



**Australian
Childhood
Foundation**

**Centre for
Excellence in
Therapeutic Care**

Delivered in Partnership with Southern Cross University



**Southern Cross
University**

Research Briefing

Trauma Informed Care

**Dr Kathomi Gatwiri, Dr Lynne McPherson,
Dr Nadine Cameron, Natalie Parmenter**

Published 16 February, 2019



Table of Contents

Introduction.....	3
Defining Trauma and Complex trauma	4
What do we know about the severity and the complexity of trauma?.....	5
1. Attachment	5
2. Biology.....	6
3. Affect regulation	6
4. Dissociation: Alterations in Consciousness	8
5. Behavioural Regulation.....	9
6. Cognition	10
7. Self-concept.....	11
Domains of Complex trauma	12
What are the Implications of Complex Trauma?	12
Neuropsychological outcomes:	13
Psychological/mental health outcomes.....	13
Physical Health Outcomes	14
Social outcomes.....	14
Cognitive Attentional Outcomes.....	14
What is Trauma informed Care/Intervention?	16
Elements of trauma-informed intervention.....	18
Elements of trauma-informed intervention	19
References.....	20

© 2019, Centre for Excellence in Therapeutic Care

Introduction

This research briefing aims to define and clarify what trauma, complex trauma and trauma informed care are. Extensive literature has now surmised that exposure to adverse experiences such as child abuse, neglect, abandonment, violence, deprivation of care and domestic violence has immediate and long term consequences for children and young people. As such policies and service providers need to adopt appropriate interventions that are aimed at noticing and healing trauma. Academic and practice based arguments continue to highlight the need for developing a consensus around the classification of different traumas and their implications to children and young people. As Wall, Higgins and Hunter (2016, pg. 1) state “*any discussion of trauma-informed service delivery requires consideration of the vast array of definitions and terminology that arises around trauma*”. This research briefing therefore, clarifies some of the various terms, phrases and concepts that are developing in literature to describe what trauma and trauma-informed care is.

In particular, the summary looks at:

- **Defining Trauma and complex trauma**
- **What do we know about severity and complexity of trauma?**
- **What are the implications of complex trauma?**
- **What is Trauma informed Care?**

Defining Trauma and Complex trauma

The conceptualising of children and young people in out of home care as having experienced complex trauma is supported by decades of international research and clinical observation (Gaskill & Perry, 2012; Perry, 2009; Van Horn, 2011). Childhood trauma is typically characterised by two principal criteria:

- The *experience*, which includes the type and duration of trauma experienced, and
- The child's *reaction* to trauma exposure, such that these experiences overwhelm a child's ability to cope and cause the child to feel extreme fear, helplessness or horror (American Psychological Association, 2008).

Traumatic experiences – usually classified as simple or complex trauma (Australian Childhood Foundation, 2010) – are events that threaten the physical integrity of the child or others close to them with harm, injury or death (American Psychological Association, 2008).

Simple trauma typically refers to discrete life-threatening events such as accidents, or natural or man-made disasters. Experiences may include illness or disease, car accidents, bushfires, floods, industrial accidents, war or terrorism.

Complex trauma involves exposure to severe and repeated stressors in the form of ongoing threats of violation or violence between a child and another person. It may include experiences such as bullying; emotional, physical or sexual abuse; child maltreatment or neglect; or witnessing domestic violence. Complex trauma that disrupts the development of secure attachment to a parent or primary caregiver has the potential to have profound developmental consequences for a child (De Bellis, 2001), and is the most stressful trauma that a child can experience (Van Horn, 2011). Complex trauma can occur through the loss or death of a parent (Gregorowski & Seedat, 2013), or when the parent or caregiver is the primary perpetrator of trauma.

According to Courtois (2008), trauma qualifies as complex when it is:

- Repetitive, prolonged, or cumulative
- Most often interpersonal, involving direct harm, abuse exploitation, and maltreatment including neglect/abandonment/antipathy by primary caregivers or other ostensibly responsible adults, and

- Often occur at developmentally vulnerable times in the victim's life, especially in early childhood or adolescence, but can also occur later in life and in conditions of vulnerability associated with disability/ disempowerment/ dependency/age /infirmity, and so on.

Childhood adversity not only impacts the sufferer at the time of its occurrence, its effects can continue to be felt right across the lifespan. The negative impacts of childhood adversity are manifold and can be considered from psychological, emotional, social and behavioural perspectives. The work of a number of researchers is focused on identifying the neural changes with which these are correlated.

