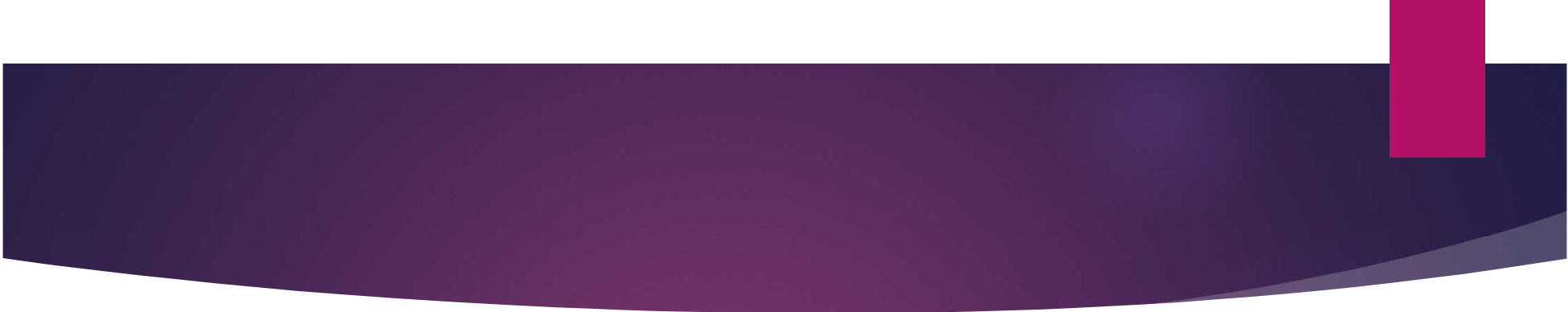




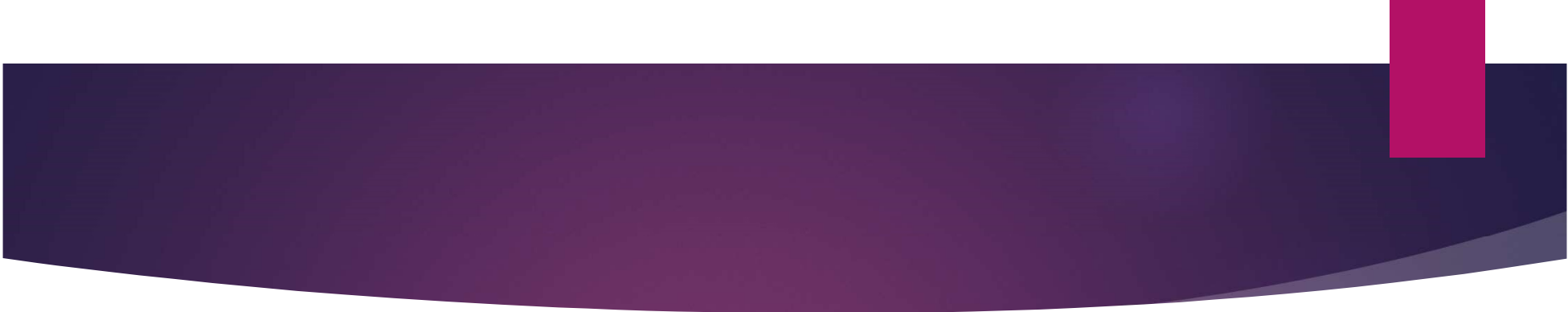
**HUMAN TRAFFICKING
AND BRAIN TRAUMA
FROM
SCIENCE TO SERVICE**

PRESENTERS:

- ▶ Philip O. Toal, Ed.D, LMHC, CET
 - ▶ Sr. Vice President
 - ▶ Aspire Health Partners

