


Understanding the Impacts of Developmental Trauma

13 July 2023

Disability and Trauma Conference
Real Therapy Solutions



Australian Childhood Foundation

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The Australian Childhood Foundation acknowledges Aboriginal and Torres Strait Islander people as the traditional custodians of this land. We pay our respects to their Elders past and present and to the children who are their leaders of tomorrow. We acknowledge their history and living culture and the many thousands of years in which they have raised their children to be safe and strong.



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Presentation overview

- Neurodevelopment
- What is developmental trauma?
- What are the possible impacts of developmental trauma?
- Helpful approaches in every day practice
 - Creating felt safety
 - Using relationship to heal
 - Adapting our responses
 - Grounding ourselves



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Your personal safety

The content of this training can evoke strong emotions and may trigger **personal experiences of trauma**.

Please be mindful of your own wellbeing during this training and if you need support, please do what you need to do to feel regulated and safe.

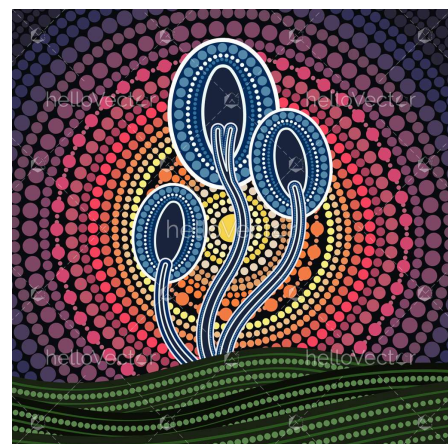


Image: Hellovector.com



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Neurodevelopment



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Key Principles of Neurodevelopment

- The brain is organized, and develops, in a hierarchical sequence that is connected to the body.
- Neurons (electrical and chemical signals that send information) and neural systems are designed to develop and change in a use-dependent function. The more we use a connection the stronger it becomes.
- The brain develops most rapidly early in life. Childhood is a critical period of brain development.
- Neural systems (or neuronal connections) can be changed, but some systems are easier to change than others. This is the concept of **neuroplasticity**.
- The human brain develops best in connection with other human brains. Relationships and connections are critical to development for all of us.



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Staged- A brain development metaphor - My Brain House



Cortex Roof- Our thinking cap roof helps us with rationality, judgement, impulse control, decision making and planning. It allows us to talk, add up numbers, and read and write.

Limbic System Walls- Our Emotions Centre- The limbic system comes after the brain stem. It is the place where our feelings are hung- especially our survival feelings like fear and anger. We are working hard on building our walls in toddlerhood. Have you noticed that children this age try to negotiate and sort things out led by feelings?

Brain Stem Foundation- Basic life functions. The first to be built. Without a solid foundation there can be no house. The more solid the foundation, the stronger the entire house. Our brain stem foundation is functioning at birth (thankfully), and we polish it off early in life.

Culture as a resource

Provides a protective factor

Safety: Belonging

Relationships: Connection

Meaning making: identity

- Shapes much of our neuronal development
- Guides our interactions with self, others and our environment
- Provides us with a navigational framework, a sense of certainty and predictability = security
- Provides a mental framework that supports meaning making- narrative of self, others and natural world





Culture is part of development

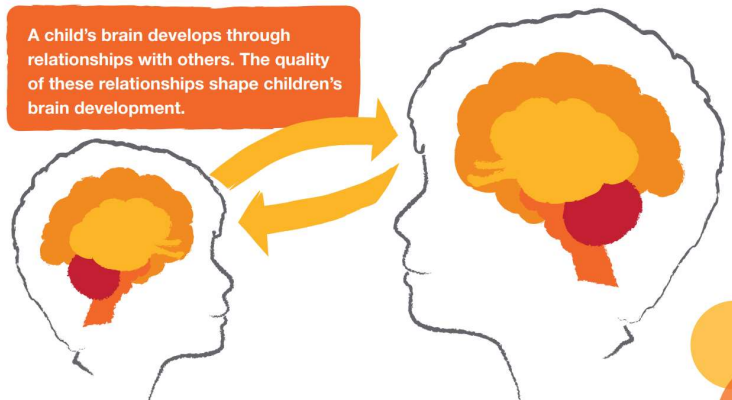
- Be curious, practice with cultural humility; **culture is a resource!**
- **Children's sense of identity, belonging.** How is that supported/promoted?
- **The parents/ carer's history, identity, parenting practices, style?** Where does it come from? How do we work with this?
- **Cultural humility?** What does this look like in my practice?
- How is the learning environment tailored to meet **cultural needs?**
- Diversity - **Who has a voice in this space?**

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Final thoughts on Neurodevelopment

- The brain develops through a mix of genetics and environmental factors.
- Relationships are central to development
- The quality of relational interactions in childhood influence our development in all areas of life
- There are critical periods of development, trauma experiences during critical periods can result in significant impacts later in childhood and into adulthood
- Culture influences brain development – disconnection from it can create toxic stress and trauma

A child's brain develops through relationships with others. The quality of these relationships shape children's brain development.



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What is Developmental Trauma?

