Attachment, Sensory Integration, PTSD, and ADHD: What's really going on?

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Diagnostic Issues

- Limitations to the diagnostic system
- Developmental continuities and discontinuities
- The role of history in proper diagnosis and assessment
- The complex interrelationship between issues like trauma and neglect and it's impact on development

Attachment

attachment is the strong emotional bond that develops between child and parent

provides the child with emotional security, a secure-based relationship

Attachment

"transactional model"

the entirety of development is seen as being promoted and facilitated by the relationship between a child and his/her caregiver(s)

These interactions with one's caregiver supports all areas of development.

(Sameroff)

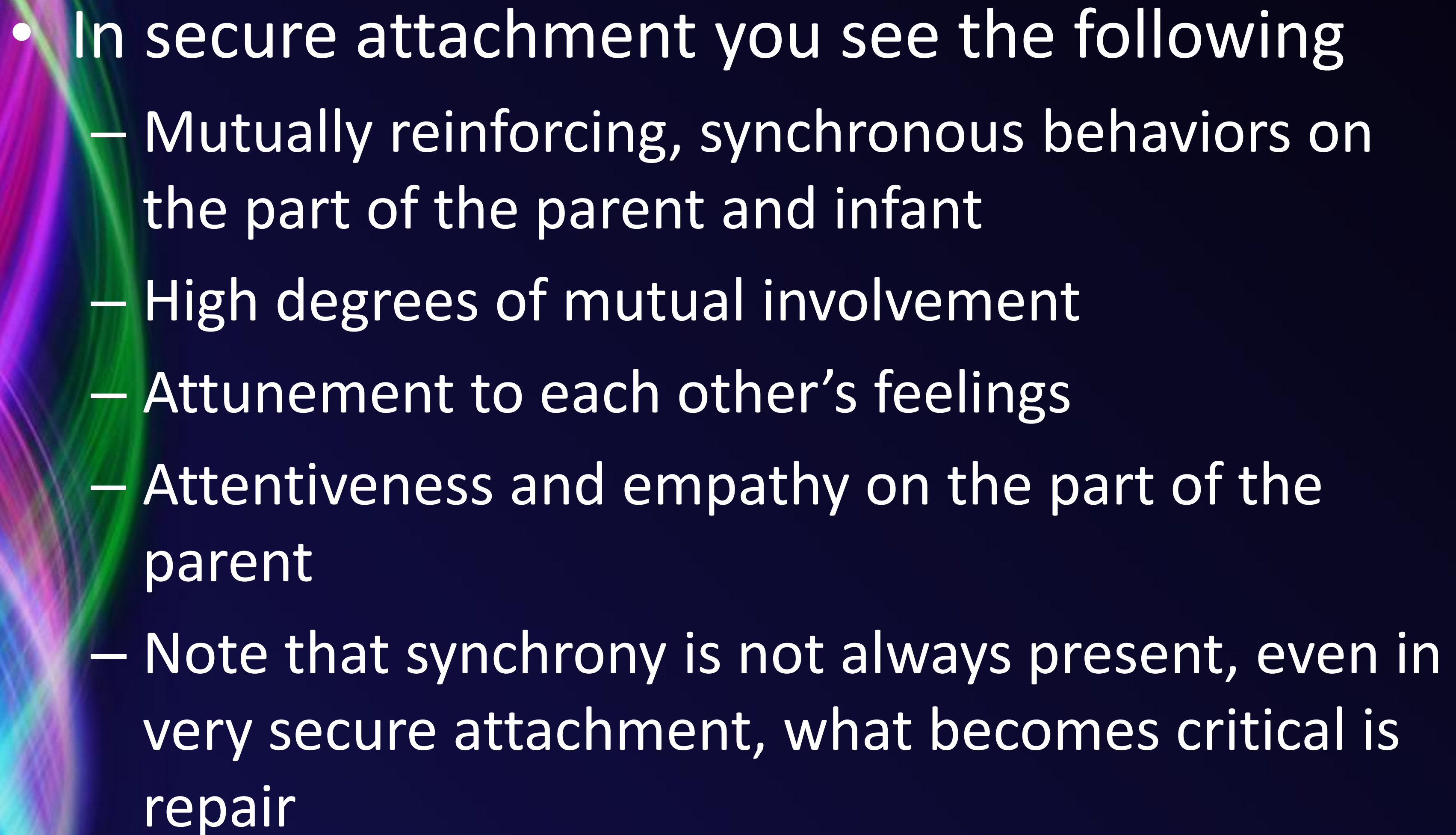
Provide a sense of security in the world

To facilitate regulation of affect and arousal

Expression of feelings and communication

Securely Attached Children:

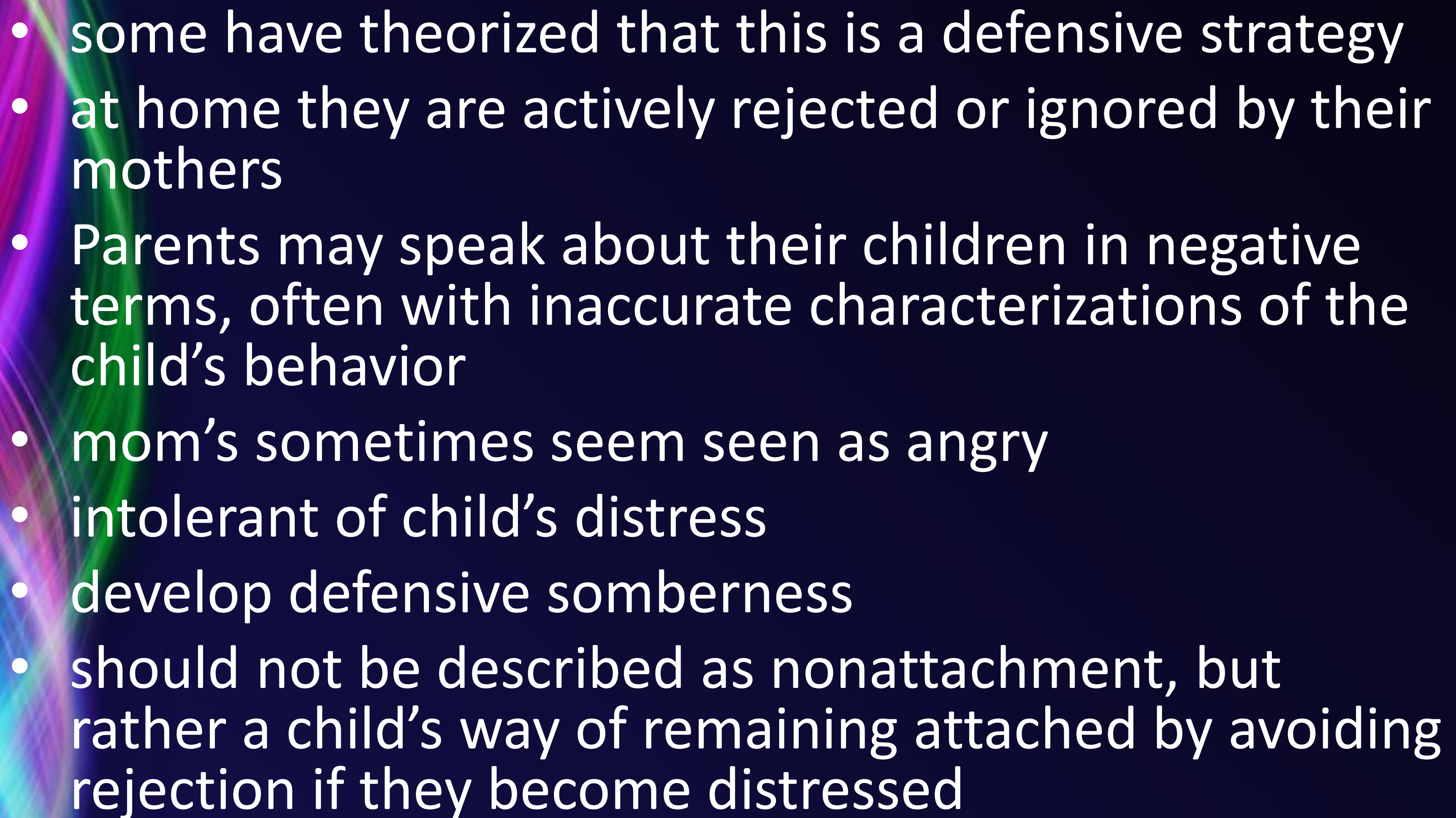
- these children are more confident about exploring their environment
- experienced as more flexible and resourceful
- more open to learning
- good attachment generalized to other relationships
- have fewer behavior problems
- grow to seek teacher support when distressed
- show less negative affect
- show a capacity for empathy
- does not lead to immediate resilience, they may suffer trauma or other negative experiences and this would disrupt attachment and outcome