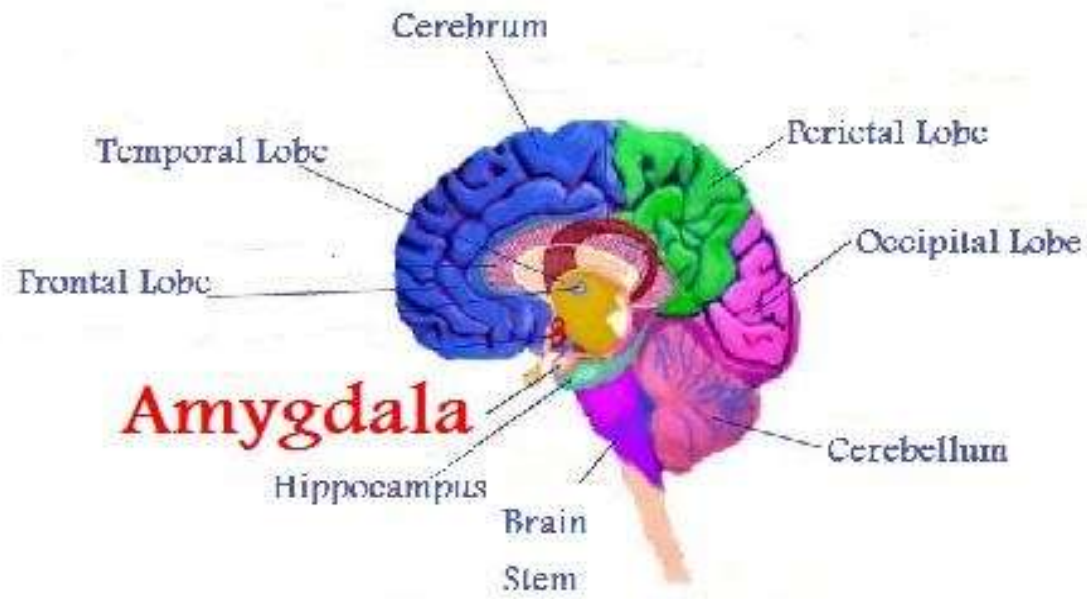


- ▶ Changes to
- ▶ the Brain with Trauma

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- ▶ Trauma can alter brain functioning in many ways, but three of the most important changes appear to occur in the following areas:
 - ▶ The prefrontal cortex (PFC), known as the “Thinking Center.”
 - ▶ The anterior cingulate cortex (ACC), known as the “Emotion Regulation Center.”
 - ▶ The amygdala, known as the “Fear Center.”

Trauma and Brain Changes: An HT Approach

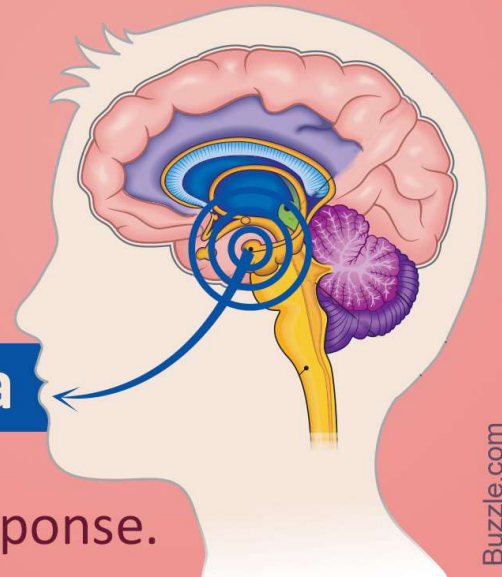
- ▶ The 3 Parts of Your Brain Affected by Trauma
 - ▶ Flight/Flight/Freeze- The amygdala
 - ▶ Emotional Regulation
 - ▶ Prefrontal Cortex-executive functions



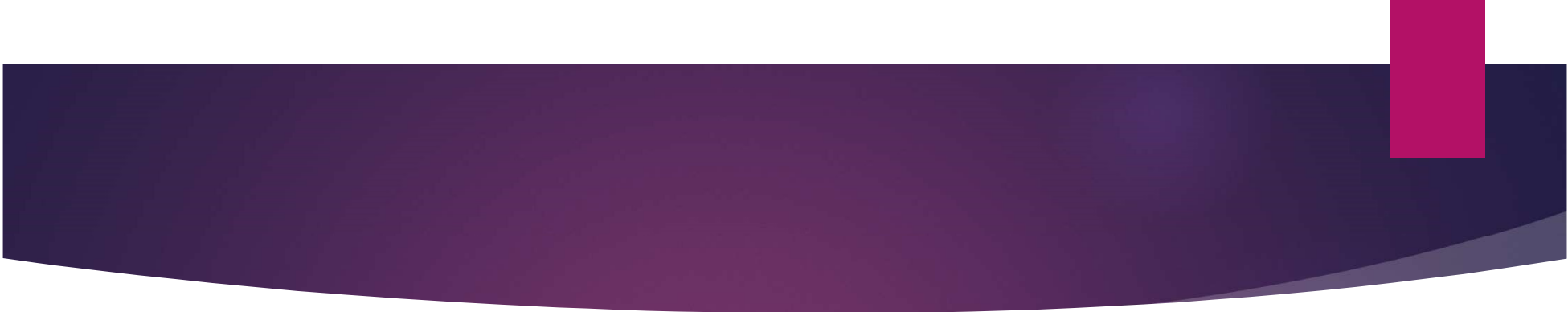
Located in the
temporal lobe
of the brain,

the amygdala

helps trigger the
fight-or-flight response.



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- ▶ The amygdala, a tiny structure deep inside our brain, serves as its fear center. This subcortical area is outside of our conscious awareness or control, and its primary job is to receive all incoming information — everything you see, hear, touch, smell, and taste — and answer one question: *“Is this a threat?”* If it detects that a dangerous threat is present, it produces fear in us.



HOW DOES THIS PLAY OUT

- ▶ When this area is activated, we feel afraid, reactive, and vigilant.