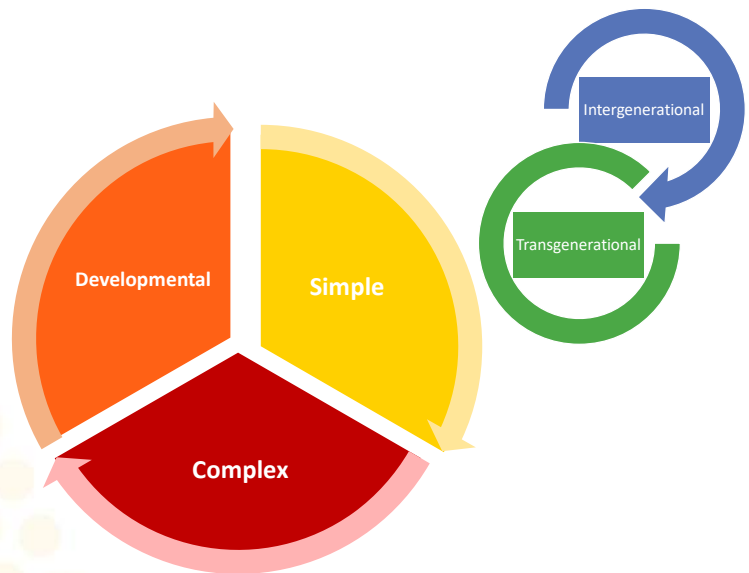


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Defining trauma

Any single, ongoing or cumulative experience which:

- is a response to a **real or perceived threat**, usually to survival
- **overwhelms** our capacity to cope
- feels/is **outside our control**
- often evokes a **physiological** and **psychological** set of responses based on fear or avoidance



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Developmental Trauma

- Refers to the period of time the brain is undergoing significant development; in utero through to late adolescence. Exposure to trauma during this time can alter the brain's architecture.
- Usually relational in nature – the trauma happens in relationship (through abuse, neglect, domestic violence, toxic stress etc) and therefore is healed in relationship.



Photo credit: unsplash.com

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Early experiences shape the architecture of our brain


Threat and Neglect → Survival

Safety and Connection → Integration



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What are the possible impacts of developmental trauma?



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Trauma impacts



Trauma can impact all elements of children's development: brain, body, memory, learning, behaviour, focus, emotions, relationships.



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What might it look like?

- Difficulties coordinating cognitive processes such as planning & weighing up decisions
- Difficulty with voluntary movement tasks – walking or writing
- Becoming overwhelmed and not able to sort incoming sensory information
- Can't place memories in time or place – flooding & flashbacks
- Working memory, retention and recall (retrieval) capacity severely impacted
- Difficulty in emotional regulation
- Difficulty in reading facial expressions
- Constantly perceiving threat where there is none
- Might be unable to use foresight and anticipation, focus or sustain attention, organise or prioritise well, reflect or have self-awareness, be enthusiastic, motivated or persist with activities, use impulse control, experience curiosity or playfulness



Photo credit: iStock

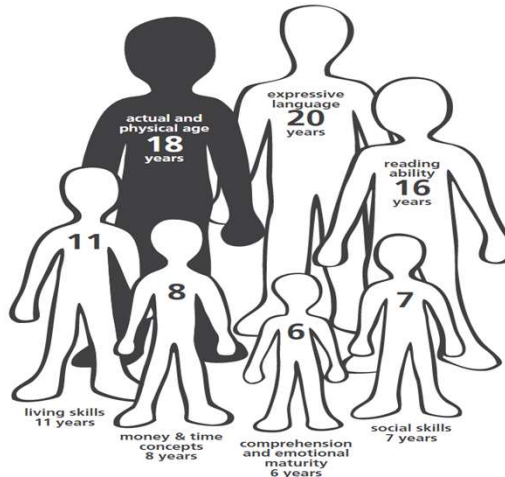


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Figure 6: The developmental age and ability of an 18-year-old with FASD

This diagram shows how a child's chronological age and developmental age can vary dramatically at any one time.

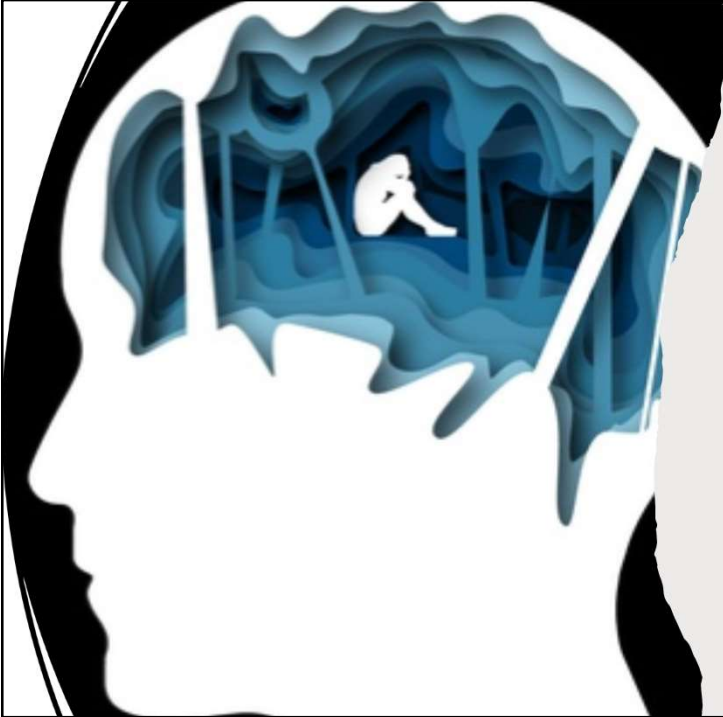
Be alert to disparities between chronological age and abilities for all children you work with.