What do we know about the severity and the complexity of trauma?

Early trauma and stress can have a lasting effect on development, triggering delays in social competence (Becker-Weidman, 2009), development of dysfunctional coping behaviours, and significantly altering a child's brain chemistry, particularly when the adverse condition is chronic and there is a lack of nurturing support (Siegel, 2012, Hughes & Baylin, 2012). Cook et al (2017) identified seven domains of trauma which we discuss below.

Attachment

In most cases trauma occurs within a trusting relationship. When this attachment to a trusted caregiver is disrupted 80% of abused/neglected/maltreated children develop insecure attachment patterns. "When the primary caregiver is too preoccupied, distant, unpredictable, punitive, or distressed to be reliably responsive, children become distressed easily and do not learn to collaborate with others when their own internal resources are inadequate" (Cook et al 2005, pg. 392). When healthy attachment is disrupted, the child may

- Develop severe difficulties with establishing personal boundaries or observing other people's boundaries;
- Develop a distrust because their trust to a caregiver that they looked up to was betrayed and violated;
- Become suspicious of people's intentions and withdraw;

- Develop altered help-seeking (eg, clinginess and dependency) or they isolate themselves socially and disengage completely;
- Develop difficulty attuning to other people's emotional needs or having empathy for their situations.

Biology

The brains of children with complex trauma are often altered by the trauma. This means that the neuropathways that are necessary for regulating emotions caused by stress are significantly compromised. Children who have healthy childhood (non-traumatised children) learn to respond appropriately to their external and internal stimuli. They may communicate their feelings adequately or engage reasoning, abstract thinking or planning to their responses.

On the other hand, when under stress, traumatised children “analytical capacities tend to disintegrate, leaving them disorganized cognitively, emotionally, and behaviourally and prone to react with extreme helplessness, confusion, withdrawal, or rage” (Cook et al, 2019, pg. 393). Throughout adolescence as the brain develops rapidly, the features of the brain responsible for “executive functioning” necessary for developing emotional intelligence and self-awareness is altered for those with complex trauma. When a child's biology is complicated by trauma, the following may happen.

- The child may develop sensorimotor development problems because their sensory processing system has been compromised.
- The child may develop problems with coordination, posture, and overall body balance.
- The child may manifest psychological distress and suffering through the presentation of physical symptoms (Psychosomatic symptoms).
- The child may develop increased sensitivity to light, sound, smell, touch.
- They may develop increased complications with medical issues ranging from chronic pain, asthma, skin problems autoimmune disorders, allergies etc.

Affect regulation

The disruption of healthy attachment due to trauma can compromise the child's neurobiological integrity leading to severe challenges with affect regulation. Taipale (2016, pg. 1) defines affect regulation as “*the mechanism by which our emotions,*

moods, feelings, and their expressions are modulated in pursuit of an affective equilibrium or homeostasis.”

Our emotion and our behaviour are mostly regulated by our own intrabodily processes, our own reactions, and our own interpretation of the situation. This means that neuropsychologically, our brains are regulated the brain itself (e.g. Siegel, 2012, pp 167).

When a child with complex trauma experiences external affect-regulative factors such as soothing music or a caring relationship, that experience is interpreted as a mediator and/or a facilitator of self-regulation (Taipale 2016). Social experiences greatly shape how children regulate their behaviour and emotions. Cook et al (2005) state that:

Affect regulation begins with the accurate identification of internal emotional experiences, which requires the ability to differentiate among states of arousal, interpret these states, and apply appropriate labels (eg, “happy,” “frightened”).

Unfortunately, children with complex trauma may not be capable of distinguishing between arousal from different emotions. A reaction can be “affected” in the same way by both good and bad experiences. For example, a child with complex trauma who begins to experience love may respond in the same way as they did during the trauma incidents.

Therefore, emotional regulation is about the identification of the correct emotion just as much as it is about the appropriate expression of it. Children with complex trauma histories show behavioural and emotional expressions of pathology because their ability to identify the correct emotion and express it adequately and appropriately has been compromised.

Children with complex trauma may present with the following emotional regulation complexity.

- They may have difficulty with emotional self-regulation (inability to modulate their own emotions, moods, and feelings).
- They may have difficulty labelling and expressing feelings (they might not understand their emotions).

