

The Effects of Early Childhood (ages 0-3) Neglect on the Developing Brain and Implications for Treatment

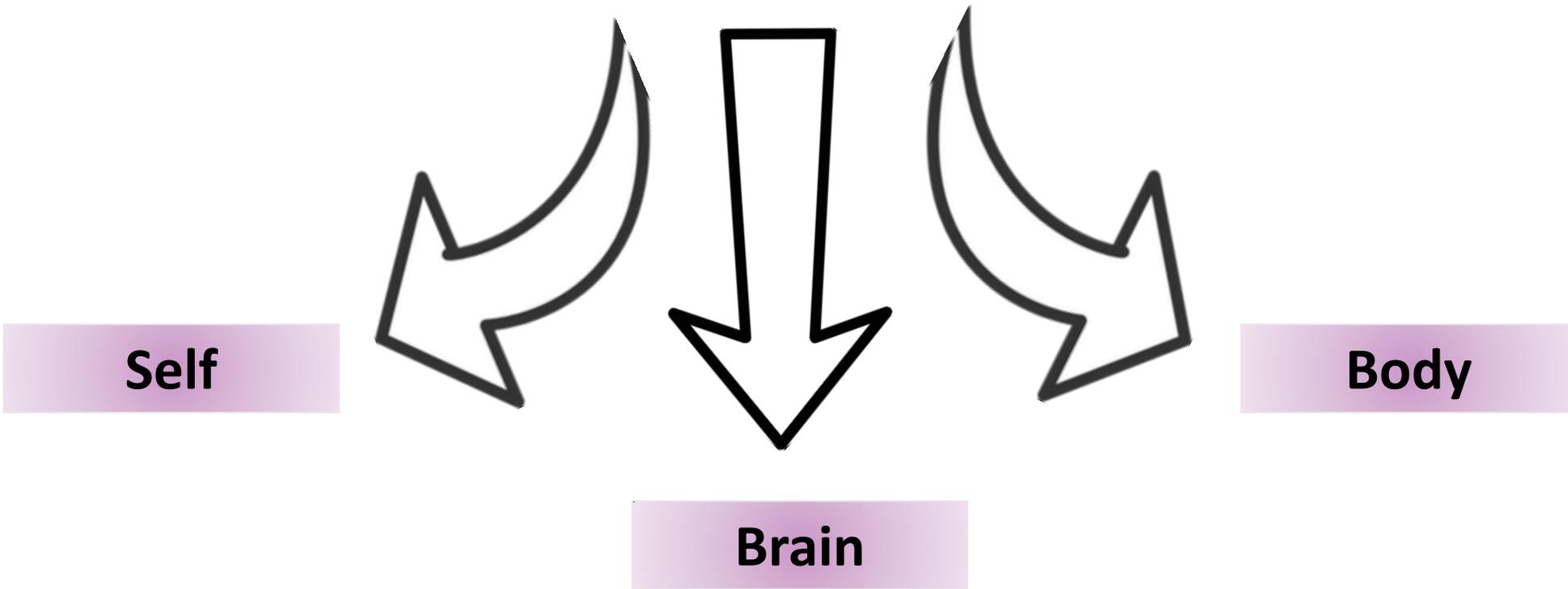
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Engagement • Discovery • Integration • Transformation

Early childhood attachment experiences build the foundation for life-long learning, resiliency, and the capacity to heal from later traumas.



Attachment Theory (The Self)



John Bowlby (1907-1990)

John Bowlby (1969) viewed the processes of attachment as not only a theory for understanding infant development and the pathology, but also as a means of explaining the development of **human personality**. The development of personality requires an understanding of the *internal working model*.

Internal Working Model



The internal working model develops during infancy and early childhood. It posits that people develop **cognitive templates** that dictate an understanding of their self-worth and overall safety in a given environment based on the type of caregiving they receive. These templates influence attachment behavior, emotional regulation, and later personality.

The IWM is composed of implicit (procedural) memories



Baby feels hunger sensation

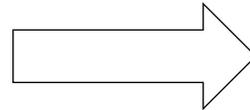
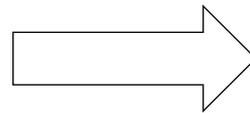


Primitive help-seeking response activated (crying). Stress response system also activated



Hunger is satiated, parasympathetic activation

Repeat this process 5000x



IM - Crying (or help seeking) behavior is useful. This reinforces the use of more complex help seeking behavior as the child grows older

IM - The feeling of hunger is minimally distressing.

- Feeding
- Soothing
- Playing
- Changing

I am valued, this world is safe. Painful sensations don't last long.

Parents are seen as a "secure base." Child will feel comfortable to explore the world (including new environments, challenges, and other children) when parents are near.

Children will start practicing more advanced forms of help-seeking (outstretched arms, asking and searching out help).

As the child grows older, becomes more mobile and develops symbolic thinking, the child will start to self-soothe in times of distress.

