



Presentation overview

- Recap of Key Principles of Neurobiology and Impacts of Trauma
- 9 Points of Curiosity
- Trauma Responsive Approaches



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Key Principles of Neurodevelopment

- 1. The brain is organized, and develops, in a hierarchical sequence that is connected to the body.
- 2. Neurons and neural systems are designed to develop and change in a usedependent function. The more we use a connection the stronger it becomes.
- 3. The brain develops most rapidly early in life. Childhood is a critical period of brain development.
- 4. Neural systems (or neuronal connections) can be changed, but some systems are easier to change than others. This is the concept of neuroplasticity.
- 5. 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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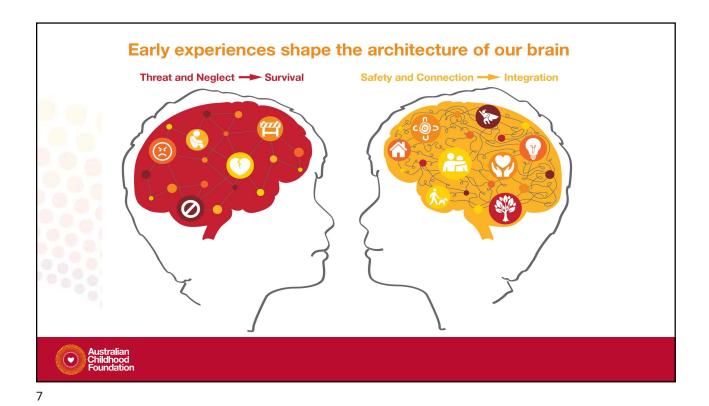
Relationships are key



Image source: ©2022 iStock

- 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.





Culture as a resource

· Provides a protective factor

Safety: Belonging

Relationships: Connection Meaning making: identity

- Guides our interactions with self, others and our lands
- 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







Summarising the impact of trauma

- Trauma changes the architecture of the brain
- 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



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



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What trauma or stress response can look like

Cognitions & Behaviours:

- Asking lots of questions
- Bravado (speech or actions)
- Attention, concentration and memory difficulties
- Black & White thinking, negative thoughts
- Generalised worries
- Rigid thinking & behaviours
- Compulsions/ repetitive behaviours
- Ruminating what if's, should, cyclic thoughts

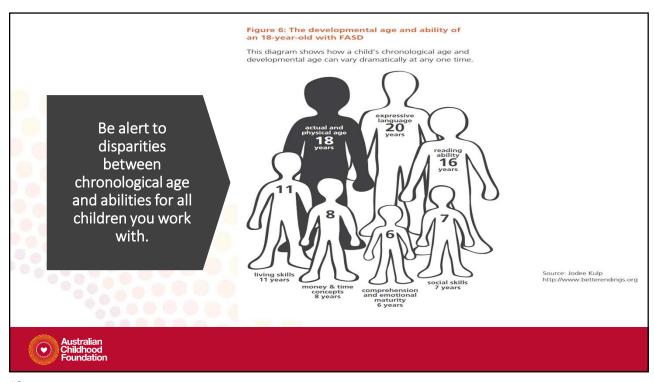
Mobilised Responses:

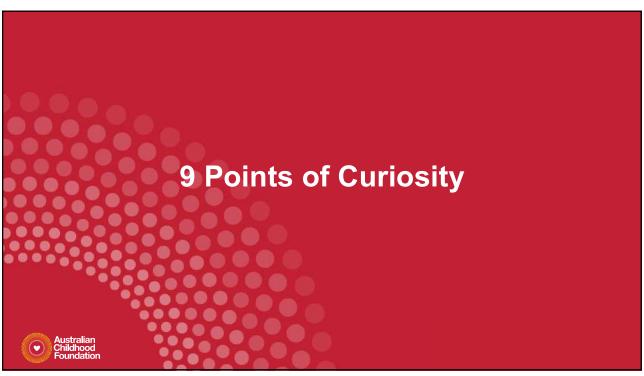
- Hypervigilant
- Edgy/jumpy
- Irritable easily annoyed
- Poor recovery from distraction
- 'silly', loud, over-excitement
- Unsettled, sleep difficulties
- Outbursts, aggression
- Defensive, taking things personally
- Increased expectations of self and others
- Inflexible, 'controlling'
- Sensitive to sensory input