- They may experience difficulties knowing, and communicating what they feel or their needs).

Dissociation: Alterations in Consciousness

Trauma-related dissociation and altered states of consciousness often can occur along four dimensions: (1) time; (2) thought; (3) body; and (4) emotion (Lanius, 2015). Dissociation is defined as the removal or suspension of traumatic material from one's consciousness as a mechanism to protect oneself from an overwhelming experience. Dissociation provides a psychological "out" or an "escape" from emotional and physical pain and distress caused by a severe traumatizing experience.

According to Cook et al (2005), children who have experienced severe trauma in the form of abuse, neglect, maltreatment adopt dissociative patterns as a way to cope with the pain. Dissociative experiences can occur on a continuum, ranging from non-pathological to pathological. At the non-pathological end of the spectrum, "dissociation" can be experienced through events such as daydreaming or compartmentalization of painful memories and emotions. At the more pathological end, dissociation can include dissociative disorders which may include inflicting pain and engaging in risky behaviour during the "suspended reality" phase. This complete disconnection from the self and alterations in consciousness can put a child or a young person at risk of more victimization because behaviour and thought process occurs outside of conscious awareness, conscious choice and/or conscious planning.

Children and young people who have experienced trauma may rely on dissociation as a way to cope and manage their trauma. This inadvertently complicates efforts to regulate and modulate behaviour and emotions as well as developing a positive self-concept. Dissociation may manifest in the following ways.

- The state of consciousness is altered and experienced as real.
- Forgetfulness of events- impaired memory.
- Compartmentalization of emotions and memories.
- Depersonalization and derealisation.

Behavioural Regulation

Children and young people who have experienced complex trauma may manifest under controlled and/or over controlled behaviour patterns. Over controlled behaviour consist of rigidly controlled behaviour patterns which may include over compliance to adult requests, resistance to changes in routine, inflexible bathroom routines, food control.

Cook et al (2005) state that:

Overcontrolled or undercontrolled behaviour may be due to the re-enactment of specific aspects of traumatic experiences (e.g., aggression, self-injurious behaviours, and sexualized behaviors, controlling relationship dynamics). Such behaviors serve a number of functions for the traumatized child, including automatic behavioural reactions to reminders (eg, compulsive avoidance behaviors), attempts to gain a sense of mastery or control, avoidance of intolerable levels of emotional arousal, or attempts to achieve acceptance and intimacy.

Mclean (2016) argues that in comparison to non-traumatized children, traumatized children may demonstrate less efficient brain activity when tasked with activities that require exercising control and self-regulation. Poor behavioural regulation may manifest in the following ways:

- A child or young person with complex trauma may lack the ability to control their impulses;
- They might engage in behaviour that is risky, self-destructive, aggressive and harmful towards self and others;
- They might experience pathological self-soothing behaviours such as excessive masturbatory tendencies;
- They may experience insomnia, and are more likely to develop addictive behaviours such as eating disorders, substance abuse;
- They may be excessively compliant or engage in oppositional behaviour;
- They may engage in behaviours which re-enact their traumas such as sexual aggression or lack of self-grooming.

Cognition

Research shows that children who have been exposed to ongoing trauma also have reduced thickness in the ventro medial Prefrontal Cortex. This is the part of the brain that help us to process emotions and other of social information vmPFC) (De Brito et al., 2013; Kelly et al., 2013; McLaughlin et al., 2014). This suggests that traumatised children have more difficulty processing both emotional and social information.

Many other studies have shown that children of abusive and neglectful parents demonstrate much less cognitive functioning when compared with non-traumatised children. Literature shows that abuse, neglect, abandonment, deprivation and other experiences that function as traumatic can be particularly detrimental to cognitive development. This may mean less ability to problem solve, less creativity, less abstract thinking and reasoning, less numeracy and literacy skills, delayed language development than other children.

Cook et al (2005) show that “maltreated children have three times the dropout rate of the general population”. Compounding these cognitive developmental challenges, a traumatised child or young person is more likely to develop mental health difficulties, often connected to episodes of anxiety, depression, intrusive thoughts.

So often these symptoms are understood and treated as isolated ‘anxiety’ or ‘depression’; however, for chronically traumatised children and young people this does not tend to be an effective way to address their difficulties. Seeing mental health symptoms as part of an overall picture of developmental trauma is the key (Cook et al 2017).

