Infants in Foster Care: Social Emotional Needs and Effective Interventions

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Infants in Foster Care

- 400,000 children in foster care to date
  - Children younger than 5 are twice as likely to be placed in foster care
    - www.childwelfare.gov, 2010
  - Spend longer time in out-of-home care
    - George & Wulczyn, 1998
Foster Care

- Designed to be an intervention
  - Removal from unsafe conditions
  - Developed as alternative to institutional care
  - Children thrive in family setting

- Foster parents have an important job!
  - Key position to help enhance positive outcomes!
Topics for Today: Infants in Foster Care

- **Part 1: Developmental stage of infancy**
  - Why is foster care challenging for infants?

- **Part 2: What areas of development are affected?**

- **Part 3: What can be done to promote positive outcomes?**
  - Attachment and Bio-behavioral Catch-up Program
Part 1: Developmental Stage of Infancy

Why is foster care challenging for infants?
What are the Developmental Needs of Infants

- Human infants are biologically prepared to form attachments to caregivers
Infant Attachment

- Salient tasks in infancy
  - become “selective”
    - especially during the second half of the first year of life
      - once infants can “move away” from caregiver, an attachment is in place

- primary caregiver(s)
  - Not just any adult will do: “stranger” will not work
Infant Attachment

- Associated with children’s social emotional development and functioning
  - Caregiver regulates emotions of infant
  - Internalized and eventually learned on own
Challenge 1: Losing Attachment Caregiver(s)

- Loss of caregiver challenges a core developmental process
  - Placed in care of adult with whom they often have no relation
    - Occurs at a developmental point in which they would otherwise have fully developed attachments
Challenge 2: Multiple Placements

- Multiple losses and multiple attachment reformations
  - Undermines potential to form healthy relationships

- Associated with increased emotional and behavioral difficulties
  - Gean, Gillmore, Dowler, 1985
Challenge 2: Multiple Placements (cont.)

- Compromised Cognitive Performance/Attention
  - Day-night Stroop task and Working memory control task (Gerstadt et al., 1994)
Placement Instability: Lewis et al., 2007

Number Correct

Number of Placements

0: n = 28
1: n = 47
≥ 2: n = 34
Challenge 2: Multiple Placements (cont.)

- Circular problem
  - Behavioral and emotional difficulties
  - Primary reason that children disrupt
    - Oosterman, Schuengel, Slot, Bullens, & Doreleijers, 2007
Challenge 3: Prior Trauma

- Histories of problematic caregiving
  - neglect (parental substance abuse)
  - physical maltreatment
  - abandonment
  - sexual abuse
  - exposure to violence in the home, etc.

- “Carry this trauma with them” to next placement
  - Behave in ways that alienate caregivers
    - Push caregivers away at times of need
    - Makes new relationship formation even more difficult
      - Stovall & Dozier, 2002
Summary of Challenges for Infants

- Challenge 1: Disrupt of Attachment Bond
- Challenge 2: Often repeated separations, disruptions
- Challenge 3: Prior traumatic experiences

Collectively places infants at risk for attachment difficulties and behavioral dysregulation
Part 2: What areas of development are affected? (and how can we measure them?)
Attachment Security in Infancy

- When infants have caregivers that are available and responsive to their needs, they develop secure attachments

- Behaviorally:
  - Seek out caregivers for comfort (safe haven)
  - Confidently explore their world, knowing they can rely on their caregiver as a “secure base” (when not distressed)
  - Develop a “confident expectation” that their caregiver will respond to their needs
    - (Sroufe, 1989; Ainsworth, Blehar, Waters, & Wall, 1978).
Insecure attachment

• What happens when caregivers are not sufficiently responsive to infants needs?
  ○ Cannot be “confident” that their caregiver will be available to them when they need them
  ○ Develop alternative behavioral strategies to manage distress when in their caregivers presence
    ▪ Ainsworth et al., 1978
Avoidant

- In response to caregivers that “minimize” infant distress, do not respond sensitively

- Develop an **Avoidant Attachment**
  - turn away from their caregivers at times of need
  - behave like they don’t need their caregiver’s nurturance

- Why?
  - not used to getting responded to, so “learn” not to turn to caregivers

- How do we know they “aren’t fine?”
  - Even though they show heightened physiological arousal, and subtle behavioral signs of stress
    - Sroufe & Waters, 1977
Ambivalent/Resistant

