



**Effects of Child Maltreatment on Early Development**

NM Association for Infant Mental Health



**Infant Mental Health**

The psychological, social and emotional well being of infants and toddlers in relationship with their caregivers, environment and culture, and with respect for each child's uniqueness.



As you can see from this definition, we all play an important role in supporting infant mental health. I've been asked to talk with you about the effects of maltreatment on early development. As we talk, we'll think carefully about the very early and important years from birth to age 3 years.

We have about 2 hours to *begin an introduction* to some critical areas of information related to the work we all do with families who have young children.

Stress the importance of the early years -especially social and emotional development as the foundation for all areas of development over the course of the lifetime.

**We'll Look Briefly At:**

1. Early brain development
2. Early social and emotional development
3. Short term & long term effects on infant and toddler social and emotional development, including attachment, as a result of:
  - Neglect and abuse
  - Trauma including witness to violence and multiple out-of-home placements
4. Intervening at an early age: provider roles
5. Outcomes when intervention occurs early

Today's session provides a very **BRIEF** overview addressing these objectives. Any one objective could be a full day course!

Think about which objectives you feel you have mastered. Which might you need to look into further?


You have 2 handouts:

1. An article that will be helpful background reading; and
2. The slides with room for your notes.

I hope that the information we discuss this morning will be helpful as we work in smaller groups to address the needs presented in our case scenarios.

### Statistics

- Young children under the age of three are more likely to die from abuse and neglect than at any other three-year period. (Annie E. Casey Foundation, 2001)
- In NM, approximately 28% of maltreatment victims are under age three.




What makes babies and toddlers so vulnerable?

- Dependent
- Small
- May have developmental delays/differences


Sometimes, this is talked about as the “laying down of the **hardwiring** of the brain.

### Infant Brain Development During Pregnancy

The **structure** of the brain develops mainly during pregnancy and is largely controlled by genetics.



### Infant Brain Development Following Birth

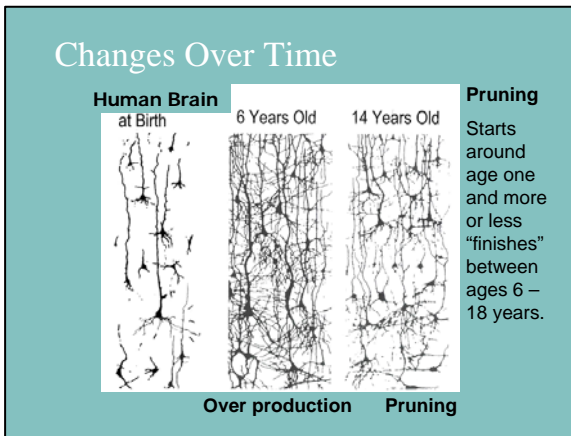


- Experience begins to have a greater effect;
- Genetically-driven maturational processes are still happening;
- The brain is continually changing and adapting to its world.

The baby’s **experiences** during her first three years begin to shape how the brain is organized to support the child to learn from and interact with her world. Babies (and their brains) adapt to either positive or negative environments.

When babies’ cries bring food or comfort, the neuronal pathways that help them learn how to get their needs met both physically and emotionally are strengthened.

Babies whose cries do not bring a comforting or helpful response or whose cries are met with abuse learn something else. The neuronal pathways that are strengthened in these situations prepare the children to cope in negative environments. These coping strategies, while adaptive can also interfere with healthy development. For example, these children might be less able to respond to nurturing and kindness and can have more difficulty using their energy in positive ways to learn from and interact with their environments.



Sometimes there is talk of “use it or lose it”.

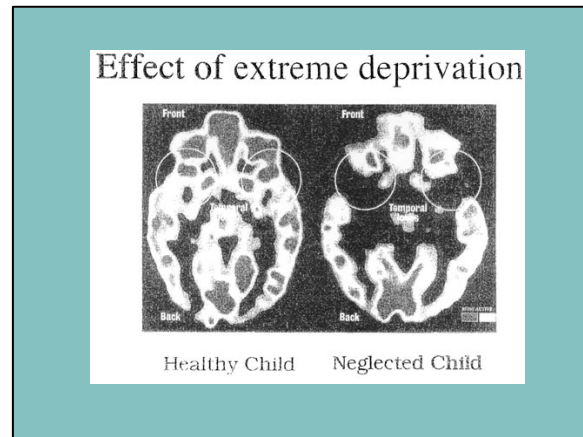
It is also said that pathways that “fire together wire together”.