Cognitive challenges may manifest in the following ways with traumatised children or young people experiencing

- difficulties in holding attention, focusing, finishing tasks;
- challenges with regulation and/or engaging in executive functioning;
- a lack creativity, a sense of drive or curiosity that other children have;
- problems with processing emotional and social information;
- difficulties with understanding responsibility;
- learning difficulties, language development or engaging abstract reasoning;
- challenges with orientation in time and space.

7. Self-concept

Traumatised children and young people may lack a continuous, and grounded sense of self. Children with healthy childhoods are often recognised and encouraged to engage and develop practical skills, problem solving skills and their caregivers are positively responsive to their efforts. Through the encouragement of their caregivers, they develop a stable sense of worth and they start to internalise the fact that they matter, they are worthy and that they are competent. On the other hand, Children who have experienced constant rejection, criticism harm, neglect abuse, or a sense of “not being seen” by their significant others, are less likely to explore or develop age-appropriate competencies. They are likely to develop a deficient sense of self, are likely to lead to a sense of self as defective, helpless, deficient, and unlovable. Children who perceive themselves as powerless or incompetent and who expect others to reject and despise them are more likely to blame themselves for negative experiences and have problems eliciting and responding to social support.

Cook et al (2005) state clearly that there are three key ingredients in how caregivers’ can respond to the trauma experienced by a child.

1. Believing and validating their child’s experience,
2. Tolerating the child’s affect, and
3. Managing the caregivers’ own emotional response.

They emphasise that these key elements are important because

When a caregiver denies the child’s experiences, the child is forced to act as if the trauma did not occur. The child also learns he or she cannot trust the primary caregiver and does not learn to use language to deal with adversity.

Domains of Complex trauma



What are the Implications of Complex Trauma?

Extensive research has clearly indicated that trauma resulting from exposure to abuse, violence and neglect has severe physiological, neuropsychological, social, cognitive and emotional implications. The immediate and long-term implications of complex trauma are complex and multifaceted too. Cook et al (2005) argue that;

Complex trauma exposure results in a loss of core capacities for self-regulation and interpersonal relatedness. Children exposed to complex trauma often experience lifelong problems that place them at risk for additional trauma exposure and cumulative impairment (eg, psychiatric and addictive disorders; chronic medical illness; legal, vocational, and family problems). These problems may extend from childhood through adolescence and into adulthood.

Some of the documented outcomes of trauma include the following.

Neuropsychological outcomes

Exposure to a traumatic event or series of chronic traumatic events (e.g., child maltreatment) activates the body's biological stress response systems (McEwen, 2000). Stress activation has behavioral and emotional effects that are similar to individual PTSD symptoms. Further, an individual's biological stress response system is made up of different, interacting systems, that work together to direct the body's attention toward protecting the individual against environmental life threats and to shift metabolic resources away from homeostasis and toward a “fight or flight” (and/or freezing) reaction.

Chronic activation of these stress systems can cause cascading effects within interconnected biological systems. Changes in how these stress systems operate can eventually impact the structure of the brain through causing atrophy or hypertrophy in particular parts of the brain. (Tarullo and Gunnar 2006; Ayoub et, al 2006.) Areas of the brain understood to be most frequently affected include the hippocampus, amygdala, and corpus callosum (Hart & Rubia 2012). These brain areas are key, variously, to memory, emotional interpretation and regulation, and higher level cognitive processing and are implicated in a range of psychological and social problems. The dysregulation can also cause wear and tear on other organs of the body (Shonkoff & Garner 2012) which can lead to a range of health problems.

Psychological/mental health outcomes

In a meta review, Teicher and Samson (2013) found that individuals with a history of child abuse experience psychiatric problems differently to those who do not have a history of maltreatment. They have an earlier age of onset of their condition, greater severity of symptoms and a greater rate of comorbidity. They also have a higher risk of suicide and a poorer response to treatment compared to those were not subject to abuse. Other researchers have linked childhood trauma with psychosis in adults (Bendall, Jackson, Hulbert and McGorry 2011).

