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The Australian Childhood Foundation
acknowledges Aboriginal and Torres
Strait Islander people as the
traditional custodians of this land
and we pay our respect to their Elders
past, present and future.

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Our journey today....

- Child development and the importance of relationships and culture
- The brain, growing up and the impact of trauma
- Healing ways to respond: Creating Safety
- Self Care



Image: Aboriginal Art Store



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Take care of you today....

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 safe. We are happy for you to talk to the facilitator if you need to.

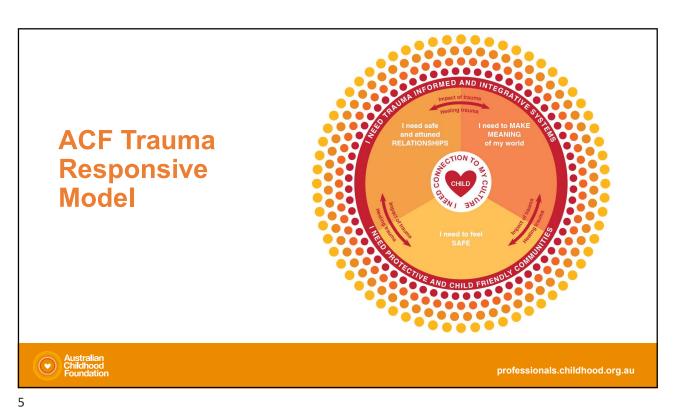


Image: Hellovector.com



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I need to feel safe....



Relationships shape our sense of self and safety

"I am because we are"

African proverb

"A person's core self - the self that is shaped by early attachment patterns - is defined by who the parental object both perceive him to be and deny him to be" him to be"

Bromberg 2001, page 57

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I need to make meaning of my/the world?





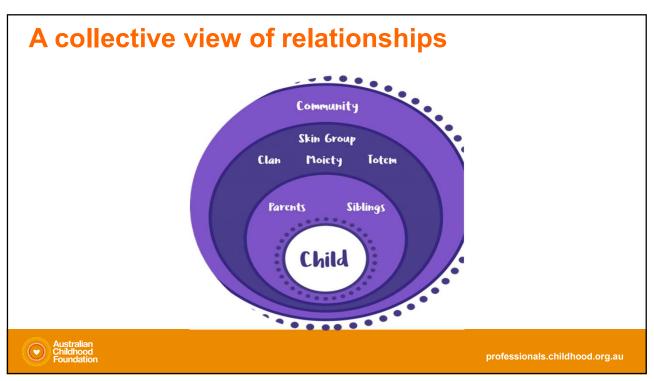
The Importance of Culture in development

Safety: Belonging

Relationships: Connection

Meaning making: identity

Literature Nay care obtained spattern beliefs billed obtained control in the contr





Four factors towards cultural humility

- Humbly acknowledging oneself as a learner when it comes to understanding another's experience.
- 2. A commitment to lifelong learning, continuous self-reflection and self-critique
- 3. A recognition of the power/privilege imbalance that exists between service users and professionals
- 4. A desire to develop partnerships with people and groups who advocate for others; and seek to address imbalances which exist

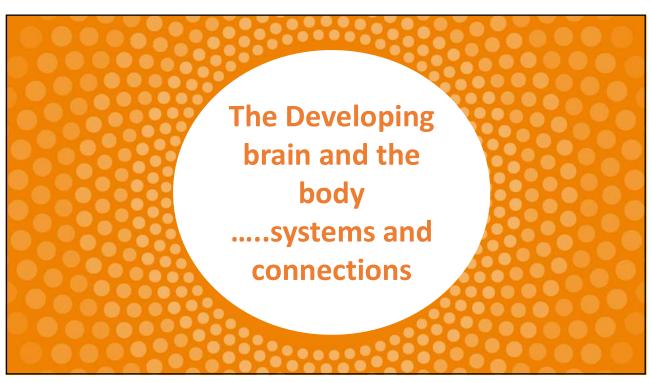
Cultural humility builds mutual trust and respect and enables cultural safety

Dabakan Kooyliny - Go Slowly, Walk Slowly, Walk Together: Culturally Strong Therapeutic Care for Aboriginal and Torres Strait Islander Children, Families and Communities.' pp. 159 - 18



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Brain development

- The brain develops through a mix of genetics and environmental factors.
- Key to this development are relationships
- The brain develops sequentially from the bottom up