Over production of synapses occurs to allow the child to adapt to the environment in which he or she needs to survive. The child’s early experiences strongly influence

which synaptic connections are “pruned” and which are strengthened through many instances “firing together” over time.

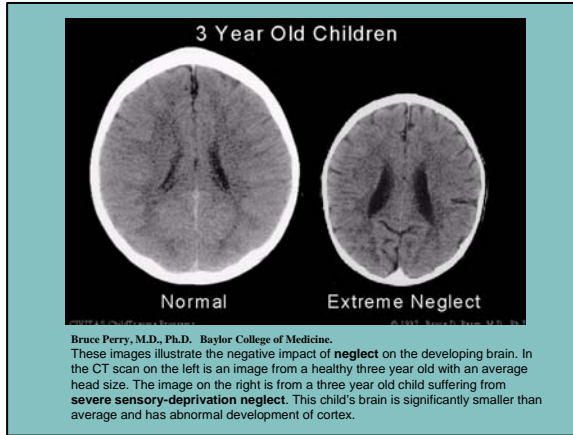
Neglect affects both how the brain grows and how it functions.

This slide shows lack of development in the frontal area of the brain. This area controls affective regulation, impulse control, reasoning (executive functioning).



The brain may be more stuck in basic “flight or fight” functioning with less ability to reason and control behaviors.

i.e. (B. Perry) “It’s not the finger that pulls the trigger. It’s the brain.”



These images illustrate the negative impact of **neglect** on the developing brain.

The CT scan on the left is an image from a healthy three year old with an average head size.

The image on the right is from a three year old child suffering from **severe sensory-deprivation neglect**. This child's brain is significantly smaller than average and has abnormal development of cortex.

Do babies “remember” early experiences? How do we know?

Do you find any of these misconceptions surprising?


**FACTS:**

- Some experiences become encoded in the brain in such a way that awareness is not readily available to the individual.
- We have different types of memory. Some memories “surface” without an actual sense of “remembering” (implicit memory).

Misconceptions about Memory

- We are always aware of what we have experienced.
- When we remember something we have the feeling of recollection.
- The mind is able to make a sort of photograph of experiences that remain stable.

- Memory is the way the brain is affected by experience and then alters its response as a result of the experience.

<h3>Right from the Start</h3>  <ul style="list-style-type: none"><li>• Infants and toddlers have well-developed memories even when they cannot describe them in words.</li><li>• Earliest memories are based on sensory experiences.</li><li>• Infants are able to recall a specific emotional experience associated with an event.</li></ul>	<h3>Why is Memory Important?</h3> <ul style="list-style-type: none"><li>• The memories that young children have of the parent are <b>body-based and interactive</b>, so that the earliest mental representations consist of the ways the parent did things with the child.</li><li>• When the parent leaves or dies, the child <b>loses the feeling of security</b> generated by those reassuring interactions - "hidden regulators" that helped to organize the child physiologically as well as psychologically.</li></ul>
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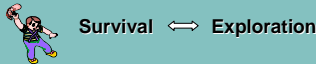
Again – young children do not have the language to describe to us what they “remember” or are experiencing. We have to decipher their behaviors, (which can be confusing to us) in an attempt to understand how they have experienced separations and loss, for example.

Babies organize their perceptions of themselves in terms of how they are cared for. “*I am cared for therefore I am worthy of care*” is the possible “mental model”.

When a young child loses her parent, her sense of self is altered. Repeated disruptions of caring relationships continually interfere with the child’s ability to form a clear sense of who she is in relationship to others.

### Definition of Attachment

- Biological – assures survival of species
- Operates throughout life
- External goal in infancy is to balance exploration and nearness to caregiver (“the secure base”)
- Internal goal is to achieve sense of “felt security”



So, what role does “attachment” play in early development?

Attachments form over time through repeated interactions with primary caregivers. Think of the earlier slide about infants’ memories and how they form their sense of who they are in relation to others.

Brain development, memory and attachment are all inter-related and influencing one another over time.

When the child is able to internalize a sense of being “safe” he is able to put energy into exploring and learning from his environment.

### So, what is attachment?

Attachment is the enduring emotional relationship between the parent or caregiver and the infant that brings safety, comfort, security and pleasure.

It is the foundation for love and provides the framework for all future relationships that the child will develop.

