Attachment Difficulties, Childhood Trauma, and Reactive Attachment Disorder: Clinical Guidelines for Assessment, Diagnosis and Treatment

Day 1
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Objectives:
- Increase understanding of the child-caregiver attachment process and its impact on child behavior.
- Differentiate insecure attachment, trauma within the attachment relationship, and Reactive Attachment Disorder.
- Learn how traumatic stress impacts young children and adolescents.

Attachment Theory
Explained through the lens of secure attachment
Why do we care about attachment?

- Freud: “The relationship between the mother and child is the prototype for all future relationships.”

- **Working (changeable) Model** for how relationships work, what you can expect.
  - Can you depend on people?
  - Can you trust them?

- Facilitates development of emotional regulation, social skill, and empathy

- Secure attachment is a resiliency factor.

Definitions of Attachment

- “An in-born system in the brain that evolves in ways that influence and organize motivational, emotional and memory processes with respect to significant caregiving figures.” (Bowlby, 1969)

- “A bio-behavioral system whose goal is to coordinate the balance between the need for safety in proximity to a caregiver or set of caregivers with the tendency for exploration and autonomy in infancy and early childhood.” (Zeanah and Boris, 1994)

Four Infant Attachment Behaviors

- **Proximity Seeking**
  - Infants insist on maintaining close proximity to their caregivers.

- **Secure Base**
  - Infants use their caregivers as a secure base for exploration.

- **Safe Haven**
  - Infants flee to their caregiver as a safe haven when frightened or alarmed.

- **Separation Protest**
  - Infants protest caregiver leaving

(Bowlby, 1969)
Four Caregiver Attachment Behaviors

- Sensitivity to signals
  - Detecting the infant's signal correctly, interpreting the signal, appropriately responding, and timely response
- Cooperation vs. interference with on-going behavior
- Physical and psychological availability
- Acceptance vs. rejection of the infant's needs

(Waters & Ainsworth)

(Bowlby, 1969)

Process of Developing Secure Attachment

“Repeated experiences of parents reducing uncomfortable emotions (e.g., fear, anxiety, sadness), enabling child to feel soothed and safe when upset, become encoded in implicit memory as expectations and then as mental models or schemata of attachment, which serve to help the child feel an internal sense of a secure base in the world.” (Siegel, D.)

Attachment benefits both child and caregiver

- Providing and seeking comfort for distress
- Providing and experiencing warmth, empathy and nurturance
- Providing emotional availability and regulating emotion
- Providing and seeking physical and psychological protection

(Zeanah and Smyke, 2008)
The Developmental Process of Attachment

Development of Attachment In Infancy (Zeanah and Smyke, 2008)
- 0-2 months: Limited discrimination
- 2-8 months: Discrimination with limited preference
- 8-12 months: Focused attachment
- 12-20 months: Secure base
- 20+ months: Goal corrected partnership

Erikson’s Developmental Stages
- Infancy: Trust vs. Mistrust
- Toddlerhood: Autonomy vs. Shame and doubt
- Preschool Age: Initiative vs. Guilt
- Early School Age: Industry vs. Inferiority
- Early Adolescence: Group Identity vs. Alienation
Attachment Behaviors Change Throughout Development

- Proximity seeking
- Secure base
- Safe haven
- Separation protest

Infant Attachment Behaviors

- Smiling
- Reaching
- Vocalizing
- Crying
- Crawling
- Walking

Young Child Attachment Behaviors

- Affection
- Comfort seeking
- Reliance on caregiver for help
- Cooperation
- Exploration
- Controlling behavior
- Reunion response
- Response to strangers
Hey everybody!!!!

Adolescent Attachment Behaviors
- Active avoidance of primary caregiver in times of stress
- Emphasis on the exploratory aspects of the attachment system
- Autonomy-seeking behavior in adolescence is positively correlated to secure infant attachment
- Expansion of attachment relationships into intimate peer relationships

Caregiver Attachment Behaviors
- Sensitivity to signals
  - Detecting the infant’s signal correctly, interpreting the signal, appropriately responding, and timely response
- Cooperation vs. interference with ongoing behavior
- Physical and psychological availability
- Acceptance vs. rejection of the infant’s needs (Waters & Ainsworth)