Source: Jodee Kulp <http://www.betterendings.org>



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Blocked Trust

Blocked trust is a child's way to adapt to very poor care – **it's a survival state**. Blocked trust is blocking the pain of rejection by:

- Negative bias
- Dissociating
- Suppressing social emotions
- Provisioning – self reliance
- Manipulating
- Resisting authority – aggression, 'defiance'
- Story telling – fantasy
- Lying behaviours

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Trauma response patterns

To cope with trauma children use initial adaptive responses to survive

This is reasonable as a once off occurrence, but, if they continue they can become maladaptive patterns of behaviour

These responses will be different for an individual child at different developmental stages

Often a combination of appropriate developmental behaviours and maladaptive patterns of behaviour emerge



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Summarising the impact of trauma

- Trauma changes the architecture of the brain; neuronal creation focused on survival and meeting needs
- Trauma changes the connectivity between brain structures
- One of the primary purpose of the brain is to integrate sensory data, trauma is a dis-integrative experience
- Trauma reduces the capacity of the brain to achieve complex adaptive self regulatory states
- Trauma is a whole body experience. “We have learned that trauma is not just an event that took place sometime in the past; it is also the imprint left by that experience on mind, brain, and body” Bessel van de Kolk



CREATING A FELT SENSE OF SAFETY




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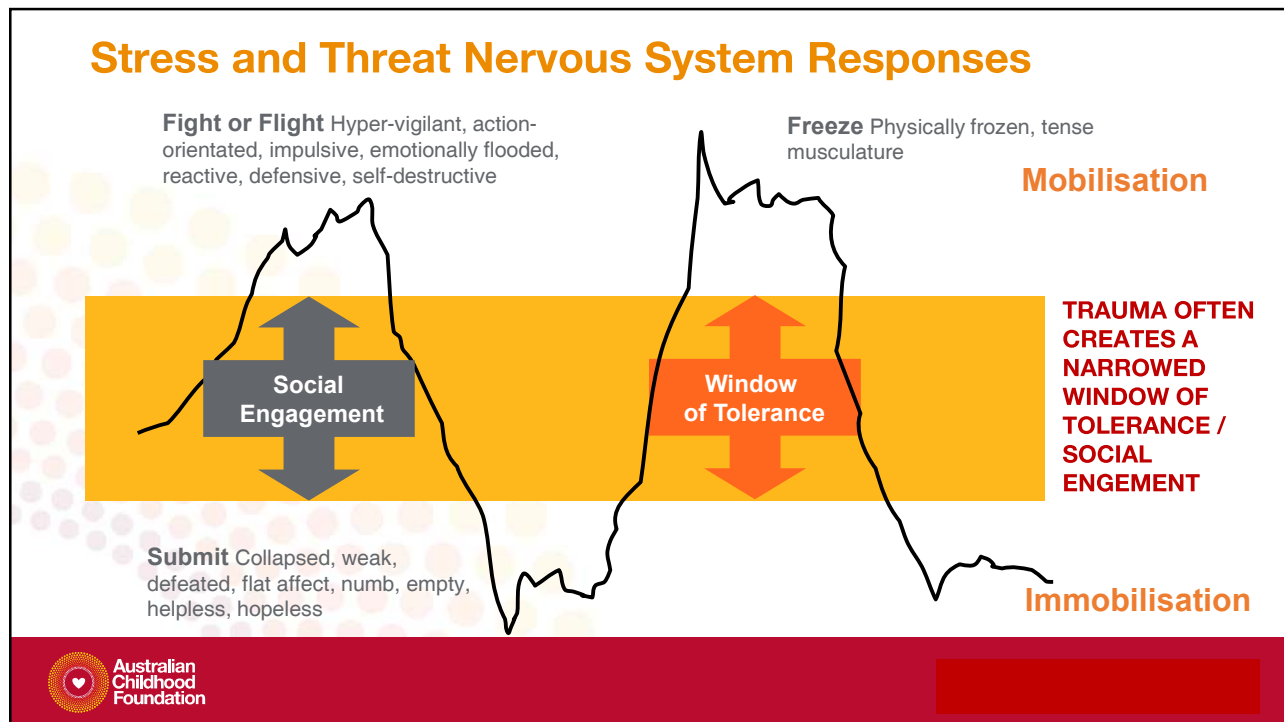
Polyvagal Theory and Protective Responses

