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Trauma Responsive Practice.

NT Families

September 2022
Tennant Creek

Understanding the neurobiology of trauma, safety, regulation and self-care



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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.



2

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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Our journey today....

- Importance of relationships and culture
- Brain development
- Understanding the impacts of trauma
- Creating Safety
- 5 Parenting Systems
- Repairing the impacts of trauma
- Self Care



Image: Aboriginal Art Store





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Children, youth and adults at risk of experiencing trauma

A current context

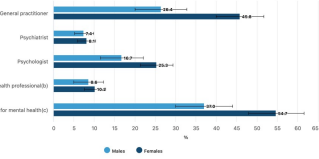





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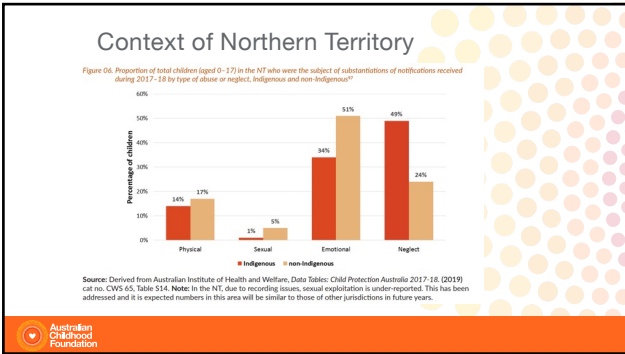
Consultations with health professionals for mental health(s) by people with any 12-month mental disorder, by sex, 2020-21



Professional Category	Males (%)	Females (%)
General practitioners	48.4	44.8
Psychiatrists	14.1	8.8
Psychologists	18.0	25.4
Other mental health professionals	8.8	10.2
Any service used for mental health(s)	34.2	44.0



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- ### Context of Northern Territory
- Over 50% of Aboriginal children in the NT have been the subject of a notification to child protection by the age of ten
 - In 2016, 75.2% of Aboriginal children who were found guilty of an offence in the NT had previously been reported to child protection
 - Aboriginal Territorians make up 88% of the NT's homeless population
 - Suicide rates in the NT for children aged 5-17 years are over three times higher than in any other jurisdiction.
 - 81% of all homelessness in the NT is caused by overcrowding
 - Research indicates that the majority of incarcerated Aboriginal women are mothers.
- Australian Childhood Foundation

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Importance of relationship and culture

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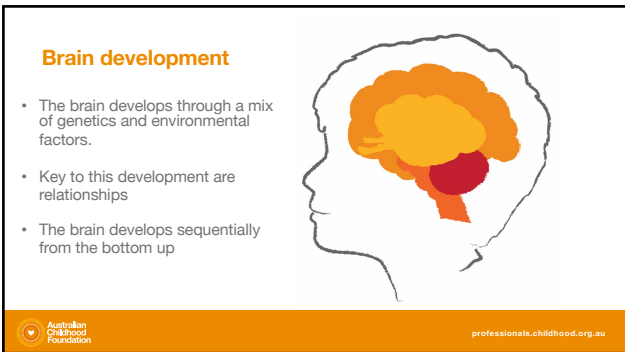
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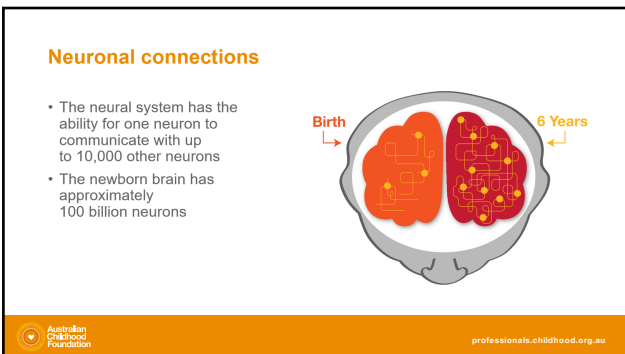
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Neuronal development

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

6 weeks gestation Newborn 3 Months 15 Months 2 Years 6 Years

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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.