Immobilised Responses:

- · Flat, numb affect
- Disengaged, disinterested
- Withdrawn
- "boredom"
- Lethargic, unmotivated
- Disconnected from peers
- Developmental regression
 e.g. with abilities to self
 - soothe, self-care/hygiene, toileting
- Changes to appetite





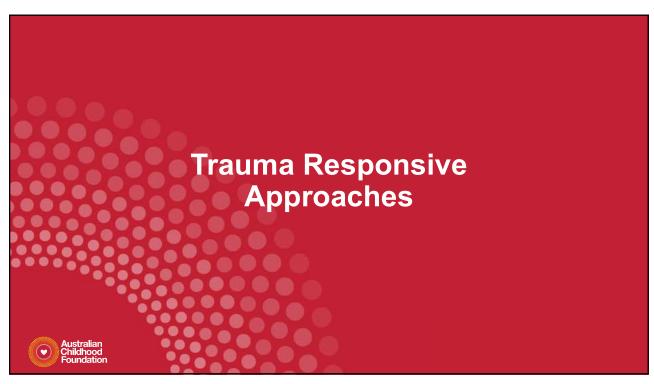


Behaviour and the meaning it holds

- 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 person
- 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...)

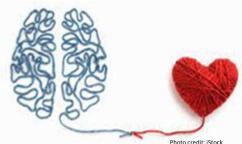


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TRAUMA RESPONSIVE APPROACHES...

- Always start by developing a felt sense of safety for the young person
- Build predictability and consistency
- Know yourself, your triggers, and how to ground yourself so that you can...
- Use your relationship seek to connect, co-regulate, lead by example, hold space for their pain
- Embed your understanding of the impacts of trauma on brain development
- Learn to translate trauma related behaviours so you can understand and respond to what is needed
- Recognise their strengths and reflect this back to them





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Neuroception – 'detection without awareness'

- Familiarity is perceived as safe
- Finding that which is dangerous to be safe
- Finding that which is safe to be dangerous



Our nervous system listens to what's happening inside our bodies. It scans our environment and pays attention to the messages others send us.

When it senses safety, it automatically moves us to a state of connection. When it senses a threat, it moves us into a state of protection to keep us safe.

Image credit: Beacon House

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Restoring Safety and Reducing Risk

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

A felt sense of safety, the child's perception/ inner sense of safety

- 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 organisation provide cues of safety?
- Cultural Safety How does the organization provide cultural safety?



"For years mental health professionals taught people that they could be psychologically healthy without social support, that "unless you love yourself, no one else will love you."

...The truth is, you cannot love yourself unless you have been loved and are loved. The capacity to love cannot be built in isolation"

Bruce D. Perry, The Boy Who Was Raised as a Dog: And Other Stories from a Child Psychiatrist's Notebook



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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)
- Limbic resonance
- Cortical empathy







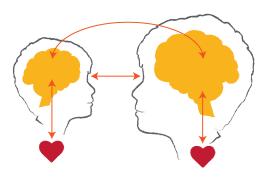
Somatic Empathy

- A **subcortical empathic response** that is based around movement.
- This response is also called mirroring and is often something we do without being aware of it (because it is subcortical!)
- We can bring it to conscious awareness and use this knowledge in our practice.
- Not acknowledging somatic empathy can become problematic if we start to mirror the posture and movement of our clients on a repeated basis.

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Limbic Resonance

- A subcortical empathic response that is based around the mood or emotional state of the other person.
- We can use this knowledge for 'good' rather than 'evil' when we are aware of our ability to influence the mood of another person by holding our own emotional state.