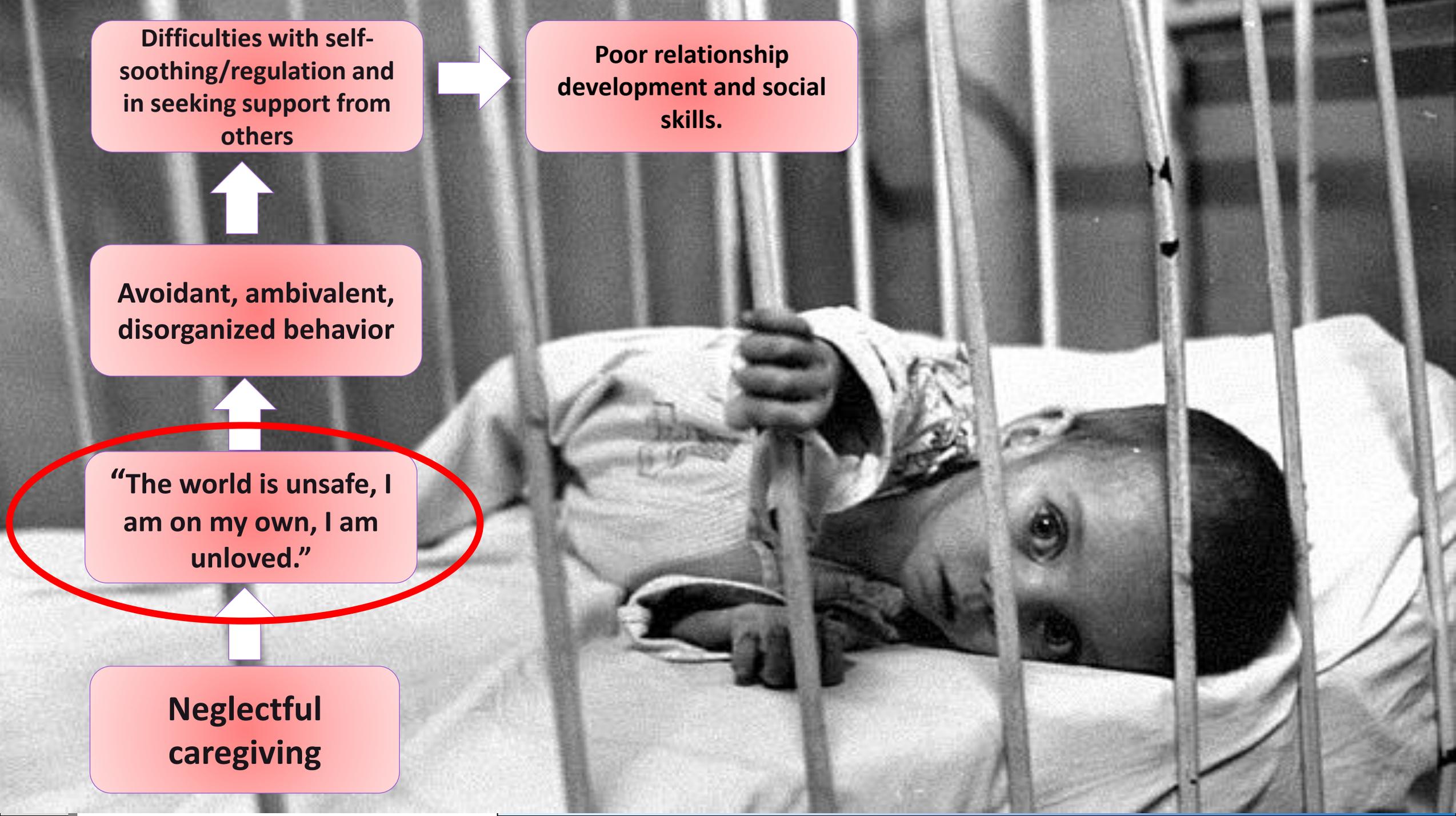
Personality

Quality & consistency of parenting

Development of implicit memories - Internal working model

Attachment behaviors & internal locus of control

Development of personality



Difficulties with self-soothing/regulation and in seeking support from others

Poor relationship development and social skills.

Avoidant, ambivalent, disorganized behavior

“The world is unsafe, I am on my own, I am unloved.”