6 Years 7 years 12 years 15 years

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Sequential brain development – building blocks


- The Thinking brain**
3-5 Years
- The Emotions and Memory Brain** - Birth to 4 years
- The Movement Brain**
Birth – 2 years
- The survival brain**
Pre birth to 8 months

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Infancy -0-12 months

- Critical functions being organised
- Regulation of
 - - arousal,
 - - sleep,
 - - fear states





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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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Early Childhood- 1-3 Years

- Critical functions being organised:
 - Integration of multiple sensory inputs
 - Fine motor control
 - Emotional states
 - Social language; interpretation of nonverbal information




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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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Neuroplasticity is hope

- The brain is at its most plastic in early childhood
- In early childhood, the brain is most vulnerable to harm, but also has the greatest potential for healing
- Neuroplasticity gives us hope




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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

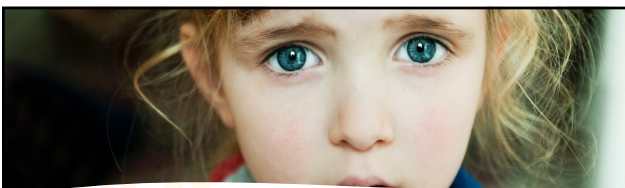


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Pre-school

- Critical functions being organised:
 - Abstract cognitive functions
 - Socio emotional integration



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The prefrontal cortex- executive function

- Responsible for executive functions, such as judgement, reasoning, and self-awareness
- Final part of the brain to reach maturity in one's mid 20s
- Under reconstruction in adolescents from the age of approximately 12 years



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Medial prefrontal cortex

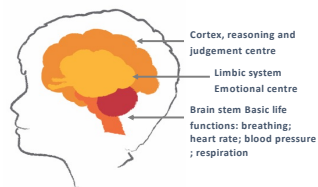
- Associated with perceptions of self and similar others
- Known as centre for mindfulness
- Involved in maternal bonding – the parent child dyad and inter-subjectivity



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Brain development

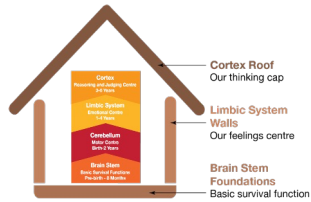
- Brain development is sequential
- One of the ways our brain develops is vertically, from the bottom to the top
- Some neurodevelopmental delays such as those effected by trauma can cause brain changes. However with the right support the brain can be repaired through neuroplasticity.



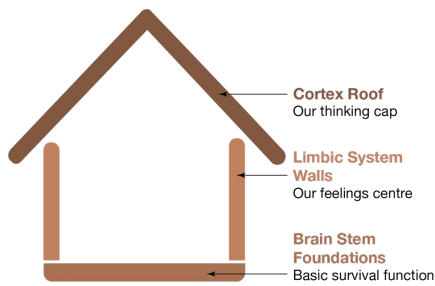
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Brain development metaphor - My Brain House

- 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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Staged/Safe- A brain development metaphor - My Brain House

- Our brain house can experience adversity. This can effect its structural integrity. If we get rattled our thinking cap roof can come off, leaving our feeling walls exposed. This can lead to strong emotions coming out without our thinking cap to help us contain our feelings.
- When this happens we can struggle to find words to communicate as our words flew off with our thinking cap roof.
- If we are deeply shook our roof and walls might come down and leave only our foundation. Our foundation is very strong and reliable. In these times we have our basic life functions to focus on to get us through- eg. our breathing, our heartbeat.
- Everyone's rooves blow off from time to time. Given we have all built our own brain houses, we are all equipped to support each other to repair our houses together.

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Understanding the impacts of trauma






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Experiences of trauma.....Discuss in pairs...