- In secure attachment you see the following
  - Mutually reinforcing, synchronous behaviors on the part of the parent and infant
  - High degrees of mutual involvement
  - Attunement to each other’s feelings
  - Attentiveness and empathy on the part of the parent
  - Note that synchrony is not always present, even in very secure attachment, what becomes critical is repair

Insecure-Avoidant/Anxious Attachment

- Show little attachment behavior under stress
- play independently
- May not demonstrate evidence of stress, but have same physiological reactions to stress
- give impression of self reliance
- Convey that attachment is not important


• some have theorized that this is a defensive strategy
• at home they are actively rejected or ignored by their mothers
• Parents may speak about their children in negative terms, often with inaccurate characterizations of the child’s behavior
• mom’s sometimes seem seen as angry
• intolerant of child’s distress
• develop defensive somberness
• should not be described as nonattachment, but rather a child’s way of remaining attached by avoiding rejection if they become distressed

Implications:

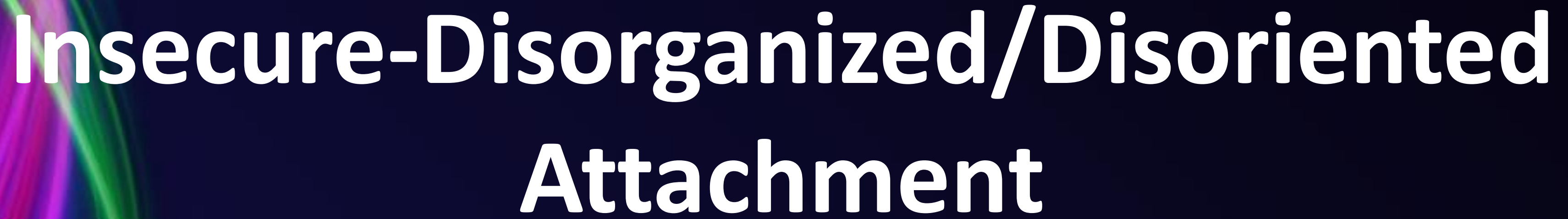
- higher levels of hostility and unprovoked aggressive behavior
- more negative interactions with other children
- generalize the defenses of avoidance and self-reliance to other relationships
- don’t ask for help
- likely to sulk and withdraw
- tend to be viewed more negatively and therefore are subject to more discipline

Insecure-Ambivalent/Resistant Attachment

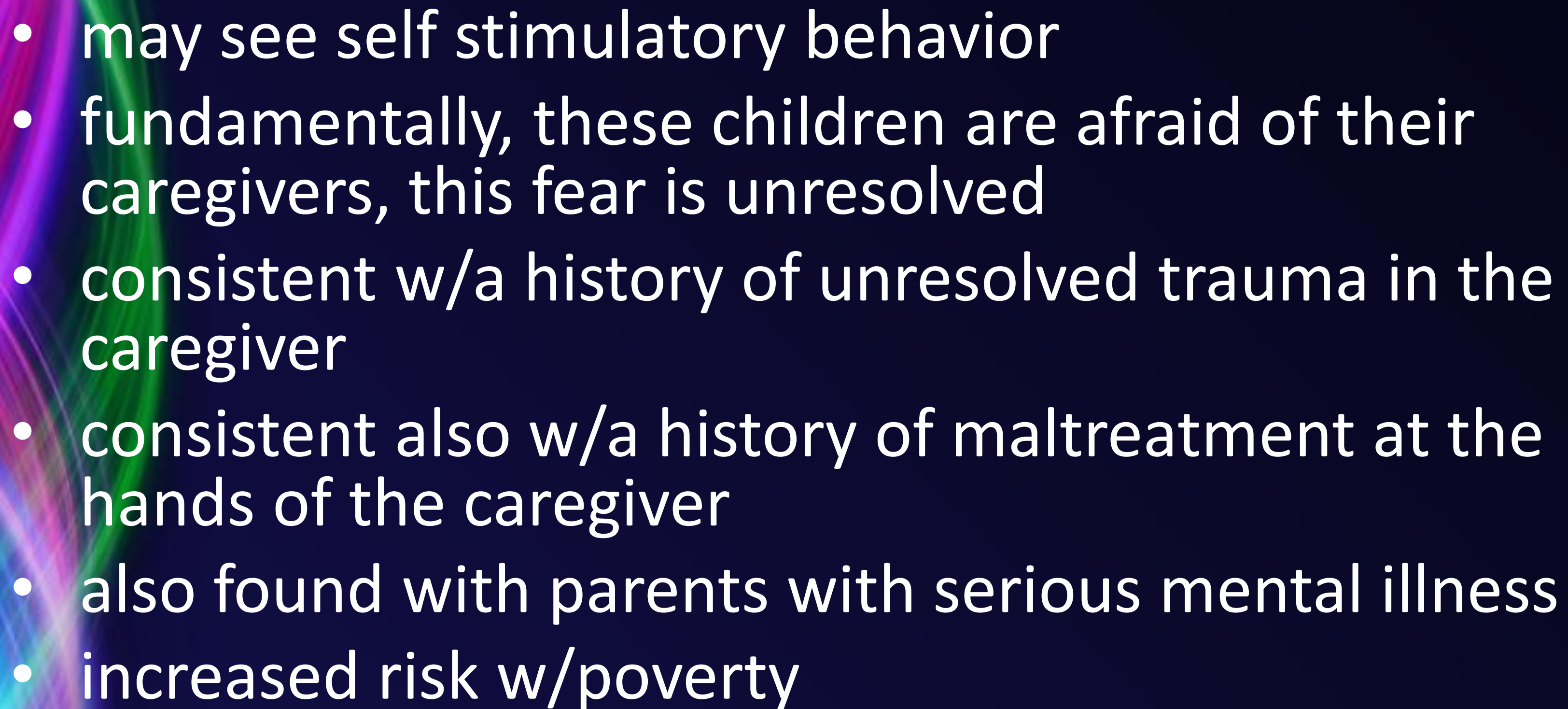
- behavior conveys a strong need for attachment but a lack of confidence in its availability
- very intense reaction to the separation
- anxious in the pre-separation stage of the relationship
- desperate for contact w/the mother during reunification stage, but also resisted her efforts
- Difficult to soothe
- Associated with inconsistent parental responsiveness
- intense affect reflects their uncertainty about their caregiver's response

Implications:

- low levels of autonomous behavior
- remain preoccupied with attachment at the expense of exploring their world
- unable to master normative separation fears
- linked with behavioral inhibition
- lack of assertiveness
- social withdrawal and poor social skills



- much less organized compared to the other insecure attachment types
- contradictory behavior, i.e. smiling while looking fearful
- Children appear confused and disorganized and attempts to reestablish attachment are disrupted by internal conflicts
- may appear afraid of the caregiver
- may go to the stranger for comfort
- unable to self regulate



- may see self stimulatory behavior
- fundamentally, these children are afraid of their caregivers, this fear is unresolved
- consistent w/a history of unresolved trauma in the caregiver
- consistent also w/a history of maltreatment at the hands of the caregiver
- also found with parents with serious mental illness
- increased risk w/poverty

