilience. Self-trust is the belief in one's own abilities to manage stress, emotions, and behaviours effectively and often originates from experiences of being trusted and validated by others. The process of developing self-trust can be very challenging for children and youth who have experienced neglect or abuse and may require a more nuanced, trauma-informed approach.

106 F. Brown, "The Healing Power of Play: Therapeutic Work with Chronically Neglected and Abused Children," *Children* 1, no. 3 (2014): 474–488
107 M. M. Linehan, *Cognitive-Behavioral Treatment of Borderline Personality Disorder* (New York: Guilford Press, 1993).

What do all these factors have in common?

These protective factors – such as nurturing relationships, positive childhood experiences, and skill-building through interventions like play therapy – act as buffers against unmanageable stress. They help the stress system learn to react in a more balanced and more efficient way. Over time, this intricate interplay of positive influences helps to foster a robust and adaptive stress response in children and young people.

Case story

Ahmed, teenage migrant refugee

As a teenager, Ahmed* fled his war-torn country to Sweden, on a perilous journey spanning several years. During his journey, he became involved with international criminal organizations in order to survive. He continued this involvement after arriving in Sweden and was subsequently arrested, which led to time spent in juvenile detention centres. He lived in a state of constant tension and vigilance.

Ahmed was eventually placed in the care of a family who were experienced in working with young people facing similar challenges and were familiar with the types of support he might need. Ahmed found recognition and validation there. Together, his foster caregivers took a trauma-informed approach to his care, combining protection, social support and skill-building. This involved helping Ahmed to navigate situations he interpreted as threatening and managing his reactions, but also being there for him and establishing rules and predictable routines. Working closely with a therapist, Ahmed set off on a journey of self-discovery. Together, they focused on finding alternatives to his previous patterns of behaviour, notably steering away from conflicts rather than actively seeking them out.

This process allowed Ahmed to rediscover his identity. Those around him saw significant improvements in his emotional well-being and behaviour, and he started becoming better at managing stress and conflict.

*Name changed for privacy protection

Summary

The development of resilience is not a solitary endeavour but is supported by interconnected elements that serve as protective factors, such as caring relationships, secure attachments, trauma-informed care, social support and skill-building. According to resilience science, resilience can be developed and promoted. For children and young people healing from trauma, the reliable presence of a sensitive and nurturing adult has been shown to be one of the strongest protective factors. Parents, professional caregivers, policymakers and those working in child and family welfare can use research-informed strategies to foster trusting, nurturing relationships that promote resilience in children and young people. Trauma-informed approaches can support children and young people who have experienced adversity to re-build trust in themselves and in others.

Conclusion

Throughout the chapters above, we have explored the multifaceted role of relationships in human development. Now let us review our answers to the three questions we set out with

Why are nurturing relationships important for a child's development?

— **Nurturing, responsive relationships with a caregiver are essential for brain development**
The development of neural networks that provide the foundation for future cognitive, social and emotional functioning requires two-way interactions between the child and their parent or other caregiver. This is especially important during early childhood, when the brain is developing extremely rapidly. However, as the human brain retains plasticity throughout the entire lifetime, nurturing relationships can benefit brain development at any age.

— **Nurturing relationships foster secure attachment**
The presence of a responsive parent or caregiver provides a secure base from which a child can go out, explore and learn, while developing a secure attachment to that adult. Secure attachment patterns provide the foundation for a child's future emotional well-being and ability to form trusting relationships with other people.

— **The lack of nurturing relationships in childhood can harm brain development and can have long-lasting detrimental effects**
When a child cannot rely on a consistently responsive adult for safety, stability and comfort, the stress caused disrupts the development of neural connections and underlying fundamental abilities such as learning, planning and decision making. This can lead to a range of negative effects in adulthood, for example impaired self-regulation, an increased risk of social, emotional and mental health difficulties, or increased risk of other health problems. This breach of trust in childhood can also make it harder to form trusting relationships with others later in life.

— **Nurturing relationships beget nurturing relationships**
The parenting people experience in childhood – whether negative or positive – is often mirrored in their relationship with their own children. Parents who experienced abuse are at a higher risk of abusing their own children, and securely attached parents and caregivers are more likely to form secure attachments with children. However, attachment is fluid throughout our lifetimes and caregiver-child relationship qualities are malleable. There are a variety of evidence-based therapies and interventions today that can support change.

Can trauma be passed down through generations?

— **The impact of trauma can extend across generations**
The scope of trauma or extreme stress often extends beyond an individual's lifetime. This can occur due to children learning behavioural patterns from those close to them, but other factors may be at play, too. In fact, research within the field of epigenetics indicates that traumatic experiences may also affect gene expression. Although additional research is required to confirm these findings, traumatic events are known to affect the children and even grandchildren of the people who experience them. Addressing these effects is important to prevent intergenerational cycles of adversity from being perpetuated. A variety of therapeutic approaches can be employed in this process, for example trauma-informed practices.

What is the role of nurturing relationships in building resilience and mitigating the impact of neglect, abuse and other traumas?

— **Resilience can be promoted**
Resilience is not a character trait or a marker of character strength. Rather, it is a set of skills and capacities that can be developed and improved at any age. This means that even if a child or young person has experienced neglect, abuse or other traumas, providing them with opportunities to develop adaptive skills can improve their well-being.

— **Positive relationships with adults are an essential factor in building resilience in children and young people**
Resilience research today focuses on protective factors that support in building resilience against trauma and adversity as well as the daily stressors of growing up and transitioning to independence. Research shows that nurturing relationships provide a buffer. In fact, the overall most potent factor associated with resilience against childhood trauma is the consistent presence of an adult who is sensitive, nurturing and responsive.

— **It is never too late to heal from neglect, abuse or other traumas**
Intervening as early as possible makes it easier to prevent or reverse serious harm. The Bucharest Early Intervention Project provides an example of the positive impact of a responsive caregiving environment on children who experienced deprivation. It also shows the importance of early intervention to make sure that appropriate stimulation is available during sensitive windows of development. However, as the brain retains plasticity throughout our lifetimes, recovery from trauma and improvements in well-being are possible at any age.

— **For children and young people in alternative care, forming relationships with caregivers helps to process the past and improve outcomes**
Evidence shows that providing a nurturing environment in alternative care can decrease symptoms of emotional distress. For young people making the transition out of care, mentor relationships with adults have been linked to improved physical health and overall psychological well-being. Even when children and young people cannot live with their families of origin, maintaining ties with their family can contribute to better outcomes.

— **Supporting resilience in parents and other caregivers supports resilience in children**
Parents' mental health and experiences of childhood adversity determine the extent to which they can build a responsive relationship with their children. Additionally, we have seen that in a crisis, when a

parent or caregiver is able to cope and offer a sense of security, children can be shielded from trauma. Therefore, evidence-based interventions that support parents and other caregivers in recovering from trauma they may have experienced and developing their own resilience creates a ripple effect of resilience building in children and young people.

— **Relationships that contribute to resilience building are not limited to the immediate family and home environment**
Supportive relationships developed and maintained outside the immediate home environment also have a considerable protective effect against the harm caused by adversity. These can include both adults, for example teachers or social workers, and peers. As seen in the hospital study in chapter 6, once provided a safe environment for play, children who had experienced extreme neglect and abuse were able to support each other in the healing process.

In conclusion, secure and nurturing relationships help us learn to trust not only others but also ourselves. This enables healthy attachments, holistic growth, resilience and effective communication. By providing frameworks for such relationships to develop and grow, we light the path for a more resilient future for generations to come.

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