New Approaches to Treating FASD in Young Children
Marcus Autism Center and Emory University School of Medicine

Taking the Next Step: Innovative Interventions for FASD
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Infants with Prenatal Alcohol Exposure
• Show poorer orientation (Kable & Coles, 2004; Smith et al., 1986)
• Show poorer habituation and increased low arousal (Streissguth et al., 1983)
• Slower reaction time and information processing (Jacobson et al., 1993; 1994)
• Sleep abnormalities (Chen & Olson, 2008)
• Less mature motor behavior and increased activity (Streissguth et al., 1985)

Infants with Prenatal Alcohol Exposure (cont.)
• Greater reactivity to stress (Haley et al., 2006; Jacobson et al., 1999)
• Alterations in pain regulatory system (Oberlander et al., 2010)
• Higher levels of irritability (Coles & Platzman, 1997; Lemola et al., 2009)
• Higher levels of negative affect and higher rates of insecure attachment behavior (O’Connor, 2001; O’Connor & Kasari, 1992)
• Difficulties with sensory regulation (Brown, Olson, & Croninger, 2010)

Young Children with Prenatal Alcohol Exposure
• Deficits in sustained attention, emotional reactivity, increased activity levels (Kelly, Day, & Streissguth, 2000)
• Irritability (Kelly et al., 2000)
• Depressive and anxious symptoms (O’Connor & Kasari, 2000; O’Leary et al., 2009)
• Aggressive behavior (Sood et al., 2001)

Prenatal Alcohol Exposure: Compromising Early Developmental Trajectories
PAE and Infant Attachment
PAE  Infant Neg. Affect  Maternal Interaction  Infant Attachment
O’Connor, Sigman, & Kasari, 1992

Prenatal Alcohol Exposure: Compromising Early Developmental Trajectories
PAE and Child Depressive Symptoms
O’Connor & Paley, 2006
Prenatal Alcohol Exposure: Compromising Early Developmental Trajectories

PAE, Child Behavior, and Parenting Stress

Paley & O'Connor, 2005

A Cascade of Risk

- Deficits in self-regulation can confer further vulnerability on the alcohol-exposed infant by:
  - Compromising early parent-child relationships (and possibly jeopardizing stable, nurturing caregiving environments)
  - Impairing a child's ability to manage stressful situations
  - Interfering with learning and mastery of developmentally appropriate tasks.

Children with FASD Often Experience Multiple Risks

- Prenatal
  - Exposure to other teratogens
  - Poor maternal nutrition
  - Lack of or poor prenatal care
  - Maternal stress
  - Mother's exposure to domestic violence

Children with FASD Often Experience Multiple Risks (cont.)

- Postnatal
  - Ongoing parental alcohol/substance abuse
  - Parental psychopathology
  - Exposure to domestic or community violence
  - Compromised parenting
  - Neglect or abuse
  - Disrupted caregiving relationships
  - Multiple placements
  - Lack of continuity in medical or mental health care

What Happens to Children with FASD?

- Longitudinal study of adolescents and adults with FASD:
  - 94% had mental health problems
  - 80% had employment problems
  - 61% has disrupted school experiences
  - 60% experienced trouble with the law
  - 50% had experienced confinement
  - 49% had engaged in inappropriate sexual behavior
  - 35% had alcohol and/or drug problems

(Streissguth et al., 1996; 2004)

Intervention for Infants and Young Children with FASD

- Early intervention services
  - Occupational therapy
  - Physical therapy
  - Speech and language
  - Regional Center services (if eligible)
  - Early Start/Head Start programs (if eligible)
Intervention for Infants and Young Children with FASD

- Family-level interventions
  - Parent education and advocacy training
  - Parenting skills
  - Parent-child relationship interventions
  - Parent support and advocacy groups
  - Alcohol/substance abuse treatment

Intervention for Infants and Young Children with FASD

- Encourage parents to participate in community activities, although may need to modify participation
- Work with parents on how to capitalize on child’s strengths
- Work with parents to identify an activity they and the child can enjoy together
- Work with parents to develop plans for self-care

Interventions for Young Children with FASD

- Supportive behavioral consultation
  - Families Moving Forward (Olson et al., 2009)
- Socio-cognitive habilitation
  - Focused math intervention, caregiver education, and educational support (Coles, Kable, & Taddeo, 2009; Kable, Coles, & Taddeo, 2007)
- Adaptive skills
  - Parent-assisted social skills training (O’Connor et al., 2006)
  - Safety skills (Coles et al., 2007)

Interventions for Pregnant Women and Mothers with Substance Abuse Problems

- Parent and Child Assistance Program (Grant et al., 1996; 1996; Kartin et al., 2002)
- New Choices (Niccols & Sword, 2005)
- Breaking the Cycle (Yadzani, Motz, & Koren, 2009)

Strategies for Enhancing Early Developmental Success

SEEDS Program for Infants and Toddlers with Prenatal Alcohol Exposure

NIAAA R21/R33019581

What is the SEEDS Program?