DSM IV TR CRITERIA FOR REACTIVE ATTACHMENT DISORDER

- **Diagnostic criteria for 313.89 Reactive Attachment Disorder of Infancy or Early Childhood**
- *****Consensus among attachment clinicians is that this diagnostic criteria is extremely limited and does not address attachment relationships that exist, but are severely disrupted.*****
- A. Markedly disturbed and developmentally inappropriate social relatedness in most contexts, beginning before age 5 years, as evidenced by either (1) or (2):
- (1) persistent failure to initiate or respond in a developmentally appropriate fashion to most social interactions, as manifest by excessively inhibited, hypervigilant, or highly ambivalent and contradictory responses (e.g., the child may respond to caregivers with a mixture of approach, avoidance, and resistance to comforting, or may exhibit frozen watchfulness)
(2) diffuse attachments as manifest by indiscriminate sociability with marked inability to exhibit appropriate selective attachments (e.g., excessive familiarity with relative strangers or lack of selectivity in choice of attachment figures)

- B. The disturbance in Criterion A is not accounted for solely by developmental delay (as in Mental Retardation) and does not meet criteria for a Pervasive Developmental Disorder.
- C. Pathogenic care as evidenced by at least one of the following:
- (1) persistent disregard of the child's basic emotional needs for comfort, stimulation, and affection
  (2) persistent disregard of the child's basic physical needs
  (3) repeated changes of primary caregiver that prevent formation of stable attachments (e.g., frequent changes in foster care)
- D. There is a presumption that the care in Criterion C is responsible for the disturbed behavior in Criterion A (e.g., the disturbances in Criterion A began following the pathogenic care in Criterion C).
- *Specify* type:
- **Inhibited Type:** if Criterion A1 predominates in the clinical presentation
  Disinhibited Type: if Criterion A2 predominates in the clinical presentation

Assessment Process

- to date only research instruments in existence, no practical instruments
- should address the following domains in observation
  - caregiver emotional availability
  - child emotional regulation
  - caregiver nurturance, warmth, sensitivity
  - child trust-security
  - caregiver protection
  - child vigilance-self protection
  - caregiver provision of comfort
  - child comfort seeking

Relationship between Trauma and Attachment

studies show insecure attachment is developed by 70-100% of neglected, abused and traumatized children -

a neglected child receives insufficient sensory stimulation

absence of secure base results in decreased exploratory behavior – less self confidence

309.81 DSM-IV Criteria for Posttraumatic Stress Disorder

- A. The person has been exposed to a traumatic event in which both of the following have been present:
- the person experienced, witnessed, or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others
- the person's response involved intense fear, helplessness, or horror. **Note:** In children, this may be expressed instead by disorganized or agitated behavior.
- B. The traumatic event is persistently reexperienced in one (or more) of the following ways: ***These symptoms are more common in children exposed to acute, nonabusive stressors.***

- (1) Recurrent and intrusive distressing recollections of the event, including images, thoughts, or perceptions. **Note:** In young children, repetitive play may occur in which themes or aspects of the trauma are expressed.
- (2) Recurrent distressing dreams of the event. **Note:** In children, there may be frightening dreams without recognizable content.
  (3) acting or feeling as if the traumatic event were recurring (includes a sense of reliving the experience, illusions, hallucinations, and dissociative flashback episodes, including those that occur upon awakening or when intoxicated). **Note:** In young children, trauma-specific reenactment may occur.
- (4) Intense psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event.
- (5) Physiological reactivity on exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event.

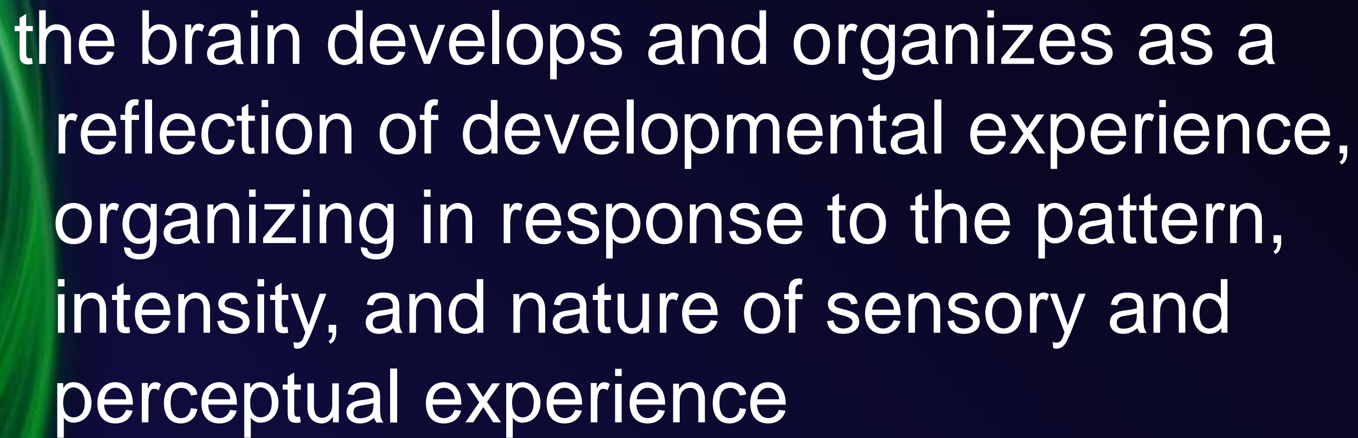
- C. Persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness (not present before the trauma), as indicated by three (or more) of the following: ***Children exposed to chronic or abusive stressors are more likely to evidence symptoms from this criterion.***
- (1) Efforts to avoid thoughts, feelings, or conversations associated with the trauma
- (2) Efforts to avoid activities, places, or people that arouse recollections of the trauma
- (3) Inability to recall an important aspect of the trauma
- (4) Markedly diminished interest or participation in significant activities
- (5) Feeling of detachment or estrangement from others
- (6) Restricted range of affect (e.g., unable to have loving feelings)
- (7) Sense of a foreshortened future (e.g., does not expect to have a career, marriage, children, or a normal life span)

- D. Persistent symptoms of increased arousal (not present before the trauma), as indicated by two (or more) of the following: ***Children exposed to enduring or abusive stressors are more likely to evidence symptoms from this group also.***
- (1) Difficulty falling or staying asleep
  (2) irritability or outbursts of anger
  (3) difficulty concentrating
  (4) hypervigilance
  (5) exaggerated startle response
- E. Duration of the disturbance (symptoms in Criteria B, C, and D) is more than one month.
- F. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

neuroscience has shown that early brain development is experience dependant

requires attuned child-parent interactions

(Perry, Sameroff, Schore, Siegel)