### Attachment as a Behavioral System– The Feedback Loop

Proximity seeking in times of “danger”



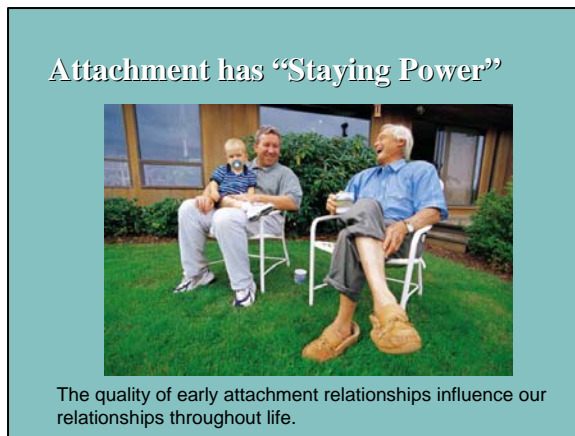
The attachment system includes:

1. The caregiver being available physically and emotionally to keep the child safe (physically and emotionally); and
2. The child seeking proximity to the caregiver in times of danger.

Children who can effectively use their parents as a “secure base” in times of perceived danger can then devote energy to exploring and learning from their environments.

Children who aren’t sure how their needs for safety will be met seem to have difficulty clearly expressing their need for proximity and become too preoccupied with their need for safety to explore.

Children who are pretty sure their expression of need will be met with rejection or a scary response from their caregiver tend to focus on objects in their environments and to avoid seeking proximity to the caregiver. These children also are stifled in their ability to actively explore their environments.



There is an abundance of research demonstrating that a child's quality of attachment at 12-18 months is predictive of preschool, 6 year old, adolescent and adult behaviors and relationships.

Securely attached 12-18 month olds are much more likely to form healthy relationships across their lifespan and to perform better on a

number of outcomes.

Avoiding disruptions in primary attachment relationships is of critical importance during these early years!

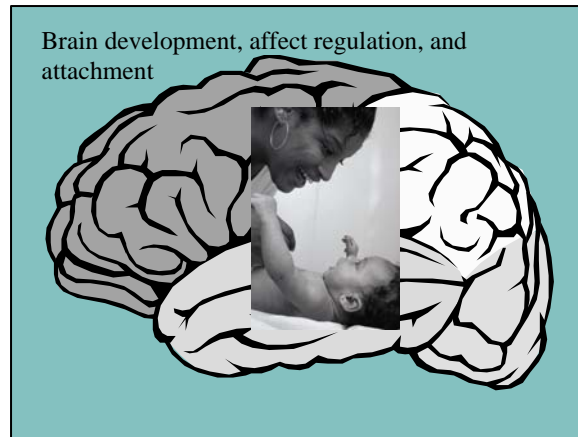
**NOTE to Trainer:**

*Stop here and introduce the Life's First Feelings video segment with Ed Tronick and the baby in the infant seat. Play the video until just after Tronick's "waving the hands" discussion. Discuss with participants the roles played by both parent and child in regulating the interaction.*

*Go on to show still face portion of the video with same mom and baby and discuss. Babies use caregivers for physiological and emotional regulation which is influencing brain development and skill acquisition.*

What did you notice about the mom and baby in the video? What did you wonder about?

Think about your opportunities to carefully observe babies' cues. When is it easy to tell what a baby needs? When is it more difficult?



Ask participants to share examples of "engagement" and "disengagement" cues. How might cues be different among babies/toddlers with developmental differences?

Discuss the ideas of attunement and misattunement.

- Misattunement followed by repair in interactions leads to adaptability.
- Misattunement w/o repair tells child he cannot count on having his needs met no matter how he signals.

How can we support engagement when it occurs between babies and their caregivers (parents, drivers, others)?

***BREAK – trainer, read participants' cues. Encourage them to go self-regulate!***

Social and Emotional Development

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**Social** = skills used to engage in social relationships, understanding of and responding to cultural norms and expectations about interpersonal interactions and behaviors.

**Emotional** = skills used to interpret and respond to the feelings expressed by others as well as to regulate and express ones' own feelings.




Clearly, the development of social and emotional skills is closely inter-related with brain development, the formation of attachment, and affect regulation.

These are interdependent neurological processes; an environment that facilitates one, benefits all.

Traumatic experiences including abuse, neglect, witnessing violence and multiple disruptions to attachment relationships will interfere with skill development.



**Early Development & Caregiving Relationships**



High levels of warmth, synchrony and reciprocal responsiveness during infant-parent interaction are associated with enhanced infant development across a number of domains.

