



V	Any single, ongoing or cumulative experience which:  • is a response to a perceived threat, usually to survival  • overwhelms our capacity to cope  • feels/is outside our control  • evokes a physiological and	
<b>©</b>	psychological set of responses based on fear or avoidance	professionals.childhood.org.au
· ·	Childhood   Foundation	

## Culture is part of development Our culture influences our brain development. How has it influenced yours? Think about: • Sense of safety • Relationships • Meaning making

11

# 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

## **Brainstem - basic life functions**

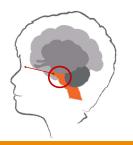
- · Basic life functions
- First part of our brain to develop
- This is the most developed brain part at birth
- Responsible for our heart beat, breathing, sucking, temperature control, blood pressure



13

## **Superior Colliculus**

- Processes visual threats looming objects identified by cells in the retina of the eye
- Retinal neuronal input received by Superior Colliculus which engages the body in Avoidance and defensive behaviours



14

### Cerebellum- movement and balance

- Helps us to know where our body is in
- 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



## 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



Australian

professionals.childhood.org.au

16

## 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



Australian

professionals.childhood.org.a

17

## Hippocampus – Brain's historian

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



Australia
 Childhoo
 Foundat

professionals.childhood.org.

## Amygdala – smoke alarm

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



19

## 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



20

## 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



### **Medial prefrontal cortex**

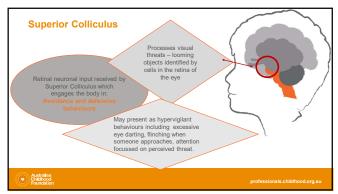
- Associated with perceptions of self and similar others
- Known as centre for mindfulness
- Involved in maternal bonding the parent child dyad and inter-subjectivity



Australian Childhood

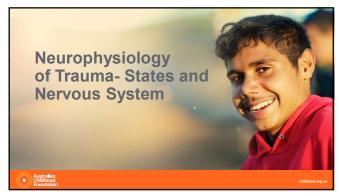
professionals childhood orga

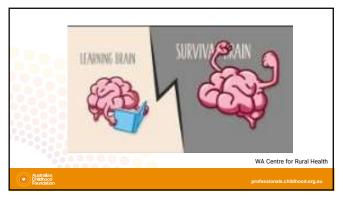
22

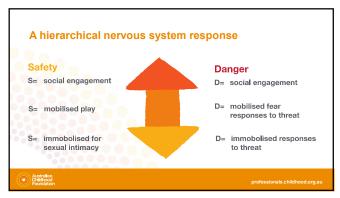


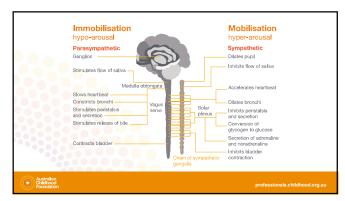
23

## 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



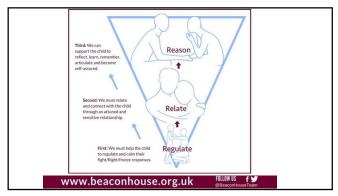


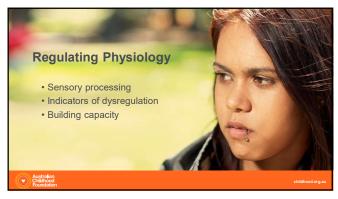


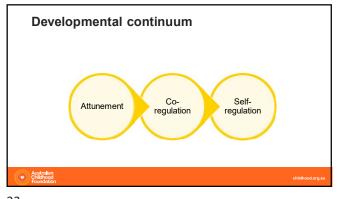


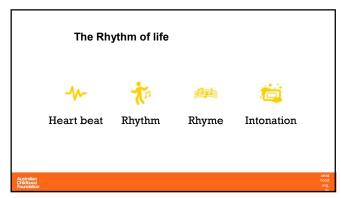
Behavioural Functions	Body Functions	by Stephen Parges
Social Engagement Soothing and calming Indicates safety	Lowers or raises vocalisation pitch     Regulates middle ear muscles to perceiv     Changes facial expressivity     Head turning     Tears and eyelds     Slows or speeds heart rate	e human voice
Mobilisation Fight or Flight Active Freeze Moderate or extreme danger	Hyper arousal Increases heart rate Sweat increases Inhibits gastoritestinal function Narrowing blood vessels - to slowblood Release of adrendline	Now to extremities
Immobilisation Callapse or submission Death feigning Increased pain threshold Conserves metabola resources Life threatering situations	Hypo - arousal - Stows heart rate - Constricts bronchi - Stimulates gastrointestinal function	