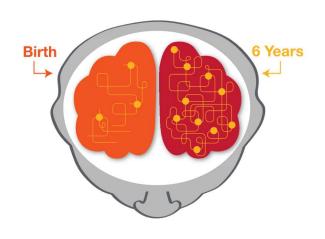


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Neuronal connections

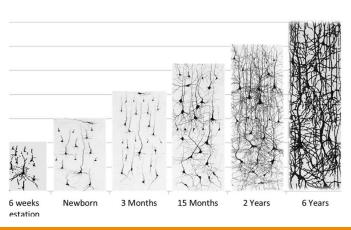
- The neural system has the ability for one neuron to communicate with up to 10,000 other neurons
- The newborn brain has approximately
 100 billion neurons





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Neuronal development



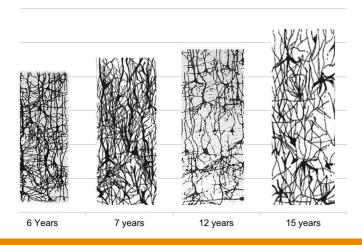
- Rapid growth occurs from birth to 6 years
- Critical period of development
- Healthy neuronal development occurs through relationships, regulation, repetition



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Neuronal development

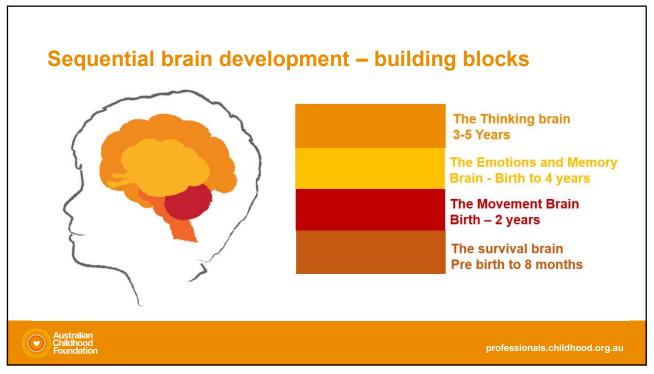


- Early years period of rapid growth
- Followed by onset of puberty in which synaptic pruning and formation of new neurons occurs.

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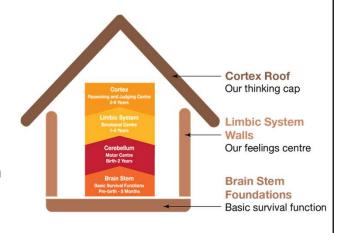
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Brain development metaphor - My Brain House

- We build our brain from the bottom to the top- like building a house
- We reinforce parts of our house as we grow, with our roof continuing to develop into our mid 20s.
- A student who is calm and focused at school will likely be functioning with a strong standing brain house, from foundation to roof.
- In times of great stress bits of our brain house can come down and require repair. This is achievable and our brain house can stand strong again.





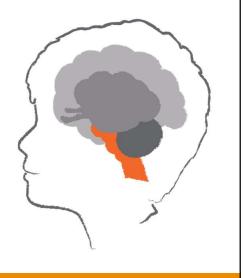
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Brainstem - basic life functions

- · Basic life functions
- First part of our brain to develop
- This is the most developed brain part at birth
- Responsible for our heart beat, breathing, sucking, temperature control, blood pressure





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Cerebellum- movement and balance

- Helps us to know where our body is in space
- · Helps us with our posture and balance
- Helps us not to fall over and to control our movements
- Has its own connective pathways between the
 - 2 halves- cerebellar vermis





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Infancy-0-12 months

Primary developmental goal:

- State regulation
- Primary attachment
- Flexible stress response
- Resilience



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Diencephalon - sorting & sending centre

- This area of the brain develops mainly after birth
- It sorts out messages coming into the brain and sends them
- It uses hormones to send signals to body
- Hormonal signals tell your body what it needs, eg. food, water, love





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8 senses

- 1. Visual
- 2. Auditory
- 3. Olfactory (smell)
- 4. Gustatory (taste)
- 5. Tactile System (touch)
- 6. Vestibular (sense of head movement in space)
- 7. Proprioceptive (sensations from muscles and joints of body)
- **8. Introception** (awareness of basic primary functions hunger, toileting, breathing)



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Somatosensory Vestibular Proprioception

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Diencephalon: Thalamus and Hypothalamus

The thalamus has 2 possible routes:

- The high road: When there is no fear or harm detected, information gets sent on up to the common sense part of our brain, the cortex.
- The low road: If there is harm detected, the information gets sent in a flash to our amygdala and a survival response kicks in activating the hypothalamus.
- Hypothalamus initiates cortisol and adrenaline which activates the fight fight, run or freeze
- Children who have trauma often take the low road as a default nervous system response

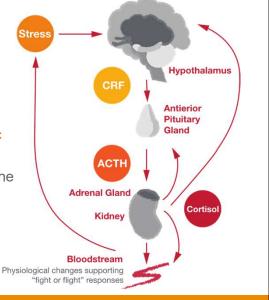




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Hypothalamic (Diencephalon) / Pituitary / Adrenal Axis

- 1. The hypothalamus secretes the hormone corticotropin-releasing factor (CRF), which rouses the body.
- 2. CRF travels to the pituitary gland.
- 3. The pituitary gland secretes **adrenocorticotropic hormone** (ACTH).
- 4. ACTH circulates in the bloodstream, traveling to the adrenal gland.
- 5. The adrenal gland releases **cortisol**, another hormone.
- 6. Cortisol stimulates many reactions in your body, including a rush of energy and alertness.