Physical Health Outcomes

Children who have experienced childhood adversity also face a range of physical health problems including higher risk of lung cancer (only partly mediated by smoking) (Brown et al 2010), obesity (Fuemmeler, Dedert, McClernon and Beckham, 2009) liver disease, poor dental health (Shonkoff and Garner 2012), chronic obstructive pulmonary disease (Yao and Rahman 2009) and autoimmune diseases (Dube et al 2009). Exposure to one type of adverse experience — whether a type of direct abuse or parental dysfunction/neglect compromises child’s overall health. Brown and colleagues, while examining data collected for the original ACE study found that those with high ACE scores (more than 6) died, on average, 20 years earlier than others (Brown et al 2009). Common health problems include high rates of addictive behaviour, infection, asthma and obesity. They state that where some physical problems are the result of physical trauma, other problems — those related to dysregulation of the immune response and chronic inflammation — are related to psychological trauma.

Social outcomes

There are a range of behaviours and interpersonal challenges commonly experienced by children who have experienced interpersonal trauma (D’Andrea et al 2012). These include ‘disrupted attachment styles, difficulty trusting people, fewer social skills, difficulty with seeing others’ perspectives, an expectation of harm from others and poor understanding of boundaries’ (pg.190). Shonkoff and Garner (2012) discuss that many of the social problems that those who had significant adverse childhood experiences confront — such as difficulty with maintaining supportive networks — are related to risk-taking behaviour they have engaged in as coping mechanisms. Children who have experienced trauma also have difficulties forming peer relationships and having a “normal” social life like their peers.

Cognitive Attentional Outcomes

Trauma has been found to affect cognitive functioning in a range of ways. Hart and Rubia (2012) in a review of current evidence found that children who have been abused experience problems related to their IQ, general memory, working memory and attention. Several researchers report that children who have experienced abuse are also more likely to find that their executive functioning – their capacities for planning, critical thinking and decision-making – are compromised (Nikulina and Widom 2013). A number of studies have also found that children who have

experienced abuse have IQs that are negatively correlated with level of abuse (Prasad, Kramer and Ewing-Cobbs 2005; Koenen et al 2003). Another problem related to a history of abuse is negative cognitive bias. Those such as Ayoub and colleagues (2006) have demonstrated that children exposed to violence can be biased towards information and narratives with a negative character as well as a reduced capacity to recall information that has positive messages.

Children who have experienced trauma also have poorer educational outcomes. In a longitudinal study, Goodman, Miller and West-Olanunji (2011) found that a sample of Grade 5 students who had experienced traumatic stress did poorly on a range of measures compared to their peers. CREATE Foundation (2006) found that those young people in care are less likely to continue with their education past the age at which they can drop out, are likely to be older than those in their year level, attend more schools than others and miss significant amounts of school as a result of changes in placements.

In summary, as a consequence of exposure to complex trauma, children in care manifest complex psychopathology, characterized by attachment difficulties, relationship insecurity, sexual behaviour, trauma-related anxiety, conduct problems and defiance, and inattention/ hyperactivity, as well as uncommon problems such as self-injury and food maintenance behaviours. Children in residential care have more mental health problems than those in family-type foster care while those in kinship care have fewer problems (Tarren – Sweeney, 2008).

What is Trauma informed Care/Intervention?

As a theoretical approach, complex trauma has profound implications for intervention with children in care. But despite years of development in this field, there is no common definition of **trauma informed care**. Wall, Higgins and Hunter (2016, pg. 4) define Trauma informed care as a

Framework for human service delivery that is based on knowledge and understanding of how trauma affects people's lives and their service needs (Harris & Fallot, 2001). This requires consideration of a person's environment beyond the immediate service being provided and of how their symptoms and presentations may be seen as adaptations to trauma rather than as pathologies...At the broadest level, trauma-informed care means that services have an awareness and sensitivity to the way in which clients' presentation and service needs can be understood in the context of their trauma history....Trauma-informed approaches to care could be described as a strengths-based framework that is responsive to the effects of trauma (Wall, Higgins and Hunter (2016, pg. 9).

Similarly SAMHSA's defines a trauma-informed approach as:

A program, organisation or system that is trauma-informed realises the widespread impact of trauma and understands potential paths for recovery; recognises the signs and symptoms of trauma in clients, families, staff and others involved with the system and responds by fully integrating knowledge about trauma into policies, procedures and practices and seeks to actively resist retraumatisation (SAMHSA, 2014, p. 9).

As established children and young people suffering from complex trauma, often have difficulties related to attachment, regulation, physiology, dissociation, behavioural control, cognition, and self-concept (Cook, Blaustein, Spinazolla, & van der Kolk, 2003). The traumas that were experienced in relationship, can be treated in and through the use of a trusting, reparative relationship.