Neglectful caregiving

**Explicit & Working Memory
(Conscious)**

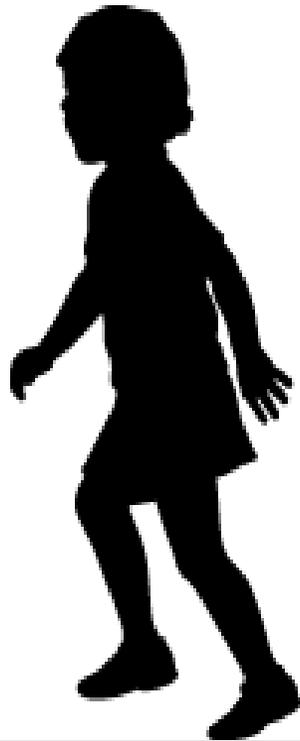


**Implicit Memory
(unconscious)**



Dominant Cognitive States

Alice 9 (years old)



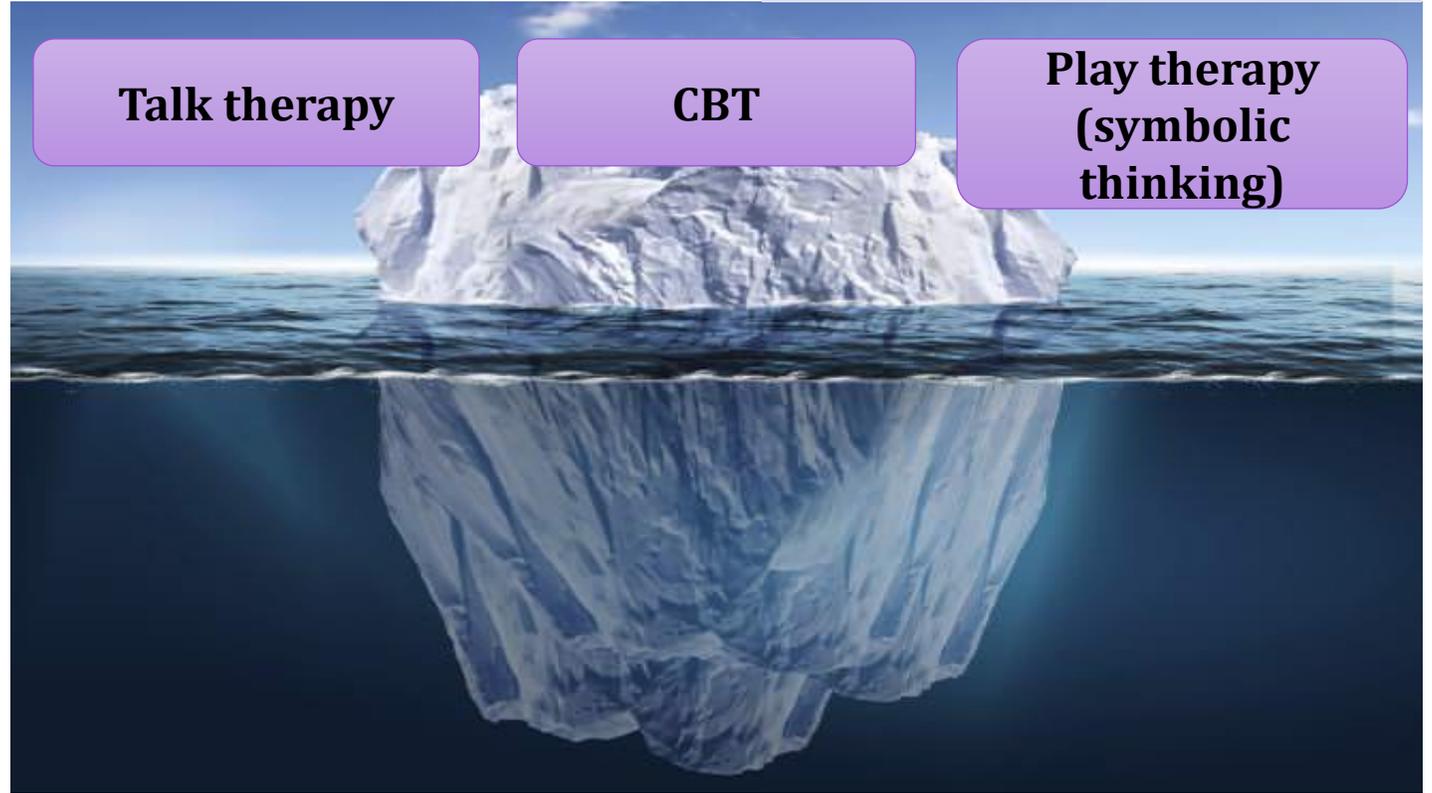
Explicit memories, concrete thinking, sufficient communication ability

Explicit & Working Memory
(Conscious)

Talk therapy

CBT

Play therapy
(symbolic thinking)



Implicit Memory
(unconscious)

Regulation Theory (the Brain)



One of the leading contemporary researchers on attachment theory is Dr. Allen Schore, a clinical professor of psychiatry at the UCLA center for Brain, Culture and Development.

He has published widely on the neurological aspects of attachment, and has proposed an updated version of Bowlby's attachment theory that he calls *regulation theory*.

Regulation Theory

The quality to which caregivers interact with and provide stimulation to infants can greatly effect early neurocognitive development, specifically in **right-brain region**. With consistent interaction, the parent and child eventually achieve *affect synchrony*.