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Critical functions being oranised: Integration of multiple sensory inputs Fine motor control

Emotional statesSocial language;

information

interpretation of nonverbal



Limbic lobe- emotional gateway

- The part of the brain that helps us attach an emotion to an experience or memory
- This part of the brain is particularly involved with the emotions of fear and anger
- Also heavily involved in attachment processes
- · This area develops mainly after birth



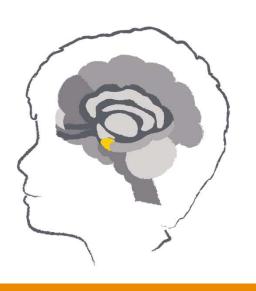


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Amygdala – smoke alarm

- · Detects threat
- · Develops from birth
- Learns by association
- Involved in implicit memory processes





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Hippocampus – Brain's historian

- Explicit memory system
- Develops approximately 2-3 years of age
- Provides context to memory and embeds long term memory





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Cerebral cortex- complex thinking

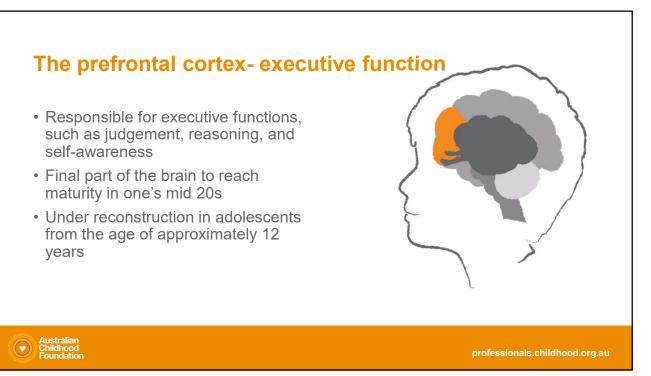
- The largest part of the brain
- Associated with higher brain function such as thought and action
- Examples of functions:
 - Reasoning
 - Logic
 - Judgement
 - · Voluntary movement





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Medial prefrontal cortex

- Associated with perceptions of self and similar others
- · Known as centre for mindfulness
- Involved in maternal bonding the parent child dyad and inter-subjectivity





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Hemispheric integration

Left Hemisphere

- Evaluates language content
- · Optimistic hemisphere
- Understands beginning, middle and end
- Learns from the past and expects the future
- · Looks for patterns



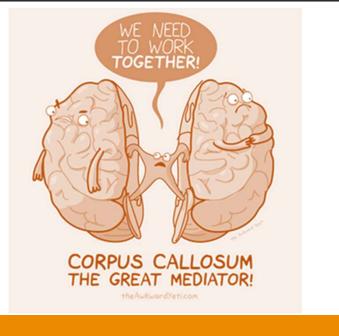
Right Hemisphere

- · In the present moment
- Eye contact
- · Facial expression
- Tone of voice
- Posture
- Gesture
- Intensity
- · Is mute
- Grasps the whole



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Corpus Callosum



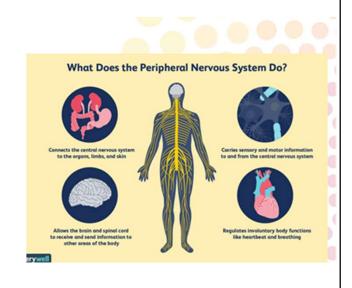


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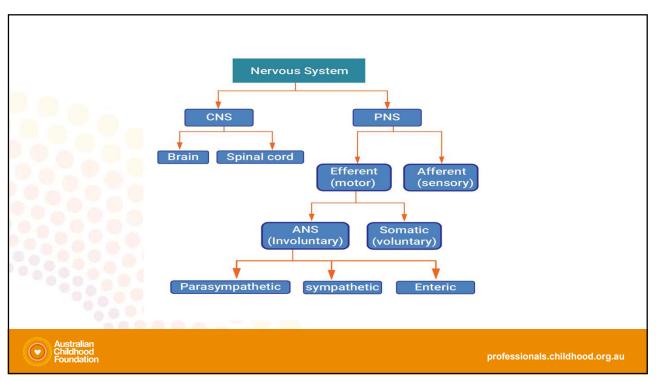
The Nervous System

- The central nervous system refers to nerves of the brain and spinal cord.
- The peripheral nervous system refers to the nerves outside of the brain and spinal cord
- The autonomic nervous system controls the way our internal (visceral) organs function.