A trauma-informed approach enables a rethinking of what individualised services should be provided to children with complex traumas. Van der Kolk (1994) posited

that complex trauma creates an ‘assault’ on the child’s development over time. Not only do traumatised children develop a range of unhealthy coping strategies which they believe will help them survive, they also do not develop the essential daily living skills that children need, such as being able to manage impulses, solve problems and executive functioning.

Thus a focus of the establishment of care and intervention programs that are trauma informed with the centrality of relationships as a vehicle for healing are recommended. In saying that the “treatment of children exposed to complex trauma will itself be complex and long-lasting” (Bath, 2008, pg. 170).

As established, the science of trauma can be complex. This makes it even more complicated when trying to establish how to purposefully and efficiently work with children who have experienced trauma. Tucci and Mitchell (2015) offer 9 key principles to summarise the key messages on trauma informed care. They include:

1. An understanding that trauma significantly alters baseline physiological arousal levels in children- Traumatic environments affect children’s mood, emotions and compromises their ability to regulate their sensory stimulation.
2. An understanding that trauma reduces cortical capacity to regulate subcortical activation in children- Traumatised children experience difficulties in reasoning and modifying behaviour particularly due to the heightened arousal states.
3. An understanding that trauma disrupts memory functioning in children.- Trauma affects the children’s memory systems which affects their ability to remember, really and engaging in tasks which requires them to utilise short term memory.
4. An understanding that trauma disconnects children from relational resources that can mitigate its effects- traumatised children often experience the inability to form long lasting, trusting attachments.
5. An understanding that trauma restricts the attentional capacity of children- Trauma affected children may experience difficulties focusing on the “here and now” or “being present” and may be stuck on past trauma experiences.
6. An understanding that trauma based behaviour is functional at the time in which it develops as a response to threat- Trauma based behaviour (such as aggression,

violence) is often developed as a coping mechanism to minimise the impact of the pain of the trauma.

7. An understanding that trauma limits children's response flexibility and adaptability to change- Traumatized children may get 'stuck' due to constant trauma triggers, and so they may enact rigid patterns that seek to protect from experiencing a change that may be traumatic too.
8. An understanding that trauma undermines identity formation in children- Traumatized children have a difficult time experiencing feelings of self-esteem, positive self-image, self-love and a healthy self-identity.
9. An understanding that trauma diminishes social skills and isolates children from peers - Children who have experienced trauma may experience difficulties engaging positively with peers in social situations or master skills that may enable them to form good peer relationships.

Elements of trauma-informed intervention

Indeed every trauma model should be designed to suit the individual needs of the young person. However, there are agreed upon components of trauma informed care which are recommended in literature and in practice. These are:

1. **Safety:** Create an environment where the child feels physically, psychologically and culturally safe. It is the enhancement of both internal and external safety.
2. **Self-regulation:** A trauma informed approach seeks to help traumatized children and young people to regulate and modulate emotional arousal and restore themselves to a state of homeostasis and stability.
3. **Self-reflective information processing:** Trauma informed care seeks to engage in processes that develop attentional processes and executive functioning. This will enable the child or the young person to engage in a process of reconstructing their self-narratives while reflecting in a healthy way on past and present experience, and developing the ability to be conscious, to plan and to make decisions.

4. **Traumatic experiences integration:** helps the child or the young person through the process of containment or processing, “remembrance and mourning of the traumatic loss, symptom management and development of coping skills, and cultivation of present-oriented thinking and behaviour” (Cook et al, 2005).
5. **Relational engagement:** Children and young people suffering from complex trauma, often have difficulties forming relationships or healthy attachments (Cook, Blaustein, Spinazolla, & van der Kolk, 2003). A trauma-informed approach believes in the centrality of relationships as a vehicle for healing. The relationship has an emphasis of empathy, while also encouraging the development of critical interpersonal skills as assertiveness, perspective-taking, compassionate boundaries setting, and developing intimacy.
6. **Positive affect enhancement:** This is the focus on the developing a healthy sense of self for a child and young person whose sense of self has been compromised by trauma. Developing a positive self-worth, self-esteem and positive self-image enhances self-perception, cultivates creativity, and helps with developing a sense of imagination, capacity to experience oneself positively and to view themselves as whole and enough.