The Center for the Developing Child at Harvard University are calling this process of back-and-forth interaction:

“Serve & Return”

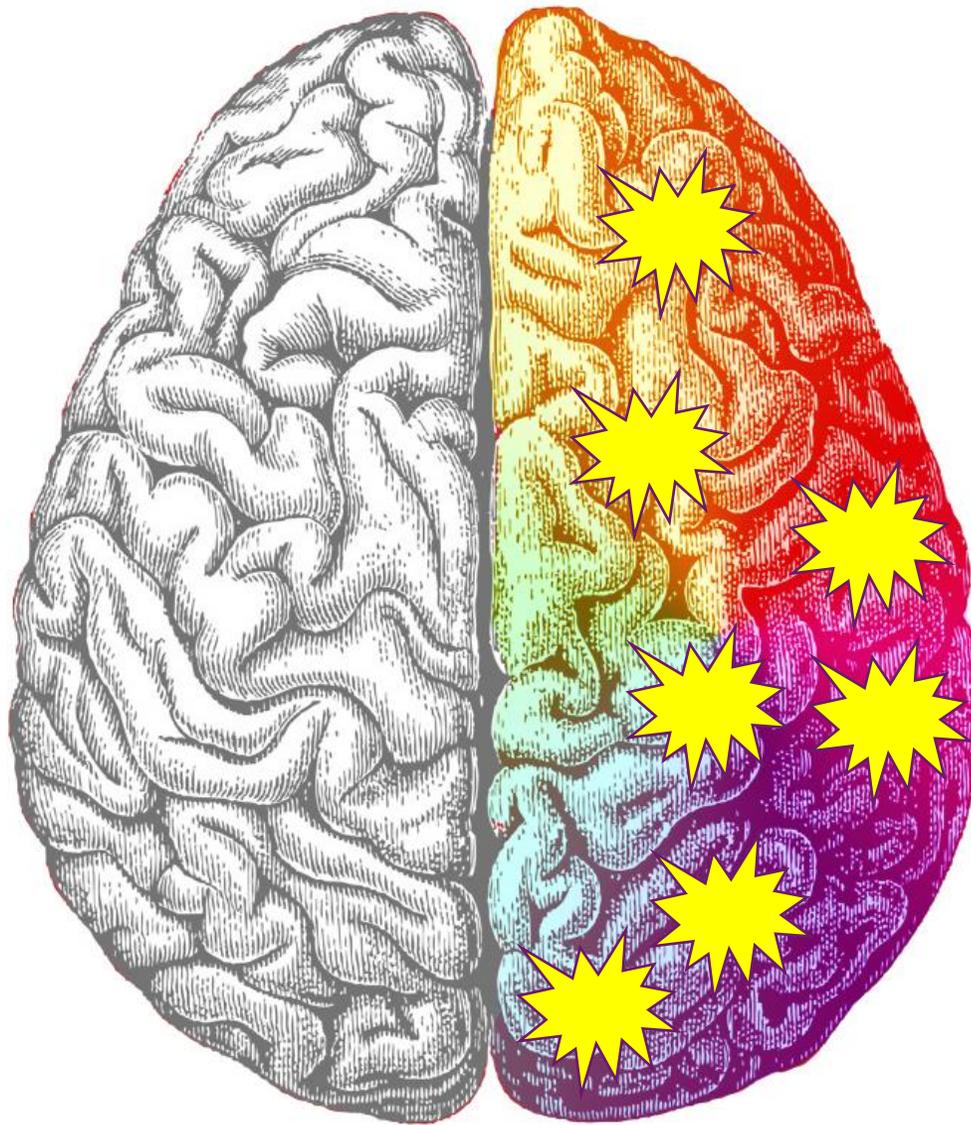




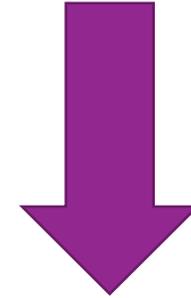
Infants do not know how to self-regulate their emotional states, so they instinctually use the serve and return process with their caretaker to help with regulation.

With consistent caregiving, a sufficient amount of neural tuning will lead to affect synchrony. In time, the child will rely less and less on others for emotional regulation.

