Innovations and Best Practices: Helping Adoptive Families Overcome Early Adversities

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Acknowledgements
progress
promise
potential
Four Themes

• The science of early brain development is allowing us to understand the needs of adopted children in ways never before possible, and we can be increasingly precise about which children are likely to need the most support, and why.

• Effective interventions exist that leverage our understanding of the brain’s plasticity in infancy and childhood; these programs have the potential to mitigate biobehavioral risks conferred by the types adverse early life experiences common among adopted children.

• New, innovative strength-based family intervention models are being developed that have the potential to vastly accelerate progress in this area.

• Multilevel involvement and commitment of executive, legislative, and judicial branches, child welfare, community agencies, researchers, and families is critically important if we are to realize the full potential that exists
But first, a story in three brief videos
THEME 1:

THE SCIENCE OF EARLY BRAIN DEVELOPMENT IS ALLOWING US TO UNDERSTAND THE NEEDS OF ADOPTED CHILDREN IN WAYS NEVER BEFORE POSSIBLE, AND WE CAN BE INCREASINGLY PRECISE ABOUT WHICH CHILDREN ARE LIKELY TO NEED THE MOST SUPPORT, AND WHY.
Who is likely to need support, and why?

• 1. The most severely neglected children (i.e., story isn’t just about bad things that happen, it’s about good things that don’t!)
THREE BRAIN REGIONS that are interconnected by neural pathways (shown schematically by red lines) are critically important in regulating fear-related behaviors. The prefrontal cortex (purple) participates in assessing danger. The amygdala (dark blue) is a major constituent of the emotion-producing limbic system (light blue). And the hypothalamus (green), in response to signals from the prefrontal cortex, amygdala and hippocampus, directs the release of hormones (red arrows in box) that support motor responses to perceived threats. (Gray arrows represent inhibitory activity by cortisol.)
HPA axis diurnal dysregulation

**Typical Daytime HPA Activity**

- **Wakeup**: 1.0 ug/dl
- **Midmorning**: 0.6 ug/dl
- **Bedtime**: 0.2 ug/dl

**Chronically Elevated Daytime HPA Activity**

- **Wakeup**: 1.0 ug/dl
- **Midmorning**: 0.9 ug/dl
- **Bedtime**: 0.7 ug/dl

**Low Daytime HPA Activity**

- **Wakeup**: 0.2 ug/dl
- **Midmorning**: 0.2 ug/dl
- **Bedtime**: 0.2 ug/dl

**Stress-induced ‘blunted’ patterns**

Three brain regions that are interconnected by neural pathways (shown schematically by red lines) are critically important in regulating fear-related behaviors. The prefrontal cortex (purple) participates in assessing danger. The amygdala (dark blue) is a major constituent of the emotion-pending limbic system (light blue). And the hypothalamus (gray), in response to signals from the prefrontal cortex, amygdala, and hippocampus, directs the release of hormones (red arrows in box) that support stress responses to perceived threats. (Gray arrows represent inhibitory activity by corticosteroids.)
Toddlers in Romanian Orphanage Lack Normal Diurnal Cortisol Rhythm

Carlson and Earls, 1997

46 institutionalized toddlers; Not one with normal rhythm
Some (although not all) foster children also show blunted diurnal HPA axis function.

Bruce, Fisher, Pear, & Levine (2009)

Dozier et al. (2007),
Maternal separation in rhesus macaques: Flattened cortisol diurnal rhythm (Juvenile period: 12 & 24 months):

(Sanchez et al, 2005, Biological Psychiatry 57:573)

* p<0.05 (Maternal separation>Control at NOON;
Maltreated infants had higher AM basal cortisol at month 1, but lower thereafter

- Month one, physically aversive care is high, but intermittent..then drop in month 2-3
- What is left are higher rates of rejection, breaking contact, and failure to protect (more chronic stressors)

McCormack et al., 2006
Neglect is a common experience in low morning cortisol levels.

- Used Maltreatment Classification System (MCS) to code case records (Barnett, Manley, & Cicchetti; 1993).

- MCS codes for type (physical abuse, sexual abuse, failure to provide, lack of supervision, and emotional maltreatment) and severity of maltreatment.

- No sig. differences between low, average, and high morning cortisol groups on severity of physical abuse, sexual abuse, lack of supervision, total # incidents or total # of types of maltreatment.

Bruce, Fisher, Pears, & Levine (2009)
Why low cortisol in children with early neglectful care?

Responsive parenting in infancy and early childhood provides a buffer against stress, and helps a child become competent at regulating stress themselves.

Conversely, absence of SERVE AND RETURN is a toxic stressor.
Who is at risk and why?

- 2. Children with a history of prenatal drug/alcohol exposure AND maltreatment
* Based on the linear slope factor scores, FC kids were grouped into two:
  → Low (n=22) vs. High (n=18) reactivity group
* Kids in the low group had zero or negative slope scores; kids in the high group had positive slope scores
* No gender and group (RFC vs. TFC) differences between low and high group.

* Growth factor means
  * Low group: intercept (T2) .079, slope -.207, quadratic .341
  * High group: intercept (T2) .090, slope .353, quadratic -.833
Prenatal Cocaine Exposure Related to Cortisol Stress Reactivity in 11-Year-Old Children

Barry M. Lester, PhD, Linda L. LaGasse, PhD, Seetha Shankaran, MD, Henrietta S. Bada, MD, Charles R. Bauer, MD, Richard Lin, PhD, Abhik Das, PhD, and Rosemary Higgins, MD
Figure. Number of children with the blunted cortisol response to stress in the cocaine and comparison groups with and without exposure to domestic violence (unadjusted). Children exposed to cocaine who experienced domestic violence were more likely to show the blunted cortisol response than children in the comparison group who experienced domestic violence ($P = .001$, adjusted).
Number of Children with Typical and Blunted Cortisol Stress Response Based on Status of Prenatal Exposure and/or Physical Abuse

Fisher, Kim, Bruce, & Pears, 2012
Who is at risk and why?