What does trauma:

- Look like
- Sound like
- Feel like



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Defining trauma

ANY SINGLE, ONGOING OR CUMULATIVE EXPERIENCE WHICH:	FEELS/IS OUTSIDE OUR CONTROL	OVERWHELMS OUR CAPACITY TO COPE
EVOKES A PHYSIOLOGICAL AND PSYCHOLOGICAL SET OF RESPONSES BASED ON FEAR OR AVOIDANCE	A RESPONSE TO A PERCEIVED THREAT; RESPONSE IS USUALLY BASED IN SURVIVAL	

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Developmental trauma

Occurs when the foetus in utero, baby, child or adolescent experiences trauma, from abuse and neglect during these stages of development




Image source: ©AGCF2021


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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

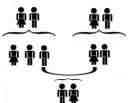
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Transgenerational trauma

- 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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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.”



Culture and development

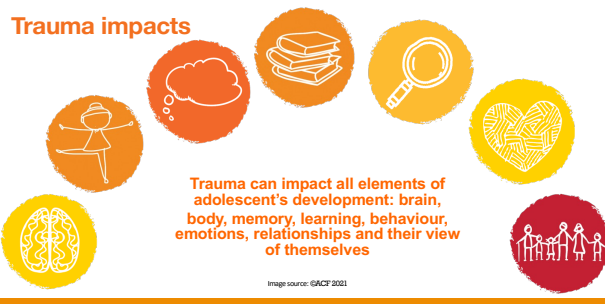
- Our culture influences our brain development
- Our relationships influence our culture and our culture influences our relationships
- Sensory data is interpreted according to our culture long before our ability to think about and understand our culture

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

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Trauma impacts



Trauma can impact all elements of adolescent's development: brain, body, memory, learning, behaviour, emotions, relationships and their view of themselves

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Three Core Concepts in Early Development

3 Toxic Stress Derails Healthy Development

NATIONAL SCIENTIFIC COUNCIL ON THE DEVELOPING CHILD
Center on the Developing Child | HARVARD UNIVERSITY

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Medial Pre-frontal Cortex and the Right Orbito-frontal Cortex

Medial Pre-Frontal Cortex
(the centre of Mindfulness/Self awareness)

- Mindful awareness/ meditation de-activates the amygdala

Right Orbitofrontal Cortex
(Regulation of Arousal)

- Quality co-regulation de-activates the amygdala

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Creating Safety

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by Stephen Porges

Behavioural Functions	Body Functions
Social Engagement 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
Mobilisation Fight or Flight Active Freeze Moderate or extreme danger	Hyper arousal <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
Immobilisation Collapse or submission Death feigning Increased pain threshold Conserves metabolic resources Life threatening situations	Hypo -arousal <ul style="list-style-type: none"> • Slows heart rate • Constricts bronchi • Stimulates gastrointestinal function

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Creating Safety

A young person's cortical capacity is impaired by trauma-as a result subcortical functioning becomes dysregulated
 In order to regain cortical capacity, essential for learning, we must restore emotional regulation.
 How do we create:

- Regulation (calm)
- Engagement
- Connection
- Control

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Polyvagal Theory

I am showing you....	On the inside....	I need you to....
VENTRAL VAGAL STATE Feeling safe, staying in relationship, connection oriented You might see I am: • Making eye contact • Smiling • Engaging in play and exploration	I am feeling: • Safe, calm, happy, safe, assured, healthy My body says: • My heart is calm • I feel relaxed • I breathe deeply	Help me to stay engaged: • Play and have fun with me • Be kind and gentle • Use your voice to reassure me • Tell me when you are not interested • Use relative and problem solving skills so I can learn from you • Notice and acknowledge my strengths and my skills
VENTRAL VAGAL STATE Fight, flight, freeze, freeze, action oriented You might see I am: • Aggressive • Loud • Raging • Running away • Hostile	I am feeling: • Anxious, frightened, lonely, hurt • Confused, overwhelmed My body says: • My heart races • I feel hot • I feel tight • I need to know	Help me to stress regulate: • Don't be scary • Do regulate: be safe, assured and responsive to my changing signals • Use movement - big then smaller, jumping, changing signals, leaning and lunging • Create a safe space near you when I am stressed so I feel safe • Be kind and gentle • Repair our relationship - we are ok and our relationship is strong
VENTRAL VAGAL STATE Withdrawal, collapse, shutdown, dissociation, avoidant, isolated, isolated You might see I am: • Withdrawn • Avoiding contact • Quiet • Compliant • Hiding	I am feeling: • Disoriented, unconnected, flat, withdrawn, I'm disappointed My body says: • Head aches • I feel in my body • I want to hide • I feel in a hole	Help me to be regulated: • Do regulate - be safe, assured and responsive with me • Tell me you care and demonstrate it with your actions • Be gentle and kind all the time • Help me to orient to the room we are in by looking at something in the room • Do something to help me feel safe, something on the floor or something on the floor • Help me to feel my body by touching different parts, such as my leg on the floor and my bottom on the chair • Repair our relationship - we are ok and our relationship is strong

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Behaviour Ant Hill

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Activity

How can we create safety for the children, young people and families we are working with?



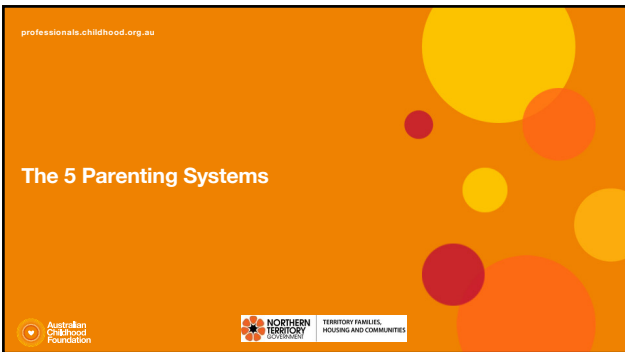




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The 5 Parenting Systems





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Relationship is the key!Brain systems that support parenting

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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Approach System

estrogen
prolactin
oxytocin

hypothalamus

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Early Adversity impacts our Parenting ability

The environment we grow up in can shape how we use our right and left brain systems of avoidance and approach. If we begin life exposed to insensitive caregiving our right brained harm avoidance system is likely to be used a lot. Instead of feeling protected and connected with our caregiver, we are more likely to need to shift into a defensive state of protest or collapse in order to try to protect ourselves.

Left side of brain
Right side of brain

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Reward System

1. We become a parent which generates hormones that talk to our hypothalamus.
2. Our hypothalamus releases oxytocin (the love hormone) which activates the reward system.
3. The reward system works by this area sending dopamine to the orbitofrontal cortex and the nucleus accumbens.

hypothalamus

orbitofrontal cortex plays a key role in processing rewarding experiences and helps us create positive parenting memories.

dopamine

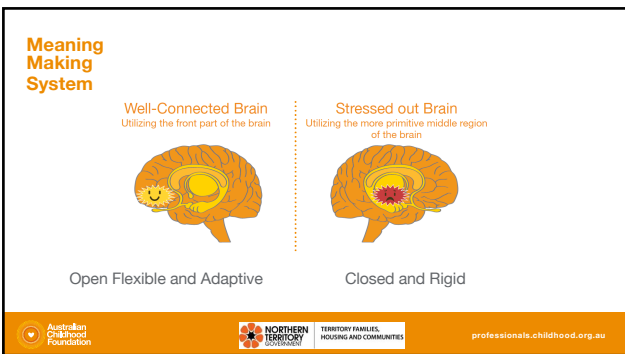
When the **Nucleus accumbens** is activated we become highly motivated to approach things that have led to reward in the past. It can become activated responding to expectations of positive interactions with our child.