- In response to “inconsistent” caregiver availability

- Develop a **Resistant attachment**
  - alternate between avoiding their caregiver and seeking contact when distressed
  - remain fussy, inconsolable even when caregivers try to soothe

- Why?
  - don’t “learn” that they can effectively use caregiver as a safe haven
    - “sometimes s/he’s there and sometimes not”
In addition to being classified as secure or insecure, babies can receive a secondary classification of **Disorganized**

- breakdown in their behaviors when they are distressed and in their caregivers' presence.
- lapse in organized strategy
  - freezing, signs of fear, or atypical behaviors
  - when they should be turning to their caregiver for safety!

**Why?**
- Trauma, frightening parental behavior once source
  - Van Ijzendoorn et al., 1999

**Infants in foster care at especially high risk**
Why Do We Care About Attachment Security?

- Secure toddlers relative to insecure:
  - More competent problem solving as toddlers (Matas, Arend, & Sroufe, 1978)
  - More independent and confident with teachers at preschool (Sroufe, 1983)
  - More competent interactive behaviors with peers at school (Elicker, Englund, Sroufe, 1992)
Disorganized Attachment a Serious Risk

- Long term risk for a host of problematic outcomes
  - Decreased cognitive performance
    - (mental development scores on assessment during toddlerhood)
    - Lyons-Ruth et al., 1991
  - Aggressive behavior with peers
    - (Lyons-Ruth, Alpern, & Repacholi, 1993; Lyons-Ruth, Easterbrooks, & Cibelli, 1997)
  - Dissociative symptomatology, psychopathology throughout childhood
    - (Carlson, 1998)
Attachment Organization and Foster Infants

- Under responsive conditions, foster infants can develop secure attachments
  - Show “secure” behavior and less avoidant behavior with first two months
    - Develop clear, coherent strategies in the first few months of placement
  - But! if do not receive nurturing, responsive care, show high levels of avoidant and resistant behavior
    - (Chase-Stovall, Dozier, 2004)
Disproportionate Disorganization

- In general, at higher risk for developing disorganized attachments
  - When not cared for by highly nurturing caregivers
    - Possible Reason? Placement disruption is likely so disorganizing, difficulty with developing secure attachment unless in the most responsive environments

- Important considering long term risks associated with disorganized attachment classifications!
  - Dozier et al., 2006
Additional Dysregulation Among Foster Infants

- What if we look beyond the surface?

- Bio-behavioral dysregulation
  - Children can “look fine” behaviorally, but show physiological signs of stress
HPA Axis

- Hypothalamus Pituitary Adrenal (HPA) axis
  - Physiological system associated with response to stress, sleep, and ability to fight infections

- 2 orthogonal functions
  - Stress reactive function
    - Body’s mounting a stress response
  - Diurnal function
    - Circadian rhythm, Immune system
    - More discrepancies in this system
How Does This System Work?
How Can We Measure It?

- The end product: cortisol
- Easily measured in saliva (good for babies!)
- An index for how system is functioning
When do We Measure the HPA axis?

- Look at patterns across the day
  - Typical diurnal pattern established during the first year of life
    - Sharp increase at wake up
    - Sharp decrease until mid morning, steady decrease until bedtime
Cortisol and Young Foster Children

- Infants in Foster Care Showed Atypical Daily Rhythms, Dozier et al., 2006

- Infants: Atypically High

- Toddlers; Atypically Low

**FIGURE 2:** Percentage of Comparison and Foster Children With Typical, Low, and High Cortisol Patterns
Cortisol Values Across the Day

Less change from morning to evening
Dozier et al., 2006

FIGURE 1: Cortisol Values for Foster and Comparison Children at Wake-Up, Afternoon, and Bedtime
Part 3: What Programs Promote Positive Outcomes?