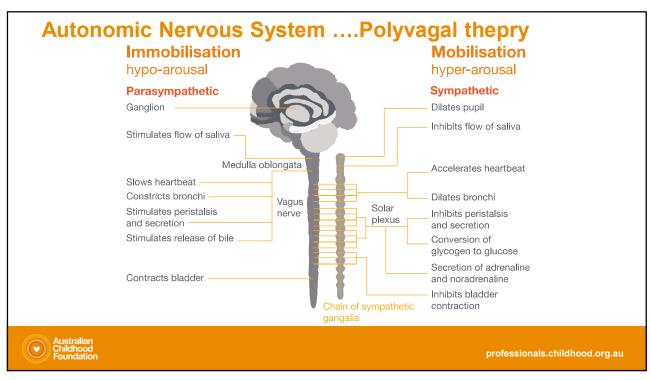


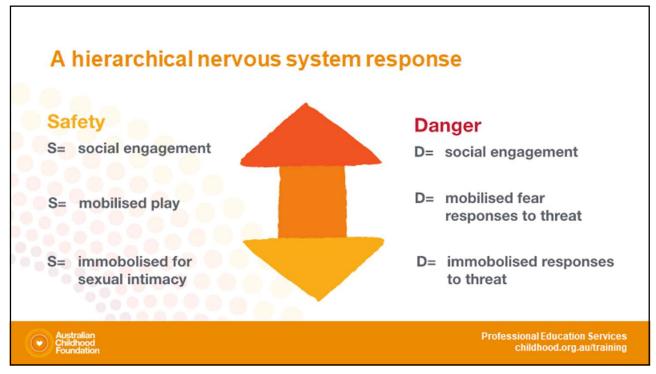


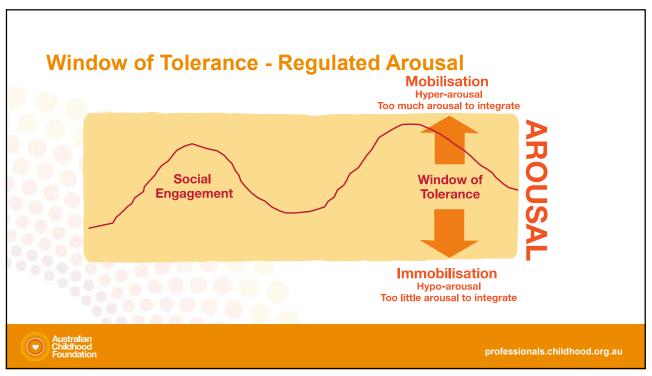
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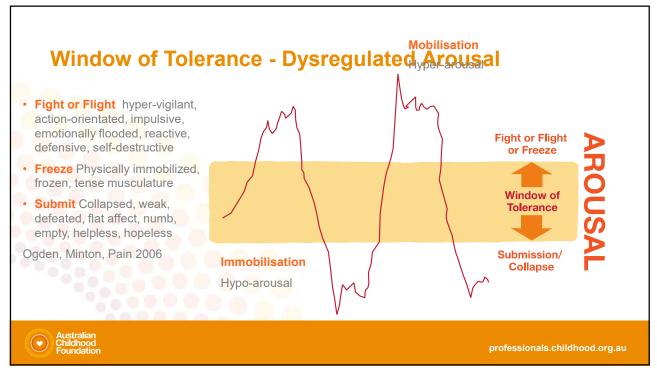