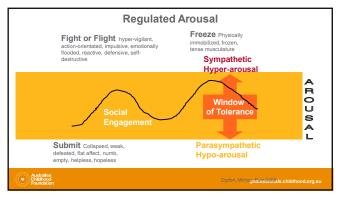


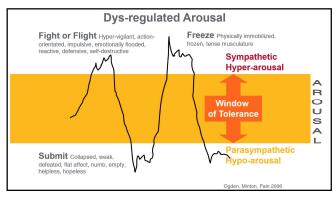










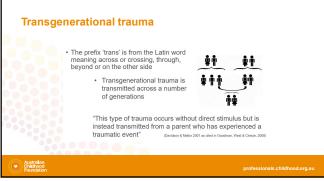


Important domains  Physiological safety: arousal levels the young person will change under different circumstances.	Relational safety: trauma heals in relationship.	Environmental safety: consider the sensory environment for the young person
Australian Childhood Foundation		professionals.childhood.org.au

How do you promote safety?	
How do we create safety: In our work settings? What does neural safety look like in our work setting? When the person is in fight/ flight mode? When the person is shut down/disassociated in life threat mode?	
Australian	

# Make me feel safe You can help me feel safe with the following Don't stand over me if I am struggling with the task, talk to the whole group and explain further so everyone hears and I am not singled out Don't ask me questions in front of everyone by name, ask if anyone knows the answer so I can join in when feel it is safe Accept that things you might think are just 'messing about', may make me feel like I am under attack by others Let me choose where to sit so I can find somewhere that does not make me feel threatened, it might be at the back of the class so no-one is behind me or it might be at the front of the class nearer to you Try not to get annoved with me if I have forgotten where I was or what I was supposed to be doing, remind me alongside my friends gently





41

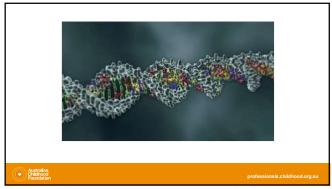
## Transgenerational transmission and cultural impacts:

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."

Australiai Childhooi Foundati professionals.childhood.org.a





## Engaging families with trans-generational trauma Client's perception of safety Physical and emotional safety Attunement and intersubjectivity Body language Cultural safety The language you use Environmental safety The worker-client relationship Child AND parental trauma

## Engaging families with trans-generational trauma Strategies to help clients calm themselves: • Listen and validate feelings Listen and validate feelings (limbic/cortex) Hold space (when safe) Check in with your own emotions/triggers (right brain to right brain, co-regulation) Show Empathy (limbic/cortex) Connection – relating (limbic/cortex) Draw on strengths (limbic/cortex) Humour (limbic/cortex) Unconditional positive regard (right brain/limbic/cortex) Prosody – gentle calm voice (brainstem/limbic) • Facial expressions – (vagus nerve/ ANS)

- Body language (vagus nerve/ANS/right brain) Offer a glass of water, cup of tea (brainstem)
- Breathing 5-2-7 breath work (brainstem, limbic)

46

## Engaging families with trans-generational trauma

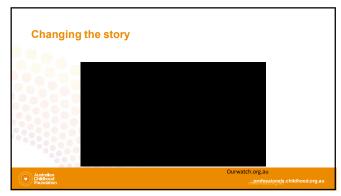
- Encouraging family traditions and rituals, cultural values anchors
- Storytelling meaning making, identity and belonging

"Family stories can inspire us, protect us, and bind us to others". Elaine Reese 2013



47





## Impacts of family violence on children

Behaviours: fight, flight, freeze or submit activation can lead to a range of behaviours.

Development: developmental delays

Relationships: impacts on attachment to primary caregiver

Emotions: heightened fear response and poor attachment to secure base can impact on child's sense of self, their emotions and mental health

**Learning:** heightened fear response impairs a child's ability to learn

Cognitions: impaired when in a constant state of fight or flight.

Physical health: psycho-somatic (Brainbody) symptoms caused by stress response can lead to physical ailments; potential injury from exposure to violence.

