BELMATT
HEALTHCARE TRAINING

Impact of Trauma and Adversity on Development

Session Aims and Objectives

This session aims to raise awareness of the impact of trauma on childhood development

Objectives

By the end of this session, you should be able to:

- Reframe the way you think and act and the language you use in light of this knowledge and understanding.
- Reflect on your part in the outcomes / prognosis for more vulnerable learners (part of the problem or part of the solution)?

Definition of Trauma

The three “E’s” of trauma:

An **event**, series of events, or set of circumstances that is **experienced** by an individual as physically or emotionally harmful or life threatening and that has lasting adverse **effects**.

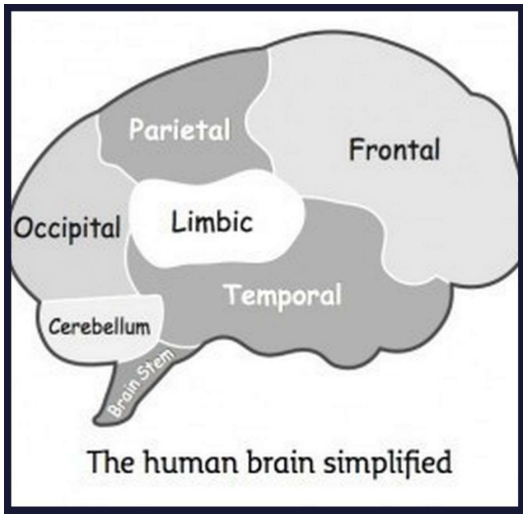
What is Trauma?

1. Trauma means injury.
2. In the context of recent research on brain function, trauma has a specialised meaning – it means acquired brain injury as a result of unregulated stress.
3. Usually stress is good for us – when we can regulate stress it enables us to function at our best.
4. When for any reason we are not able to regulate stress the overdose of stress hormones is toxic to the brain.
   - **Toxic stress** is the signal to the brain that we are under threat.
   - All functions that take time automatically close-down.
   - Changed blood supply to key brain areas leads to lasting injuries from which we then need to recover.
5. Trauma is a normal part of human life.

Trauma

- Experiences become traumatic when they overwhelm our ability to cope.
- **Traumatic** experiences come in many forms, ranging from one-time events to experiences that are chronic or even generational.
- Exposure to trauma in childhood is common.
- **Risk** for exposure to more than one type is high.
- Contextual factors increase risk for trauma.

The Developing Brain



The human brain simplified

To understand why childhood trauma has such a negative impact on children's development, we need to understand more about the development of the brain.