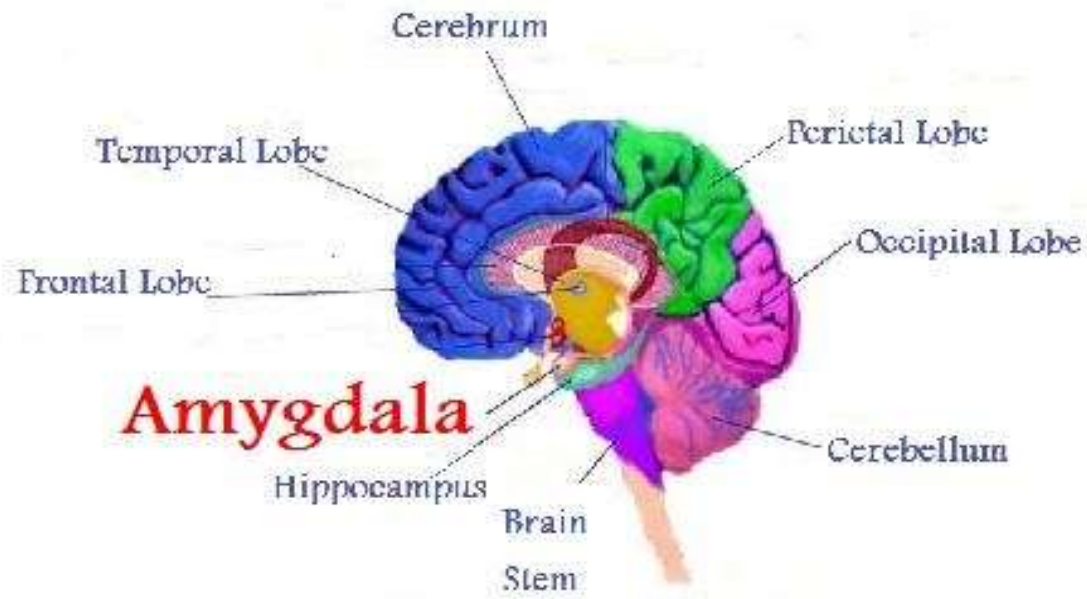
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- ▶ Fight/Flight/Freeze/
 - ▶ Fawn

FAWN

- ▶ The fawn response involves immediately moving to try to please a person to avoid any conflict. This is often a response developed in childhood trauma, where a parent or a significant authority figure is the abuser. Children go into a fawn-like response to attempt to avoid the abuse, which may be verbal, physical, or sexual, by being a pleaser. In other words, they preemptively attempt to appease the abuser by agreeing, answering what they know the parent wants to hear, or by ignoring their personal feelings and desires and do anything and everything to prevent the abuse.

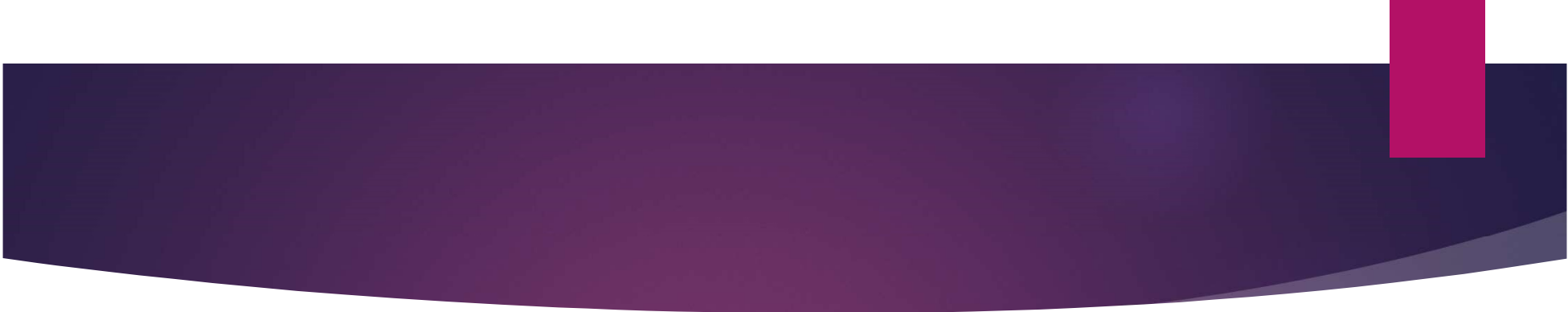


Case examples



The Mid Brain

- ▶ The ACC, or emotion regulation center, is located next to the prefrontal cortex, but is deeper inside the brain. This area is responsible (in part) for regulating emotion, and (ideally) has a close working relationship with the thinking center.

- 
- ▶ When this region is strong, we are able to manage difficult thoughts and emotions without being totally overwhelmed by them. While we might want to send a snarky email to a coworker, the emotion regulation center reminds us that this is not a good idea, and helps us manage our emotions so that we don't do things we regret.