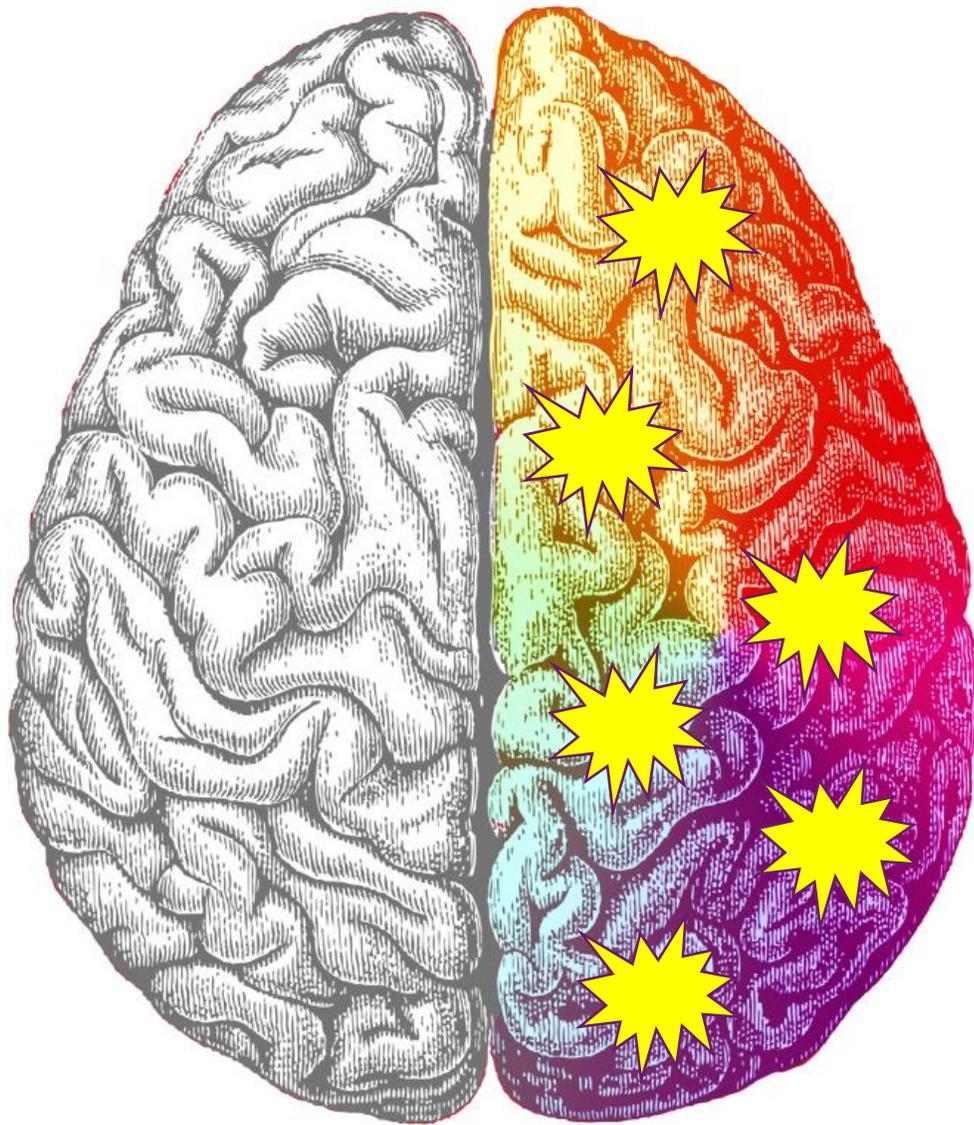




The right hemisphere of our brain is responsible for imagination, creativity, and most importantly processing emotional states and self-regulation.



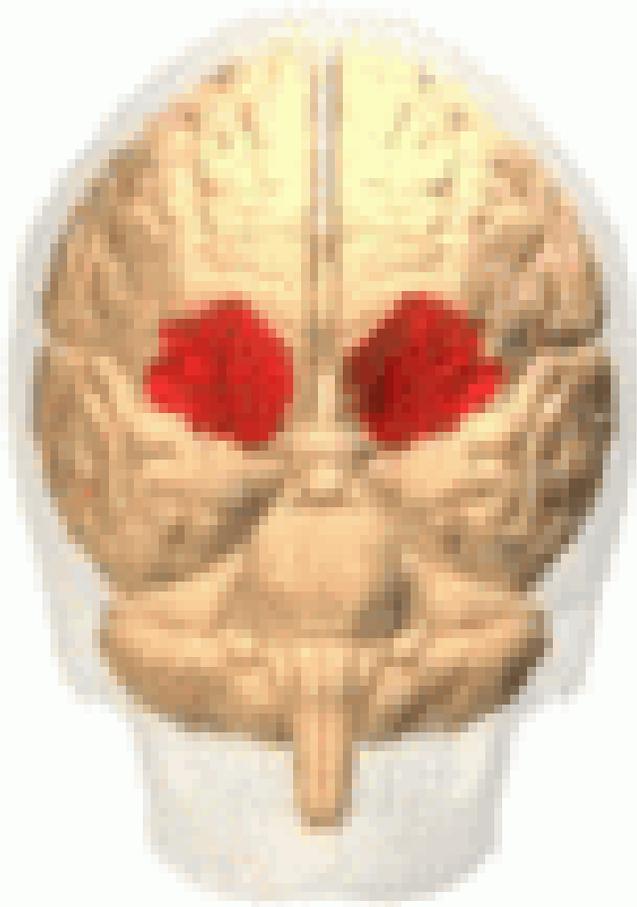
Thus, a *lack* of sufficient serve and return activity stunts the development of this area, which resultantly stunts *all* of these processes.



Implicit memories, which construct the internal working model, are thought to be housed in the right-side of the brain.