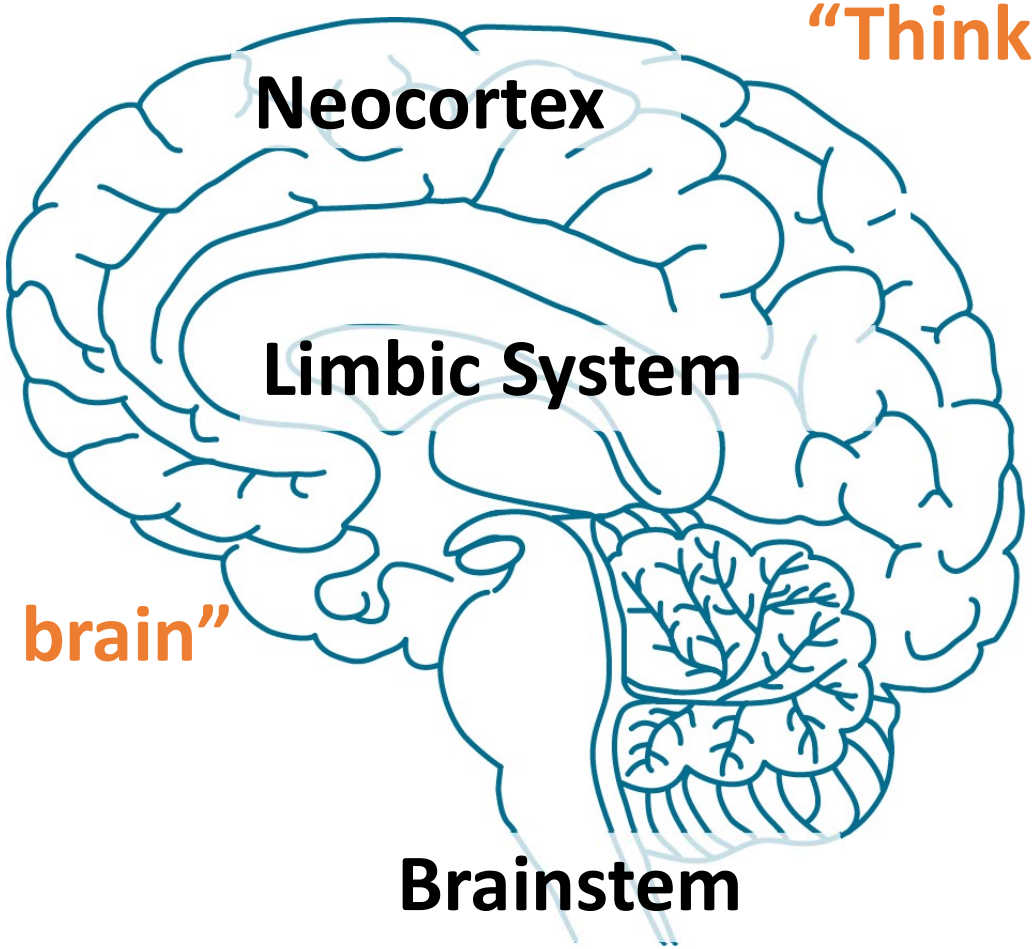
The Brainstem

- When we are born, the brainstem is pretty much fully developed – it contains cranial nerves that link the brain with the rest of the body, which is what enables us to move, see, talk etc. The brainstem is important, but we'll come back to this later

The Limbic System

- The limbic lobe is our ***caveman brain***. The limbic lobe's main function is survival. When presented with stress or dangerous situations, the limbic system automatically takes over to keep us alive. The brain fills up with **cortisol** and **adrenaline** which speeds up our breathing and reactions. This is to give us the energy and power to **fight or flight.**