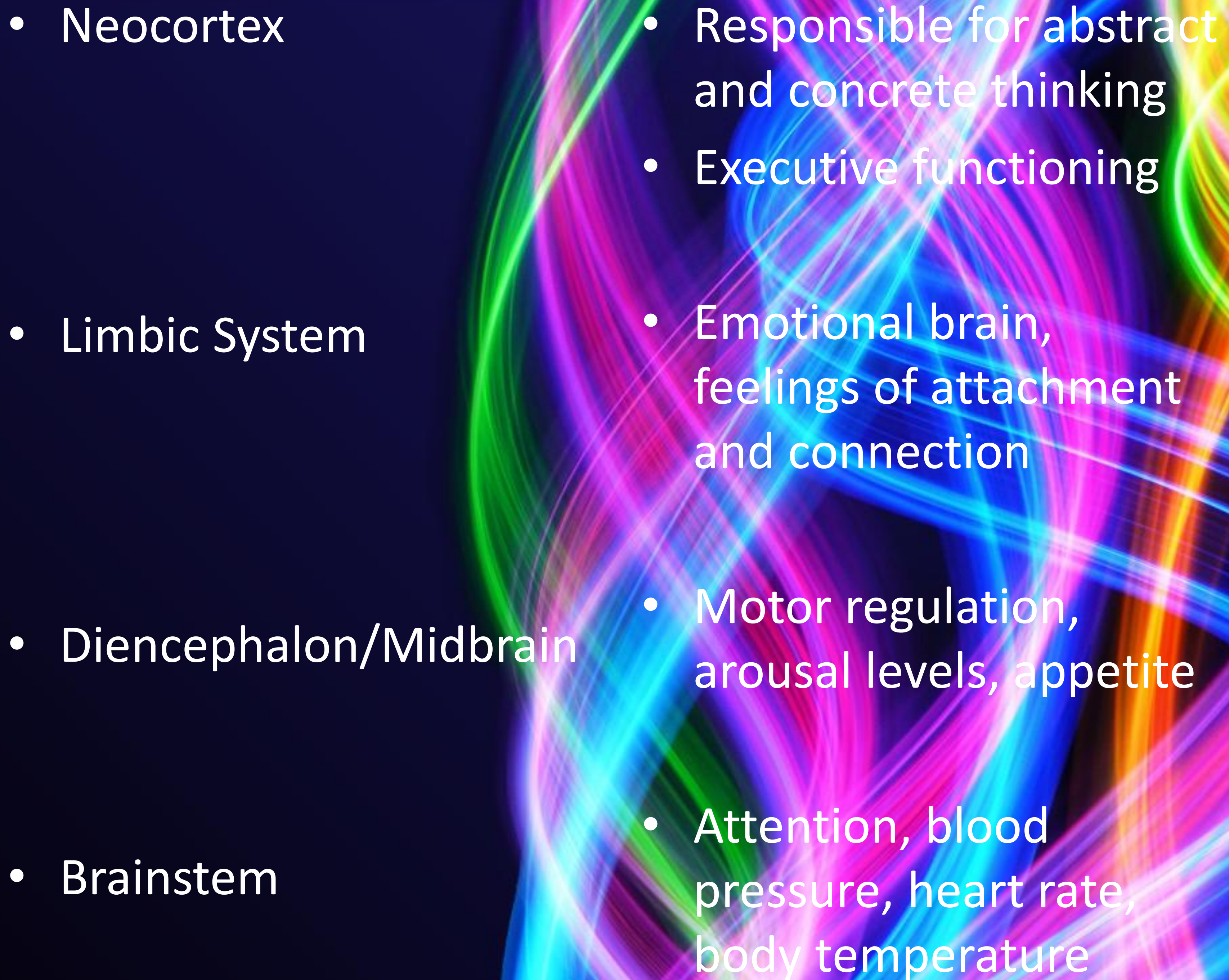
(Perry)

Principles of Brain Development

the brain is a historical instrument - its function and structure are a direct reflection of personal experiences

it develops in a hierarchical order from the brain stem to the diencephalon to the limbic and cerebral cortex

different regions of the brain are more sensitive to specific experiences during specific periods of development. (Perry)

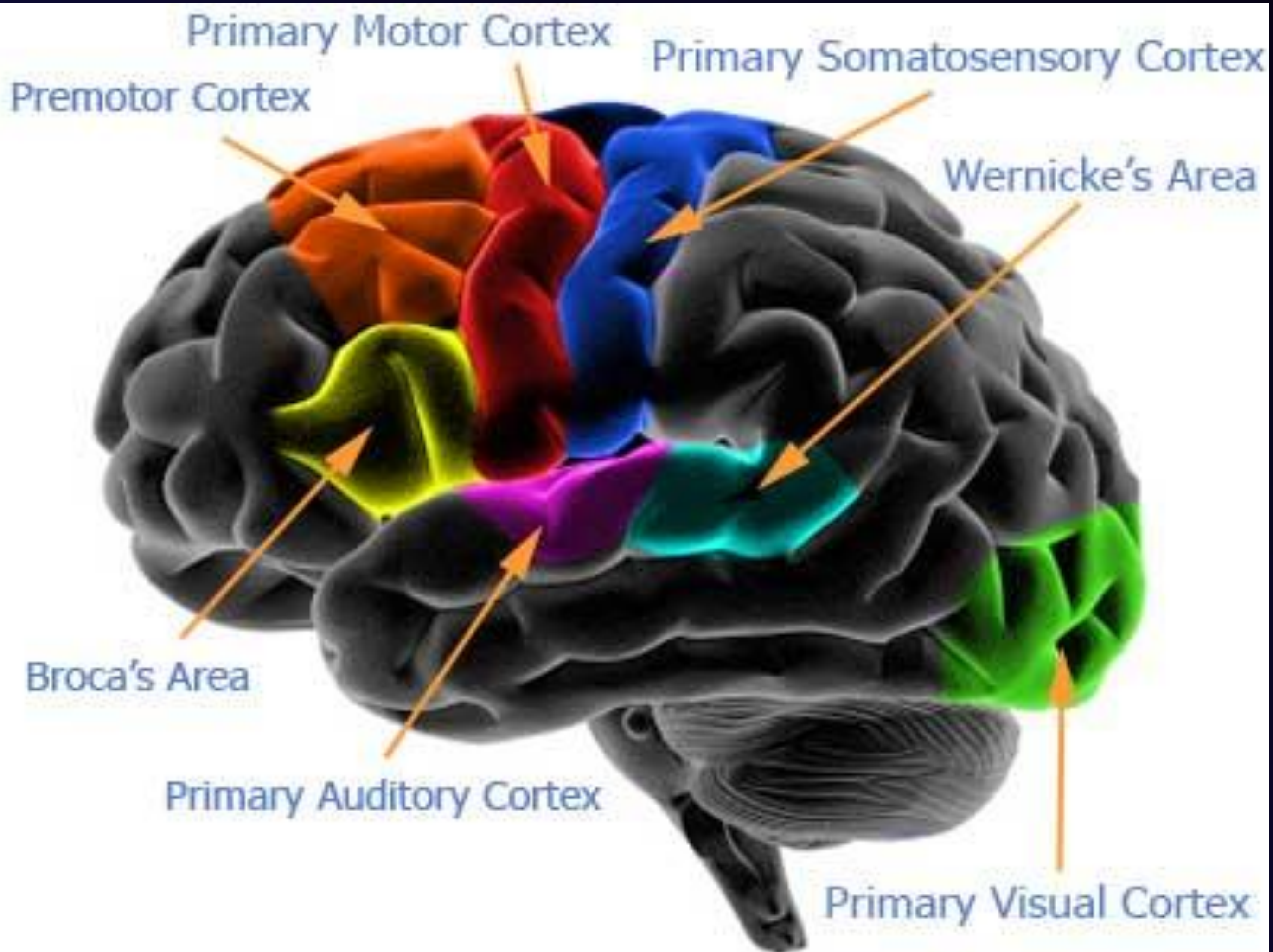


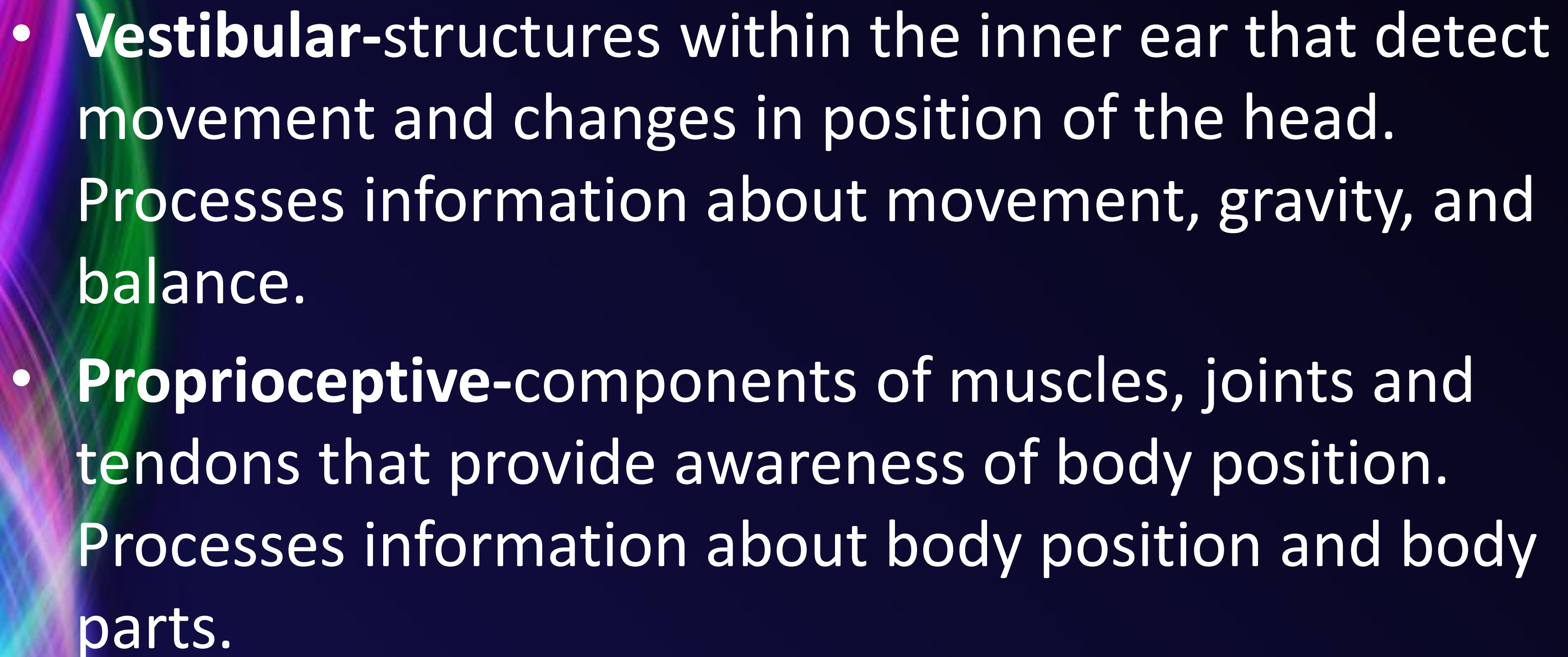
- Neocortex
- Limbic System
- Diencephalon/Midbrain
- Brainstem