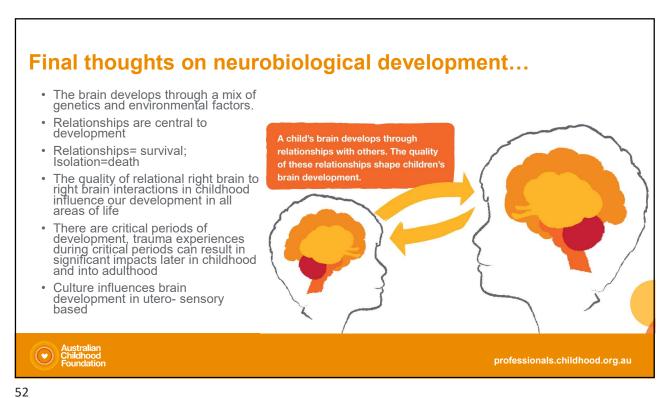


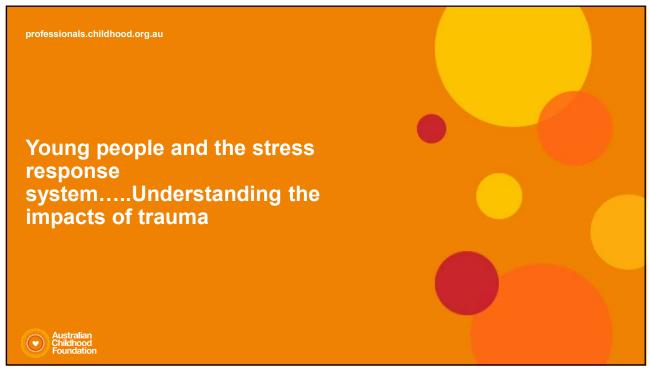


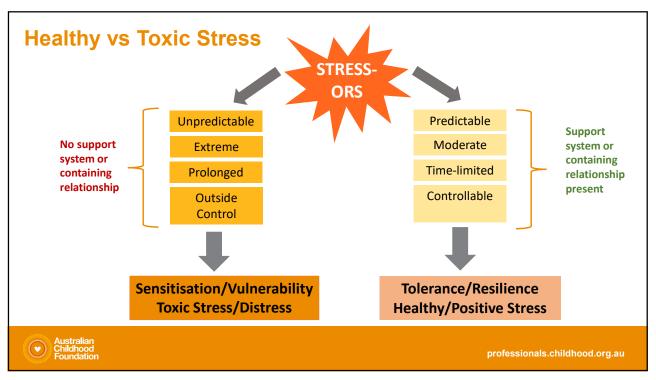












Adverse Childhood Experiences (ACES)

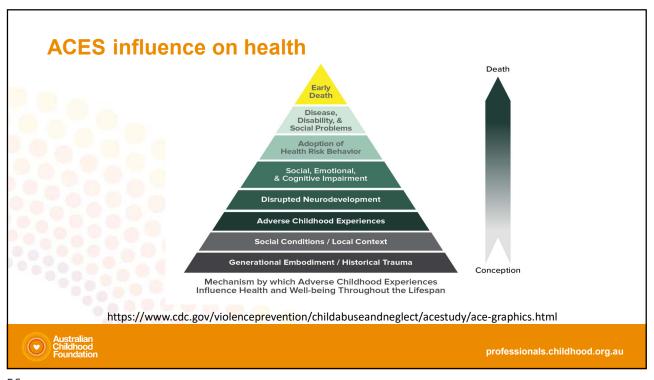
- Sexual abuse (20.7%)
- Neglect (14.8% emotional, 9.9% physical)
- Emotional abuse
- Physical abuse
- Parent mental illness (19.4%)
- Parent substance use (26.9%)
- Witnessing domestic violence (12.7%)
- Having a family member in jail (4.7%)
- Parent separation or divorce (23.3%)
- Death of parent or sibling

(Kaiser ACE Study, n=17,337: Felitti et al, 1998)





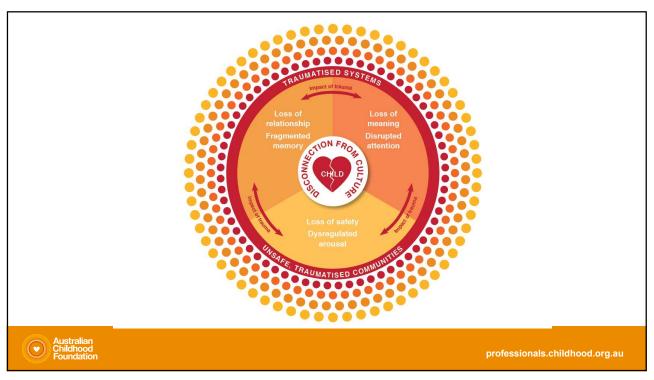
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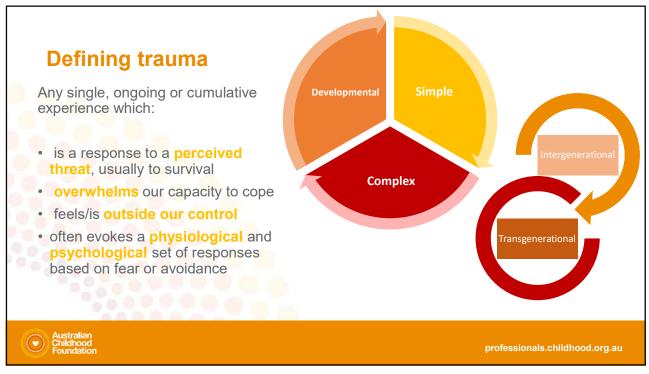