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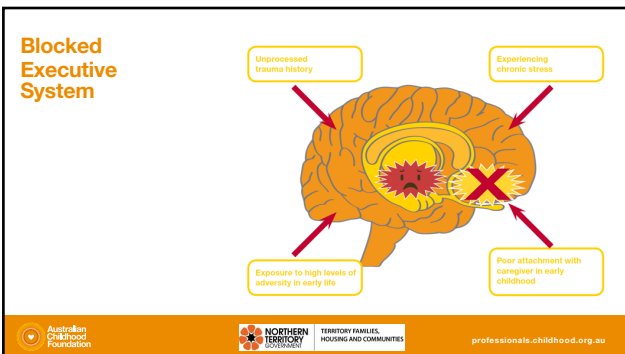
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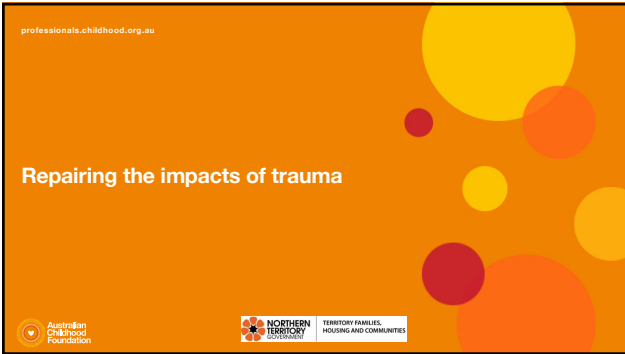
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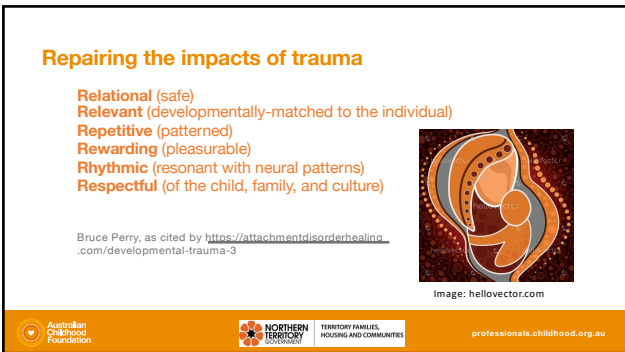
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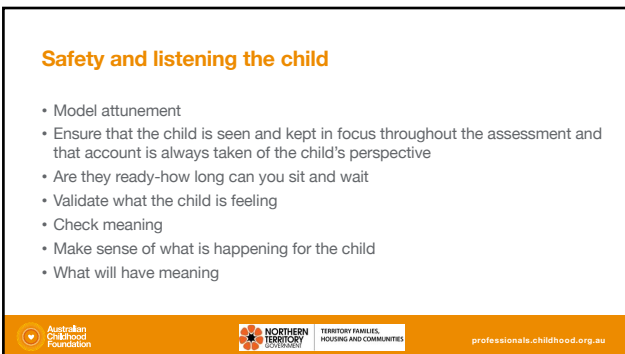
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PACE

- Playfulness
- Accepting
- Curious
- Empathetic







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PACE Helps

- The social engagement system come online
- Connect the prefrontal cortex (thinking brain) to the lower regions of the brain (emotional and survival brain)
- Calm the threat sensing amygdala by sending a message of safety.
- Connect children and their caregivers
- Aid the growth of regulation skills.
- Build the ability to reflect
- Develops the child make meaning of themselves, their stories and their behaviour.


PACE uses all 5 parent brain systems (approach, reward, child reading, meaning making and executive)





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Key considerations

- There is no magic wand!
- It takes time and patience: persistence and repetition is a must
- You matter in this work!
- Your relationship with the child is key
- Each child is individual which adds to the complexity
- Trial and error is common
- A titrated approach is important





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Respect diversity in cultures and child rearing practices while keeping child safety paramount

Respecting diversity should be taken to mean 'having the same aims for people's wellbeing and safety but findings different ways to achieve them' that are more appropriate to the person's different perspective.