- Responsible for abstract and concrete thinking
- Executive functioning
- Emotional brain, feelings of attachment and connection
- Motor regulation, arousal levels, appetite
- Attention, blood pressure, heart rate, body temperature

The Sensory System

- tactile-nerves underneath the surface of the skin register sensation and send messages to the brain.
- taste
- smell
- sight
- sound
- *Proprioception*
- *Vestibular*


Primary Motor Cortex
Primary Somatosensory Cortex
Premotor Cortex
Wernicke's Area
Broca's Area
Primary Auditory Cortex
Primary Visual Cortex
www.BrainHealthandPuzzles.com



• **Vestibular-**structures within the inner ear that detect movement and changes in position of the head. Processes information about movement, gravity, and balance.
• **Proprioceptive-**components of muscles, joints and tendons that provide awareness of body position. Processes information about body position and body parts.

Sensory Integration

critical that each sensory system operate separately and function in an integrated way

effects a child’s ability to interact with caregivers and function in environment

Symptoms of Dysfunction in the Tactile System

- avoiding touch, craving touch (especially in face and hands)
- food/clothing preferences
- aversion/craving to washing, brushing teeth, combing hair, clipping nails
- using fingertips rather than the whole hand/using only the whole hand
- hypo/hypersensitive to pain
- self-imposed isolation
- general irritability, distractibility, or hyperactivity

Symptoms of Dysfunction in the Vestibular System

- **Hypersensitivity:**
- fearful of ordinary movement activities (swings, slides, ramps, stairs, etc.)
- fearful of uneven or unstable surfaces
- clumsy in appearance
- generally fearful (can appear as non-compliance, stubbornness, anxiety)
- **Hyposensitivity:**
- actively seeks out very intense sensory experiences (jumping, spinning, crashing)

Symptoms of Dysfunction in the Proprioceptive System

- clumsiness/accident prone
- tendency to fall
- lack of awareness of bodily needs (hunger, thirst, elimination)
- difficulties with body awareness (where the body is in space)
- odd body posturing
- difficulty manipulating small objects
- difficulties with motor planning

DC 0-3 System

- **Regulatory Disorders:** *"the operational definition for each type includes a distinct behavioral pattern, coupled with a sensory, sensory-motor, or organizational processing difficulty which affects the child's daily adaptation and interaction/relationships."*

410: Hypersensitive Type

Two Subtypes
Type A: Fearful and Cautious

Sensory Reactivity Patterns:

a. characterized by overreactivity to sensory stimuli, including light touch, loud noises, bright lights…

b. responses to sensory stimuli may include fearfulness, crying, "freezing", attempted escape from stimulus, …

Motor Patterns-hypersensitivity and aversion to sensory stimuli may limit the child's experience in manipulating or interacting with the environment, resulting in functional deficits in motor development. May include: difficulties with postural control and tone, difficulty with fine motor skills, dyspraxia, limited sensory play…

Behavioral Patterns-excessive cautiousness, inhibition, and fearfulness. May also include symptoms in infants including: restricted range of exploration, limited assertiveness, distress when routines change, fear and clinginess in new situations. With toddlers you may see: excessive fears or worries, excessive shyness, distractibility by sensory stimuli, impulsivity when overloaded by stimuli, frequent periods of irritability and tearfulness, limited ability to self soothe, difficulty recovering from frustration or disappointment, avoidance of new experiences.

- From DC 0-3 *Diagnostic Classification of Mental Health and Developmental Disorders of Infancy and Early Childhood Revised* (2005)

Sensory Reactivity Patterns: identical to Type A

Motor Patterns: identical to Type A

Behavioral Patterns: different than Type A, tends to avoid or be slow to engage in new experiences and in general, is aggressive only when provoked.

420: Hyposensitive/Underresponsive

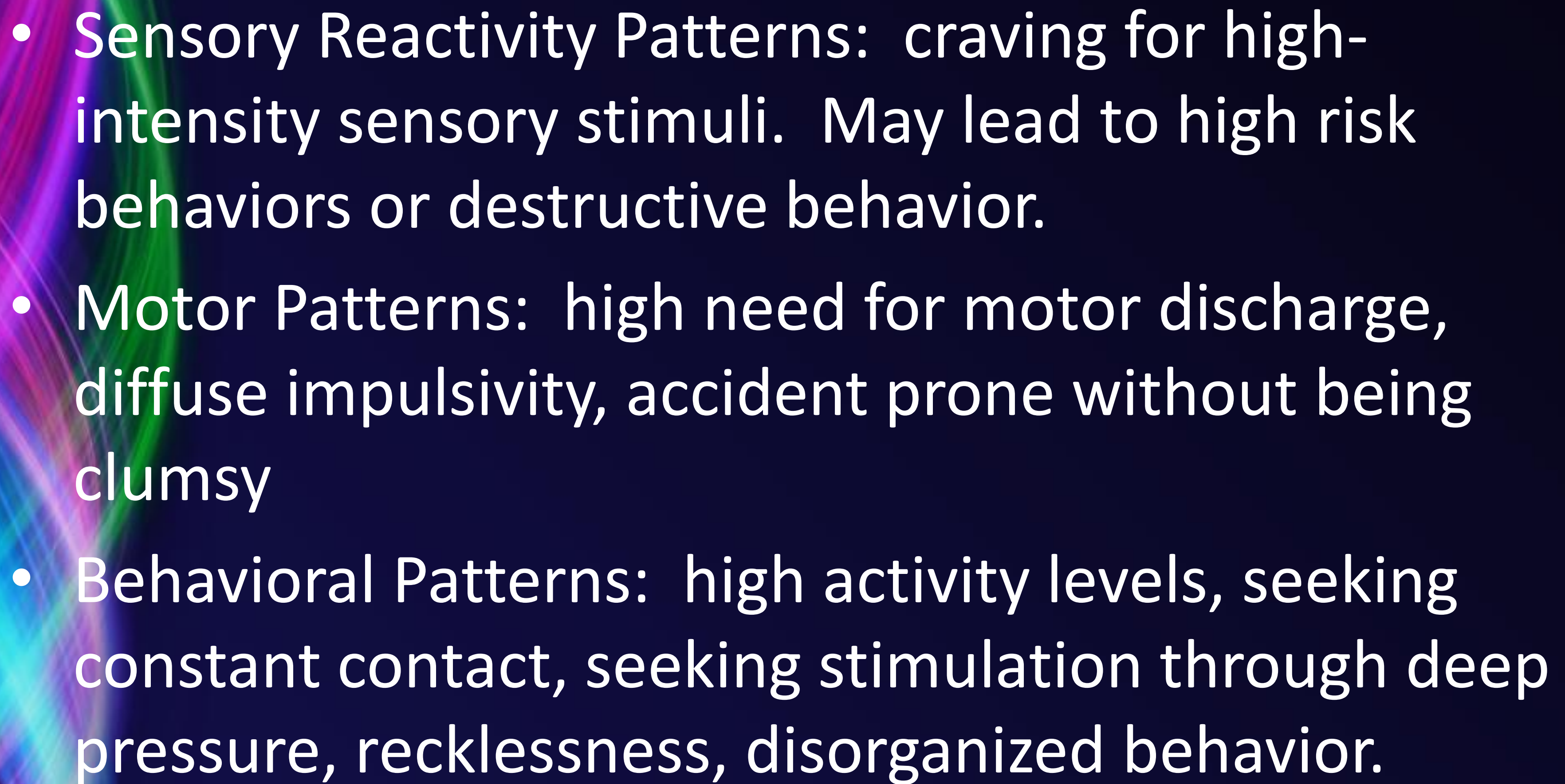
- These children require a high degree of sensory input before they are able to respond
- They are generally quiet and watchful
- Sometimes seem unresponsive to the environment
- Be sure to rule out a pervasive developmental disorder, depressed mood, or an anxiety based disorder