HOW DOES THIS PLAY OUT

- ▶ EMOTIONAL
DYSREGULATION
- ▶ THOUGHT AND FEELING
DON'T MATCH

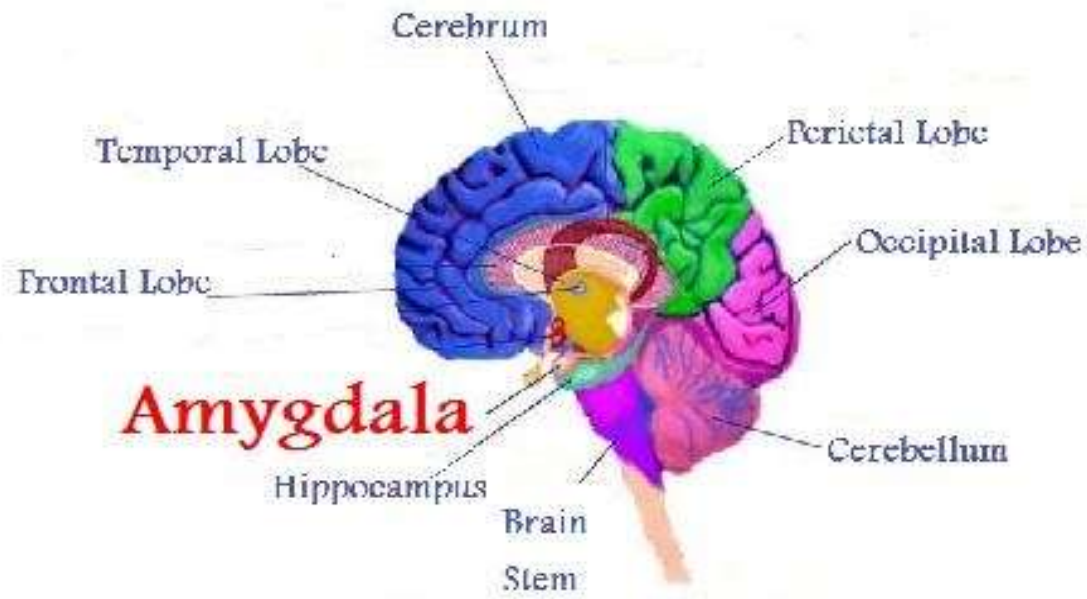


▶ Case

▶ examples

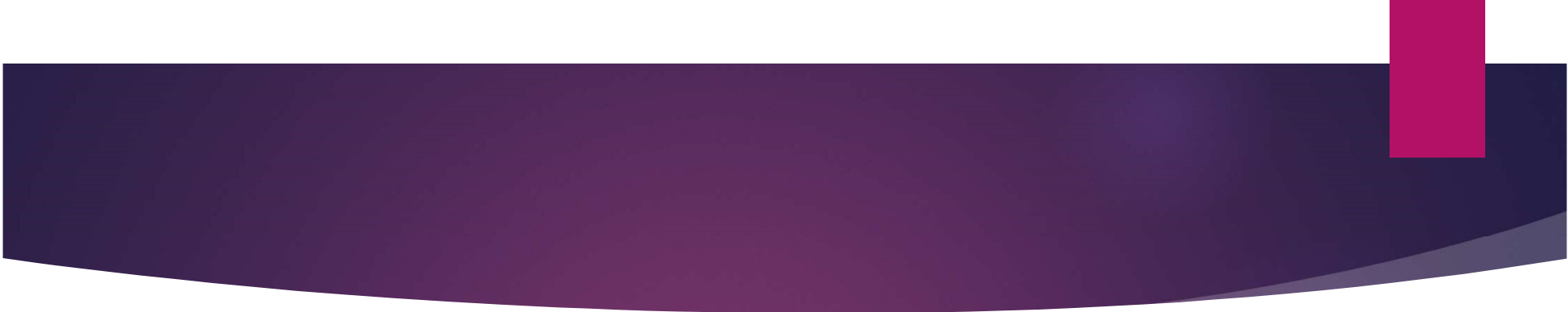
Frontal Lobes/Executive Functions

- ▶ The PFC, or thinking center, is located near the top of your head, behind your forehead. It's responsible for abilities including rational thought, problem-solving, personality, planning, empathy, and awareness of ourselves and others. When this area of the brain is strong, we are able to think clearly, make good decisions, and be aware of ourselves and others.