Low levels of these same qualities dramatically increase risk for a variety of adverse outcomes.

Even before they use words, babies have many communication strategies (“cues”) to convey meaning.

When care givers understand and respond to infant **cues** sensitively, secure attachment relationships become established over time.

Think about your relationships with the children you serve as well as the relationships you observe:

- What does “reciprocal responsiveness” look like?  
*Give examples if none offered by participants.*
- NOTICE and COMMENT ON warmth, synchrony and reciprocal responsiveness

How can we work together to improve our ability to understand and respond to babies’ cues?


How can we work together to improve parents’ ability to understand and respond to babies’ cues?

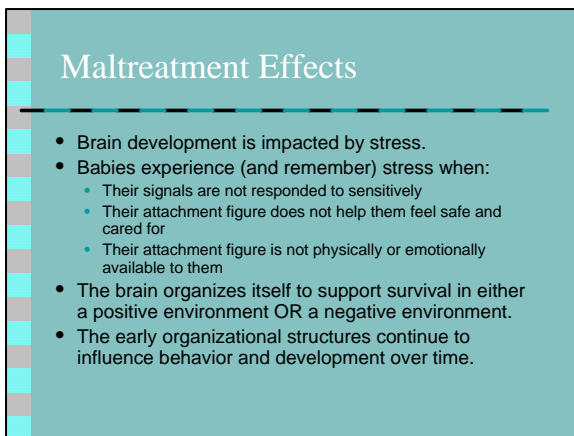
Children learn the “rules” for social relationships from their relationships with their caregivers.

Healthy emotional development requires children to learn to understand their own emotions and that it is possible to understand the emotions of others.

**Babies rely on caregivers for:**

- **Social development:** *I signal my needs and feelings, then my caregiver responds sensitively to my signals.*
- **Emotional development:** *I can communicate my feelings and be understood. My feelings matter. My caregivers also communicate their feelings and I can learn to understand their feelings.*





**Maltreatment Effects**

- Brain development is impacted by stress.
- Babies experience (and remember) stress when:
  - Their signals are not responded to sensitively
  - Their attachment figure does not help them feel safe and cared for
  - Their attachment figure is not physically or emotionally available to them
- The brain organizes itself to support survival in either a positive environment OR a negative environment.
- The early organizational structures continue to influence behavior and development over time.

*These next few slides are intended to review the developmental information shared earlier and tie it to information about child maltreatment effects.*

Think of the baby in the video.

- How did he show us that he was stressed?
- How did he manage his stress?
- How did the mother tune in and respond to the signals of the baby?
- What neuronal pathways were likely strengthened by that interaction?

*(Possible answers: I can interact with people in ways that are mostly comfortable to me. Mommy is engaging. I can take a break when I need to. Mommy is ready to play when I am ready to re-engage. I can ADAPT to and manage different ways of being with people.)*

If the baby experienced something similar to the “still face” mother over time, whether consistently or erratically, what neuronal pathways would likely be strengthened?

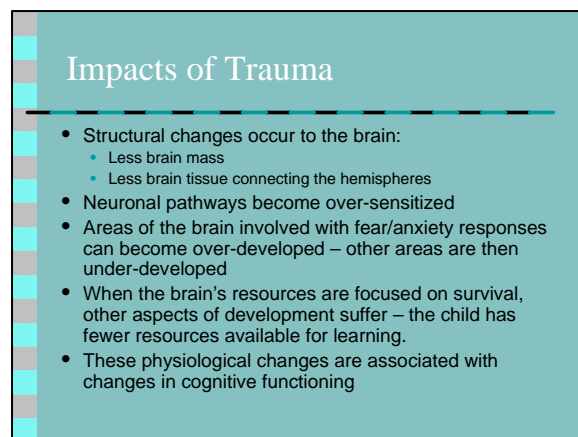
*(Possible answers: I can't count on my signals and feelings being read accurately and responded to. Mommy doesn't "see" me and do what I need her to do. I better find other ways to cope and not rely on others to help me regulate my feelings.)*

Threatening/chaotic environments cause child to be hyper-alert for danger – survival may depend on it! Over time these survival strategies become so strong that the child is not able to fully develop other strategies – for example for healthy, socially acceptable interactions.

A child who is neglected or whose needs (emotional as well as physical) are ignored may show global or specific developmental delays in achievement of milestones.