by Stephen Porges

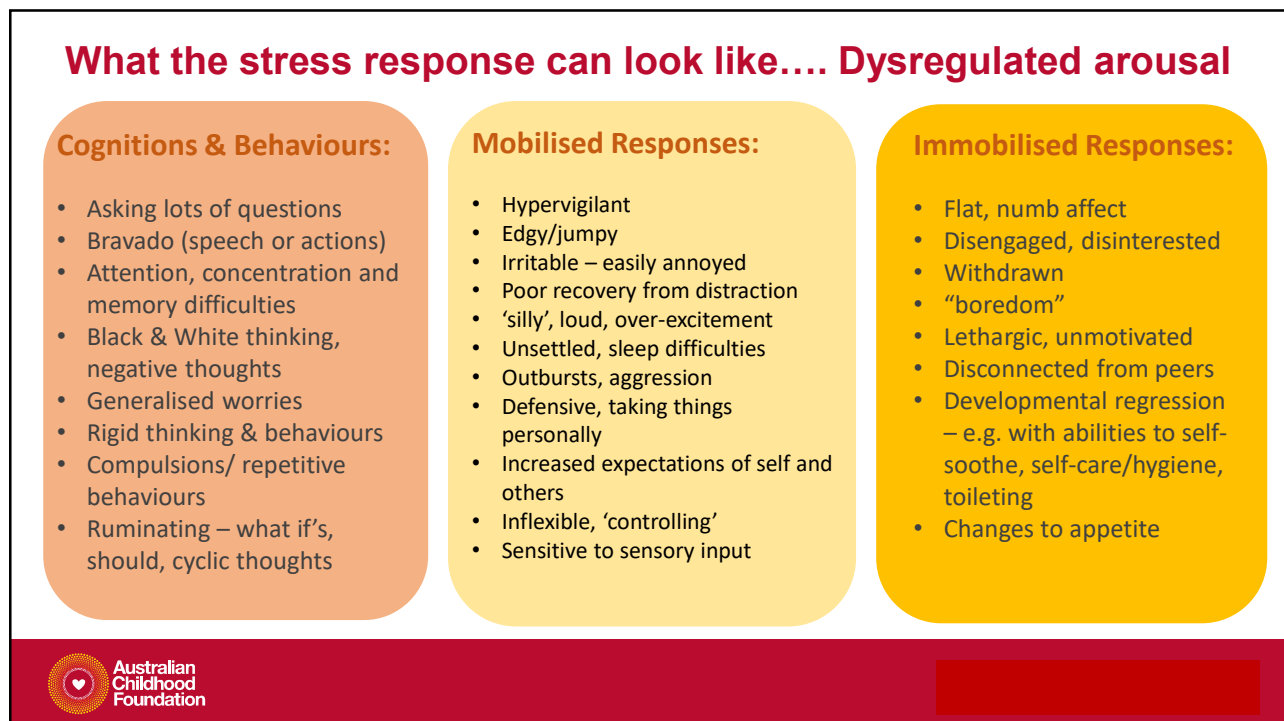
Behavioural Functions	Body Functions
<p>Social Engagement</p> <ul style="list-style-type: none"> Soothing and calming Indicates safety 	<ul style="list-style-type: none"> • Lowers or raises vocalisation pitch • Regulates middle ear muscles to perceive human voice • Changes facial expressivity • Head turning • Tears and eyelids • Slows or speeds heart rate
<p>Mobilisation</p> <ul style="list-style-type: none"> Fight or Flight Active Freeze Moderate or extreme danger 	<p>Hyper arousal</p> <ul style="list-style-type: none"> • Increases heart rate • Sweat increases • Inhibits gastrointestinal function • Narrowing blood vessels - to slow blood flow to extremities • Release of adrenaline
<p>Immobilisation</p> <ul style="list-style-type: none"> Collapse or submission Death feigning Increased pain threshold Conserves metabolic resources Life threatening situations 	<p>Hypo - arousal</p> <ul style="list-style-type: none"> • Slows heart rate • Constricts bronchi • Stimulates gastrointestinal function



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Creating Felt Safety

Key messages:

- Cues of threat and safety are continually monitored by our nervous system
- Cues of threat or safety can be found in experiences, relationships, and environments
- Change and uncertainty are interpreted by the brain as threats
- Before we can engage in social behaviour and learning, we must feel safe

Practice Implications:

- Proximity, prosody, facial expression and body language can all provide cues of safety
- Predictability, consistency, familiarity and routine are critical in creating 'felt safety'
- No matter the treatment goal, SAFETY is always priority
- Environmental audits are important – consider the types and levels of sensory input from a child's perspective (in clinic, home & school settings)

Examples:

- Get down low and use modulated, calm voice and face
- Reduce unnecessary sensory stimuli
- Provide visual cues, diagrams & reminders
- Incorporate familiarity and consistency wherever possible (appointment times, rooms, clinicians / teachers)



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Working with Protective Responses

Increase Resources – Regulatory Capabilities

Calm the brain with:

- Long outbreaths
- Mindful activities
- Orienting outwards
- Connection & Co-regulation
- "Name it to tame it"

De-activate Mobilised Responses with:

- Rhythm (drumming, music, swinging, rocking, bouncing)
- Stretching/Yoga
- Carrying heavy items
- Heat pack, weighted blanket
- Reduce stimulation
- Hugging a teddy/cushion