Attachment is a Life-Long Process
- We don’t stop attaching.
- Attachment can change.
- A child can attach to more than one person.
- A child can learn how to attach as a preschooler.
- Recent research suggests people can change the security of their attachment style into adulthood.
Attachment Classification Can Change

- Attachment security can change based upon:
  - Emotional support, direction and structure provided by mother
  - Family stressful life events
  - Quality of home environment
  - Environmental support
  - Changes in mother’s emotional functioning
  - Changes in mother-child interactions
  (Egeland, Carlson, and Sroufe, 1993)

Secure Attachment

- [Diagram showing relationships between need, contentment, trust, attachment, and satisfaction of need]

- Displeasure
Secure Attachment

How it happens:
Caregivers who are generally sensitive, responsive and available have infants with internal representations of themselves as loveable and worthy.

In low-risk, non-clinical populations, ~55-65% of infants are securely attached (Van Ijzendoorn and Bakermans-Kranenburg, 1996)

Ainsworth and colleagues found that in 20 years of Strange Situation research, about 2/3 of babies from middle class families are securely attached and 1/3 were insecurely attached (Karen, 1990 in Hanson and Spratt, 2000)
So what happens when infant and caregiver attachment behaviors are consistently less than optimal?

Insecure or Anxious Attachment

According to Bowlby, “Virtually all children—if given any opportunity at all—become attached, but the quality of attachment varies widely.”

(as quoted in Cassidy and Mohr, 2001)
Insecure attachment is adaptive.

- “Based on repeated daily interactions with an attachment figure, babies develop reasonably accurate representations of how the attachment figure is likely to respond to their attachment behavior.” (Cassidy and Mohr, 2001)

Insecure Attachment

- Insecure/anxious avoidant
- Insecure/anxious resistant
- A subgroup of the above two categories is
  - Disorganized/disoriented

Insecure Attachment

- How it happens:
  Caregivers who are generally unavailable and rejecting have infants with internal representations of themselves as unworthy and unlovable.
- Research indicates maternal depressive behavior leads to insecure attachment (Egeland, Carlson, and Sroufe, 1993)
What does insecure attachment look like?

The typical exploratory and comfort seeking behavior of securely attached children may lead to discomfort in some parents. Behaviors seen in insecurely attached children reflect the fact that children have learned over time the type of behavior they must exhibit in order to be most likely to elicit the needed response from their parents.

- AVOIDANT: They are detached; don’t seem to notice or care where their caregiver is even though internally they are feeling the need for comfort
- RESISTANT/AMBIVALENT: They are clingy, whiny, difficult to console

Insecure attachment is not psychopathology, but it is a risk factor for it.
Possible consequences of insecure attachment
- Poor self-esteem and self regulation
- Aggressive/rejecting and/or withdrawn/isolating relations with peers
- Low frustration tolerance
- Less positive affect
- Lags in cognitive, developmental and academic competence (Egeland, Carlson, and Sroufe, 1993)
- Elevated levels of behavioral symptomology
  - (Van IJzendoorn and Bakermans-Kranenburg did a meta-analysis of AAI studies and found insecure attachment to correlate with anxiety and mood disorders.)
- Different attachment patterns may be associated with different biological responses to stress in inhibited toddlers.

Insecure Attachment
- In low-risk, non-clinical populations, ~20-30% of infants have an insecure/avoidant attachment and 5-15% have an insecure/resistant attachment (Van IJzendoorn and Bakermans-Kranenburg, 1996)

Variables Impacting Attachment Security
Parent contributions

- Ineffective or insensitive care
- Physical and/or emotional unavailability of parent
- Abuse and neglect
- Parental psychopathology
- Teen parenting
- Substance abuse
- Intergenerational attachment difficulties
- Prolonged absence

“Studies of resiliency indicate that an insecure attachment can be greatly influenced by the presence of a reliable, stable, secondary caregiver.” (Karen, 1990 as reported in Hanson and Spratt, 2000)

Child Contributions

- Physical and/or emotional unavailability of child
- Babies with difficult temperament
- Lack of fit with parent
- Premature birth
- Medical conditions causing unrelieved pain
- Hospitalizations
- Failure to thrive syndrome
- Congenital and/or biological problems, neurological impairment, FAS, in utero drug exposure, physical handicaps, teratogen exposure
- Genetic disorders: family history of mental illness, depression, aggression, criminality, substance abuse, antisocial personality
Environmental Contributions to Insecure Attachment

- Poverty (Egeland, Carlson, and Sroufe, 1993)
- Violence (victim and/or witness)
- Lack of support (absent father or extended kin, lack of services, isolation)
- Multiple out of home placements
- High stress (marital conflict, family disorganization and chaos, violent community)
- Lack of stimulation

Role of Attachment

- Keeps humans alive
- Affect regulation
- View of self as worthy and competent
- View of world as safe
- *Buffers impact of trauma*

Trauma Theory

Trauma can throw off the healthy developmental trajectory by overwhelming a person’s ability to cope.
Hey! You guys didn’t talk about Disorganized attachment!

