Holding Space Program: Supporting the Emotional Journey of Implementing Trauma-informed Practice in Early Childhood Settings

Workshop 3: Stress, Trauma, and the Brain: How Stress Impacts the Brain

Implemented on the CSU Albury-Wodonga Campus Tuesday May 13th 2025

Notes to Accompany Workshop Slides

SLIDE 7: Take a Little Moment

Stations

 Make a circle and hold hands. The leader squeezes the hand of the person next to them on one side. When they feel the squeeze, they squeeze the hand of the person next to them. This continues until it gets back to the leader. Time it with a stop watch. See if you can get faster on more goes.

Energy Wand

- Make a circle and hold hands. One person holds one end of the energy wand while the person next to them holds the other end. Notice how it lights up and makes a noise. Ask someone along the line to let go of hands and the energy wand stops working.
 - Energy wands can be found in science resource stores see for example: <u>https://www.haines.com.au/energy-stick.html</u>

This is a physical representation of the difference in time between information getting to the Amygdala, which is the part of the brain that initiates the survival responses and makes us react to danger (fight, flight, freeze, fawn / appease), and our Cortex which is a responsive thinking part of the brain.

Information coming from our senses to our Amygdala (survival) and reactive brain, takes 100 milliseconds.

Information coming from the senses to our Cortex (Higher functioning) responsive brain takes 200 – 300 milliseconds. It is therefore slower to respond.

Additional Notes

Survival is a primitive animal instinct like breathing, eating, seeking food, sleeping and sexual attraction. The animal brain is faster than the thinking brain. Before you can think, you have already reacted. The faster we react the more likely we are to survive.

Treena's personal example:

During the workshop, Treena shared a personal example of coming across a car accident where she heard the sound of the car horn continually beeping; and the reactive response she experienced when she heard a car horn beeping the following day. She didn't have time to think about whether it was dangerous or not, her body just reacted with a flood of physiological responses that she had no control over.

SLIDES 8, 9, 10, 11 & 12: Survival Response

Slide 8: Handout 'Gingerbread Man Body' (PDF provided)

- Ask everyone to take a moment to think about and write/draw what <u>reactions and</u> <u>sensations they feel</u> in their body when they feel stressed, anxious or fearful.
- Whole group share and discussion of some examples of what each person wrote/drew.

Slide 9:

- Discuss the examples on Slide 9 in relation to some of the examples shared when discussing Slide 8.
- Before moving to Slide 10, ask everyone to write/draw (on their Gingerbread Man) what <u>their thoughts</u> might be when they feel stressed, anxious or fearful.

Slide 10:

- Whole group share and discussion of some examples of what each person wrote/drew in relation to examples provided in the 'thoughts' bubble on the slide.
- Before moving to Slide 11, ask everyone to write/draw (on their Gingerbread Man) what <u>their emotions</u> might be when they feel stressed, anxious or fearful.

Slide 11:

• Whole group share and discussion of some examples of what each person wrote/drew in relation to examples provided in the 'emotions' bubble on the slide.

Before moving to Slide 12, ask everyone to write/draw (on their Gingerbread Man) what <u>their behaviours</u> might be when they feel stressed, anxious or fearful. What might they feel like doing if they could?

Slide 12:

 Whole group share and discussion of some examples of what each person wrote/drew in relation to examples provided in the 'behaviours' bubble on the slide.

SLIDES 13 &14: What is Trauma?

The purpose of Slide 13 is to relate the above activities to trauma. To do this, it is important to understand what trauma is.

"Trauma is the emotional, psychological and physiological residue left over from heightened stress that accompanies experiences of threat, violence and lifechallenging events" (Australian Childhood Foundation, 2018, p. 8)

So when an event is life threatening or perceived as life threatening those responses that we discussed during the activities, are elicited in the body in order to help the person survive. These physiological reactions are going to help us to either fight the threat or run away. While these are the preferred options, sometimes, the threat is too powerful for either of

those two reactions, so we would then freeze in order for the body to not feel the pain of being hurt. Or, we would attempt to gain control by pleasing, soothing, or placating the threat in some way, known as the fawn or appease response.

It's important to note that the freeze response is immobilisation of the nervous system and body. The person is completely shut down, numb or frozen and unable to act. This causes the most shame or guilt later after the event has passed as survivors wonder why they didn't react and feel they let the traumatic event occur. It is also the main reason why an event or series of events become traumatising.

Using a Slinky to illustrate a discombobulated nervous system (dysregulation):



When the event is life threatening and the person does not have the resources to cope with it, it overwhelms or discombobulates the nervous system causing it to become dysregulated. Then whenever something happens that reminds the person of the event, such as a smell, sound, person or something someone does or behaves, a situation, or a place, it retriggers the nervous system and the person feels the same physiological feelings and behaves the same as when the life-threatening event first occurred. This reactivity happens before the person is able to cognitively think about and respond in another way. It actually takes blood away from the executive functioning part of our brain or cortex so we are unable to think anyway, even if we wanted to. Which is why a child in your room when they are calm they may know how to behave appropriately but when they feel unsafe they become triggered and react with inappropriate behaviour. In that moment their thinking part of their brain has literally gone off line.