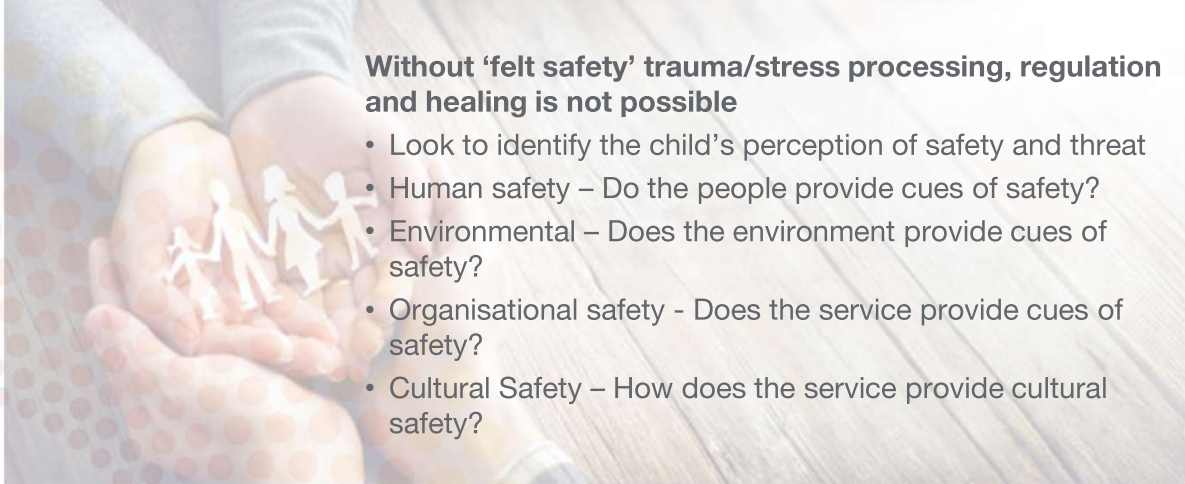
Counter Immobilised Responses with:

- Grounding through the senses
- Proprioceptive input
- Splash face with cold water
- Something cold or sweet to drink
- Chewing candies/sucking a mint/lollipop



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Restoring Safety and Reducing Risk



Without 'felt safety' trauma/stress processing, regulation and healing is not possible

- Look to identify the child's perception of safety and threat
- Human safety – Do the people provide cues of safety?
- Environmental – Does the environment provide cues of safety?
- Organisational safety - Does the service provide cues of safety?
- Cultural Safety – How does the service provide cultural safety?

USING OUR RELATIONSHIPS TO HEAL

Relationships are key



Image source: unsplash

- Relationships are the key way we learn to engage with the world around us.
- Babies lack the skills to regulate either the intensity or the duration of emotions. Coregulation is how we learn.
- They are key to our survival and remain significant to our wellbeing.
- The quality of relational interactions in childhood influence our development in all areas of life.
- Secure relationships are central to how a child experiences themselves and others.



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Using relationship to help healing

- Be predictable and consistent
- Know yourself, your triggers, and how to ground yourself so that you can attune to the child and hold space for them
- Connect, validate children's feelings and experiences, co-regulate, role model relationship repair
- Learn to translate trauma related behaviours so you can understand and respond to what is needed
- Recognise children's strengths and reflect this back to them



Image: hellovector.com



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Building positive self narratives in our children



Photo credit: iStock

How children understand and make meaning of their world often occurs through what is reflected back to them through their interactions with significant adults.

If adults respond to the child's behaviour in a punitive way, it reinforces negative self narrative.

So how we experience a child and reflect that back to them influences how they come to understand themselves and build their self narrative / identity.

WHAT DO YOU REFLECT TO BACK?



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"It's connection not control that cultivates cooperation, trust, love, resilience and independence. Connection is at the heart of our relationship."

Kerry Spina

Using Relational Models

EXAMPLES

- PACE – Dan Hughes
- Kim Goulding

Positive Parenting Connection



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P.A.C.E

- **Playful** – light, open, hopeful, spontaneous.
- **Accepting** – unconditional acceptance of the experience of the child (feelings, emotions and thoughts).
- **Curious** – non-judgemental, active interest in the child's experience, as well as behaviours to learn what is triggering them.
- **Empathic** – about past hurts and present challenges. A 'felt' sense of the child, which is actively experienced and communicated.

Dan Hughes (2009)

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Connection before correction – Kim Golding

- Research shows that **we cannot influence children in a positive way until we create a connection with them**.
- **Connection creates a sense of safety and openness.** Punishment, lecturing, nagging, scolding, blaming or shaming create fight, flight, or freeze.
- **Validation of intense emotions** – mirroring, serve and return, naming emotions
- Body language, facial expression, tone of voice
- **No correction without understanding**
- **Correction is about finding a solution with the child rather than imposing a punishment**

What does this look like as a clinician?



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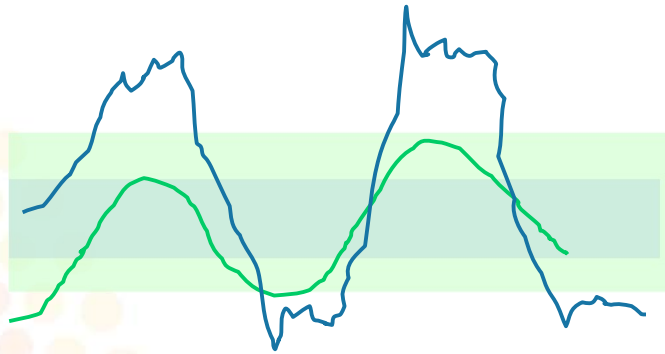
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Interpersonal Regulation

- When people are in relationship, the ability of one to regulate him/herself, affects the other's ability to regulate
- The child's arousal shapes, is shaped by, calming and engaging relationships

Child's movement in
her/his window of
tolerance

Movement in my window
of tolerance



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COREGULATING

Can I pick....