The Stress Response System



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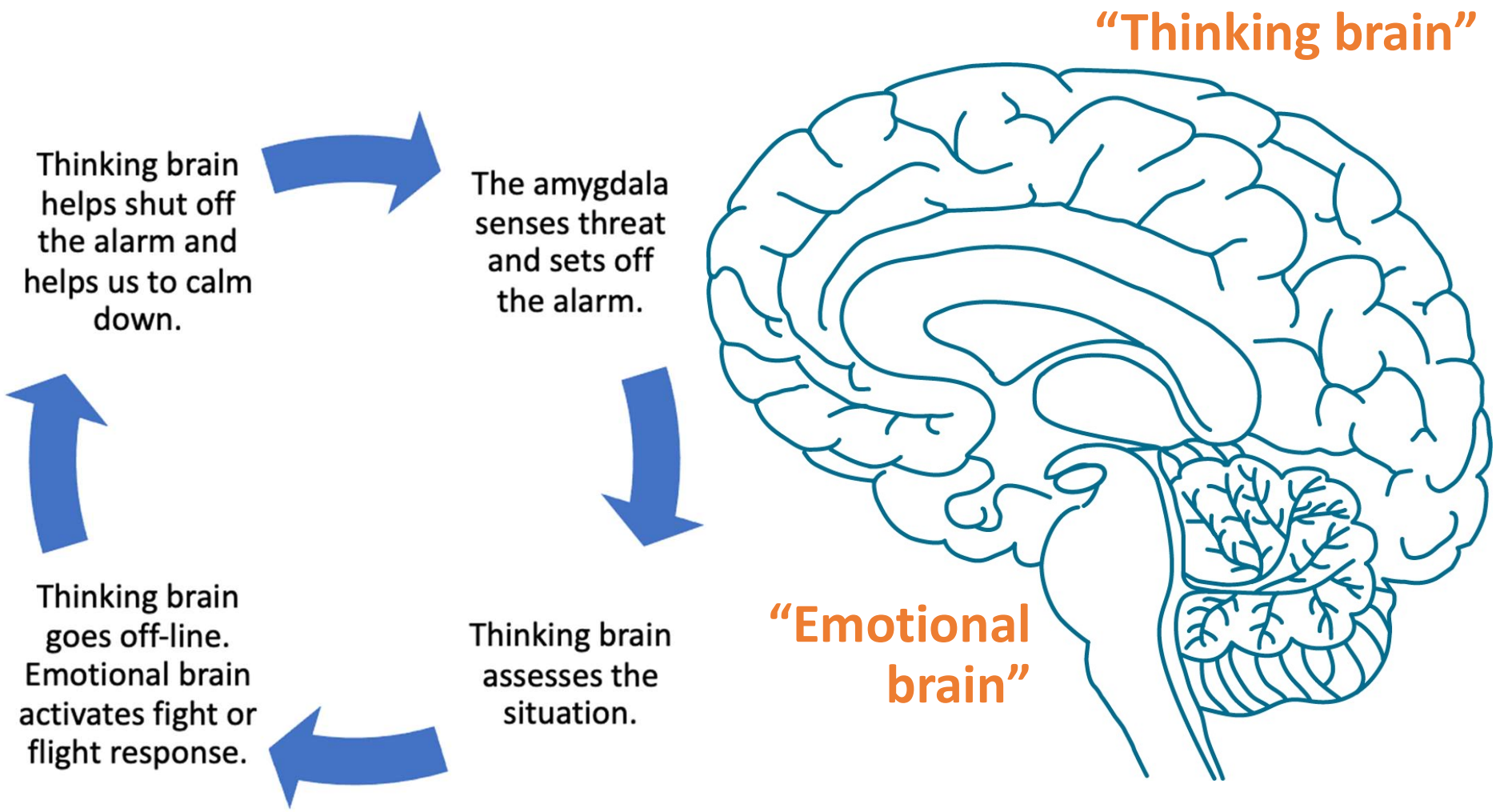
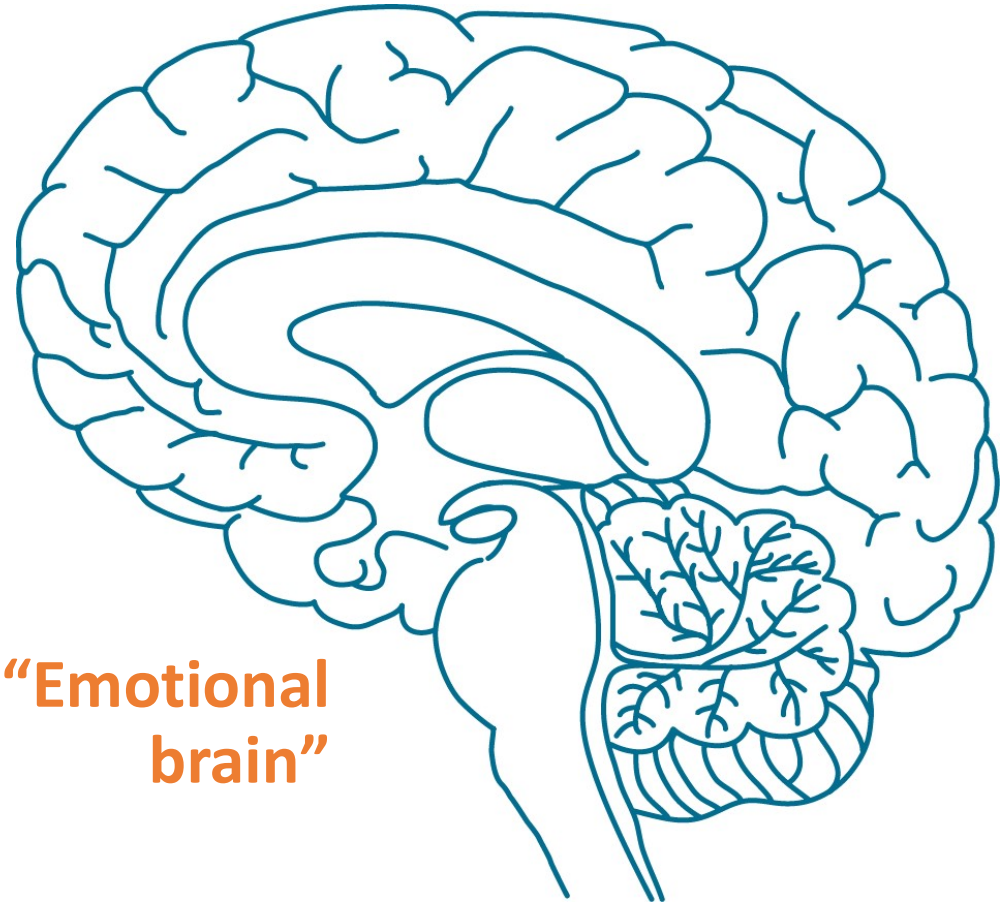


The Stress Response and Trauma

The emotional brain continues to sound the alarm and send messages to fight or flee, even after the threat has passed.

An experience becomes TRAUMATIC when it overwhelms our system for responding to stress.

"Thinking brain"



"Emotional brain"

As we grow up we learn to modulate our stress response, so that not everything is seen as a threat, so for most of us, when someone looks at us in a 'funny' way, it doesn't spark our limbic lobe, we just ignore it and carry on with our day.

How babies are cared for in the first year of their lives plays a big part in this; when a baby is hungry, thirsty, wet or cold, it cries. When a parent/ carer comes and picks it up resolving the issue, it learns that everything is okay, its needs will be met, thus slowly, the brain learns, through repetition, that it's okay be uncomfortable, things will be dealt with.