- 3. Children who have had many caregiver transitions
Children with many caregiver transitions have difficulty on executive functioning tasks.

Pears, Bruce, & Fisher (2009) *Child Abuse and Neglect*

Similar findings reported by Lewis, Dozier et al. (2007)
Instructions: Push the button when a number comes on the screen, except when it’s a 9
NOTE: OTHER EARLY ADVERSE EXPERIENCES OPERATE SIMILARLY (E.G., MALNUTRITION)
Proposed Model for a Graduated, Empirically-Based Approach to Identifying Children Most Likely to Need Support

- Leave well enough alone
- Low intensity intervention
- High intensity intervention

Severity of neglect

Fisher, Chamberlain, & Leve, 2009
Theme 2:

Effective interventions exist that leverage our understanding of the brain’s plasticity in infancy and childhood; these programs have the potential to mitigate biobehavioral risks conferred by the types adverse early life experiences common among adopted children.
Core Intervention Model

[Diagram showing Foster/Adoptive Home and Therapy]
Programs developed at the Oregon Social Learning Center (OSLC)

Kids in Transition to School (KITS)

Multidimensional Treatment Foster Care (MTFC)

The Keep Program

PMTO
The **ADOPT** program is...

- An adaptation of Chamberlain and colleagues’ KEEP program (Keeping Foster and Kinship Parents Supported and Trained)

- A manualized program designed specifically to support adoptive parents

- Delivered in the context of weekly parent groups

- Designed to provide effective tools to support children’s healthy development

- Based on scientifically proven parenting methods and informed by brain science
Logistics

• Informal fun atmosphere--not class
• Groups 1 X per week for 16 weeks
• 90 minutes long
• 2 facilitators
• Missed sessions get home visit
• Snack and drink served
• Child care provided
• Home practice every week
• Groups are videotaped
• Clear guidance given to facilitators on curriculum content and engagement
• PWR 1 X per week
Session Content

1. The Adoption Journey: Welcome and Overview
2. The Importance of Routines for Adopted Children
3. The Importance of Play
4. Pre-Teaching: A Skill to Set the Stage for Success
5. Ways to Increase Cooperation in Your Child
6. Helping Adopted Children Learn New Behaviours and Skills
7. Using Charts and Incentives to Increase Positive Behaviour
8. Problem Behaviour: Setting Limits Effectively with Adopted Children
9. Effective Strategies for Setting Limits, Continued
10. The Balance of Encouragement and Limit Setting
11. Avoiding Power Struggles: Strategies for Keeping on Track
12. Extra Tough Behaviours
13. Contact with Birth Families
14. Promoting School Success
15. Promoting Positive Friendships and Sibling Relationships
16. Managing Your Stress
17 (optional). Graduation
aDopt Roadmap

• The ADOPT Program is currently being implemented at 9 sites in England, with plans for more.

• No implementations of ADOPT in the US

• We are interested in partnering to implement and evaluate the effectiveness of ADOPT in other sites in Europe, Canada, and the US.
Can these programs mitigate the effects of early adversity?

...You bet!
**HPA Plasticity**

**Concordant behavior change**

Initial

3 Month

6 Month
**Martin-McDermott Flanker Task**

- **Congruent**
  - Green
  - Red

- **Incongruent**
  - Green
  - Red

Bruce, Martin-McDermott, Fisher, & Fox (2009)
THEME 3: NEW, INNOVATIVE STRENGTH-BASED FAMILY INTERVENTION MODELS ARE BEING DEVELOPED THAT HAVE THE POTENTIAL TO VASTLY ACCELERATE PROGRESS IN THIS AREA
FIND

Filming Interactions to Nurture Development
Five Highly Precise and Specific Elements of Serve and Return

• Sharing Your Child’s Focus
• Support and Encouragement
• Naming
• Turn-Taking and Waiting (Back and Forth)
• Endings and Beginnings
The Edited Film

Title Page

Opening still

Description
Clip 1
Clip 1
Clip 1

Description
Clip 2
Clip 2
Clip 2

Description
Clip 3
Clip 3
Clip 3

Closing Still
Supporting and Encouraging
Naming
Turn Taking
Endings & Beginnings
Innovation in FIND

• Stand-alone but also complementary with/supplementary to other models

• Flexible in terms of
  – Caregiving context (moms, dads, childcare, foster care)
  – Individual or group-based
  – Prevention to intensive treatment
  – Low to high resource settings
  – Local vs. “hub-based” editing capacity

• Based on neuroscience-grounded testable theory of change, evaluated in micro-trials with rapid-cycle learning about effectiveness
THEME 4 (CALL TO ACTION): MULTILEVEL INVOLVEMENT AND COMMITMENT OF EXECUTIVE, LEGISLATIVE, AND JUDICIAL BRANCHES, CHILD WELFARE, COMMUNITY AGENCIES, RESEARCHERS, AND FAMILIES IS CRITICALLY IMPORTANT IF WE ARE TO REALIZE THE FULL POTENTIAL THAT EXISTS
Collective Impact

LARGE-SCALE SOCIAL CHANGE REQUIRES BROAD CROSS-SECTOR COORDINATION, YET THE SOCIAL SECTOR REMAINS FOCUSED ON THE ISOLATED INTERVENTION OF INDIVIDUAL ORGANIZATIONS.

By John Kania & Mark Kramer

Illustration by Martin Jarrie