- Being child-safe respects cultural difference:
- thinks about safety and wellbeing concepts from a cultural perspective
 - takes steps to develop cultural competence to respond in a culturally appropriate manner
 - takes guidance from experienced others (for example, seek advice from recognised Aboriginal or Torres Strait Islander organisations in regards to the needs of children from these backgrounds), and
 - approach family cultural contexts with sensitivity.



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Looking after ourselves.... Self-care



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Related to a feeling of being overloaded which is primary to client, problems of chronicity and complexity but can occur in any profession



A state of exhaustion & dysfunction – biologically, psychologically & socially – as a result of prolonged exposure to compassion stress (Figley)

'Compassion fatigue', 'Secondary Traumatic Stress' & 'Vicarious Trauma' are often used interchangeably. (Figley 1995; McCann & Saakvitne, 1999)



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Impact of working with trauma

Signs and symptoms

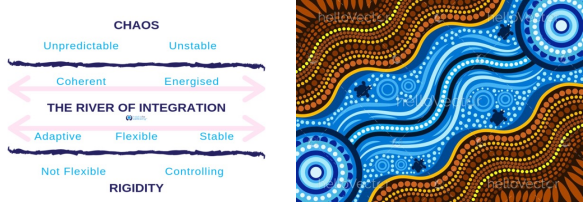
How this might look at work:

- Decreased communication- staff putting notes up to advise of things
- Decreased ability to accept change or adapt- holding information
- Decreased ability to try new things/explore
- Increased sick days, late to work
- Decreased focus on tasks
- Memory issues
- Avoidance working with traumatic material







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Wellbeing – The River of Integration
(Dan Seigel)




CHAOS
 Unpredictable Unstable
 Coherent Energised
THE RIVER OF INTEGRATION
 Adaptive Flexible Stable
 Not Flexible Controlling
RIGIDITY





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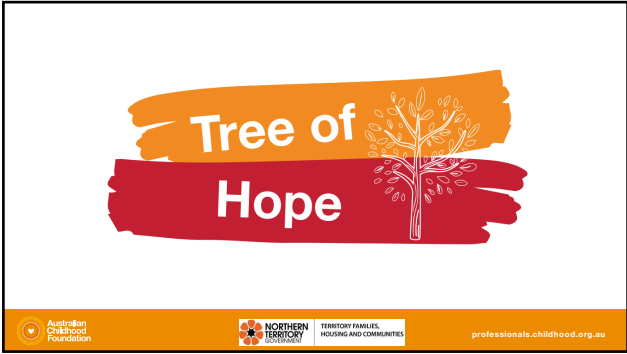
Importance of supervision

- Compared to case conferences, one-on-one supervision better supports the critical reasoning required for child safety (Munro 1999)
- Reflective regular supervision promotes staff well-being
- Reduces staff turnover
- Identify specific and ongoing training
- Formal and informal supervision provide space and permission for workers for workers to reflect on emotional responses to the work
- Peer supervision and support enable the reduction of isolation, promotes safety and develops greater transparency to identify risk and opportunity
- Models of supervision

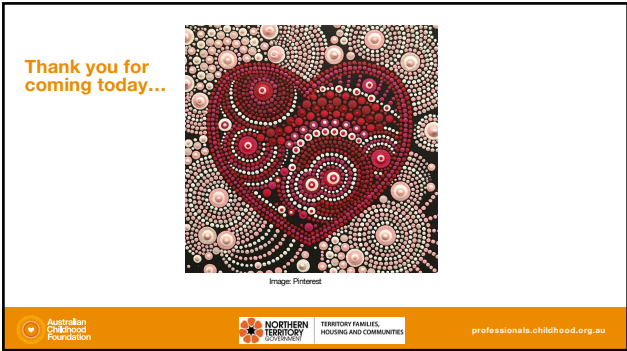



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