Impact of Events in Childhood

- Normally, parents have a natural attunement with their baby. As babies, we learn how to be, by copying our parent/ care givers (stick out your tongue at a baby, and they'll do the same back). In order to help us do this, our brains contain **mirror neurons**, cells that help us mirror or copy the people around us so that we fit into society.
- It is vital that babies receive this stimulation if they are to develop empathy, understanding and the ability to adapt their behaviour in order to fit in with their peers and society.

(Gerhardt, 2015; Perry & Szalavitz, 2010; Van der Kolk, 2014)

When things go wrong.

- For babies who don't receive this interaction, for those who are left to cry and whose needs are not met, their brain continues producing cortisol and adrenaline. A baby is totally dependent on adults, if their cries are not responded to, it is literally a life-or-death situation, a baby who is not fed will die. They don't learn how to modulate their stress, which can have lifelong consequences.

- As they get older, their brains either produce far too much cortisol meaning they become pupils who go from 'naught to nuclear' in their response to stress; or their cortisol 'tap' switches off and becomes unresponsive – these become the pupils who seem unaffected by anything and seem emotionally 'cold'.

(Gerhardt, 2015)

Trauma and Adverse Childhood Events(ACE)

ACEs are traumatic experiences that children experience that can then go on to affect their mental health and their prospects in life. It is vital that, as healthcare professionals, we understand not just what they are, but how they affect the child and the impact they can have on their behaviour.

The most widely recognised ACES are:

Abuse:

- Physical
- Sexual
- Verbal

Growing up in a household where:

- There are adults with alcohol and drug use problems.
- There are adults with mental health problems.
- There is domestic violence.
- There are adults who have spent time in prison.
- Parents have separated.

- Other types of childhood adversity that can have long term implications include bereavement, bullying, poverty and community adversities such as living in a deprived area, neighbourhood violence.

For babies that experienced a good first year, with adverse experiences starting after this, their long-term outcomes are far better than for babies that experienced adverse experiences in their first year which stopped after this (due to being taken into care for example)

- **Damage caused in the first year, by the development of our stress response, is subconscious and long lasting. Knowing this will help you better understand the behaviour of some children.**

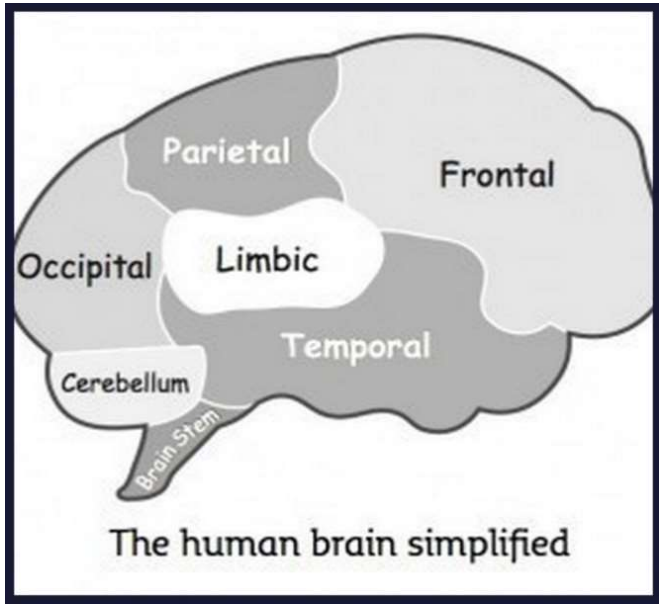
The Brain and Trauma

Amygdala

- This is like the smoke alarm within our brains, it works subconsciously and before our thinking brain has time to catch up.
- This is what makes you stop suddenly when crossing a road, before seeing a car approaching.

Medial Prefrontal Cortex or The watch tower.

- The purpose of this part of our brain is watch out for potential threats – it does this by noticing when things are slightly different to normal – a different person is around, the temperature is hotter than usual, a door that is usually shut is open, etc.
- For people who have experienced past trauma, their smoke alarm can be broken, so they are constantly being alerted to danger, it's like the smoke alarm is constantly bleeping, even when the battery has been removed.
- The problem for people who have a broken smoke alarm is that they're constantly been told to look out for a threat. Because that part of the brain is so overactive, it means they see everything as a threat, therefore are less likely to spot real threats, hence why victims of domestic violence may end up with another perpetrator of violence and so the cycle continues.