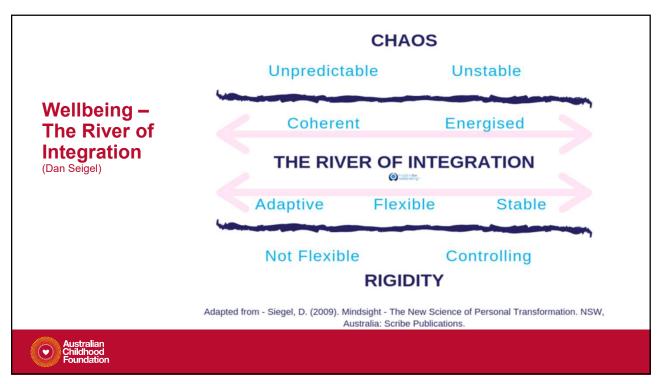
Cortical Empathy

- Higher order skill and a **pre-frontal cortical empathic response**.
- It enables us to consider and try to understand the experience of another person and respond based on our understanding.





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Vicarious Trauma - Possible indicators

Multidimensional:

- Physical
- Sensory
- Emotional
- Cognitive
- Relational

Can include:

- Fatigue
- impaired immune system
- sleep and appetite disturbances
- Anxiety
- hyper vigilance/control issues
- · decreased self esteem
- · loss of interest in tasks
- Avoidance avoiding client contact or supervision



Not all indicators in isolation will determine vicarious trauma. However, experienced collectively, these can have a significant impact on the individual, the team and organisation.



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Self assessment

- Useful to monitor impact on the practitioner
- E.g. tools: **Self Assessment Tool** and **ProQol** (Professional Quality of Life)

https://progol.org/progol-health-measure

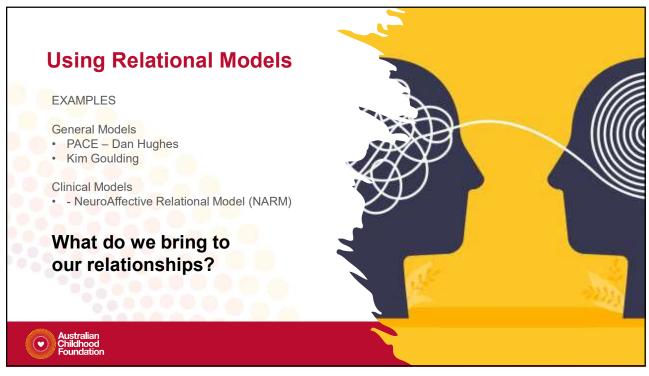
NB. These provide a **snapshot in time** of how a worker is travelling re their sense of self in the work.



Consider ways you might use these in your own workplace and/or practice











Understanding of neurobiology of trauma & brain development



Application of the theory into practice

Brain functioning

How do you understand what's happening in the person's brain, how it ticks and how will that influence your work?

Developmental level

How do you understand the person's developmental age versus their chronological age? How will this inform your decision-making around support and intervention for the child and the family?

Adult trauma

Adult brain development history (Parents / Carers) – how will this influence your engagement with them?

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Education example of staged responses; Bottom Up and Top down

"Bottom Up" responding refers to engaging the subcortical (lower) parts of the brain to regulate the higher parts of the brain.

"Top Down" responding refers to engaging the cortical (higher) parts of the brain to regulate the lower parts of the brain.

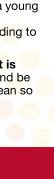
How would you contextualise your activities and strategies to calm a client's nervous system and engage their cortex?

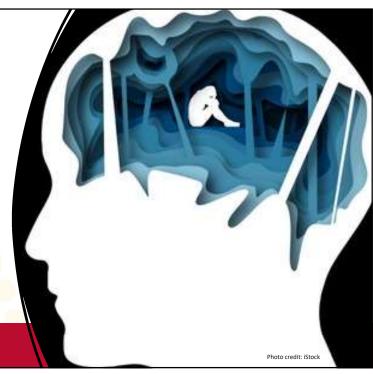




Making meaning of the behaviour

- Behaviour is often a young person's way of communicating with us when they can't articulate their state
- Learning how to understand a young person's behaviour is a more effective tool then 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





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Meaning making



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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 identity.

WHAT DO YOU REFLECT TO BACK?





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 identify, 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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