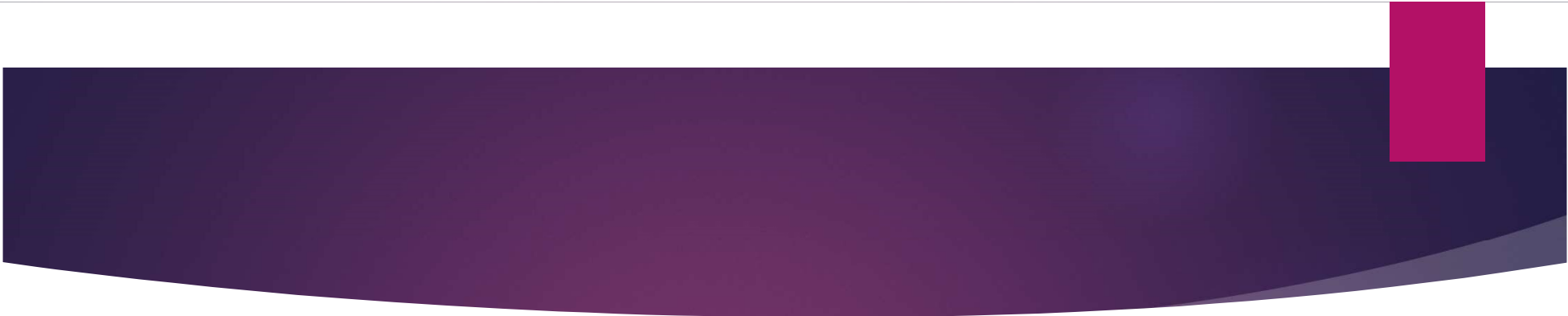
HOW DOES THIS PLAY OUT

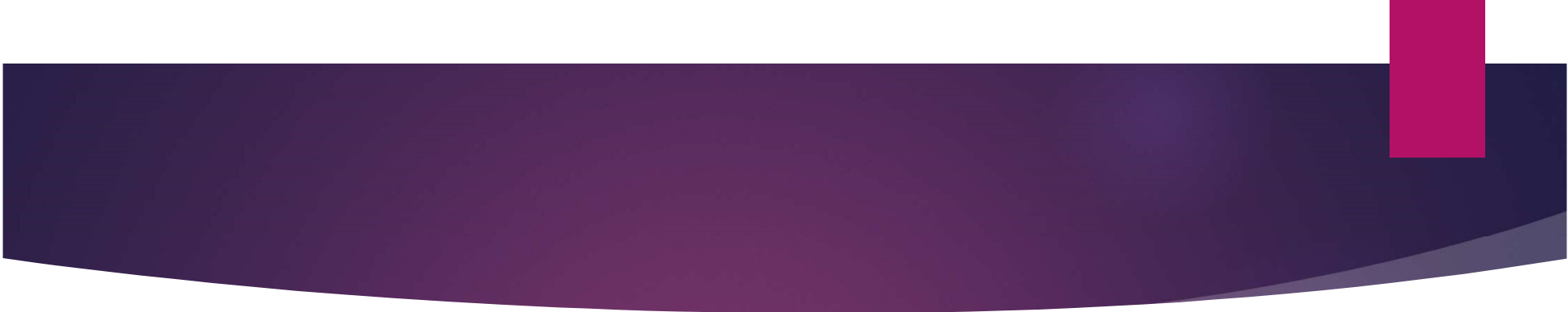
- ▶ The thinking brain
 - ▶ poor impulse control
 - ▶ Poor judgment
 - ▶ Mood
 - ▶ Decreased Reasoning ability

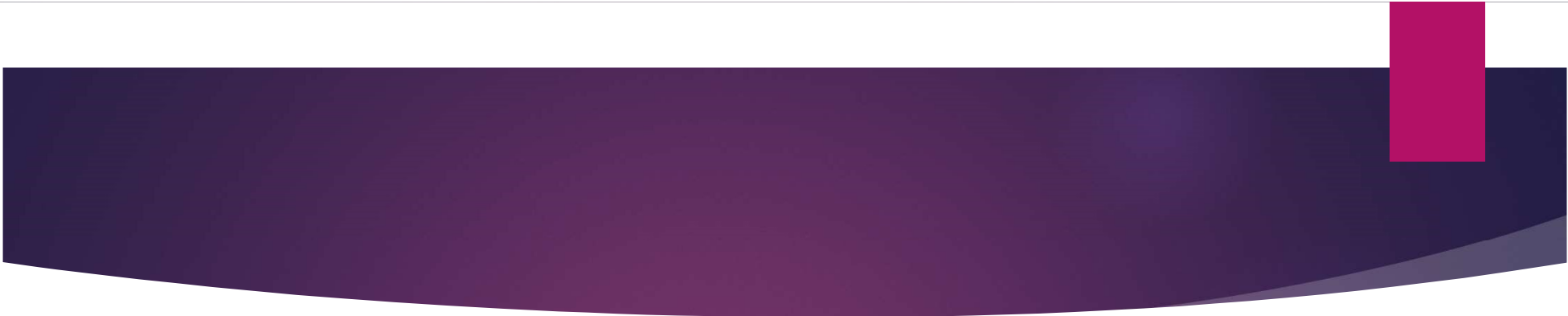
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- ▶ The **prefrontal cortex** is the front portion of the frontal lobes and manages complex cognitive process such as memory, planning, reasoning, and problem-solving. This area of the frontal lobes functions to help us set and maintain goals, curb negative impulses, organize events in time order, and form our individual personalities.