The impact of Adverse Childhood Experiences

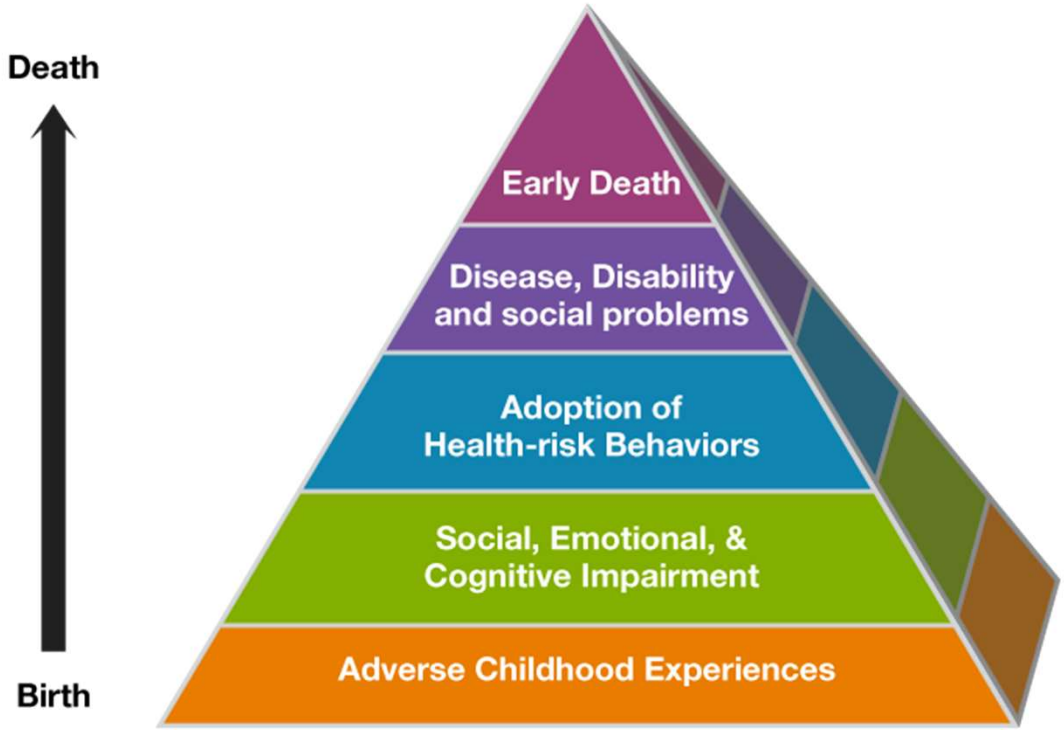
- 67% of the population has at least one ACE;
- 12.5% of the population has more than 4. *(70/30 Campaign, 2017)*

Adverse Childhood Experiences can have a long term impact on children.

The higher the number of ACEs you experience in childhood the higher your chances of;

- Impaired neurological development
- Lower academic performance
- Exclusion from school
- Increased risk of anti-social behaviour
- Increased risk of poor health
- Increased socioeconomic problems
- Increased risk of health problems
- Increased risk of early death.

(Perry & Szalavitz, 2010; Van der Kolk, 2014)



(70/30 Campaign, 2017)

What is trauma?

Hence, In the context of recent research on brain function, trauma has a specialised meaning – it means acquired brain injury as a result of unregulated stress.

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- When for any reason we are not able to regulate stress the overdose of stress hormones is toxic to the brain
  - *Toxic stress is the signal to the brain that we are under threat.*
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- Trauma is a normal part of human life.

Common Responses to Trauma

Young Children

- Fear, anxiety, worry
- Changes in sleeping and eating
- Difficulty separating from caregivers
- Regressed behaviours (losing speech, wetting the bed)
- Reenacting aspects of the traumatic event in play

Common Responses to Trauma

School-age Children

- Fear, anxiety, worry
- Feelings of guilt, shame, and self-blame
- Headaches, stomachaches
- Nightmares, disrupted sleep
- Difficulty concentrating
- Angry outbursts, aggression, and withdrawal
- Over- or under-reactions to situations in the environment (e.g., sudden movements, loud noises, physical contact)

Common Responses to Trauma

Adolescents

- Fear, anxiety, worry
- Concerns about how others will view them after the event
- Shame, guilt, responsibility, embarrassment
- Withdrawal from family, peers, activities
- Avoid reminders of the event
- More intense mood swings
- Decline in school performance
- Increase in risk-taking behaviors (e.g., alcohol/drug use, sexual behaviors, fights, self-harm)