- Where both me and the child/ young person is in our nervous systems using indicators such as body movements, muscle tension, voice etc?
- How to use this knowledge to modify my attunement/ communication /activities to be self-regulating and co-regulating?



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Key points underpinning a trauma responsive approach

Neurobiology and neurophysiology of trauma informs practice

Behaviour is an expression of the impact of our experiences and unmet needs

Establishing safety, both physical and a felt sense of safety, precedes all else

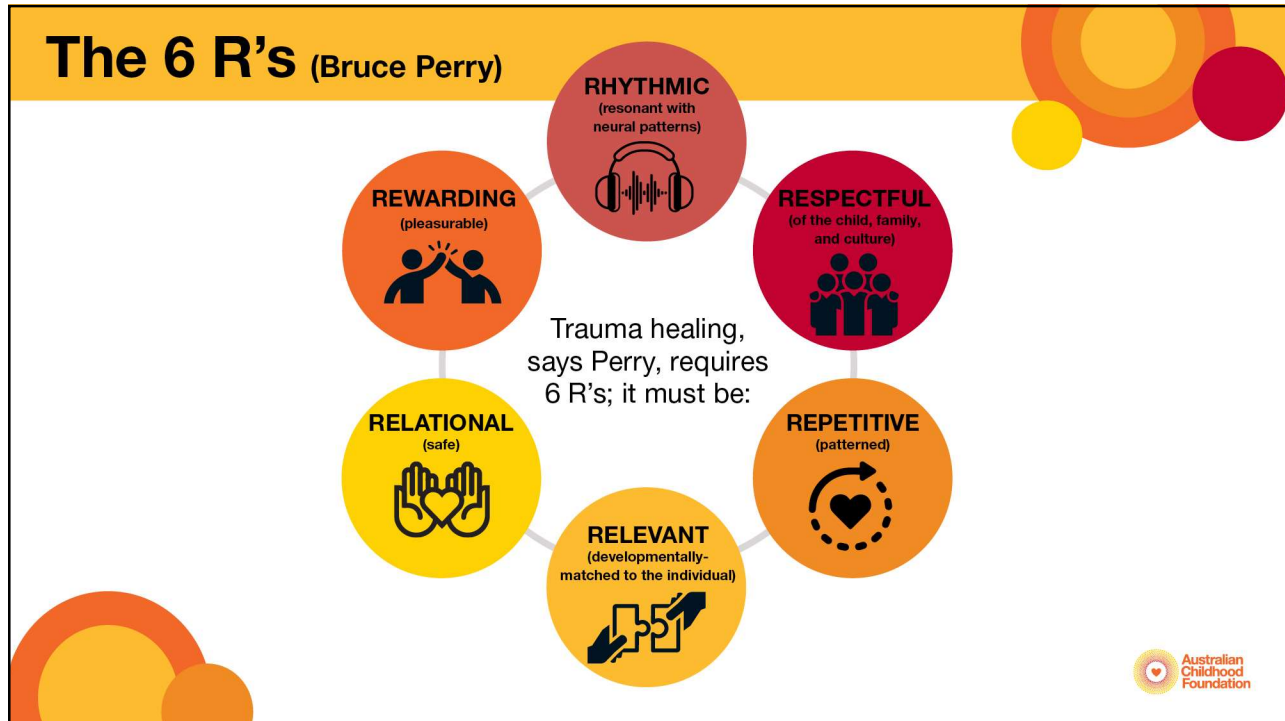
Healing occurs within safe, attuned, stable relationships

Connection to culture supports healthy development, safety and healing

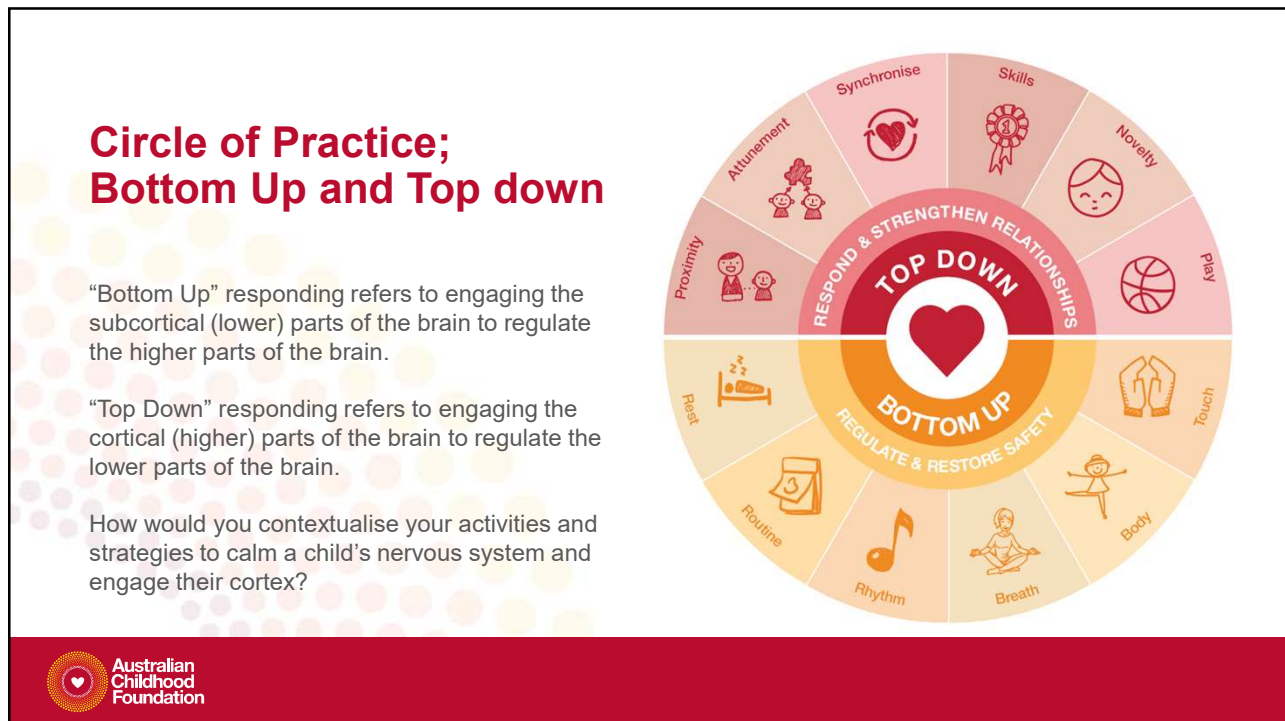
Trauma responsive practice is child centered and privileges children's voices