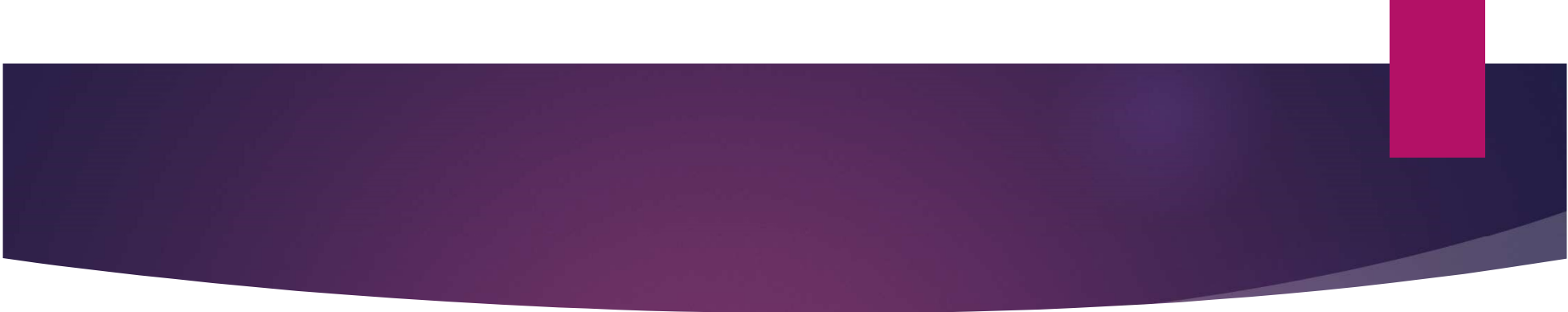
Traumatized brains

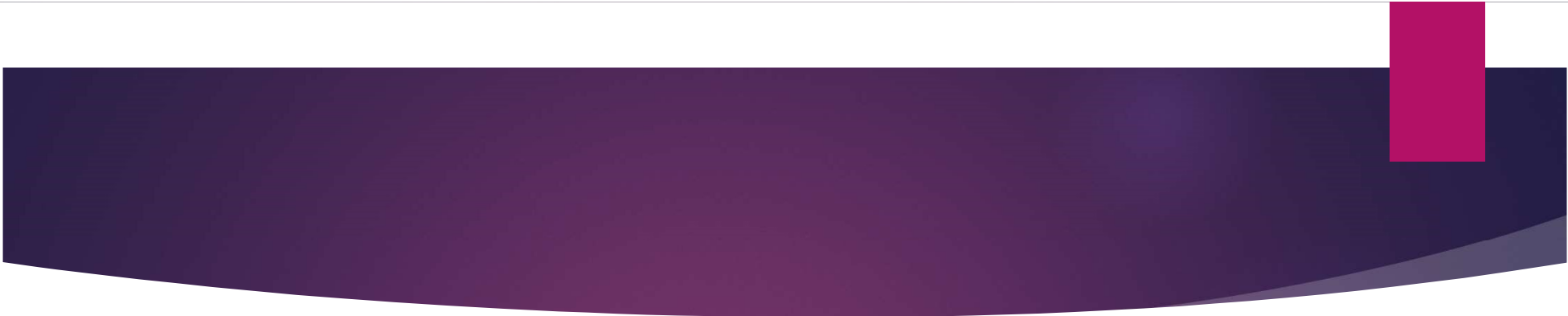
- ▶ **Traumatized brains look different from non-traumatized brains in three predictable ways:**
- ▶ The Thinking Center is underactivated.
- ▶ The Emotion Regulation Center is underactivated.
- ▶ The Fear Center is overactivated.

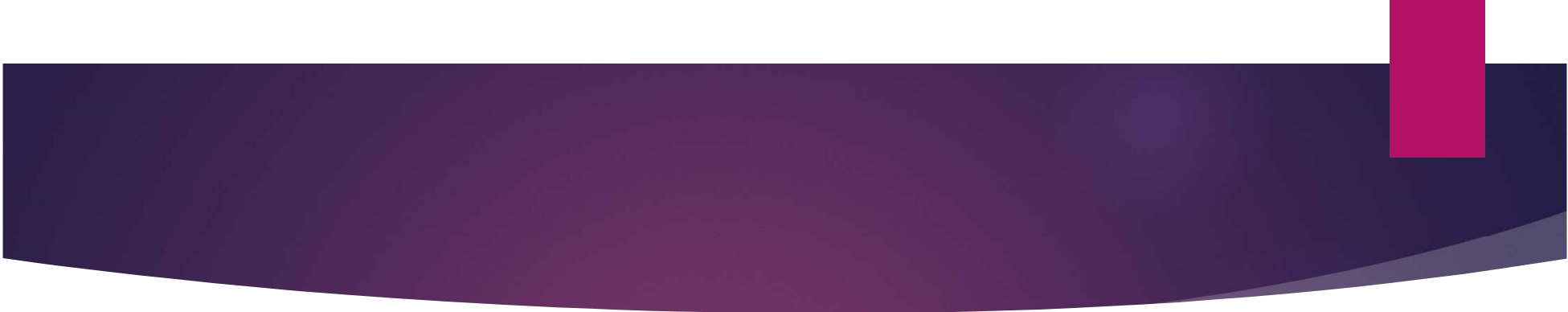
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- ▶ To better understand the mental, emotional, and physical processing victims of trafficking go through when they are rescued, here are four things to understand about how our brains change when we are treated as property:

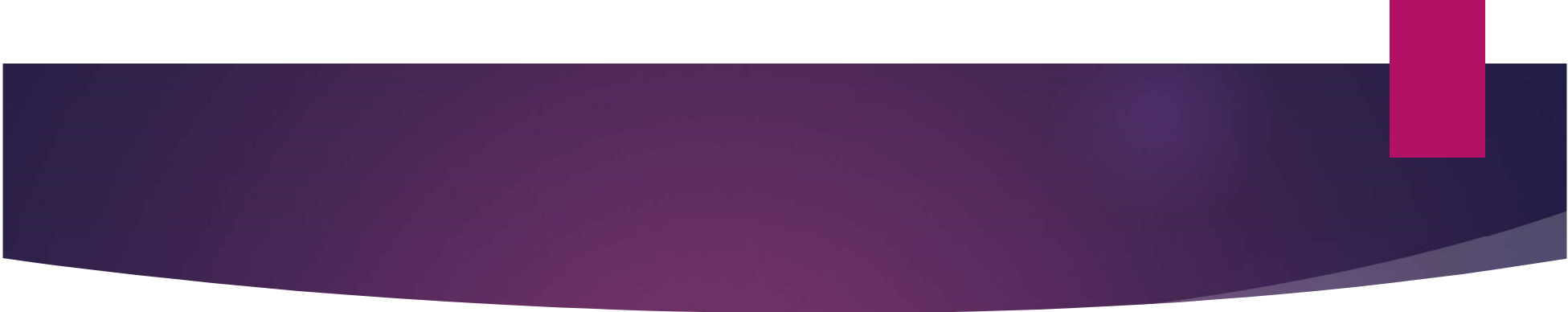
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- ▶ Constant activation of “Fight or Flight” system — Kicking into our fight or flight mode is also known as experiencing an acute stress reaction.