One example: ABC
Attachment and Bio-behavioral Catch up (ABC)

- Mary Dozier and Infant Caregiver Lab
  - University of Delaware

- 10 session, home-based intervention for foster parents and infants at risk for neglect

- Targets 3 critical needs of at-risk infants
## Overview of ABC

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First Critical Need

- Infants who experience early adversity push caregivers away
  - Fail to elicit nurturance
- Concern: Caregivers respond in complementary ways
  - Diary Study
    - “Baby looks like he doesn’t need me, I’ll leave him alone”
  - Stovall & Dozier, 2000
Intervention Target 1

Targeting what *infant* brings to relationship

- “Babies need you, even though they push you away”

- Caregivers are helped to re-interpret infants’ signals

- Get feedback “en-vivo” and through video feedback at the end of session
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Second Critical Need

- Nurturing care may not come naturally to some caregivers
  - “You’re fine, you’re not hurt”
  - Ignore bids for attention
- Address personal issues that may be getting in the way
  - Trouble developing organized attachments with non-nurturing caregivers
  - Dozier, Stovall, Albus, & Bates (2001)
Intervention Target 2

Targeting what caregiver brings to relationship

- Over-riding parents’ own tendencies to minimize children’s needs
- Provide nurturing care even if it does not come naturally
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Third Critical Need

Infants have difficulty regulating behavior and physiology

- Early adversity is associated with atypical diurnal patterns of cortisol
  - Dozier et al., 2006
Intervention Target 3

Helping Children Develop Better Regulatory Capabilities

- Following the child’s lead (Barnard, 1998; Van den Boom, 1994)
- Predictable, controllable environment, sense of mastery and control
- Touching, holding (Field, 1994)
- Expression of emotions (Izard, 2003)
How do we know it “works”? 
Randomized clinical trial

- Control Treatment: Developmental Education for Families
  - Ten 1-hour sessions (weekly) with caregiver and child
  - Enhance cognitive and linguistic abilities
    - Ramey et al., 1982; 1984
  - Prior success in improving intellectual functioning when provided intensively in day care settings
    - Brooks-Gunn et al., 1993

- Comparison group of children from intact families
Foster Mothers Become More Sensitive

• Compared Foster Mothers’ Interactions with Infants during a Play interaction following intervention
  ○ 44 Foster Mothers in ABC
  ○ 52 Foster Mothers in DEF

• Foster mothers who received ABC responded more sensitively to infants’ cues during play than those who received DEF

• Bick, Dozier, & Moore, 2012
Children in Attachment and Biobehavioral Catch-up intervention developed secure attachments more than children in control intervention, $\chi^2=4.14$, $p < .05$.

Dozier et al., 2009:

Foster parents who received ABC report that children display less avoidance in daily reports.
Percentage Disorganized Attachment Among Children in ABC and DEF Interventions

Bernard, Dozier et al., *Child Development*, 2012
Negative Affect Among Children in ABC and DEF Interventions

![Bar chart showing negative affect among children in ABC and DEF interventions. The x-axis represents different categories: Anger, Anger towards CG, and Negative Affect. The y-axis represents the level of negative affect. The chart compares the levels of negative affect between ABC and DEF interventions.](chart.png)
Children from Attachment and Bio-behavioral Catch-up intervention show significantly lower cortisol than children from DEF group, $F(1, 80) = 4.55, p < .05$.

Dozier et al., 2006
Which pattern most resembles that of typically developing children?

Children who had never been in care differed from DEF intervention children but not from Attachment and Bio-behavioral Catch-up intervention children, $F (3, 198)=5.24, p < .002$. 

![Cortisol level graph](image-url)
Summary of Effectiveness of ABC

- Improves foster mother-child interactions

- Improves attachment
  - Attachment Security
  - Reduces Disorganization

- Regulates HPA axis

- Exciting thing: this starts in home!
  - No other more important relationship for these young children
  - Especially at this critical stage of development
Overall Summary

- Challenges Faced by Foster Infants
  - Development challenge
  - Multiple placements
  - Prior trauma

- What becomes perturbed in these children?
  - Attachment
  - Bio-behavioral: HPA axis

- What can help promote positive outcomes?
  - One example: Attachment and Bio-behavioral Catch up
Additional Interventions: Improving Foster Parent Infant Relationships

- In past decade: Significant progress in identifying interventions that improve foster parents’ abilities to respond to attachment and mental health needs of foster infants
  - Multidimensional Treatment Foster Care for Preschoolers (MTFC-P)
    - Fisher et al., 2007

http://www.mtfc.com/
Acknowledgements

MARY DOZIER AND INFANT CAREGIVER LAB
UNIVERSITY OF DELAWARE

ABC Intervention
Attachment and Biobehavioral Catch-up Intervention

http://abcintervention.com/equipment.html

Delaware Division of Family Services, Parents and Children
Questions