Elements of trauma-informed intervention



Safety

Self-regulation

Positive affect enhancement

Self-reflective information processing

Relational engagement

Traumatic experiences integration

References

Australian Childhood Foundation. (2010). *Making space for learning: Trauma informed practice in schools*. Melbourne: Australian Childhood Foundation.

American Psychological Association. (2008). Children and Trauma. Available on <https://www.apa.org/pi/families/resources/children-trauma-update.aspx>
Accessed 29 January 2019.

Ayoub C., O'Connor, E., Rappolt-Schlichtmann, G., Fischer, K., Rogosch, F., Toth, S. & Cicchetti, D. (2006). Cognitive and emotional differences in young maltreated children: A translational application of dynamic skill theory. *Development and Psychopathology*, 18(3), 679–706 .

Becker-Weidman, A. (2006). Treatment for Children with Trauma-Attachment Disorders: Dyadic Developmental Psychotherapy. *Child and Adolescent Social Work Journal*, 23, (2), DOI: 10.1007/s10560-005-0039-0.

Bendall, S., Jackson, H. J., Hulbert, C. A. & McGorry, P. D. (2011). Childhood trauma and psychosis: An overview of the evidence and directions for clinical interventions. *Family Matters*, 89, 53-60.

Brown, D., Anda, R., Felitti, V., Edwards, V., Malarcher, A., Croft, J. & Giles, W. (2010) Adverse childhood experiences are associated with the risk of lung cancer: a prospective cohort study. *BMC Public Health*, 10(20) <https://doi.org/10.1186/1471-2458-10-20>.

Courtois, C. A. (2008). Complex trauma, complex reactions: Assessment and treatment. *Psychological Trauma: Theory, Research, Practice, and Policy*, 5 (1), 86-100. <http://dx.doi.org/10.1037/1942-9681.S.1.86>

Courtois, C. A. (n.d). Understanding Complex Trauma, Complex Reactions, and Treatment Approaches. Available on <http://www.gifffromwithin.org/html/cptsd-understanding-treatment.html>. Accessed 29 January, 2019

Cook, A., Spinazzola, J., Ford, J., Lanktree, C., Blaustein, M., Cloitre, M., and Van der Kolk, B. (2005). Complex trauma in children and adolescents. *Psychiatric Annals*, 35(5), 390-398.

Cook, A., Blaustein, M., Spinazzola, J., & Van der Kolk, B. (2003). Complex trauma in children and adolescents (White paper). National Center for Child Traumatic Stress. *The National Child Traumatic Stress Network Complex Trauma Task Force*.

CREATE Foundation. (2006). *Report card on education 2006*. Available here <https://apps.aifs.gov.au/cfcaregister/projects/545>

D'Andrea, W., Ford, J., Stolbach, B., Spinazzola, J. & van der Kolk, B. A. (2012). Understanding interpersonal trauma in children: Why we need a developmentally appropriate trauma diagnosis. *American Journal of Orthopsychiatry*, 82(2), 187-200.

De Bellis, M.D. (2001). Developmental traumatology: The psychobiological development of maltreated children and its implications for research, treatment, and policy. *Development and Psychopathology*, 13(3), 539–564.

Dube, S., Fairweather, D., Pearson, W., Felitti, V., Anda, R. & Croft, J. (2009) Cumulative Childhood Stress and Autoimmune Diseases in Adults. *Psychosomatic Medicine*, 71(2), 243-250.

Fuemmeler, B., Dedert, E., McClernon, F. and Beckham, J (2009) Adverse childhood events are associated with obesity and disordered eating: Results from a U.S. population-based survey of young adults, *Journal of Trauma and Stress*, 22(4), 329-333.

Gaskill, R.L., & Perry, B.D. (2012). Child sexual abuse, traumatic experiences, and their impact on the developing brain. In P. Goodyear-Brown (Ed.), *Handbook of child sexual abuse: Identification, assessment, and treatment* (pp. 29–47). New Jersey: John Wiley & Sons.

Goodman, R., Miller, D. & West-Olatunji, C. (2011). Traumatic Stress and Academic Achievement. *Psychological Trauma: Theory, Research, Practice, and Policy*, 4(3), 252-259.

Gregorowski, C., & Seedat, S. (2013). Addressing childhood trauma in a developmental context. *Journal of Child & Adolescent Mental Health*, 25(2), 105–118.