- We know. You have to understand trauma first!
- We will come back to disorganized attachment.
- Don’t forget about this part!

The following slides are taken from Caring for Children Who Have Experienced Trauma: A Workshop for Resource Parents (2010)
Your Internal Alarm System

The brain releases chemicals that help the body to respond to the threat (fight, flight, freeze)

If the threat is removed, everything returns to normal

(Continued)

If the threat continues or is repeated, the system stays on "red alert"

The brain releases chemicals that help the body to respond to the threat (fight, flight, freeze)

(Continued)
A traumatic experience . . .

- Threatens the life or physical integrity of a child or of someone important to that child (parent, grandparent, sibling)
- Causes an overwhelming sense of terror, helplessness, and horror
- Produces intense physical effects such as pounding heart, rapid breathing, trembling, dizziness, or loss of bladder or bowel control

Types of Trauma

Acute trauma:
A single event that lasts for a limited time

(Continued)

Chronic trauma:
The experience of multiple traumatic events, often over a long period of time

(Continued)
Types of Trauma: What About Neglect?

- Failure to provide for a child's basic needs
- Perceived as trauma by an infant or young child who is completely dependent on adults for care
- Opens the door to other traumatic events
- May reduce a child's ability to recover from trauma

When Trauma Is Caused by Loved Ones

The term complex trauma is used to describe a specific kind of chronic trauma and its effects on children:

- Multiple traumatic events that begin at a very young age
- Caused by adults who should have been caring for and protecting the child

Experience Grows the Brain

- Brain development happens from the bottom up:
  - From primitive (basic survival)
  - To more complex (rational thought, planning, abstract thinking)

Experience Grows the Brain (Continued)

- The brain develops by forming connections.
- Interactions with caregivers are critical to brain development.
- The more an experience is repeated, the stronger the connections become.

Trauma Derails Development

Exposure to trauma causes the brain to develop in a way that will help the child survive in a dangerous world:

- On constant alert for danger
- Quick to react to threats (fight, flight, freeze)

The stress hormones produced during trauma also interfere with the development of higher brain functions.

### Young Children (0–5)

#### Key Developmental Tasks
- Development of visual and auditory perception
- Recognition of and response to emotional cues
- Attachment to primary caregiver

#### Trauma’s Impact
- Sensitivity to noise
- Avoidance of contact
- Heightened startle response
- Confusion about what's dangerous and who to go to for protection
- Fear of being separated from familiar people/places

(Continued)

### School-Aged Children (6–12)

#### Key Developmental Tasks
- Manage fears, anxieties, and aggression
- Sustain attention for learning and problem solving
- Control impulses and manage physical responses to danger

#### Trauma’s Impact
- Emotional swings
- Learning problems
- Specific anxieties and fears
- Attention seeking
- Reversion to younger behaviors

(Continued)

### Adolescents (13–21)

#### Key Developmental Tasks
- Think abstractly
- Anticipate and consider the consequences of behavior
- Accurately judge danger and safety
- Modify and control behavior to meet long-term goals

#### Trauma’s Impact
- Difficulty imagining or planning for the future
- Over- or underestimating danger
- Inappropriate aggression
- Reckless and/or self-destructive behaviors
How Children Respond to Trauma

Long-term trauma can interfere with healthy development and affect a child’s:

- Ability to trust others
- Sense of personal safety
- Ability to manage emotions
- Ability to navigate and adjust to life’s changes
- Physical and emotional responses to stress

(Continued)

A child’s reactions to trauma will vary depending on:

- Age and developmental stage
- Temperament
- Perception of the danger faced
- Trauma history (cumulative effects)
- Adversities faced following the trauma
- Availability of adults who can offer help, reassurance, and protection

(Continued)

(Continued)
Lateral Ventricles Measures in an 11 Year Old Maltreated Male with Chronic PTSD, Compared with a Healthy, Non-Maltreated Matched Control

De Bellis et al., Biological Psychiatry, 1999.