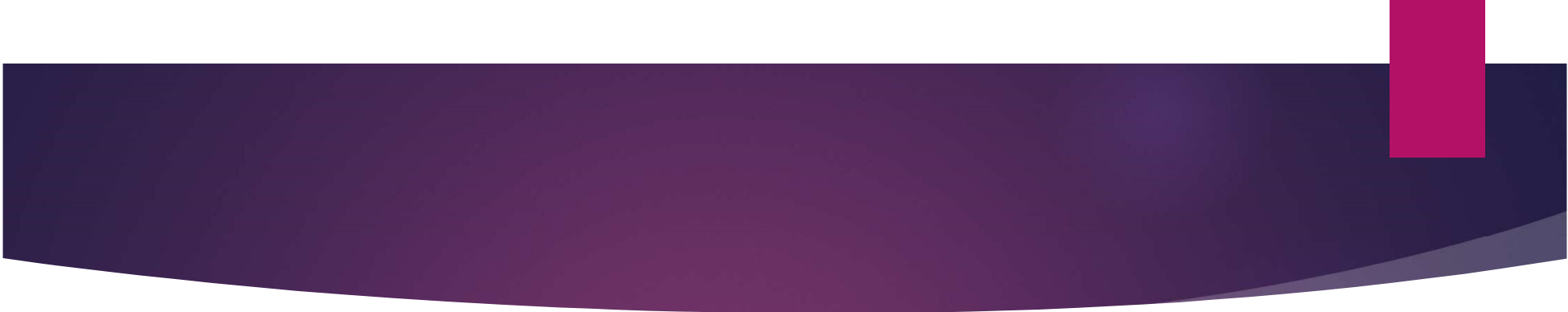
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- ▶ Overproduction of stress hormones — Since acute stress reactions are nearly constant in the lives of those suffering from trauma, adrenaline is overproduced. A build up of adrenaline can lead to withdrawal, anxiety, depression, aggression, and delinquent behaviors.

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- ▶ Development of mental health disorders — Studies have found that many children and adults who were victims of human trafficking now suffer from mental health concerns such as post-traumatic stress disorder and depression.

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- ▶ Finally, survivors of trauma who experience PTSD symptoms will sometimes complain that they feel incapable of managing their emotions. For example, if someone spooks them, they may experience a rapid heart rate long after the joke is up, or may have a hard time “just letting go” of minor annoyances. Even when they want to calm down and feel better, they just can’t. This is in large part due to a weakened emotion regulation center.

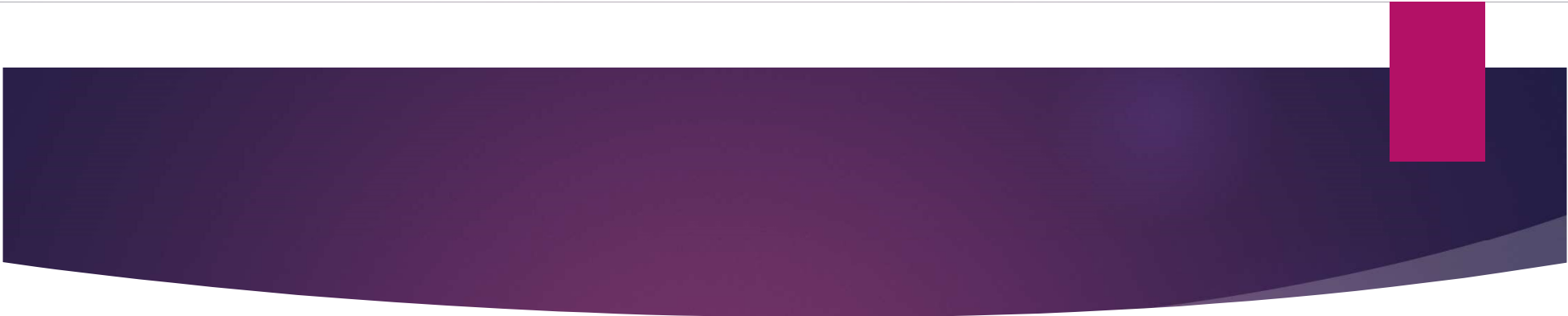
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- ▶ Underproduction of neurotransmitters —
Neurotransmitters are calming brain signals that we receive in several ways, including being in a safe environment and through loving, affectionate touch, neither of which people living in slavery receive. Therefore, it slows down the production of neurotransmitters in their brain,

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- ▶ What these activations indicate is that, often, a traumatized brain is “bottom-heavy,” meaning that activations of lower, more primitive areas, including the fear center, are high, while higher areas of the brain (also known as cortical areas) are underactivated. In other words, if you are traumatized and have PTSD symptoms, you may experience chronic stress, vigilance, fear, and irritation. You may also have a hard time feeling safe, calming down, or sleeping. These symptoms are all the result of a hyperactive amygdala.