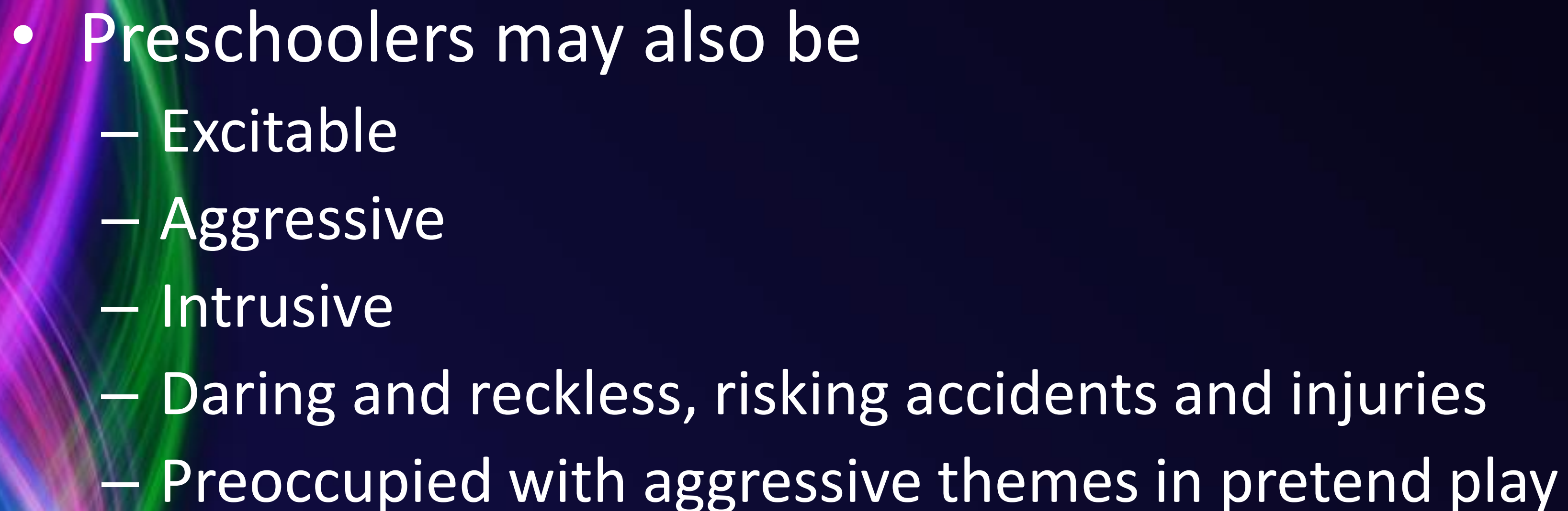
- Sensory Patterns: underreactivity to sounds, movement, smell, taste, touch, and proprioception, in infants, lack of responsivity to sensations and social overtures
- Motor Patterns: limited exploration, restricted play repertoire, search for specific sensory input in play, lethargy, poor motor planning and clumsiness
- Behavioral Patterns: apparent lack of interest in exploration of objects, etc, apathetic appearance, easily fatigued, withdrawn from stimuli, inattentive. May appear delayed or depressed in infancy. Toddlers appear to be tuning out.

- From DC 0-3 *Diagnostic Classification of Mental Health and Developmental Disorders of Infancy and Early Childhood Revised* (2005)

430: Sensory Stimulation-Seeking/Impulsive

- These children require high-intensity, frequent, and-or long-duration sensory input before they are able to respond. Unlike hyporeactive children, these children actively seek out sensory experiences to satisfy their high level of need for stimuli in order to jump start their systems.


• Sensory Reactivity Patterns: craving for high-intensity sensory stimuli. May lead to high risk behaviors or destructive behavior.
• Motor Patterns: high need for motor discharge, diffuse impulsivity, accident prone without being clumsy
• Behavioral Patterns: high activity levels, seeking constant contact, seeking stimulation through deep pressure, recklessness, disorganized behavior.



- Preschoolers may also be
  - Excitable
  - Aggressive
  - Intrusive
  - Daring and reckless, risking accidents and injuries
  - Preoccupied with aggressive themes in pretend play

- From DC 0-3 *Diagnostic Classification of Mental Health and Developmental Disorders of Infancy and Early Childhood Revised* (2005)

common causes of childhood trauma

prenatal - birth trauma, accidents, injuries

illness, medical/surgical procedures

family/environment stressors – ambient trauma

violence – family, community

loss – separation – divorce – foster care

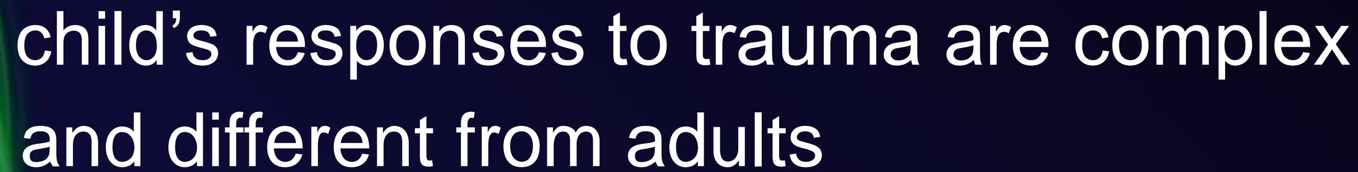
emotional, physical, sexual abuse

Trauma

psychological trauma occurs when an actual event or a perceived threat of danger overwhelms a child's coping abilities

creates fear in the child

leaving the child feeling anxious and helpless



child lacks ego strengths, cognitive emotional inhibitors and coping mechanisms to effectively manage the impact of trauma

physical hyper arousal - hyperactivity

emotional numbing – constricted emotions

(Van Der Kolk)