Hart, H. & Rubia, K. (2012). Neuroimaging of child abuse: a critical review. *Frontiers in Human Neuroscience*, (6) 52, 1-24.

Hughes, D. A., & Baylin, J. (2012). *Brain-Based Parenting: The Neuroscience of Caregiving for Healthy Attachment (Norton Series on Interpersonal Neurobiology)*: WW Norton & Company.

Koenen, K., Moffitt, T. E., Caspi, A., Taylor, A. & Purcell, S. (2003). Domestic violence is associated with environmental suppression of IQ in young children. *Development and Psychopathology*, 15(2), 297- 315.

Lanius, R. A. (2015). Trauma-related dissociation and altered states of consciousness: a call for clinical, treatment, and neuroscience research. *European Journal of Psychotraumatology*, 6 (1). Available online <https://doi.org/10.3402/ejpt.v6.27905>

McEwen BS. (2000) the neurobiology of stress: from serendipity to clinical relevance. *Brain Research*. 886(1-2). Pp. 172–189. Available online <https://www.ncbi.nlm.nih.gov/pubmed/11119695>

McLean, S (2016). The effect of trauma on the brain development of children Evidence-based principles for supporting the recovery of children in care. CFCA Practice Resource Paper. June 2016: AIFS. Available <https://aifs.gov.au/cfca/sites/default/files/publication-documents/cfca-practice-brain-development-v6-040618.pdf> Accessed 29 Jan. 2019.

Nikulina, V. & Widom, C. (2013) Child maltreatment and executive functioning in middle adulthood: a prospective examination, *Neuropsychology*, 7(4), 417-27.

Taipale, J. (2016). Self-regulation and Beyond: Affect Regulation and the Infant–Caregiver Dyad. *Frontiers in Psychology*. 7 (889). <https://dx-doi-org.ezproxy.scu.edu.au/10.3389%2Ffpsyg.2016.00889>

Tarullo, A. R., Gunnar, M. R. J. H., & behavior. (2006). Child maltreatment and the developing. *HPA axis*. 50(4), 632-639.

Teicher, M. & Samson, J. (2016). Annual Research Review: Enduring neurobiological effects of childhood abuse and neglect. *Journal of Child Psychology and Psychiatry*, 57(3), 241–266.

Tucci, J. & Mitchell, J. (2015). 9 plain English principles of trauma informed care. Available from <https://professionals.childhood.org.au/prosody/2015/04/trauma-informed-care/> Accessed 29 January 2019.

Perry, B.D., (2009) Examining child maltreatment through a neurodevelopmental lens: Clinical Application of the Neurosequential Model of Therapeutics. *Journal of Loss and Trauma*, 14(4), 240-255.

Prasad, M., Kramer, L. & Ewing-Cobbs, L. (2005). Cognitive and neuroimaging findings in physically abused preschoolers, *Archives of Disease in Childhood*, 90, 82-85.

Shonkoff, J. & Garner, A. (2012) The Lifelong Effects of Early Childhood Adversity and Toxic Stress, *Stress*, 29, e232–e246.

Substance Abuse and Mental Health Services Administration. (2014). SAMHSA's concept of trauma and guidance for a traumainformed approach. Available here https://www.nasmhpd.org/sites/default/files/SAMHSA_Concept_of_Trauma_and_Guidance.pdf

Siegel, D. J. (2012). *Pocket guide to interpersonal neurobiology: An integrative handbook of the mind*: WW Norton & Company.

Van Horn, P. (2011). The impact of trauma on the developing social brain: Development and regulation in relationship. In J. D. Osofsky (Ed.), *Clinical work with traumatized young children* (pp. 11–30). New York: Guilford Publications, Inc.

Wall, L., Higgins, D. J., & Hunter, C. (2016). Trauma-informed care in child/family welfare services: *Australian Institute of Family Studies*. Available here <https://aifs.gov.au/cfca/sites/default/files/publication-documents/cfca37-trauma-informed-practice.pdf>

Van der Kolk, B. (1994). The Body Keeps the Score: Memory and the Evolving Psychology of Posttraumatic Stress. *Harvard Review of Psychiatry*, Vol 1, Issue 5.

Yao H. & Rahman, I. (2009) Current concepts on the role of inflammation in COPD and lung cancer. *Current Opinion in Pharmacology* 9(4):375–383.