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- ▶ At the same time, individuals who are traumatized may notice difficulties with concentration and attention, and often report they can't think clearly. This, not surprisingly, is due to the thinking center being underactivated.

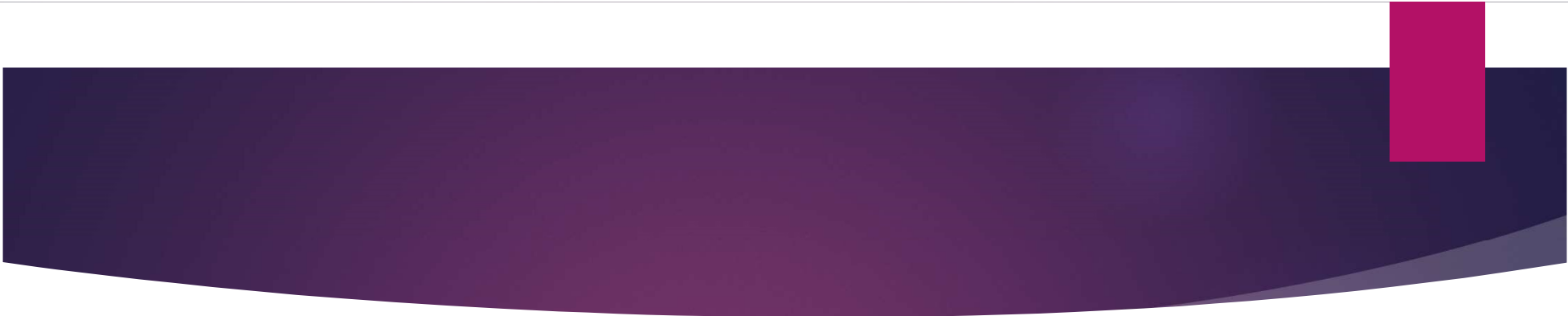
HEALING THE TRAUMATIZED BRAIN

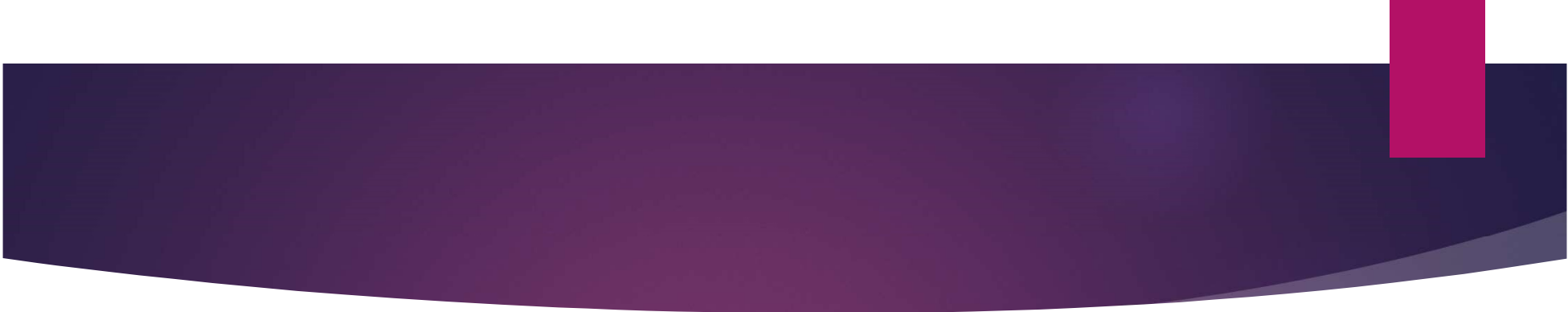
- ▶ It takes 2-3 years after the experience of the trauma for the brain to heal.
- ▶ Must build trust and instill hope

- 
- ▶ Changing the brain takes effort, repetition, and time. The best gift you can give yourself toward this goal is psychotherapy.

CBT and Mindfulness Awareness

- ▶ By doing this, the person will be using logical thinking with CBT and mindful awareness in their new narrative, and it will bring the emotional connection to the trauma down and bring the thinking part of their brain up so they reconnect. They will be able to remember the event but have now written a narrative where they are the victor not the victim. DESPITE the things that happened to them, they are now SAFE and PROTECTED because they are choosing to find safety and protection within themselves and by choosing safe people around them. They are the creator of their story. They are rewiring their brain, creating new perceptions, and releasing themselves from the trauma.

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- ▶ Also, consider adding a body-based or mindfulness-based technique to your daily routine to help begin deactivating the fear center. This is a vital first step to healing, as when we are able to quiet the fear center, we are better able to work on strengthening and activating the thinking center and emotion regulation center.

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- ▶ Two such exercises include diaphragmatic breathing and autogenic training. The recommendation is to practice these techniques, or similar ones, for short periods of time multiple times per day. Remember, practice makes progress.

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CONTACT INFORMATION:

- ▶ Philip O. Toal, Ed.D., LMHC, CET
 - ▶ 5151 Adanson St.
 - ▶ Orlando, FL 32804

- ▶ O-407 875-3700 x2279
 - ▶ C-407 733 7556]
- ▶ Email: phil.toal@Aspirehp.org