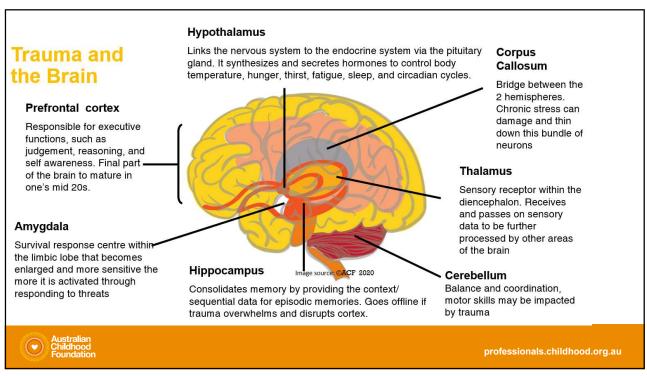
- According to Australian Institute of Health and Wellbeing (AIHW) 40.8% of the 1,909 young people in detention in 2014-2015 were also in the child protection system at some time in the same year.
- In 2016, 75.2% of Aboriginal children who were found guilty of an offence in the NT had previously been reported to child protection
- Young Indigenous Australians aged 10–17 were 21 times as likely as young non-Indigenous Australians to be in detention on an average night in the June quarter 2019.
- Young people who had received child protection services were 9 times as likely as the general population to have also been under youth justice supervision
- Young Indigenous Australians were 17 times as likely as their non-Indigenous counterparts to have been in both the child protection system and under youth justice supervision
- · Younger children were more at risk.



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Intergenerational Trauma

- The prefix 'inter' is from the Latin meaning between, or among, together or mutually together
 - Inter-generational trauma is passed down directly from one generation to the next



 Inter-generational trauma occurs directly through experiencing the trauma or from seeing or hearing about it

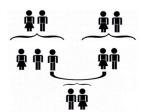


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Transgenerational trauma

- The prefix 'trans' is from the Latin word meaning across or crossing, through, beyond or on the other side
 - Trans-generational trauma is transmitted across a number of generations



"This type of trauma occurs without direct stimulus but is instead transmitted from a parent who has experienced a traumatic event"

(Davidson & Mellor 2001 as cited in Goodman, West & Cirecie, 2008)

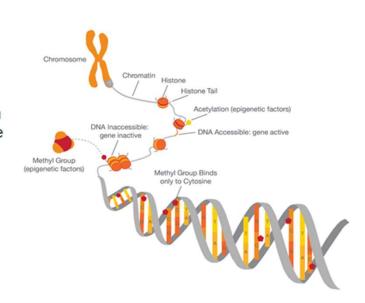


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"The study of inheritable changes in gene function without the change in the DNA sequence"

Journal of Science





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Transgenerational transmission and cultural impacts

Duran and Duran (1995) suggest that:

"...historical trauma becomes embedded in the cultural memory of a people and is passed on by the same mechanisms by which culture is generally transmitted, and therefore becomes 'normalised' within that culture."

Atkinson, J., Trauma Trails: Recreating Song Lines, 2002

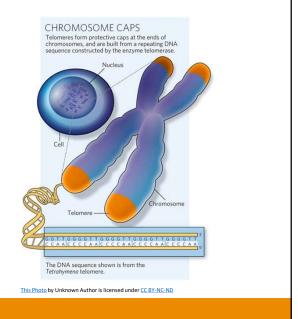




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Telomeres

- Caps at the end of DNA, holding it together
- · Telomeres shorten as we age
- Those born in families with transgenerational trauma have been shown in studies to have shorter telomeres from birth.



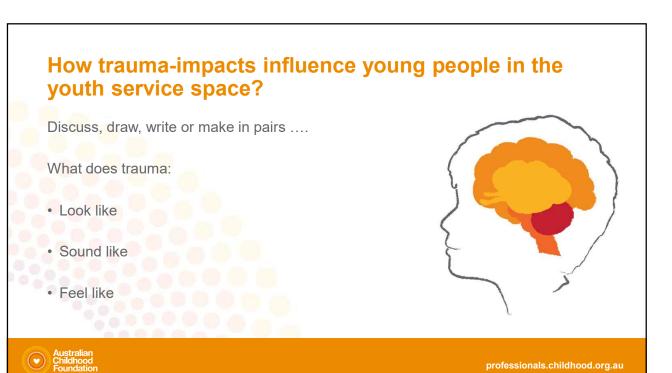


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Retell the story. Hold each other. Massage, dance, sing. Create images of the battle. Fill literature, sculpture, and drama with retelling. Reconnect to loved ones and to community. Celebrate, eat, and share.