At three years old, we see a shift in dominant brain activity to the left side of the brain (reasoning, logic, and language).

Long Term Implications – Orbifrontal Cortex



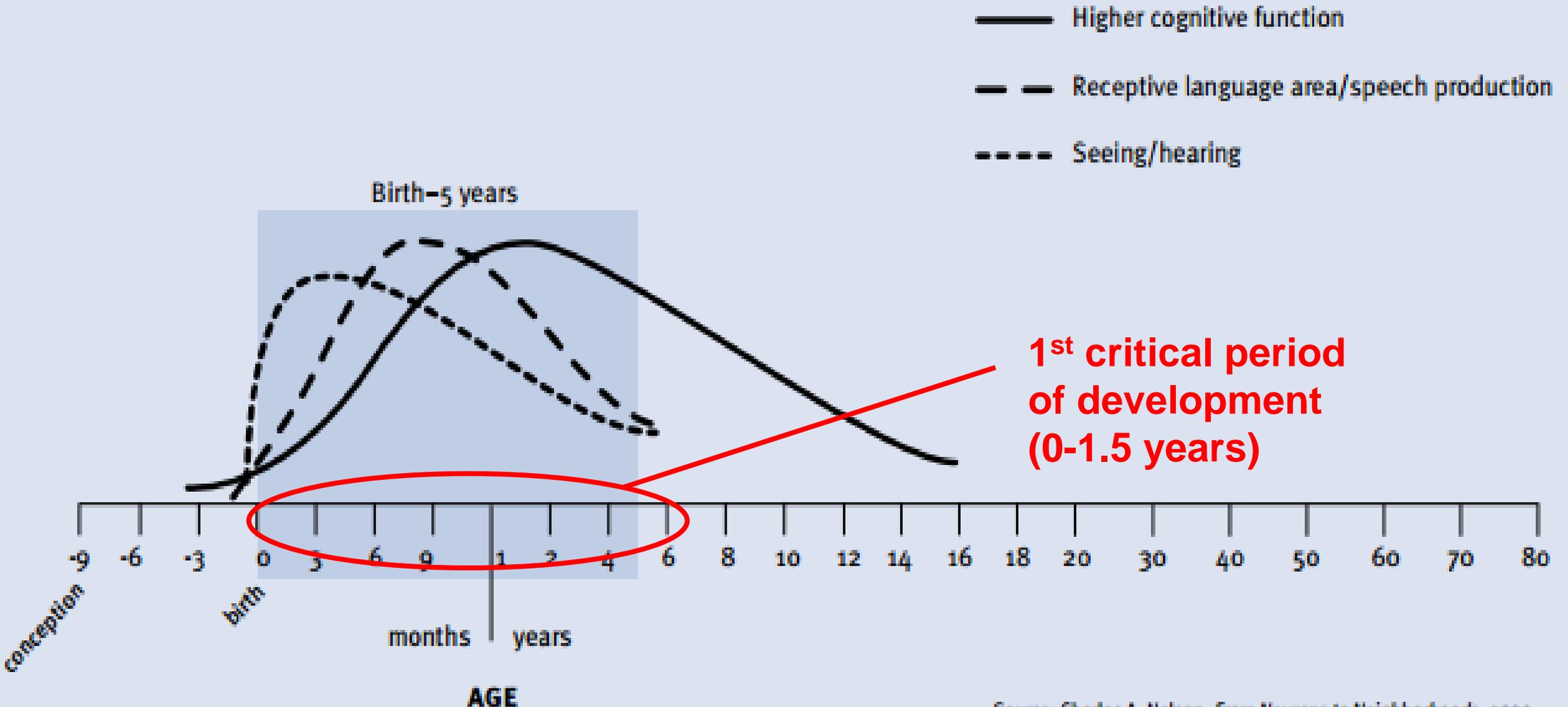
The orbital frontal cortex is **not** functional at birth, but becomes mature during the right-brain development through the attachment process in infancy, and is further strengthened by the socialization processes that occur later in childhood.

Paired with the amygdala, the OFC mediates the ability to engage in flexible behavior as the environment changes [*inflexible thinking*]. It also processes value and risk, and then makes decisions based on these calculations [*Poor decision making, behavioristic approaches may be ineffective*].