**Cultural identity:** fractures connections to family and culture

1800Respect.org.au

50

## Impact on parent - child bond

- Diminishes capacity for mother to be present for her child
- Often preoccupied with the perpetrator
- Little capacity to provide nurturing or strengthen attachment with child
- Mother likely to have a diminished sense of self
- Perpetrator often sabotages relationship with the child
- Perpetrating parent, who should be a source of safety is their source of fear



## Beliefs a child or young person may hold as a result of family violence

- My needs are not important
- This is what relationships look like
- I have to look after others
- Its my fault
- It's mum's fault she is crazy (Maternal alienation)
- This doesn't happen to anyone else
- I must be bad
- I can't get close to anyone or I will get hurt



professionals.childhood.org.au

52

## Impacts of family violence on parent-child relationship

- Reliance on self protection when safety is not provided
- Reliance on self-soothing when co-regulation is not available
- "irresolvable paradox" biologically primed for dependence on the parent who is the source of terror (perpetrating parent) or unable to protect (nonoffending parent)
- Parent locked into stress response (hyper or hypo-arousal) unable to tune into and respond to child's cues, states and needs
- Role reversal instrumental and/or emotional parentification

Australian Childhood Foundation professionals.childhood.org.

53





What is Fetal Alcohol Spectrum Disorder	?
FASD is a lifelong disability caused by alcohol exposure in utero.	
Key characteristics caused by brain impairments may include:  impulsivity  memory challenges  slower processing  difficulty with abstract thinking and predicting skills.	(00)
Secondary behavioural characteristics may include:  • fatigue  • the appearance of a lack of motivation  • depression and frustration that may lead to aggression.	F
There are more children born each year with FASD than with ASD, Spina Bifida, Cerebral Palsy, Down Syndrome and SIDS combined (Mather Wiles &O'Brien, 2015)	
Australian     Christian     Constitution	professionals.childhood.org.au

## 

## Key components of the FASD Diagnostic Assessment include the documentation of:

- History presenting concerns, developmental, medical, mental health, behavioural and social
- Birth defects- dysmorphic facial features, other major or minor birth defects
- Adverse parental and postnatal exposures, including alcohol
- Known medical conditions including genetic syndromes and other disorders
- Growth information

Infants and young children under the age of 6 and older adolescents and adults warrant special consideration during the FASD diagnostic assessment process.

Australiar Childhood Foundatio

professionals.childhood.org.au

58

### Trauma and FASD....

"The trauma our communities have sustained has brought into being complex harms, of which FASD is one of the most damaging. With better understanding of trauma, we will overcome its harmful effects and 'Make FASD History' . We will allow our societal strengths to flourish again, as we confront, heal and put an end to all forms of harm caused by intergenerational trauma."

June Oscar AO, Aboriginal and Torres Strait Islander Social Justice Commissioner, 2017

Australia
 Childhoo
 Foundati

professionals.childhood.org.a

59

# Symptoms of Trauma and FASD and areas of overlap Trauma Feelings of Fear, helplessness, uncertainty, vulnerability increased arousal Avoidance of reminders of trauma Feelings of Shame Dissociative Fight, flight freeze Alert for threat Quick to anger Poor short term memory Difficulty with trust Difficulty Difficulty



## Working with cognitive impairment

- Children with FASD require explicit strategies to counteract cognitive impairments that may impact:

  processing speed –slow things down:; use visual and communication tools
- abstract thinking may not understand future options or goal setting be concrete
- language skills and comprehension check, use drawings, whiteboard

You will need to provide building blocks that connect new information to child's current knowledge and skills to support cognition and the storing of new information into long term memory.-Repetition, regulation, rhythm and RELATIONSHIP (fun).



62



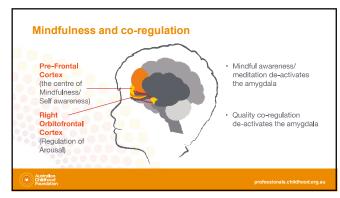


## Strategies for Repair & Rehabilitation

- Revise environment to increase cues of safety
- Train staff to increase felt sense of relational safety
- Support staff to increase capacity to regulate and co-regulate
- Increase capacity in young people to shift states
- Provide reparative exercises to integrate brain regions and hemispheres
- Support building and strengthening of new neural pathways
- Support the building of narrative overcoming shame
- Systemic response based on social neurobiology

Australia Childhoo rofessionals.childhood.org.a

65







# Every behaviour has a meaning Behaviour is often a person's way of communicating with us Learning how to understand behaviour is a more effective tool than memorizing a list of prescribed responses for common "challenging behaviours." 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 Austurning Charleston (Charleston) and the common control of the control o