Triggers

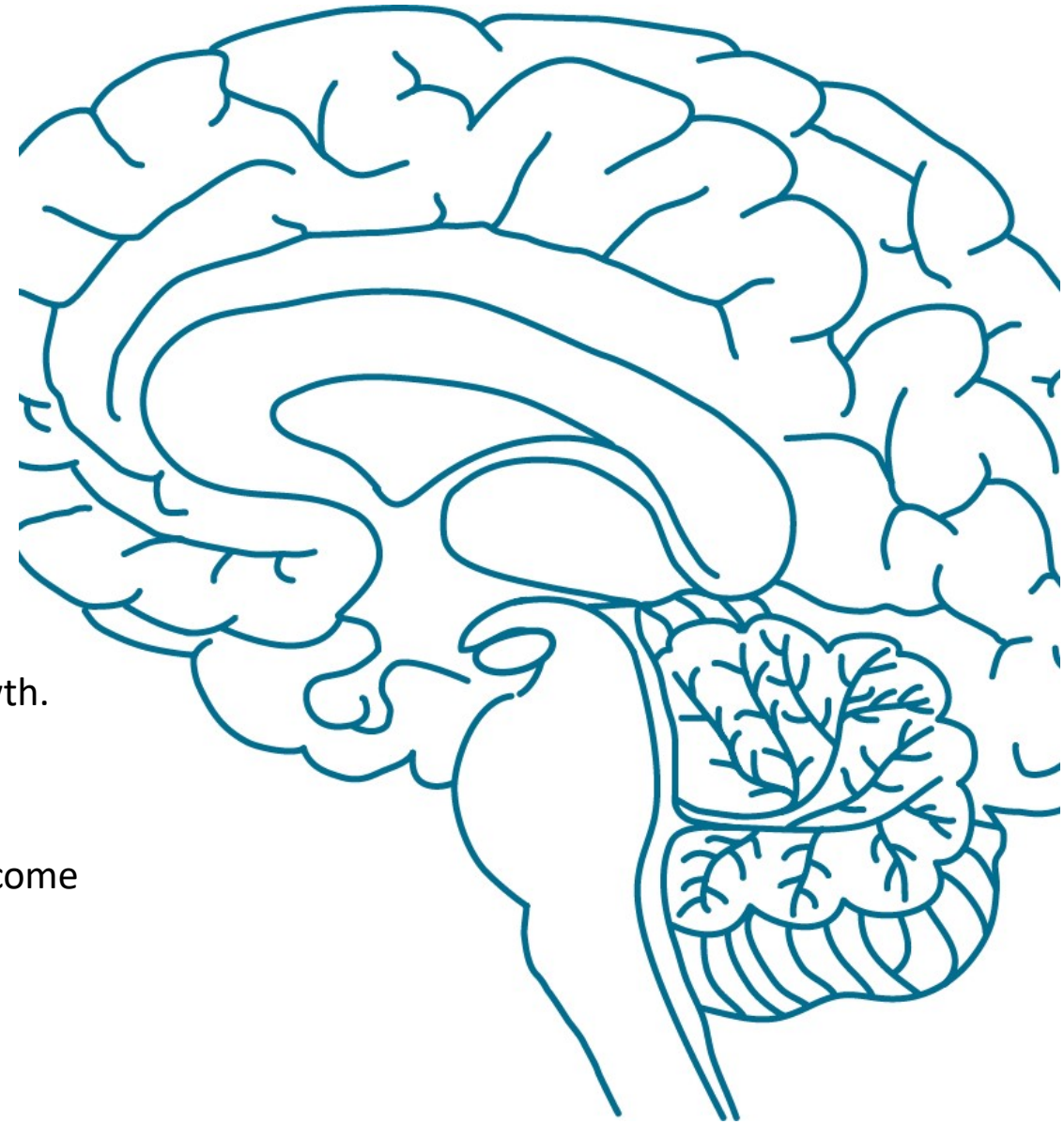
Reminders of past traumatic experiences that automatically cause the body to react as if the traumatic event is happening again in that moment.

Responses can appear confusing and out of place and be misunderstood by others.

Triggers and Brain Trauma

- The brain has a built-in alarm system designed to detect threats and keep us safe.
- When faced with a threat, the emotional brain takes over.
- A stress becomes traumatic when it overwhelms our stress response system.
- A range of acute post-trauma responses are common.
- Triggers are trauma reminders that set off the alarm.
- Responses to triggers may seem out of place and can be misunderstood by others.