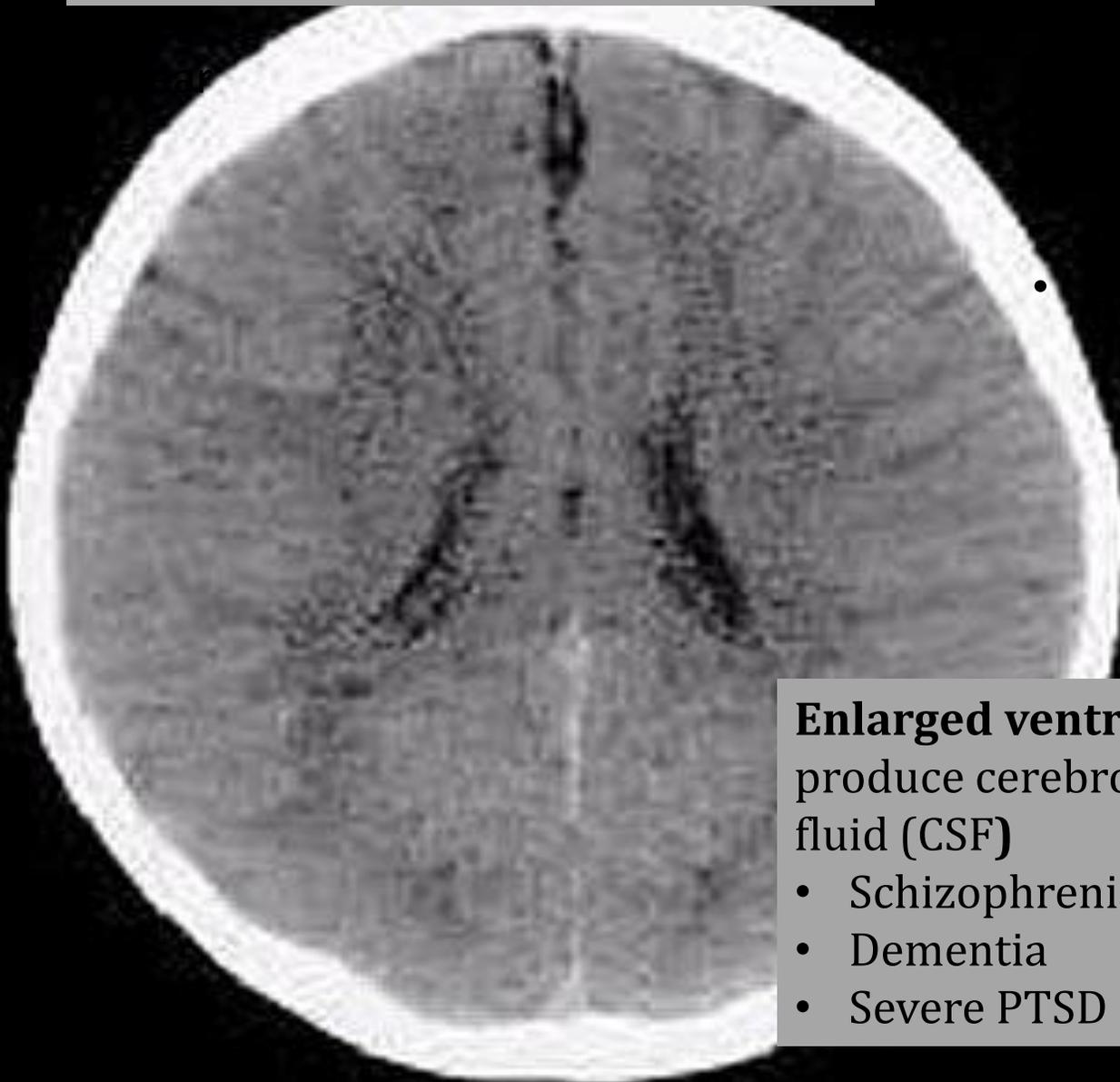
Early Childhood Neglect: Physical Effects



Synapse Formation in the Developing Brain



MRI scan of a healthy 3 year old child.



Normal

MRI scan of a child who spent the first three years in a Romanian orphanage



Enlarged ventricles –
produce cerebrospinal
fluid (CSF)

- Schizophrenia
- Dementia
- Severe PTSD

Extreme Neglect

Infantile (primitive reflexes) persist beyond appropriate developmental period

Tonic neck reflex



Grasp reflex



The moro reflex



Step reflex



Crawl reflex



Failure to Thrive

Its not just about providing the child food and shelter. The child will not absorb the nutrients from the food if does not receive active engagement for a caregiver. Children will not survive if they believe themselves to be unloved and/or unwanted.



Clinical Considerations 0-3 years of age

- Enhancing caregiver-child interaction (serve-and-return).
- Addressing obstacles to caregiving (caregiver-trauma, drug use, medical issues).
- Monitoring developmental progress (tracking, movement, speech).
- Promoting proper nutrition.



Treatment Considerations

Ages 3+

- Promoting synchrony through movement and play.
- Enhancing social skills (peer and family interactions).
- Enhancing affect regulation skills (down-regulation).
- “Pressure cooker” approach to care – trauma informed, care among all points of contact.