- An early intervention program for infants and toddlers with prenatal alcohol exposure and their adoptive/foster parents or caregivers
- Designed to better equip adoptive and foster parents to promote self-regulation, and more generally, support positive development in their children
- Designed to intervene at multiple levels within the family system
Goals of the SEEDS Program

- Enhance infant/toddler self-regulation
- Increase parental knowledge
- Enhance parental understanding of child’s challenges
- Enhance parenting skills
- Promote more positive co-parenting
- Promote peer support among parents
- Decrease parental stress
- Promote positive parent-child relationship

Components of the SEEDS Program

- Parent education and advocacy module (4 weeks)
- Attachment-based parenting skills module (8 weeks)
- Music-based parent-child play group (8 weeks)

SEEDS Program

- Children aged 1-24 months are eligible for enrollment
- History of prenatal alcohol exposure (a diagnosis on the FASD continuum is not necessary)
- In foster/adoptive family
- Foster parents receive credit for training hours
- Multiple caregivers may participate
- All three components include home activities

Advantages of Group Intervention for Parents of Children with FASD

- Fostering peer support among parents
  - Parents of children with FASD often report feelings of isolation, stigmatization, and frustration with lack of resources
- Empowering parents by allowing them to share their experiences and expertise
- Cost-effective for a population that is often underserved

SEEDS Program Parent Education and Advocacy Module

- FASD as a "hidden disability"
- Self-regulation as a core deficit
- PAE and attachment
- Parent as an “external brain”
- Child and family strengths
- Teaching strategies and environmental modifications
- Dealing with feelings of anger, grief, disappointment
- Parental self-care

Parent Education and Advocacy: Self-Regulation

- What is self-regulation?
- Why is self-regulation important?
- How does PAE impact self-regulation?
- Importance of parents’ own self-regulation
- How can parents help children with self-regulation?
SEEDS Program Right From the Start (RFTS) Module

- RFTS (Niccols & Mohammed, 2000) is an attachment-based parenting group
- Designed to enhance parents and caregivers' skills in reading infants' and toddlers' cues and responding in a sensitive manner
- Group facilitation method empowers parents and less likely to elicit resistance

Significant decreases in dysfunctional parent-child interactions, parental depression, and parental distress when compared to a control group (Niccols & Mohammed, 2000)

When compared to a home visiting program, RFTS was equally effective in enhancing maternal sensitivity and attachment security, but RFTS was significantly more cost effective (Niccols, 2008)

SEEDS Program Music Together (MT) Module

- MT is designed to teach musical competence to young children
- Selected for this program because of evidence linking exposure to music and singing with improvements in self-regulation
- Preschoolers participating in MT have been found to show gains in cognitive and social emotion functioning (Levinowitz, 2009)
- Also has been found to promote positive parent-child interactions (Blank & Guerrero, 2009)

Music Together (MT) Module

Coming Soon: “An Innovative Look at Early Intervention for Children Affected by Prenatal Alcohol Exposure” by Heather Carmichael Olson & Rachel Montague in Prenatal alcohol use and Fetal Alcohol Spectrum Disorders: Diagnosis, assessment and new directions in research and multimodal treatment (in press) by Susan Adubato and Deborah Cohen (co-editors)

Questions for Panel Discussion

- What are the most significant challenges in the early identification of children with FASD?
- What are the most significant challenges in qualifying young children with FASD for services?
- How can we most effectively coordinate different systems of care to ensure that young children with FASD are identified, tracked, and directed towards appropriate services?
- How can we improve advocacy for young children with FASD?

- What specific deficits might be the most appropriate targets for early intervention for FASD?
- What are the most appropriate ways to evaluate the efficacy of such programs?
- How can early intervention programs for other populations inform early intervention approaches for children with FASD?
- What kinds of modifications or accommodations might be necessary when adapting existing programs with this particular population?
Questions for Panel Discussion

• What factors or processes might promote resilience in young children with FASD?
• How can we most effectively train professionals who work with young children with FASD?
• How can community practices and evidence-based research interventions best inform one another?
• What major policy changes would most effectively improve services for young children with FASD and their families?