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Supporting curiosity and playfulness

- Trauma can smother curiosity and playfulness; there is no room for these if you are trying to survive and have your basic needs met
- Play and the experience of awe and wonder can spark the creation of neuronal connections, promote attunement and experience of healthy relationships, promote exploration of identity, personal growth and a sense of connection; all factors that encourage healing
- Play can lift the burden of lived experience and healing, allowing the process of healing to happen organically.

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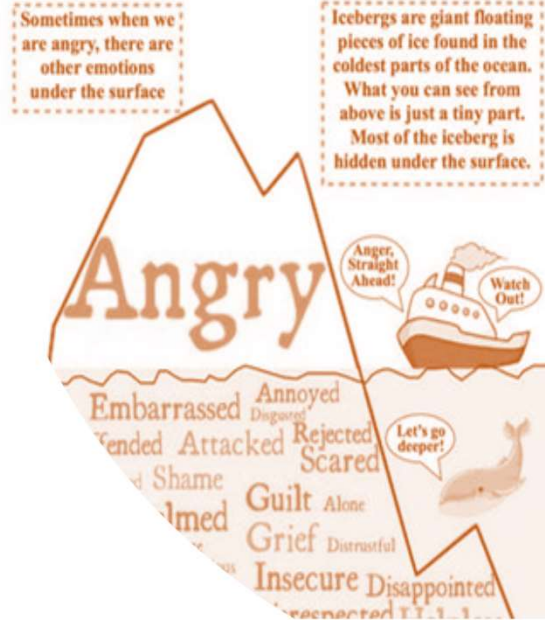
9 points of curiosity - Behaviour and the meaning it holds

1. Current state of the child's nervous system? (hypersensitised, under responsive?)
2. Survival/protective response – fight, flight, freeze, dissociate, collapse
3. What is the function behind the behaviour = meeting an unmet need?
4. Developmental stage of the child?
5. Coping strategy (that no longer works)
6. Structural changes in the brain
7. The demands of the environment outstripping the capacity of the child
8. How is this problem the child's solution?
9. Trauma induced thinking and conditioning (the world is an unsafe place, adults cannot be trusted, there is no hope of change, it is not safe to show vulnerability...)

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Making meaning of the behaviour

- Behaviour is often a child’s way of **communicating** with us when they can’t articulate their state
- Learning how to **understand** a child’s behaviour is a more effective tool than only responding to the surface behaviour
- We need to learn to ask **“What is this behaviour telling me?”** and be curious about what it might mean so that we can best respond



Safeguarding Children Services
safeguardingchildren.com.au

Photo credit: iStock

Reframing our thoughts and language



A helpful thought process for planning....

What is the task or expectation the child is expected to do (and failing at/"refusing" to do)?

What does the brain— anyone's brain— have to be able to do in order to successfully complete that task or meet that expectation?

What do you know about how your child's brain functions in those areas? Do they have those skills?

Make adaptations to meet the child where they are at and build from there.



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Grounding ourselves



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Empathy – a strength and a vulnerability

If empathy is to ‘walk a mile in someone’s shoes’ we need to ensure we step out of those shoes at the end of the mile or we will wear those shoes all the time...and that is vicarious trauma.

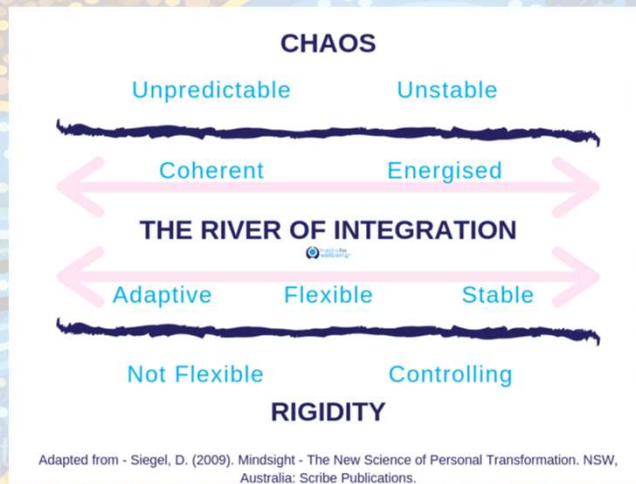
- **Somatic empathy (Rothschild 2004)**
 - mirroring body states
- **Limbic resonance**
 - Our emotional state adjusts to match the emotional state of the person or people we are with
- **Cortical empathy**
 - Our attempts to step outside our own experiences and imagine the experience and perspective of others