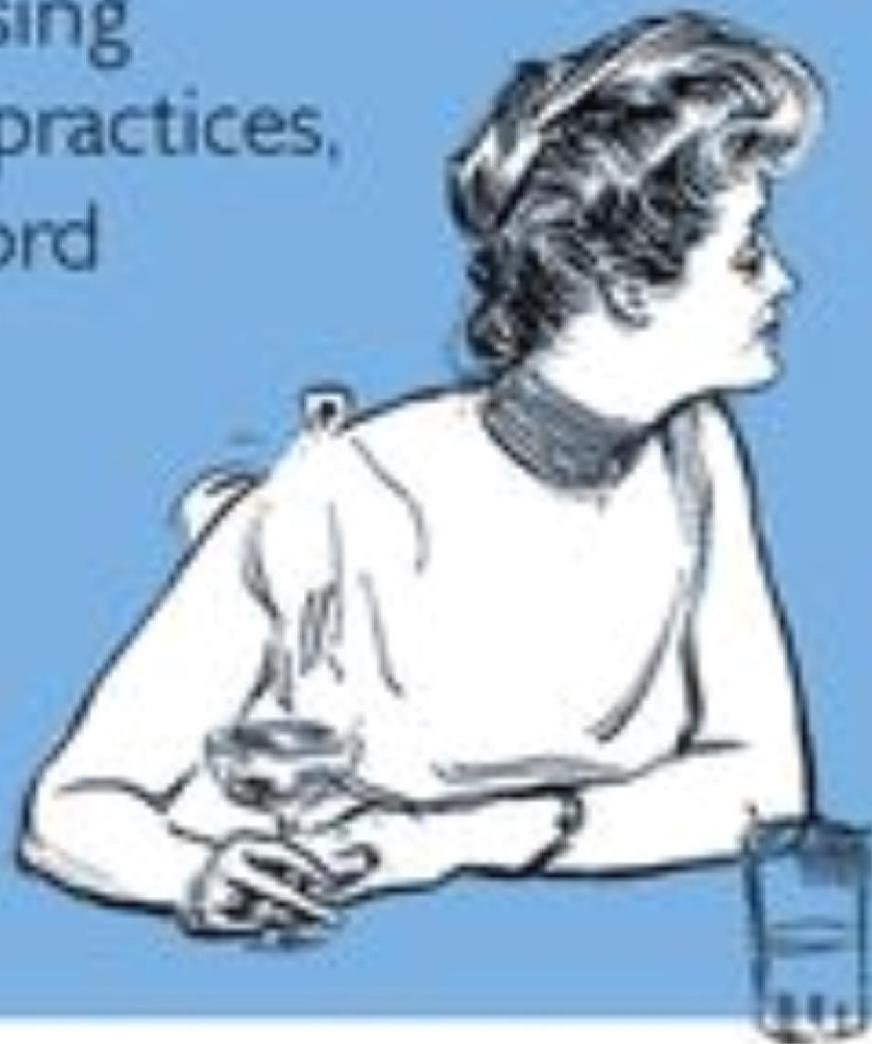


John, 6

- Below average height/weight
- Below average speech
- Adopted age 2, after removal from home due to severe neglect
- Very active, difficult to sooth
- 4 ½, left with nanny for 1 month
- Behavior escalated
- Easily over-stimulated
- Defiant
- Aggressive (toward peers and with family)

	Early Childhood Neglect	Treatment Approach	Interventions
Emotional & Behavioral Symptoms			
Somatic effects			
Effects on the brain			

Unless you're using
evidence-based practices,
I can't hear a word
you're saying.



somee cards
user card

So what has research and experience proven to be effective in children exposed to early childhood neglect?

- ✓ Theraplay
- ✓ Attachment and Biobehavioral Catchup (ABC)
- ✓ Child-Parent Psychotherapy (CPP)
- ✓ Narrative Therapy
- ✓ Expressive Arts
- ✓ Mindfulness Based Stress Reduction
- ✓ Yoga

Play is the natural language of children



Theraplay

- Child and Family therapy for:
 - Enhance and build attachment
 - Improve interactions between caregivers and child
 - Focus:
 1. Structure
 2. Engagement
 3. Nurture
 4. Challenge

Attachment and Biobehavioral Catch-up

- **Children:**

ABC encourages or enhances the development of nurturing care

Often present with dysregulated behavior.

ABC promotes the development of optimal regulatory strategies.

- **Parents:**

May develop ineffective techniques to control or alter their children's dysregulated behavior.

ABC provides parents with psychoeducation to reduce ineffective or poor parenting skills.



Child Parent Psychotherapy

Dyadic Therapy

Treatment Goal:

- Bring parent and child dyad together to form bonds in a safe and nurturing environment.
- Enhances caregivers' understanding of child development

P - praise
R - reflect
I - imitate
D - describe
**E -
enjoyment**



THINKING OF YOUR CHILD AS BEHAVING
BADLY DISPOSES YOU TO THINK OF
PUNISHMENT.

THINKING OF YOUR CHILD AS
STRUGGLING TO HANDLE SOMETHING
DIFFICULT ENCOURAGES YOU TO HELP
THEM THROUGH THEIR DISTRESS.



I BELIEVE!!



SLOW DOWN!
THE EVIDENCE
ISN'T
COMPLETE