- Language-poor environment -> delays in communication
- Lack of emotional support -> delays in social and emotional development

Sometimes we see children who have been neglected show normal or even above-expected age level skills in motor and self-care development. Again, the motivation to survive can allow the child to adapt some needed skills



**Impacts of Trauma**

- Structural changes occur to the brain:
  - Less brain mass
  - Less brain tissue connecting the hemispheres
- Neuronal pathways become over-sensitized
- Areas of the brain involved with fear/anxiety responses can become over-developed – other areas are then under-developed
- When the brain's resources are focused on survival, other aspects of development suffer – the child has fewer resources available for learning.
- These physiological changes are associated with changes in cognitive functioning

while other ESSENTIAL skills suffer (cognition, communication, social and emotional).

Children do NOT just “get over it”!

- Adaptation to maltreatment can result in children’s cues and behaviors being difficult to understand.
- Although their coping strategies have helped them survive, the same strategies can interfere with many aspects of development.



Adapting to negative environments can diminish emotional, cognitive, behavioral, and social potential.

If a child anticipates “threats” to physical and emotional well-being around every corner, he may either be frequently:

- “Hyper-aroused” and can only attend to safety issues; or
- Non-reactive, even to the

point of dissociating, or “freezing” (physically and emotionally) in an attempt to stay “safe”.

Each of these strategies served adaptive purposes and interfere with development.

As we work through the case scenario this afternoon, we can think about ways to use our understanding of early development to improve our practices: *more examples?*

- First interactions – cue reading
- Scheduling visits, transporting

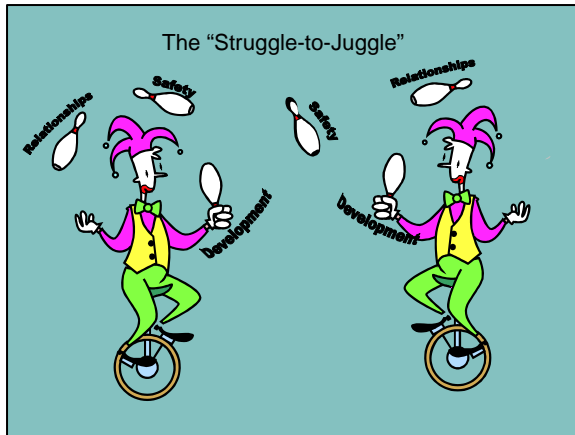
Our understanding of children who have been maltreated must be based both on a clear understanding of typical development and on an understanding of the impacts of trauma on early development.

Intervening at an early age . . .

**WE ALL MUST . . .**

- Be aware of the effects of maltreatment on all aspects of early development.
- Learn to understand what the children are telling us they need.
- Assure/shape consistent, sensitive, nurturing and contingent care giving responses across all relationships.
- Keep the importance of “relationships” central to all of our work and decisions

Children’s brains are organized and all aspects of learning are mediated by their relationships with primary care givers. When those relationships are disrupted, brain development and learning are impacted. Our work then becomes supporting the child through the best possible relationships and interactions available.



CAPTA, IDEA 2004 and the MOU give us a unique opportunity and responsibility to collaborate in this juggling act that is so important to the lives of the young children in our care.

As we work together in our communities to implement the intent of CAPTA and IDEA 2004 we'll need to be constantly aware of the various

needs of the child (relationships, safety and development) and understand that our different systems (FIT and CPS) and procedures sometimes place a different emphasis on each of these needs.

As we learn to "juggle well together", outcomes for New Mexico's youngest children will be improved.

*"Model programs that deliver carefully designed interventions with well-defined goals can positively impact the developmental trajectories of infants and toddlers whose life course is threatened by family disruption, as well as parenting behavior." (A quote from Neurons to Neighborhoods).*

Infants are not born resilient. However we can support the infant to build his or her capacity for resiliency by how we intervene in these early years.

**Outcomes**  
when intervention occurs early

- Severity of effects can be reduced.
- Resiliency can be enhanced.
- Care givers can learn to adapt their ways of caring for the child.
- Children can learn new, more positive ways of interacting with their environments.
- Neuronal pathways allowing optimal development can be strengthened through repeated positive and appropriate experiences and nurturing interactions.

By "juggling together" we can optimize factors that influence each child's resiliency.

On behalf of the NMAIMH, we thank you for the opportunity to share in this workshop. It is our hope that this is the beginning of many opportunities to learn together how to best meet the needs of the children we encounter in our work. We have so much to learn from one another!

