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SMART Learning Pathway

- SMART Online Training – register through Plink - 8 hours
- SMART – 2 hour training – facilitated by a local SMART Trainer
- SMART – Day 1 – Foundation (*includes specialist packages ie Early Years, Refugees, Adolescents, Working with Aboriginal communities*)
- SMART – Day 2 – Strategies (*for the above as well*)
- SMART Train the Trainer program – 3 days
- Graduate Certificate in Developmental Trauma (24 F:F days, blended delivery available as well)
- Trauma Aware Schools Initiative



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Introductions



- Name
- Role

What are you passionate about in the work you are doing, with children who have experienced trauma?



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Outline of our day



- 9.00am Start
- 10.45am – 11.00am Morning Tea



- 12.45pm – 1.15pm Lunch



- 3.15pm – Evaluations
- 3.30pm Finish

Image source: ©2021 ACF



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Session outline

- **examine** brain development in children
- **define** complex abuse related trauma
- **understand** the impact of trauma on children's development and functioning
- **develop** strategies for working with traumatised children
- **discuss** whole service approaches to supporting traumatised children



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Key learning outcomes – success criteria

- **develop** an enhanced understanding of complex abuse related trauma, with a particular focus on its effects on brain functioning.
- **apply** a framework for responding to children who have been impacted by trauma
- **build** on practice skills and interventions which promote recovery for children in education settings.



Principles guiding this session



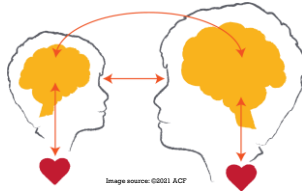
Your emotional safety is paramount

SMART PRACTICE



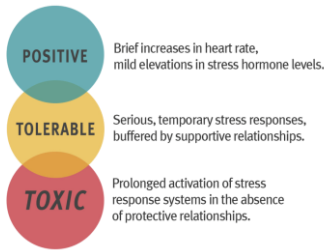
Safety and relationships are key

It is important to remember that safety – feeling and being safe and having safe, connected and attuned relationships are key to supporting a child or young person who has experienced trauma.



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Stress



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Trauma

How would you define trauma?

What have you noticed with your children?

| |
|----------------------|
| Simple |
| Complex |
| Developmental |

Image source: ©2021 ACF



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Trauma is not what happens to you,
but what happens inside you.
(Gabor Mate 2018)



Image source: ©2001 ACF



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The growing brain...

How much does a brain weigh?



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Bottom-up brain development

- Cortex
- Limbic Lobe
 - ✓ Amygdala
 - ✓ Hippocampus
- Diencephalon
- Cerebellum
- Brain Stem

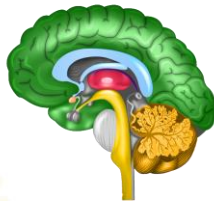
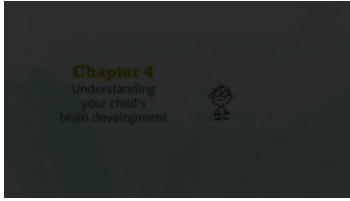


Image source: ©2001 ACF



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Brain development



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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

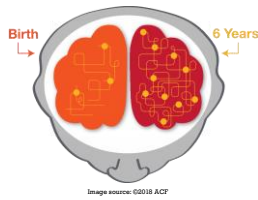
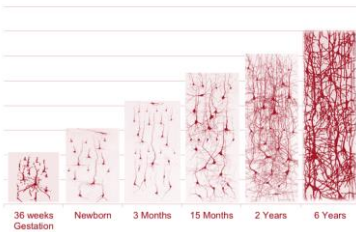


Image source: ©2018 ACF

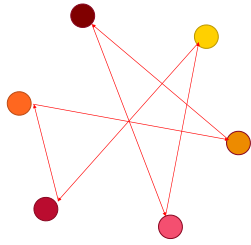
SMART PRACTICE Focus – Predictable and Calming