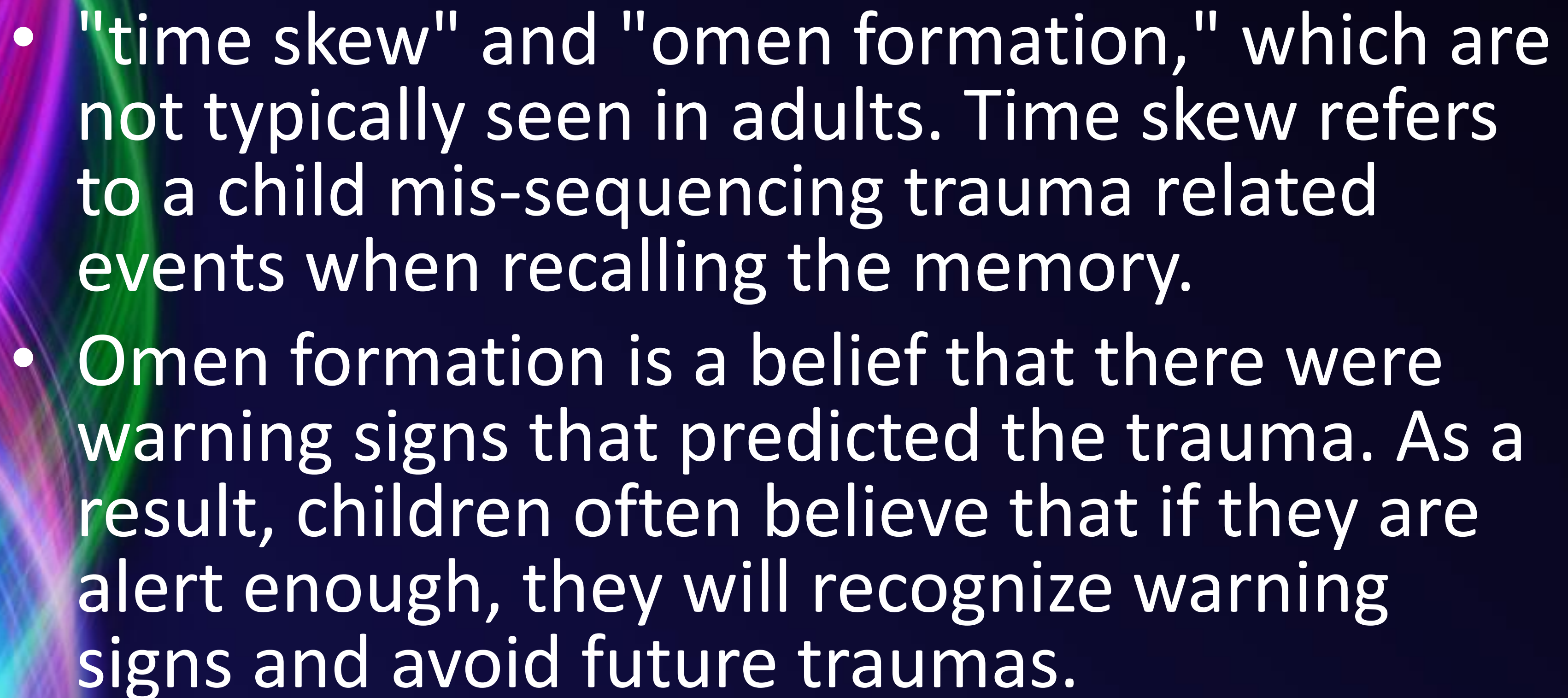
persistent fear state

disorder of memory

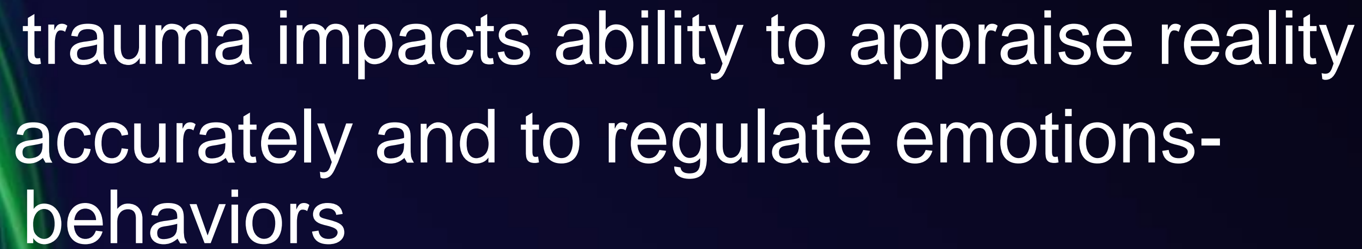
dysregulation of affect

avoidance of intimacy

(James)

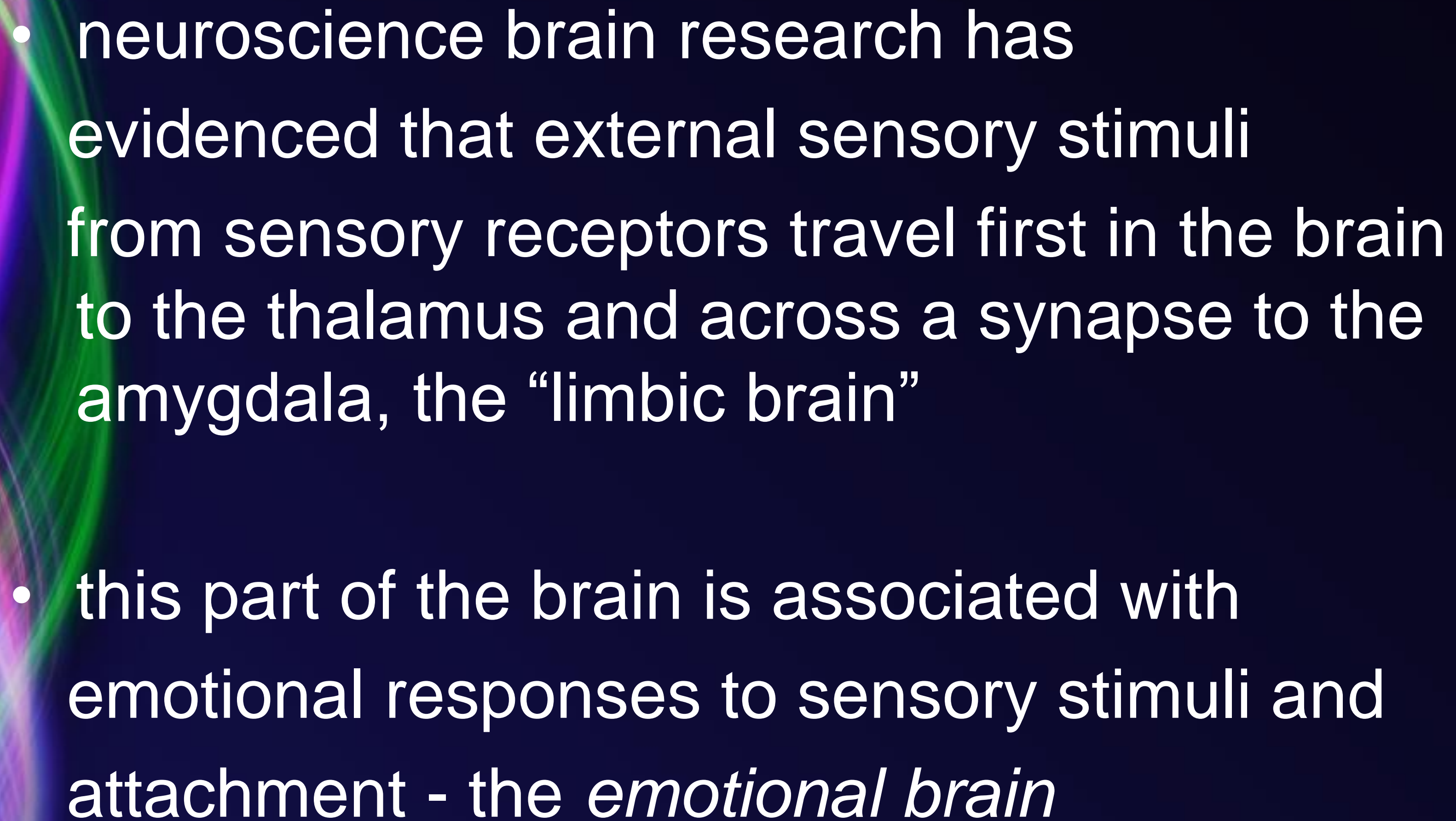


- "time skew" and "omen formation," which are not typically seen in adults. Time skew refers to a child mis-sequencing trauma related events when recalling the memory.
- Omen formation is a belief that there were warning signs that predicted the trauma. As a result, children often believe that if they are alert enough, they will recognize warning signs and avoid future traumas.



