Understanding the Impact of Attachment and Trauma on Brain Development

Illinois State Board of Education
Best Practices and Guidelines for Non-Public Special Education Programs

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The case for Understanding Attachment and Trauma Issues

IL Intercountry Adoptions are averaging about 1,000 per year. Many of these children present with many attachment and trauma difficulties related to coming out of orphanage care.
IL DCFS Adoptions

- 2007 - 1,682
- 2006 - 1,670
- 2005 - 1,867
- 2004 - 2,137
- 2003 - 2,795
- 2002 - 3,393
- 2001 - 4,208
- 2000 - 6,281
- 1999 - 7,275
- 1998 - 4,293
- 1997 - 2,229
IL DCFS Foster Care Cases

- 2007 - 16,160
- 2006 - 17,415
- 2005 - 17,985
- 2004 - 18,846
- 2003 - 20,508
- 2002 - 23,382
- 2001 - 27,009
- 2000 - 31,316
- 1999 - 39,064
- 1998 - 47,029
- 1997 - 51,331
The Impact:

• Many schools are having to meet the needs to children with a variety of complex issues including both mental health issues and learning disorders.

• Today we will discuss primarily attachment and trauma issues among this population.
“The reality of the other person is not in what he reveals to you, but in what he cannot reveal to you. Therefore, if you would understand him, listen not to what he says but rather what he does not say.”

Kahlil Gibran
History of Attachment Theory

- 1939 John Bowlby writes about his views on early psychological experiences that lead to psychological disorders (British Psychoanalytic Society)
- 1948 Bowlby gets first research grant and hires James Robertson (1952 presents his first film)
- 1948 Ainsworth selected as Bowlby’s research assistant
- 1950’s Winnicott, Lornez, Harlow...Bowlby’s “kindred spirits”
- 1958 Harry Harlow’s rhesus monkey experiments
History of Attachment Theory...

• 1970 Mary Main adds 4th attachment category (disorganized)
• 1990 Allan Sroufe The Self in Transition: Infancy to Childhood
• 1994 Allan Schore Affect Regulation and the Origin of Self
• 1997 Peter Fonagy Crime and Attachment: Morality, Disruptive Behavior, BPD, Crime and Their Relationship to Security of Attachment
Attachment and Current Brain Research

• Attachment Research demonstrates that attuned, engaging interaction between a baby and his/her mother leads to:
  • Secure Attachment
  • Positive internal Working Models of self and the world
  • The capacity to regulate emotions and actions
Attachment and Right Brain Development

• The infant’s right brain begins to develop before the left brain.
• The right brain is the part of the brain which includes visual cues, sensory data, emotions, non-verbal communication. It is the part of the brain that attachment impacts.
• The left brain is where language develops and does not begin to mature before 18-24 months.
• Attachment behaviors engaged in by the caregiver regulate the infant’s right brain and the maturing limbic system.
• The limbic system is fundamentally associated with emotional functions.
Trauma and Secure Attachments

- Whether an experience is traumatic depends on how the child interprets the experience.
- Presence of a secure attachment figure makes trauma less devastating—London World War II experience; Gunnar research.
- Following a traumatic experience, the presence of a comforting familiar person can quickly reduce physiological effects of stress.
- The resolution of PTSD is much more difficult for children who do not have a secure attachment relationship.
Stress and the Brain

• In times of stress, high levels of stress hormones flood the brain. Fight, Flight, or Freeze Response

• Ongoing stress creates a pattern of response that can produce permanent negative changes in the brain or interfere with healthy development of the brain

• Children in Romanian orphanages have high levels of stress hormone all day long, rather than the typical diurnal rhythm, which starts high and falls off as the day goes on. Their brains develop abnormally

• Children with trauma responses may seem calm, but heart rate, blood pressure and cortisol levels remain high
Remember...

“It’s not the finger that pulls the trigger it’s the brain...”

_Bruce Perry quoted in_  
_Ghosts in the Nursery_
How Trauma affects the Child?