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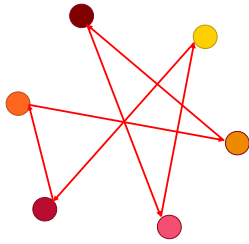
Neural Circuit Formation in the Early Years



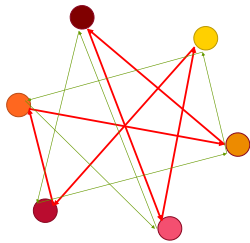
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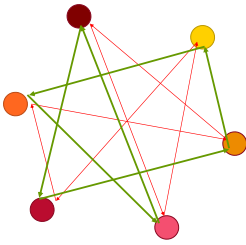
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Strengthening neuronal connections

Every child needs:

- S** Safety
- O** Opportunities
- C** Connection
- K** Kindness
- S** Support



Image source: G2011 ACF

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Brainstem – survival centre

- basic life functions
- first part of our brain to develop & the most developed brain part at birth
- responsible for regulation of our
 - heart rate
 - breathing
 - sucking, swallowing chewing reflexes
 - temperature control
 - blood pressure
 - circadian (sleep) cycle
 - involuntary reflexes



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The brainstem under stress and trauma

- may experience fast or slower heart rate
- shortness of breath or breathing difficulties
- sleep disturbances and unsettledness
- sucking and swallowing and digestion difficulties
- may feel hot or cold or not notice changes in temperature

What do you notice?

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Strategies for transforming – brain stem

- safe containment and deep pressure
- rhythm, rhyme and repetition for regulation
- sensory input and soothing
- predictability and consistency

SMART PRACTICE Focus – Predictable and Calming

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Growing and regulating the brainstem

Provide activities which are rhythmical and synchronous with others, as well as containing:

- rhythmic sounds - stories, songs, rhymes & music
- rhythmic movement & touch
- safe containment
- sensory soothing



Image source: 02021 ACF

Cerebellum – body and balance centre

- helps us with our posture and balance
- helps us with our coordination and to control our movements
- helps us to know where our body is in space
- helps us with our voluntary movements such as walking and writing



Image source: 02021 ACF

The cerebellum under stress and trauma

- lack of coordination and balance
- difficulty in maintaining posture
- difficulty in undertaking tasks that require balance
- lack of awareness of their body in space
- difficulty with voluntary movement tasks – walking or writing

What do you notice?

Strategies for transforming – cerebellum

- movement and balance
- spatial awareness activities
- rhythm, rhyme and repetition
- physical activities using fine and gross motor skills



Image source: ©2021 ACF

SMART PRACTICE Focus – Predictable and Calming



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Growing and regulating the cerebellum

Provide activities which have support and balance, develops gross and fine motor skill elements and are synchronous with others

- balancing activities
- stretching – aligning the spine activities
- spine/lumbar support
- throwing and catching objects
- writing, drawing, colouring, making



Image source: ©2021 ACF



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Limbic system - emotion and memory centre

- develops mainly after birth
- helps us attach an emotion to an experience or memory
- particularly involved with the emotions
- heavily involved in attachment processes
- two important brain parts – the amygdala and the hippocampus are in this part of the brain
- the diencephalon also sits within the limbic system



Image source: ©2021 ACF



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The limbic system under stress and trauma

- survival mode activated; fight, flight or active freeze
- release of hormones; cortisol and adrenaline



Image source: ©2021 ACF

What do you notice?



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Strategies for transforming – limbic system

- build emotional literacy and awareness
- support safe expression of emotions
- provide co-regulation
- assist with memory storage; write or draw a diary of my day



Image source: ©2021 ACF

SMART PRACTICE Focus – Responsive, Attuned and Translating



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Growing and regulating the limbic system

Provide opportunities for emotional expression and support through co-regulation. Physical and calming activities can also support the limbic system.