Photo credit: Forbes

Wellbeing – The River of Integration

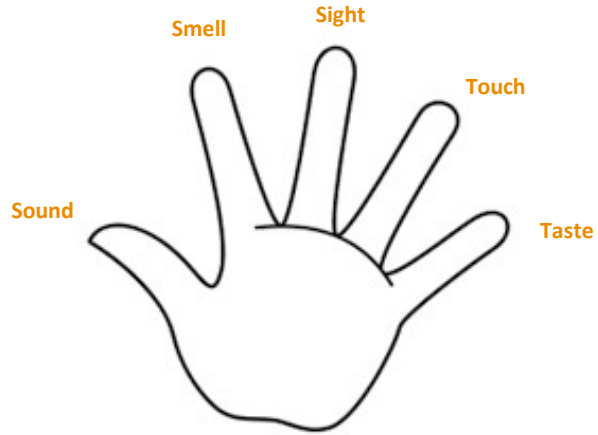
(Dan Siegel)



Building a safe sensory profile

Think of at least one example of each sense that provides you with a sense of safety / peace / calm and write it in the related finger.

How can you integrate this into your daily/ weekly experience or whenever needed?



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How do we take care of ourselves?

• **IN THE MOMENT:**

- Physically (regulate our body systems)
- Mentally (keeping our cortex online)

• **AFTER THE MOMENT:**

- Debrief (social engagement system!)
- Physically - regulate body systems

• **BEFORE THE MOMENT** (and all the time)

- Effective self care
- Organisational culture



Photo credit: iStock



Photo credit: iStock



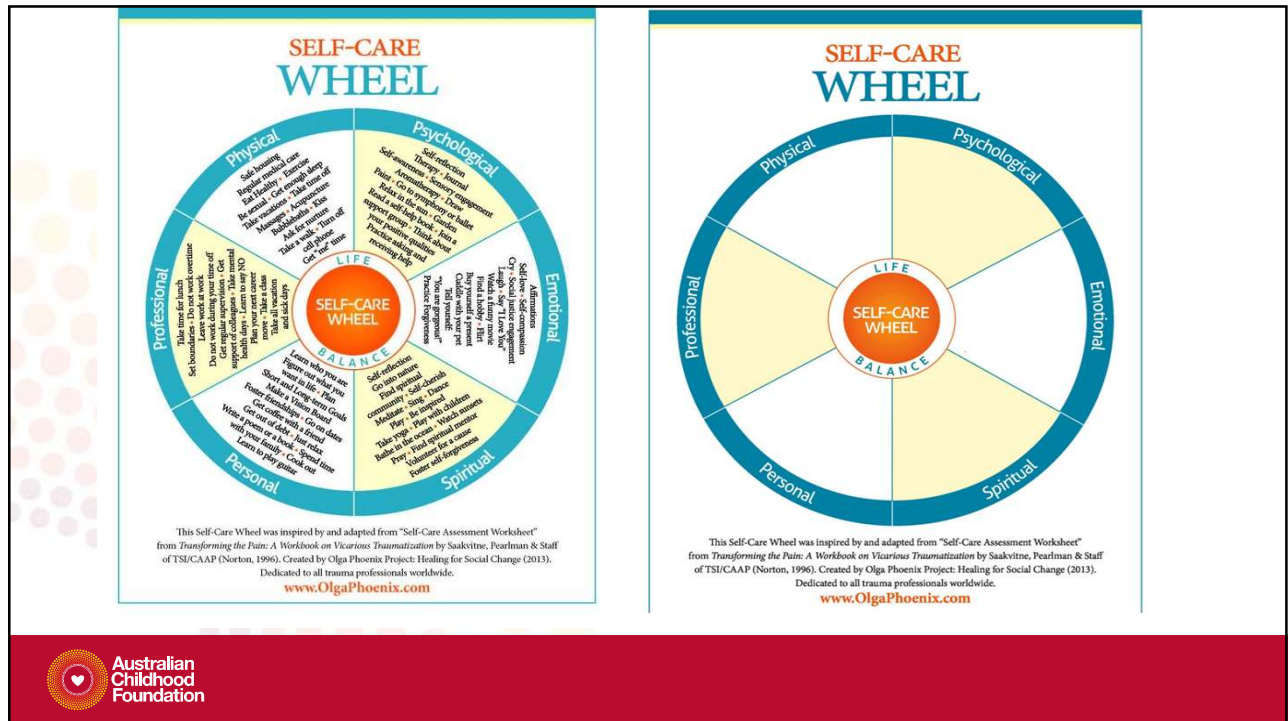
Photo credit: iStock



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ProQOL



Pro
QOL

Professional Quality of Life

The ProQOL (Professional Quality of Life) scale asks users to respond to 30 scaled answer questions that measure the user's current compassion satisfaction, burnout and secondary traumatic stress scores. This tool has traditionally been used by foster and residential carers as well as professionals working with a range of clients who have experienced trauma.

<https://proqol.org/>



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