Why trauma informed practice with young people and their families is important

- Young people and families we work with have experienced both current, historical and generational trauma
- Trauma impacts how people access services
- Responses to trauma are adaptive without a trauma lens, behaviours can be seen as 'antisocial' or 'maladaptive'
- Trauma survivors require specific, tailored interventions that minimise re-traumatisation and understand individual needs and responses to trauma





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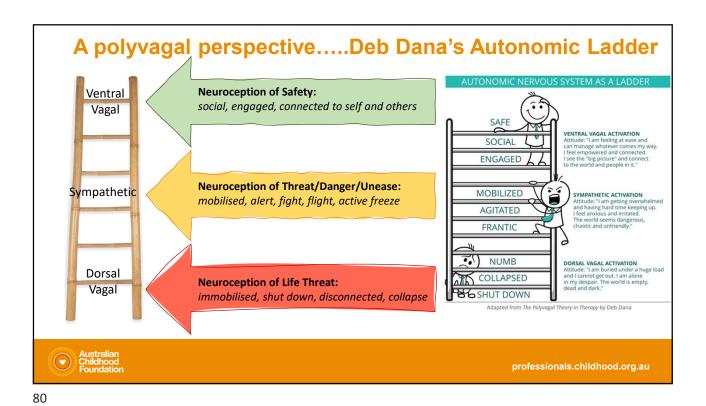


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From the cortex down Psychological processes: Thoughts Imagination Beliefs Neuroception -Right cingulate avrus 'detection without Left cingulate Right cerebral awareness' hemisphere Corpus collusum Thalamus Hippocampus Optic chiasm Optic nerve Amygdala Faulty neuroception.... -Cerebellum • Familiarity may lead to Spinal cord • Finding that which is From the outside in From the inside up dangerous to be safe External senses/ Awareness of body in space: 'Internal mileu'/ Interoception: Pain, temperature • Finding that which is Vibration, touch ANS afferents Fluid borne chemical signals Proprioception safe to be dangerous **Professional Education Services** professionals.childhood.org.au



Protective Responses – what they might look like

Mobilised Responses

(fight, flight, active freeze):

- Hypervigilant
- Edgy/jumpy
- Irritable easily annoyed
- Poor recovery from distraction
- 'silly', loud, over-excitement
- Unsettled, restless
- Outbursts, aggression
- Defensive, taking things personally
- Inflexible, 'controlling'
- Sensitive to sensory input

Immobilised Responses

(collapse, withdraw, dissociate):

- Flat, numb affect
- Disengaged, disinterested
- Withdrawn
- Frequent "boredom"
- · Lethargic, unmotivated
- Disconnected from peers
- Primitive self-soothing
- · Hygiene issues
- · Wetting or soiling
- Low appetite





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Strategies for working with Protective Responses

Calm the brain with:

- Long outbreaths
- Mindful activities
- Orienting outwards
- Connection & Co-regulation
- Time in nature

De-activate Mobilised Responses with:

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

Counter Immobilised Responses with:

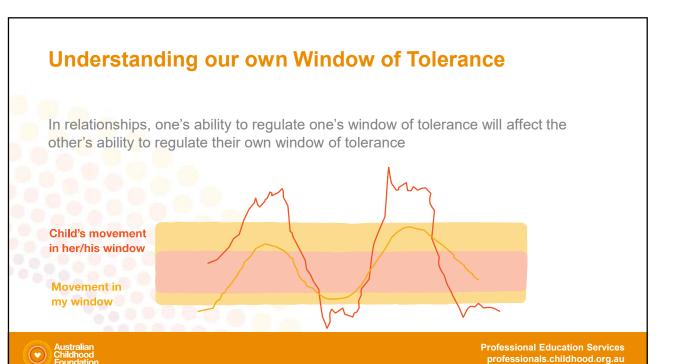
- Grounding through the
- Proprioceptive input
- Splash face with cold water
- Something cold or sweet to drink with a straw
- Chewing candies/sucking a mint/lollipop
- Movement



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"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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Rupture and repair

What you did is not ok, but you're still a good person and our relationship is still strong.'









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Relationship is the key!5 Brain systems that support parenting – Dan Hughes

Parental Approach System

· Get close to the child without becoming defensive.

Parental Reward System

• Enjoy interacting with the child.

Parental Child Reading System

Understand the mind of the child.

Parental Meaning Making System

 Make sense of our experiences with the child and our social life.

Parental Executive System

 Regulate interpersonal conflicts between approach and avoidance, pro-social and defensive reactions.



Image source: Dreamtime



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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





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Practice reflections...what do your relationships look like?

Take a moment to think of all the interactions you have over the course of a day, a week, a month, a year with all the people you share your life with.

- If you were to make a list of these things what would it look like?
- How would these people describe you?
- What qualities would they identify in you?
- What would they say is helpful about you? Why?

How do you create safe attuned relationships with young people?