Brain Development in Complex Trauma



- Brain Development
- Develops from the bottom up.
- Early childhood is period of greatest growth.
- At 80% of adult size by age 3.
- Streamlines connections over time.
- Thinking brain and emotional brain become better coordinated

Effects of Complex Trauma

Brain Development is influenced by:

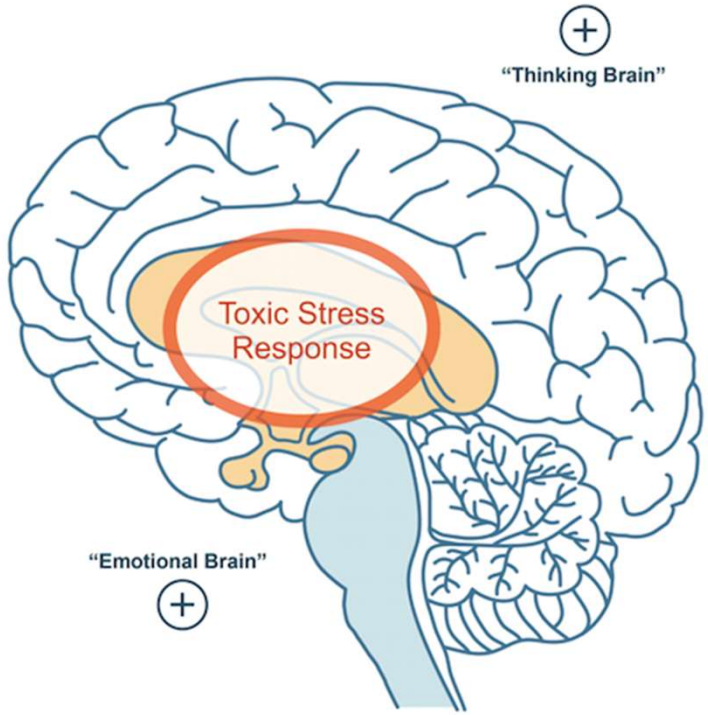
- Genetics
- Environment
- Experiences

Effects of Complex Trauma

Under constant threat

Emotional brain is over-reactive, constantly in survival mode.

Thinking brain is underdeveloped.



Effects of Complex Trauma

Relationships

Emotional regulation

Behaviour

Cognition

Dissociation

Self-concept and future orientation

Effects of trauma

- Key environmental and individual factors impact a child's response to trauma and risk for negative effects.
- There are several possible trajectories for youth following a traumatic event.
- Most youth who experience a traumatic event do not develop significant mental health issues; however, some continue to struggle.
- Chronic interpersonal trauma that begins early changes the way the brain develops and can impact all areas of functioning into adulthood.
- Adults play a critical role in preventing and reducing the negative effects of stress on children.

Impact of Trauma

Impact of Trauma on Students

- Difficulty paying attention and learning
- More time out of the classroom
- Increased isolation
- School absences
- More suspensions or expulsions
- Higher referral rates to special education
- Poor test scores and an increased risk of failing grades

Impact of Trauma on Staff

Secondary traumatic stress:

The presence of PTSD symptoms caused by indirect exposure to other people's traumatic experiences.

Vicarious trauma:

The cumulative effect of working with traumatized youth and their families that leads to negative changes in how staff view themselves, others, and the world.

Impact of Trauma on Behaviour

Regulatory disorders – challenging behaviour	Stress	Impulse	Shame
	• Hyperarousal: panic, rage, aggression, impaired memory, etc. … • … and/or dissociation: switched off, avoidant, controlling, etc. … • May be, or be seen as, antisocial behaviour, offending behaviour, harmful behaviour, self-harming behaviour etc …	• Impaired ability to manage or account for behaviour • Not able to benefit directly from rewards and sanctions	• Hypersensitive to criticism or praise, or apparent lack of remorse

Reduced Ability to make sense of the world

Processing disorders – impaired understanding

The world around them

- Difficulty making sense of sensory information
  - hot or cold, hungry or full, tired or energetic, comfortable or in pain (or locating where in the body any pain might be)
  - Self-harming behaviours may become patterned/triggered responses to this disruption of function
- Misunderstanding or misrepresenting everyday events and experiences

Their inner world

- Difficulty making sense of feelings in self or others
- Not able to put feelings into words

Reduced ability to make sense of social interaction

- **Social function disorders –**
  - Social exclusion
- **Understanding others**
  - Difficulty with empathy: processing incoming information about the emotional state of other people
  - Reduced motivation, and ability, to engage positively with others
- **Anhedonia**
  - Loss of the capacity for joy
  - Reduced or impaired ability to remember joyful experiences
- **Feelings of worthlessness**
  - Difficulties with self-esteem
  - Global sense of shame triggered by minor events

Other Vulnerable groups of children?