Trauma and Attachment
Role of caregiver in attachment relationship

- Facilitate psychosocial development of child through
  - Sensitivity to signals
  - Cooperation with ongoing behavior
  - Psychological and physical availability
  - Acceptance of infant’s needs

Attachment relationship buffers impact of trauma but trauma injures attachment relationship

- Infancy
  - Trust vs. Mistrust
- Toddlerhood
  - Autonomy vs. Shame and doubt
  - (1-3)
- Preschool Age
  - Initiative vs. Guilt
  - (3-5)
- Early School Age
  - Industry vs. Inferiority
  - (6-11)
- Early Adolescence
  - Group Identity vs. Alienation

Trauma and Attachment

- Even when the caregiver ISN’T responsible, trauma can impact attachment security
- When caregiver IS responsible for trauma and ESPECIALLY when the trauma is chronic, trauma negatively impacts attachment security
And now back to attachment

Disorganized subgroup: A traumatized attachment

Disorganized Attachment

- Cassidy and Mohr (2001) describe some caregiver behaviors as “so bizarre, threatening, unpredictable, violent or frightening that not only are the infants insecure, but they also cannot organize a strategy for insuring protective access to their caregivers.”

Disorganized Attachment

- When distressed, disorganized infants exhibit contradictory behavioral patterns; undirected, misdirected, incomplete, and interrupted movements or expressions; odd movements and postures, asymmetrical movements and mistimed movements; freezing, stilling, and slowed “underwater” movements and expressions; clear signs of fear of the parent; and clear signs of disorganization and disorientation.
Contributions to Disorganized Attachment

- Maltreatment
- Partner violence
- Parental dissociation (withdrawal)
- Maternal depression/bipolar disorder and schizophrenia (contradictory cues)
- Parental substance abuse
- Parental antagonism
- Parental role confusion

Possible Outcomes of Disorganized Attachment

- Problems with affect regulation and dissociation
- Lack of impulse control and attentional problems
- Controlling stance used in peer and caregiving relationships (role inappropriate parent child interactive behavior)
- Cognitive impairments
- High Risk for psychopathology, particularly for Oppositional Defiant Disorder and aggression in middle childhood and low self esteem and dissociation in adolescence
- Tend to become unresolved/disoriented adults on AAI who are frightening to their children and repeat cycle

Disorganized Attachment

- In low-risk, non-clinical populations, ~14% of infants have a disorganized attachment underlying their insecure attachment (Van Ijzendoorn, Schuengel, and Bakermans-Kranenburg, 1999)
- In maltreated and institutionalized samples, ~75-80% of infants have a disorganized attachment (Carlson et al., 1999, Vorria et al., 2003, Zeanah, Smyke, Koga and Carlson, 2005)
By now, all of you should be thinking, “Oh! Of course these kids have behavior problems! Look at their attachment and trauma histories!”

So now what?

Aren’t all those disorganized attachment outcomes REACTIVE ATTACHMENT DISORDER?

Nope.

Reactive Attachment Disorder
What disorder(s) are these behaviors?
- self destructive behavior
- destruction of property
- consistently irresponsible
- inappropriately demanding/clingy
- stealing
- deceitful
- hoarding
- inappropriate sexual attitudes
- cruelty to animals
- sleep disturbance
- enuresis/encopresis
- frequently defies rules
- abnormal eating habits
- preoccupation with fire gore and evil
- persistent nonsense questions and incessant chattering
- poor hygiene
(Levy and Orlans)

Origin of RAD Diagnosis
- Barbara Tizard’s studies
  - 1970s
  - Studied children with early institutional rearing experiences
  - Of 26 children reared for first 4 years in institution, with an average of 50 different caregivers:
    - 8 had a preferred attachment
    - 8 were withdrawn and unresponsive
    - 10 were “indiscriminate, attention seeking and socially superficial” (Zeanah, 2006)

The basis of the RAD diagnosis
- Children raised in institutions, particularly during their first three years of life, compared with children raised in foster care exhibit more problems with:
  - Growth
  - Cognitive and language development
  - Behaviors:
    - Sleeping and eating
    - Aggression and hyperactivity
    - Excessive attention seeking and sociability with strangers
(Zeanah and Smyke, 2008)
RAD definition