Slide 14:

• However, trauma isn't the event itself but how the nervous system perceives the event and whether the person has the resources to cope. What is traumatic for one person may not be for another.

SLIDE 15: Examples of Overwhelming Events

Examples of possible overwhelming events that children in your service may have experienced that have potential of causing a trauma response:

- Traumatic event, car accident, house burning down etc
- Abuse

- Neglect
- Death of a family member or close friend
- Separation/Divorce
- Moving house
- Disrupted homes
- Blended families
- Birth of a new baby
- Separation from parents
- Operations/ hospitalization
- Chronic illness/ Breaking bones,
- Asthma attack
- Increased exposure to violence, Both real and on screen
- Being over scheduled
- Bullying/ social rejection
- Birth trauma
- Learning difficulties
- Transitions/ change
- Over stimulation
- Changing caregivers
- Needs not being met such as love, attention, safety, play

After the overwhelming event has passed, whenever a child's brain is reminded of the event in any way their survival reactions click in to help them to survive because the brain and body thinks it is in danger again. Remember, the thinking brain goes offline and the animal instinctual brain takes over.

SLIDES 16, 17, 18, 19, & 20: Behaviour is Communication

Slide 16: Handout: *Behaviour is Communication* (PDF provided)

• This handout is probably enough to send us all into overwhelm but it is quite simple when we break it down. All behaviour is communication. This means that children's behaviour helps us to have some insight into what the child or their nervous system is trying to tell us.

Slide 17:

• There are two physiological states that underpin behaviour. The nervous system only understands two, either we feel safe or unsafe.

Slide 18:

 If we feel safe then we produce happy hormones and neurotransmitters such as Dopamine, Serotonin, Oxytocin and GABA, which give us that calm relaxed feeling. If we feel calm and relaxed then our prefrontal cortex or the executive part of our brain stays online and says, I feel calm and open for business; and, therefore we are more open to learning, to connection, and to feelings of happiness, joy etc.

Slide 19:

• When we feel unsafe then we produce hormones and neurotransmitters such as Adrenaline, Norepinephrine, and Cortisol, which are designed to help us survive by increasing our heart rate, blood flow and energy so that we can either fight, run away or freeze in response to the thing that is threatening us and making us feel unsafe. If that doesn't work, we try to placate it (fawn). When this happens the prefrontal cortex or executive part of the brain switches off, or goes offline, and we react from the animal primitive part of the brain causing us to be dysregulated and to respond with behaviours that are sometimes deemed inappropriate.

Slide 20:

- Why does the nervous system either feel safe or unsafe? That depends on past, or ongoing, unprocessed/ unresolved, overwhelming experiences; such as the overwhelming events explored on Slide 15. It can also be in response to unmet needs as a young baby or child, such as the need for food, shelter, and emotional connection.
- It is important to note that even though the traumatic event may have passed, if it has not been processed than any trigger that reminds the brain of the original trauma can cause the survival system to kick in. Triggers can be a smell, a sound (like the car horn for Treena), a place, situation, a person, or the way a person behaves. Sometimes we may not know what the trigger is, but it is important to work on our own triggers so that we can stay regulated and help regulate the children in our care the best we can.
- Unfortunately, we don't always get a trauma history of the child from parents/guardians. This is often because they may not recognise an event as overwhelming or traumatic for the child.

Example Scenario - Sam:

Sam would bite other children at preschool who were in his personal space or took something he wanted. Past overwhelming events included being stuck between his bed and a wall when he was 18-months-old and not able to get himself free, with it taking a while before his parents realised. He was also bitten on the face by his family dog when he was 2-years-old. Present day triggers include someone in his face and feeling trapped. When either of these things happen, his body goes into animal reactive mode, the executive part of his brain goes offline, and he bites.

It is also important to note that it doesn't always have to be trauma or an overwhelming event that the nervous system reacts to. It can also react to things such as food intolerances, gut dysbiosis, parasites (worms), and sleep issues. However, these issues are not in the scope of this workshop, but are important to be mindful of.

SLIDE 21: Hand Model of the Brain (see additional resources on Slide 29 for helpful videos)



Ask everyone to form a fist with their hand. The hand represents the brain and each part of the hand represents a different part of the brain

The wrist and palm represent the brain stem, which is the most primitive part of our brain controlling basic instincts such as breathing, heartbeat, movement, temperature control and survival reactions.

The thumb represents the limbic system which is responsible for emotion and the Amygdala which is responsible for orchestrating the survival response.

The fingertips represent the prefrontal cortex or executive part of the brain. It is responsible for self-regulation, reasoning, making decisions, impulse control, planning. In young children this is still developing.

When the child feels safe, calm and relaxed, the fist is closed and all the parts of the brain are working together and the brain is open to learning, connection etc.

When the brain becomes overwhelmed, because the child is upset, frustrated, or scared, then they "flip their lid" (open the fingers straight up). The brain goes offline and all the reasoning capabilities are no longer available. The limbic system takes over and the child goes into fight, flight, freeze or fawn/appease. For those of who work with children, it is important that we stay regulated when a child is dysregulated, rather than flipping our lid at the same time. This can help regulate them so that they feel safe to close the lid back down again and, only then, can you connect (relate) and reason with them.

Remaining slides include all facilitator details on the slide