- Children in foster care or receiving child welfare services
- Children who are or have been homeless
- Children who live in poverty, unsafe and unsupported communities
- Children who experience frequent mobility (e.g., children of migrant workers, military families, etc.)
- Which other groups are particularly vulnerable?

What can we do?

- Providing vulnerable children with daily access to at least one named, emotionally-available adult, who believes in them – refer to CAMHs and health visitor
- Catching children as they are ‘falling’ not after they have fallen…
- Linking with the school nurse and encouraging them to interact with the child in ways that help them feel calm, soothed and safe
- Staff interacting with all children in such a way that they feel valued as individuals throughout their day.
- Staff adjusting their expectations of vulnerable children to correspond with their developmental capabilities and experience of traumatic stress

That child who seems to deliberately wind everyone up, is it because he didn't learn empathy as a baby?

That child who just stormed off for nothing, is it because her stress response isn't modulated?

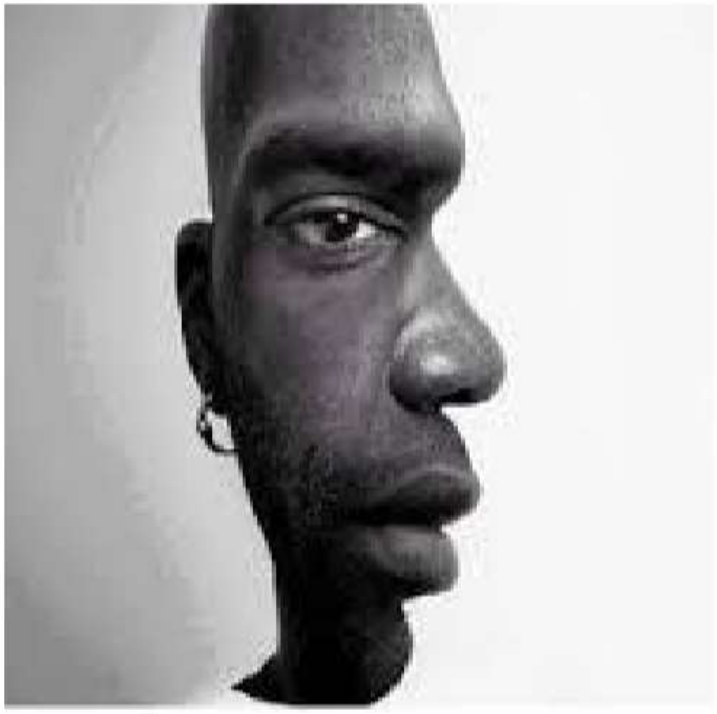
Changing Focus

That child who punches the walls or kicks the doors, is it because her 'smoke alarm' is broken?

- **REALIZE** the impact of trauma
- **RECOGNIZE** the signs of trauma
- **RESPOND** by integrating knowledge about trauma into practices, policies, procedures
- **RESIST** re-traumatizing people (by shouting, belittling or insensitive comments)

That child who won't sit still, is it because he's hypervigilant?

That child who never seems to be listening and is too lazy to even attempt the work, has she dissociated?



(Patton, 2016)

Consultations with Children

Consistency is key!

- For young people who are hypervigilant, their brains are programmed to look for threats, this can and will distract from listening.
- Make sure your clinic room is organised and not chaotic and do not multitask during a child consultation.
- Make they feel valued and listened to.
- Talk to the child during the consultation and not just the parent/care/giver. Let them know their opinion matters.
- Involve them in discussions when referring to CAMH's or for CBT
- Keep them informed and explain to them what to expect.
- Consider Gillick Competency and when child may want to be without the responsible adult.

Consultations with Children

Show patience and understanding

- It is true that children with ACEs are more than likely the ones you want to throttle and seem to know exactly what buttons to press!
- Shouting at these young people will achieve nothing especially if their home life is full of shouting.
- Ask and really listen to the young person's perspective, identify with their experience and emotions. Later when they are calm use SET UP to talk:

  - **Support** – "I'm here to help you with this."
  - **Empathy** – "It's a really difficult topic, lots of people struggle"
  - **Truth** – "You won't pass if you're not prepared to try."
  - **Understanding** – Show you understand their perspective
  - **Perseverance** – things aren't going to change instantly but maintain consistency and things can and will change.

Conclusion

- Listen to children – both verbal and non verbal.
- Always consider if any safeguarding issues are present.
- Child's safety first
- Recognise your limitations and consult colleagues and referral agencies
- Know the contact numbers of your local child protection services.
- Annual reviews of identified children – at a minimum
- Remember that family and siblings may need support too
- Always consider underlying mental health problems.
- If in doubt, ask advice.

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