Trauma and the Brain

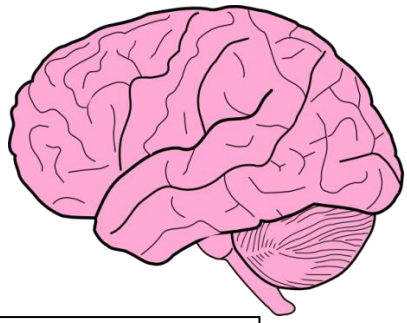
Trauma Defined: a distressing situation or event that overwhelms the individual's ability to cope or integrate the emotions involved with the experience.

Symptoms of trauma: *"Survivors of trauma often have symptoms not memories"* (Harvey, 1990)

- Depression
- Irritability
- Loss of Interest
- Numbing
- Decreased Concentration
- Insomnia
- Hopelessness
- Little to no memories
- Nightmares/Flashbacks
- Hypervigilance/Mistrust
- Generalized Anxiety/Panic Attacks
- Chronic Pain
- Substance Abuse
- Feeling out of body
- Self-destructive Behaviour
- Loss of sense of "Who I am"

3 Parts of the Brain involved in Trauma:

Frontal Lobes (Thinking Brain) Control reasoning, problem solving, verbal expression, memory for events and facts occur



Limbic System (Mammalian Brain) Controls non-verbal emotional and relational experience, feeling and gut memories, and traumatic memory

Brain Stem (Reptilian Brain) Controls instinctive responses, heart rate, breathing

Amygdala "Emotional Memory Centre" lives here

When we Remember Trauma

1. Memory centers in the ***Frontal Lobes*** shut down and we become overwhelmed by feelings and impulses
2. The ***Limbic System*** responds with increased activity, the ***Amygdala*** "sounds the alarm" as if we were in danger right now!
3. The ***Brain Stem*** reacts instinctively to the 'alarm.' Our heart rate increases, we stop breathing, we hyperventilate, our muscles tense (we either speed up or shut down).

Treatment of Traumatic Memory: Wake up Frontal Lobes

1. When ***Frontal Lobes*** are engaged we are able to recognize that the overwhelming feelings and sensations are "feeling flashbacks," and that we are being triggered and are not unsafe.
2. When the ***Frontal Lobes*** can notice and label bodily and emotional reactions as 'just memory,' it sends a signal to the Limbic System that we are safe, rather than in danger. The ***Amygdala*** **'turns off.'**
3. The ***Brainstem*** responds to changes in thoughts and emotions: "I'm in danger" increases its activity and "This is just a memory," calms it.