“...A constellation of aberrant attachment behaviors and other social behavioral anomalies apparent in early childhood that are believed to result from limited opportunities to form selected attachments. Historically, attachment disorders have been linked to deprivation or social neglect.” (Zeanah and Smyke, 2008)

Two Types of RAD

- Withdrawn/Inhibited
- Indiscriminately Social/Disinhibited

RAD Withdrawn/Inhibited Type

- Child does not seek comfort when distressed and is not soothed when comforted
- Child does not initiate social contact
- Child does not respond to social interactions with caregivers
- Child exhibits various odd social behaviors, including inhibited, hyper vigilant or highly ambivalent reactions
- Severe emotional regulation problems
- VERY minimal positive affect
- Bouts of fear/irritability that are disproportionate or unprovoked
- Probable cognitive delays
RAD Withdrawn/Inhibited Type

- Can be found in children with histories of severe maltreatment (Zeanah, 2004)
- Can be found in children being raised in institutions (Smyke et al., 2002, Zeanah et al., 2005)
- “Much less noted in children adopted out of institutions” (Zeanah and Smyke, 2008 reporting on Chrisholm et al., 1995; Chrisholm, 1998; O’Connor, Bredenkamp and Rutter, 1999; O’Connor and Rutter, 2000)

RAD Indiscriminately Social/Disinhibited Type

- Lack of expected selectivity in caregiver choice when seeking comfort
- Lack of stranger anxiety/wariness, inappropriate approach of strangers, willingness to leave with a stranger
- Failure to check back with primary caregiver when exploring unfamiliar environments
- Lack of appropriate physical boundaries/intrusiveness - particularly with strangers

RAD Indiscriminately Social/Disinhibited Type

- Indiscriminate behavior only found in institutionally reared, but not in fostered or adopted children (Roy, Rutter and Pickles, 2004 and O’Connor et al., 2003)
- Only children placed in institutions early in life exhibit indiscriminate pattern (Wolkind, 1974)
- Indiscriminate behavior often remains even when attachments are formed (Zeanah, 2006)
RAD Diagnostic Criteria

History of Reactive Attachment Disorder Diagnosis

- 1980- introduced into DSM
- 1987- DSM III-R revised to account for attachment development
- 2000s- studies by O'Connor, Rutter, Kreppner, Zeanah and Smyke confirm early findings but note not present for all children to same degree and that full recovery occurs for many.

DSM-IV-TR Criteria

A. Reactive Attachment Disorder of Infancy or Early Childhood is characterized by "markedly disturbed and developmentally inappropriate social relatedness in most contexts, beginning before age 5 years, as evidence 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., 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. …not accounted for solely by developmental delay and does not meet criteria for PDD
C. Pathogenic care is responsible for the disturbed behavior above: at least 1
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
DSM-IV Criteria Criticism

- Criteria criticized for being developed and refined without data (Zeanah, Mammen, & Lieberman, 1993)
- Criteria are more consistent with "disorder of nonattachment" (Boris & Zeanah, 1999)

DC: 0-3R

Deprivation/Maltreatment Disorder is characterized by markedly disturbed and developmentally inappropriate attachment behaviors in which a child rarely or minimally turns preferentially to a discriminated attachment figure for comfort, support, protection, and nurturance.

1. Emotionally withdrawn or inhibited pattern: must include 3
   - Rarely or minimally seeking comfort in distress
   - Responding minimally to comfort offered to alleviate distress
   - Limited positive affect and excessive levels of irritability, sadness, or fear
   - Reduced or absent social and emotional reciprocity (e.g., reduced affect sharing, social referencing, turn-taking, and eye contact)
2. Indiscriminate or disinhibited pattern: must include 2
   - Overly familiar behavior and reduced or absent reticence around unfamiliar adults
   - Failure, even in unfamiliar settings, to check back with adult caregivers after venturing away.
   - Willingness to go off with an unfamiliar adult with minimal or no hesitation.
3. Mixed Deprivation/Maltreatment Disorder requires 2 or more criteria from both 1 and 2 above.