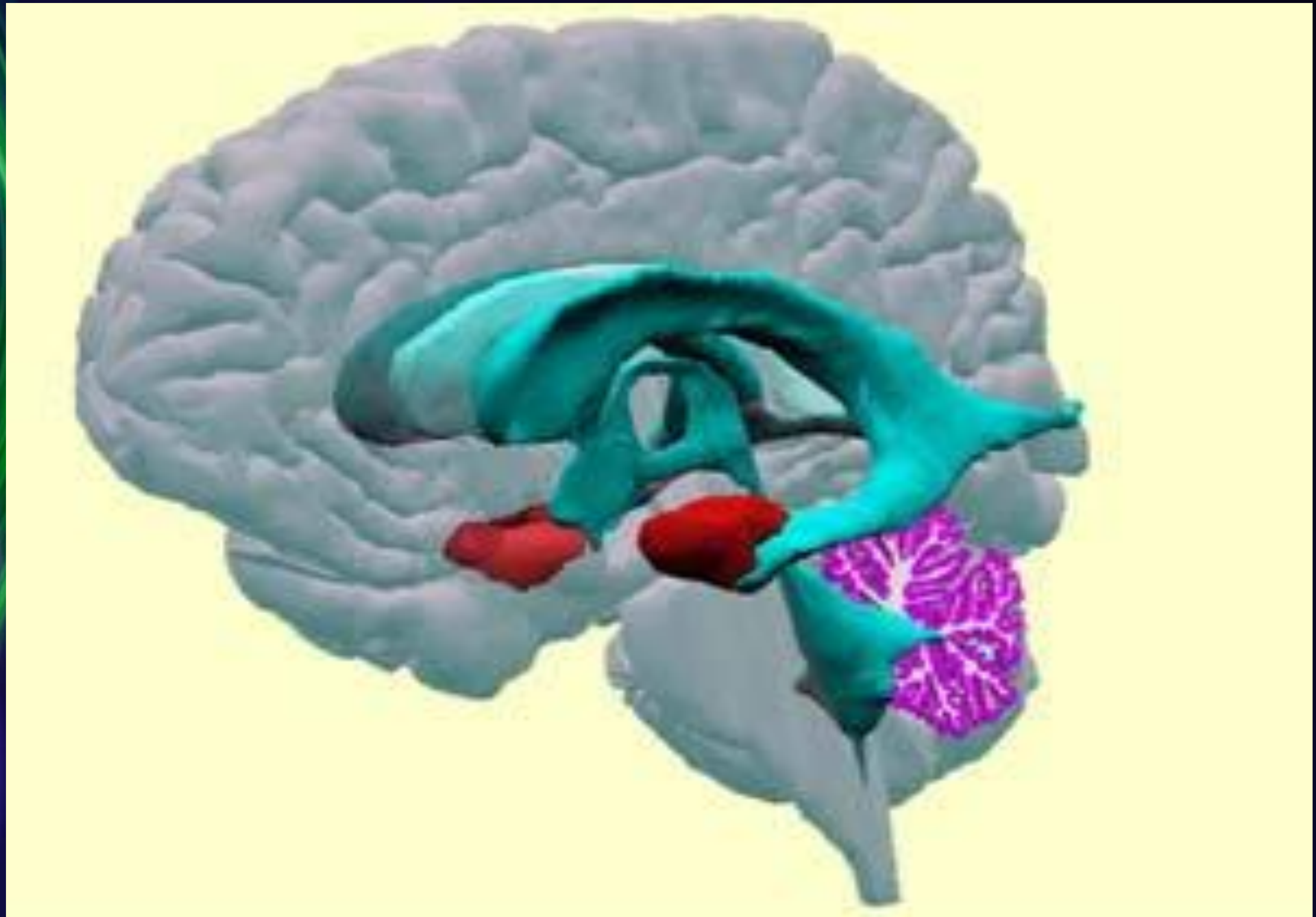
lack capacity to differentiate between threatening and non-threatening situations

reactive to sensory triggers
reminiscent of some aspect of the trauma
such as sights, sounds, smells, touch, taste



- neuroscience brain research has evidenced that external sensory stimuli from sensory receptors travel first in the brain to the thalamus and across a synapse to the amygdala, the “limbic brain”
- this part of the brain is associated with emotional responses to sensory stimuli and attachment - the *emotional brain*

(Goleman)



emotional brain

“neural alarm” (amygdala) activates all of brain

instant survival response – ready position to self-defend, protect

(Goleman)

brainstem acts reflexively, impulsively, and aggressively to any perceived threat

child's cognition dominated by sub-cortical and limbic areas, focusing on non-verbal information – facial expressions, hand gestures and body position

views the situation through the lens of trauma and sees the event as dangerous

increased heart rate – adrenalin, cortisol
increased respiration rate –
state of hyperarousal – hypervigilance
activates – fight flight freeze response

How Does Trauma Manifest Itself Developmentally?

- Infancy
  - Failure to thrive
  - Feeding and eating problems
  - Poor self regulation
  - Failure to develop normal body rhythms
  - Sleep problems

In Toddlerhood

- Frequent tantrums and meltdowns
- Clingy behavior
- Poor self regulation
- Developmental delay
- Eating and sleeping problems

School Age Child

- Disruptive behavior
- Aggression
- Inattention
- Withdrawn behavior
- Clingy
- Poor peer relationships
- Anxiety
- Depression…….

Adolescents

- Substance abuse
- Promiscuity
- Delinquent behavior
- School failure
- Suicidality
- depression, anxiety, etc.
- Eating disordered behavior.....

DSM IV TR Diagnostic Criteria for ADHD

- Either (1) or (2):
  - six (or more) of the following symptoms of **inattention** have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level:
    - often fails to give close attention to details or makes careless mistakes in schoolwork, work, or other activities
    - often has difficulty sustaining attention in tasks or play activities
    - often does not seem to listen when spoken to directly
    - often does not follow through on instructions and fails to finish schoolwork, chores, or duties in the workplace (not due to oppositional behavior or failure to understand instructions)
    - often has difficulty organizing tasks and activities
    - often avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort (such as schoolwork or homework)
    - often loses things necessary for tasks or activities (e.g., toys, school assignments, pencils, books, or tools)
    - is often easily distracted by extraneous stimuli
    - is often forgetful in daily activities
  - six (or more) of the following symptoms of **hyperactivity-impulsivity** have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level:

DSM IV TR Diagnostic Criteria for ADHD

- *Hyperactivity*
  - often fidgets with hands or feet or squirms in seat
  - often leaves seat in classroom or in other situations in which remaining seated is expected
  - often runs about or climbs excessively in situations in which it is inappropriate (in adolescents or adults, may be limited to subjective feelings of restlessness)
  - often has difficulty playing or engaging in leisure activities quietly
  - is often "on the go" or often acts as if "driven by a motor"
  - often talks excessively
- *Impulsivity*
  - often blurts out answers before questions have been completed
  - often has difficulty awaiting turn
  - often interrupts or intrudes on others (e.g., butts into conversations or games)

DSM IV TR Diagnostic Criteria for ADHD

- Some hyperactive-impulsive or inattentive symptoms that caused impairment were present before age 7 years.
- Some impairment from the symptoms is present in two or more settings (e.g., at school [or work] and at home).
- There must be clear evidence of clinically significant impairment in social, academic, or occupational functioning.

Barkley’s suggestions for future revision include:

- Make duration of symptoms at least 1 year or more
- Change age of onset to 13 years
- Define inappropriate as 93rd percentile on a well-normed rating scale
- Do not use parent-teacher agreement; instead use history of cross-setting symptoms producing impairment
- Adjust thresholds if the client is older than 16, i.e. 4/5 for 17-29 year olds, 4/4 for 30-49 year olds, 3/3 for 50 years and older. Use 7/7 for 2-3 year olds. Consider lowering thresholds for girls.

Assessment

- instruments alone cannot give diagnosis-no validity or reliability to this method
- comprehensive interview is necessary, i.e. history of problems, age of onset, is problem continuous or intermittent
- testing to rule out dev delay, LD's, and other cognitive explanations
- examination of co-morbid disorders
- past records
- need to also reference DSM criteria
- assessment for impairment in functioning, behavior rating scales can be useful here

Conclusion

- It is possible for children to have issues across these diagnostic categories. What becomes critical then is our assessment of the child's history and it's role in the development of these problems.
- Attachment difficulties and trauma are frequently overlooked as the origin of children's difficulties.
- Failure to diagnose these issues results in ineffective treatment.