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Repairing the impacts of trauma

Relational (safe)

Relevant (developmentally-matched to the individual)

Repetitive (patterned)

Rewarding (pleasurable)

Rhythmic (resonant with neural patterns)

Respectful (of the child, family, and culture)

Bruce Perry, as cited by https://attachmentdisorderhealing .com/developmental-trauma-3



Image: hellovector.com

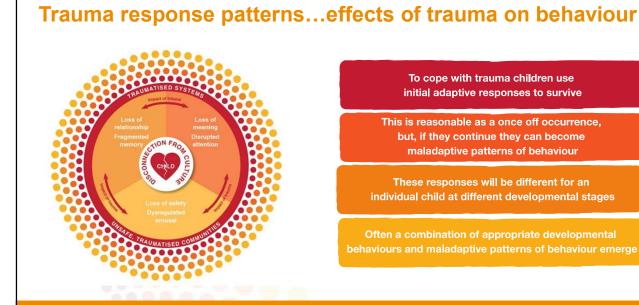
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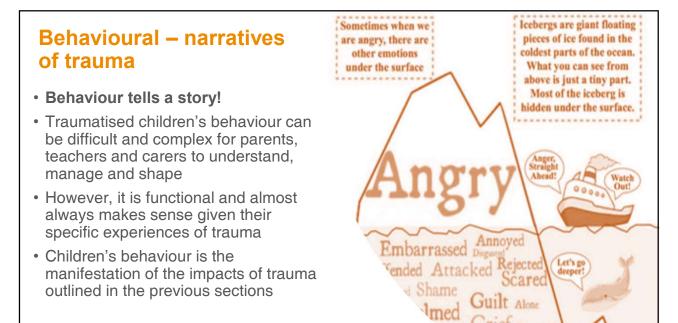


To cope with trauma children use initial adaptive responses to survive

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

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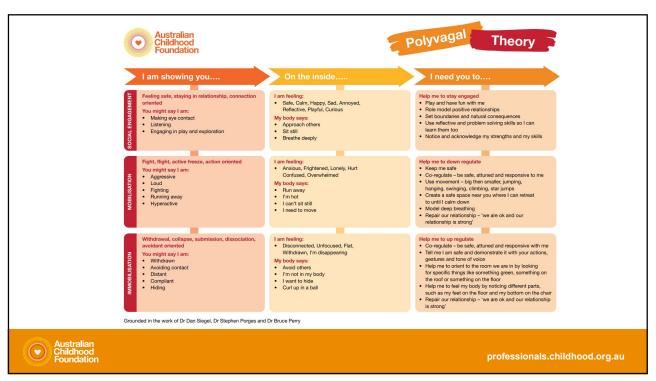


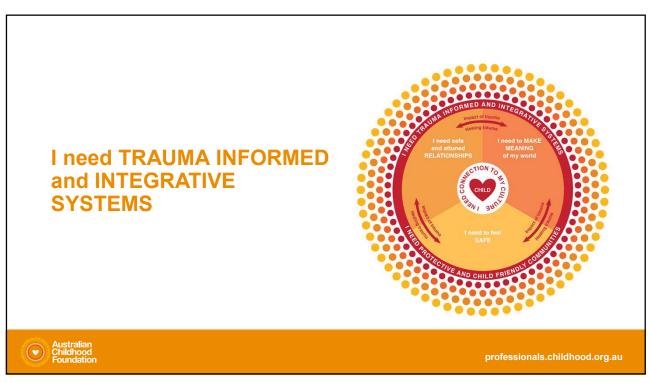
Self Concept: Internal working models

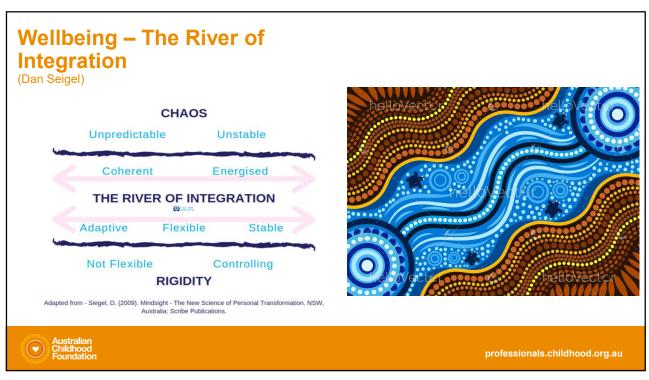
Positive internal working model	Negative internal working model
I am lovable	I am unlovable
I am worthy	I am unworthy
Others are responsive	Others are unavailable
Others are loving	Others are neglectful
Others are interested in me	Others are rejecting
Others are available to me	Others are unresponsive
The world is relatively safe	The world is unsafe
	Working model I am lovable I am worthy Others are responsive Others are loving Others are interested in me Others are available to me

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Staying regulated during our work with young people

- 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/collective care
- Organisational culture









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