• Persistent fear state leads to physiological symptoms and efforts to cope that interfere with the child’s functioning.
• Physiological symptoms
• Coping mechanisms
• Provocative behavior
• Fight, Flight or Freeze
Coping Mechanisms for Traumatized Children

- Avoidance of intimacy
- Child insists on being in control
- Child rejects positive experiences
- Alarm/numbing responses
  - Dissociation protects the child from too much stress
  - Children with repeated trauma develop patterns of numbing or spacing out and do not appear stressed
  - Provocative behaviors
Bruce Perry, M.D., Ph. D’s work

Senior Fellow of the Child Trauma Academy

• What fires together wires together...
• States become traits...
• “You do not become humane because you were born a human being. You become humane because someone was humane to you.”
Experiential Therapy that Engages the Sensory System is essential

• Often people can not talk about their trauma. There are limits to language...the language part of the brain shuts down during severe trauma.

• “Therefore all trauma can be seen as a pre-verbal experience but people remember that sensory input from the trauma.” Bessel van der Kolk

Professor of Psychiatry Boston University
Putting it all together...

- Attachment and Trauma affect to overall functioning and brain development of all children
- These children often present a very complex picture with global developmental delays
- The DSM-IV is a currently in adequate for fully understanding this population
  - Institutional Induced Autism
  - Developmental Trauma Disorder
Some Practical Strategies
A comprehensive assessment is critical

- Complete medical and physical history
- Length, type and timing of institutionalization
- Attachment Issues
- Relationship Issues
- Levels of behavioral disturbances and aggression
- Depression and other symptoms of mental illness
- Sensory Processing Disorder (SPD) and other OT related issues
- Speech
- Alcohol Related Neurodevelopmental Disorder (ARND)
- Allergies
- Seizures

Purvis and Cross International Adoption of Post-Institutionalized Children: Implications for School Counselors
Things to remember...

• Work on teaching the student to use their words to let you know what is happening. Help expand their vocabulary of feeling words. Be proactive in checking in with them as they often to not know how anxious and fearful they are feeling until it’s too late!

• Be aware of all sensory experiences in your classroom. A child could be triggered by a certain smell or food

• Try to understand the mind of the traumatized child and see the world through their eyes
Theraplay® and Sensory Based Interventions

Play with Them: Theraplay Groups in the Classroom by Rubin and Tregay

The Out of Sync Child by Kranowitz
The Attitude:

- In Dyadic Developmental Psychotherapy (DDP), Dr. Daniel Hughes refers to “The Attitude” which involves being
  - **P** - Playful
  - **L** - Loving
  - **A** - Accepting
  - **C** - Curious
  - **E** - Empathic

*Source: Building the Bonds of Attachment (2006); Facilitating Developmental Attachment (2000); danielahughes.homestead.com*
Creating an Emotionally Safe Classroom (www.scholastic.com)

• Keep the first few weeks of school very simple
• Be predictable in your interactions with children
• Be attuned to each individual child’s overload point
• Find time during the day for quiet
• Keep first challenges light and praise heavy but specific
• Emphasize the importance of good nutrition and proper bed rest
• Remember that you make all the difference. A child’s first experiences with you, if positive, can create a curiosity and love of learning
Helping teachers understand the developing brain  www.scholastic.com

- The brain has a bottom-up organization
- This development is guided by experience. The brain develops and modifies itself in response to experience
- The brain is “use-dependent”
- The neural system built into the brain and internal representation of the world based on experience
- When a child’s brain is constantly under stress as a result of neglect and abuse the brain changes in ways that cause persistent fear states that include hypervigilance, increased muscle tone, a focus on threat-related cues (typically non-verbal), anxiety and behavioral impulsivity ALL of which are adaptive during the traumatic event but not when it has passed.
How the brain learns best...

• Neural System Fatigue – learning requires attention and attention is mediated by specific parts of the brain that fatigue within minutes! Piano versus Organ

• Need to engage various parts of the brain in patterned repetitive ways
Bob-and-Weave Lecture

Bruce Perry, MD, PhD Scholastic Website

• Visit the different parts of the brain the way your visit different machines for different muscles when you go to the gym

• Use story to provide context, make sure the story touches the emotional parts of the brain to activate the cognitive parts of the brain for storing information. Emotional “seasoning” (of humor, empathy, sadness and fear) makes the dry facts easier to swallow

• Bob and Weave among facts, concept and narrative...novelty must continually be present
“Nothing in life is to be feared. It is only to be understood.”

Marie Curie
Thank you!

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