DC: 0-3R Diagnostic Reliability

- Interrater agreement for using DSM criteria for young children in foster care was good (Zeanah et al., 2004)
- A chart review study found greater interrater reliability with the DC:0-3R than the DSM criteria (Boris et al., 1998)
“Charming to strangers”

- Older children with pathogenic care
  “charming to strangers” but defiant and disrespectful to primary caregiver
  - Not evidence of “indiscriminate sociability”
  - Children experiencing early deprivation are physically intrusive (Zeanah & Smyke, 2008)

Physical Abuse and RAD

- No known cases in the literature of RAD resulting from physical abuse alone
- Maltreatment more likely to result in disorganized attachment (Barnett, Ganiban, & Cicchetti, 1999; Carlson, 1998; Carlson, Cicchetti, Barnett, & Braunwald, 1989)
  - At risk of increased anger (Kochanska, 2001) and aggression and externalizing behavior problems (see van Ijzendoorn et al., 1999 for a review)

Developmental Concerns of Diagnosing an Adolescent with RAD

- Application of RAD criteria and the central attachment related behaviors used in the diagnosis are questionable in school-age children and adolescents (AACAP, 2005)
  - Developmentally, at stage of attempting to master peer relationships
  - Distancing from caregivers
  - Caregivers should support this transition and set appropriate boundaries to ensure teen’s safety
  - Can’t interpret cognitions from behavior
- Oppositional Defiant Disorder/Conduct Disorder symptoms are not RAD, although both violate some social norms
Prevalence

- RARE
- Bucharest, Romania (Zeanah, 2006)
  - 12-30 month old children living in institutions
    - 10% met criteria for emotionally withdrawn RAD
    - 24% met criteria for disinhibited RAD
- Durham, NC (Egger et al., 2006):
  - 300 2-5 year olds in pediatric clinics
    - None met DSM-IV criteria for RAD

Prevalence in DSM-IV-TR

- Reactive Attachment Disorder
  - "Epidemiological data are limited, but Reactive Attachment Disorder appears to be very uncommon."
- Oppositional Defiant Disorder
  - "...from 2% to 16%..."

Interpreting the DSM with the Research in Mind

- RAD: No caregiver relationship established anywhere
- Attachment Problems: Negative caregiver behaviors or multiple disrupted attachment relationships in multiple placements
Popularity of RAD Diagnosis

- self destructive behavior
- destruction of property
- consistently irresponsible
- inappropriately demanding/clingy
- stealing
- hoarding
- inappropriate sexual attitudes
- cruelty to animals
- sleep disturbance
- enuresis/encopresis
- frequently defies rules
- abnormal eating habits
- preoccupation with fire and evil
- persistent nonsense questions and incessant chattering
- poor hygiene

(Levy and Orlans)
Attachment problems ≠ RAD

- Disorganized attachment and attachment insecurity are NOT disorders! (DSM)
- Reactive Attachment Disorder is about a pattern of social relatedness based on a LACK OF an early attachment relationship (research on RAD)

If they don’t have RAD what may they have?

That’s tomorrow!

Closing Thoughts
Animal Studies

Tying together attachment and trauma

Similarities between rats, monkeys and traumatized baby humans

- Dysregulation of the Hypothalamic-Pituitary-Adrenal Axis
- Impaired brain development
- Dysfunctional maternal and social behavior

Rat studies (the work of Plotsky and Meaney)

- Early life stressors produce long-term changes in stress (cortisol production) response.
  - Duration of early maternal separation correlates to amount of stress hormones produced later in life in response to stressor
  - Short term separations seem to immunize against future stress response but long term separations exaggerate it
  - Varies by gender, genetics, and normal differences in maternal care (licking and grooming, not time spent)
- Quality of maternal care immunizes against stress and builds hippocampus (spatial learning and memory)
  - Gentle human handling before or after stressor can reduce subsequent stress reactivity
  - Fostering
  - Environmental enrichment
Primate Studies (the work of Harlow, Suomi and colleagues)
- Impact on production of stress hormones
- Biological reactivity leads to behavioral abnormalities, peer rejection and poor parenting
- Differences between isolated, peer raised and mother raised infants

Disrupted Attachment
Study by Breslau, Davis, Andreski and Peterson (1991) found that early separation from parents is a risk factor for developing a chronic versus acute response to traumatic stressors (Cassidy and Mohr, 2001)

“It is loving that saves us, not loss that destroys us.”
-G. Vaillant, 1985
References