- feeling faces
- acknowledge and validate all feelings
- meditation and mindfulness
- music; listening to or playing an instrument
- yoga or walking



Image source: ©2021 ACF



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Amygdala

Has three roles:

- alarm centre - the 'smoke detector' of the brain
- memory centre - processes & stores
- emotion centre - helps with emotional understanding and regulation



Image source: ©2001 ACF



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Sensory information response sequence



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The amygdala under stress and trauma

- can be over active or under active
- can evoke reminders and flashbacks of the trauma (awakenings)
- may have difficulty in emotional regulation
- may have difficulty in reading facial expressions

What do you notice?



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Strategies for transforming - amygdala

- reflect back children's emotions
- reassure and calm
- remain present
- minimise triggers – loud noise, bright light, strong smells
- use simple language



SMART PRACTICE focus: Responsive, Attuned and Connecting



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Growing and regulating the amygdala

Provide activities that support emotional and social connection

- calm, sensory supportive environments
- support the child, reassure
- stay present – provide safety



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Hippocampus

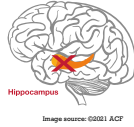
- explicit memory centre - matures between 2-3yrs of age
- provides context to memories
- provides consolidation of information from short term memory to long term memory



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The hippocampus under stress and trauma

- doesn't function properly - it feels as if the trauma hasn't ended.
- reduction of hippocampal volume up to 25% as a result of high levels of cortisol
- working memory, retention and recall (retrieval) capacity is severely impacted



What do you notice?

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Strategies for transforming - hippocampus

- repetition
- visual reminders
- simple instructions
- connect and regulate



SMART PRACTICE Focus – Responsive and Translating

 SMART

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Growing and regulating the hippocampus

Provide activities that support memory retention and recall and review and repetition

- practice activities and learning skills over and over
- reinforce learning through repetition
- provide playful opportunities to learn
- use visuals to assist



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Diencephalon – sensory centre of the brain

- takes in sensory information, processes it and supports the development of a plan of action
- takes in the 5 external environment senses and the 3 internal senses
- takes information from the environment to enable us to respond to the environment

Design - Is there a child picture of where the diencephalon is in the brain?



Sensory activities

The diencephalon under stress and trauma

- different patterns of responding to sensory input
- sensory overload or no sensory response
- unable to cope with sensory input

What do you notice?

Strategies for transforming – diencephalon

- sensory awareness and soothing
- regulate the sensory environment
- engage all the external senses; smell, hear, taste, feel and see



Image source: ©2021 ACF

SMART PRACTICE Focus – Responsive and Translating

 SMART

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Growing and regulating the diencephalon

Provide activities that support sensory awareness and soothing

- safe touch; hugs and cuddles, pats, massage
- use essential oils in playdough, sand, diffuser to engage the sense of smell
- take time to stop and listen; to nature, to music
- use colour in art activities; coloured crayons, pencils, paints

Conduct an environmental sensory audit; is it too cold, too hot, too noisy?

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Cortex – thinking centre

- the largest part of the brain
- associated with higher brain function such as thought and action
- examples of functions:
 - reasoning
 - logic
 - judgement
 - voluntary movement



Image source: ©2021 ACF

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Cortical areas under stress and trauma

Unable to:

- use foresight and anticipation, focus or sustain attention
- plan, organise or prioritise or make decisions well
- reflect or have self-awareness
- be enthusiastic, motivated or persist with activities
- use impulse control



Image source: ©2021 ACF

What do you notice?

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Strategies for transforming - cortex

- problem solving activities
- support decision making
- support children's agency
- scaffold learning and tasks
- support curiosity



Image source: ©2021 ACF

SMART PRACTICE Focus – Translating and Involving

 SMART

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Growing and regulating the cortical areas

Provide activities that connect the cortical areas, through choice, problem solving, planning and voluntary movement

- Play thinking and choice games
- Map out and plan activities together
- Break down problems to work through
- Allow choice and options -
- Use voluntary movement activities



Image source: ©2021 ACF

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Left and Right Hemispheres and the Corpus Callosum

- The left hemisphere is in charge of the right side of the body and is more verbal, analytical, and orderly than the right brain
- The right hemisphere is in charge of the left side of the body and is more visual and intuitive
- The corpus callosum connects the two hemispheres
- Both sides need to be communicating with each other to have an integrated brain



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Lateral brain development



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Hemispheres under stress and trauma

- may not be able to speak or articulate
- will be tuned into the tone of voice, not the content
- difficulties with understanding and knowing feelings and articulating them
- difficulties with tuning into, understanding and responding to social cues in communication
- will be acutely aware of facial expressions, posture, gestures, intensity of movements and eye contact and searching for signs of disapproval, rejection & danger

What do
you
notice?



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Strategies for transforming – building RH/LH connection and the Corpus Callosum

- Strengthen the individual hemispheres
- Strengthen the corpus callosum
- Integrate the hemispheres through emotional and physical opportunities

SMART PRACTICE Focus – Involving, Connecting, and Engaging



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Growing and regulating the hemispheres

Provide opportunities for specific left and right hemisphere activities. Be aware of your voice tone, modulation and intonation, also facial expressions and gestures.

- support relational experiences
- use age appropriate language
- be curious about feelings
- engage in physical activities including games



Image source: ©2021 ACF



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Attachment and the right brain

- Neuroimaging studies show areas of the right hemisphere lighting up in the brains of parents & infants during non-verbal interactions. (Schore, 2003)
- A secure attachment relationship facilitates right brain development and promotes efficient affect regulation.



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Mindfulness

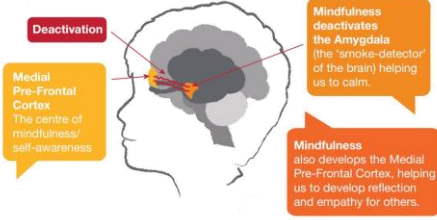


Image source: ©2021 ACF



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Stop...Pause...Play...



- Stop**
 - Stop what you are doing.
 - Make sure your feet are placed firmly on the ground.
- Pause**
 - Focus on your breath.
 - Breathe in slowly, right down into your belly, then exhale completely.
 - Take 5 more slow breaths, being aware of each breath in and each breath out.
 - Smile and enjoy standing like this for a moment. Feel your body relax.
 - Reflect. Ask yourself "What do I need?" and "What does my child need?"
- Play**
Respond to your child with new understanding.

Image source: ©2021 ACF



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The importance of connection and play as a reparative activity

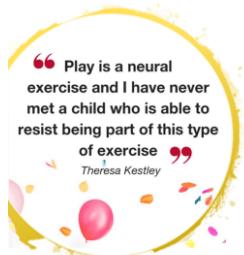


Image source: ©2021 ACF



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What do you notice about the way this father attunes to his daughter?

What does he do and not do?

64

Neuroplasticity



<http://highexistence.com/its-all-in-your-head-how-to-take-advantage-of-neuroplasticity/>

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Stand in my shoes - understand me from the inside out

I will often have a constant sense of being both unsafe and unworthy of protection

I need constant reinforcement from you through words and actions that I am physically and emotionally safe

I need to be kept close

I need you to help me understand and experience joy and build hope

I need you to help me manage my many sources of fear, empower & consult me

I need you to be attuned to my pain and distress and respond by validating my thoughts, feelings, needs and behaviours and never minimise my experience

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**Day 2 Responses –
what’s coming up in our next session...**

In Day 2 you will

- Be introduced to the Polyvagal Theory and the concept of the Window of Tolerance.
- Explore the different arousal levels and consider supportive responses for each.
- Explore further the meaning of the behaviours we see in our children.
- Build a toolkit of responses, focusing on the SMART Audit Tool.



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Holding hope



Image source: OACF 2021

What are your hopes
for the children
you work with?



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Thank you for your participation...

We appreciate your feedback!



Image source: OACF 2021



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