

**Parents and Children  
Together (PACT)**  
*Improving Regulation in  
Children with FASD*

*Children's Research Triangle*

*[www.childstudy.org](http://www.childstudy.org)*

# Theoretical Framework

## Traumatic brain injury

- Family education/support
- Occupational therapy
- Cognitive therapy

## Sensory integration

- *How Does Your Engine Run<sup>©</sup>? The Alert Program<sup>©</sup> for Self-Regulation*

Mary Sue Williams and Sherry Shellenberger

# Target Population

75 foster and adopted children with early deprivation and FAS / ARND

## Goal

Improve neurocognitive functioning

- executive function
- behavioral and emotional regulation

# Demographic Information

Age (mean)	8.7 years
Range	5.5 – 12.5 years
Race	
Caucasian	37%
African American	41%
Latino	4%
Other	17%
FAS	21%
Average age at adoption	40 months

# Research Design

- 75 children randomized into two groups
  - Treatment: neurocognitive habilitation
  - Control: current routine care
- Simultaneous evaluation
  - Baseline
  - 7 month outcomes

# Treatment Design

- Treatment course = 12 weeks
- Each group session = 75 minutes
- Group size limited to five children
- Simultaneous children's group and parents' group. The two groups join for the last 10-15 minutes of each session.

# Baseline and 7 month Follow-Up Measures

- Global cognitive functioning
  - WISC-III
- Behavioral and emotional regulation
  - Achenbach Child Behavior Checklist (CBCL)
  - Roberts Apperception Test for Children (RATC)
- Executive functioning
  - Wisconsin Card Sorting Test – 64
  - Behavior Rating Inventory of Executive Function (BRIEF)

# Outcomes

Two groups similar on all baseline data, including demographic, IQ, and polydrug exposure patterns

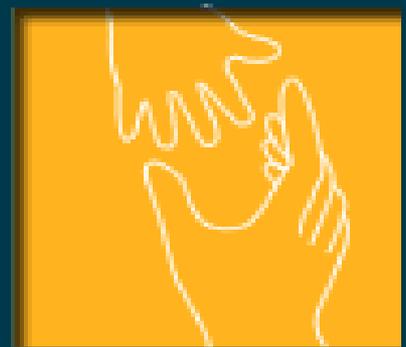
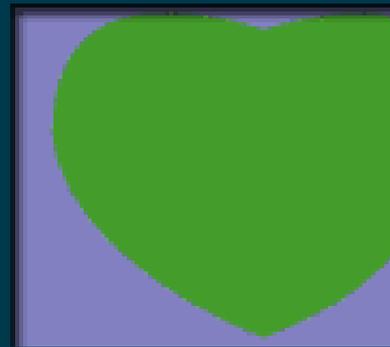
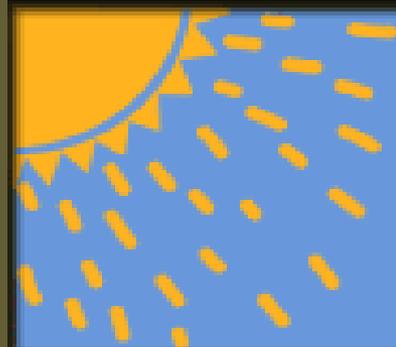
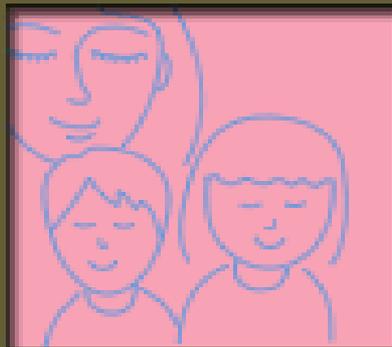
*Doubly multivariate analysis of variance (MANOVA)*

Significant improvement:

- Executive function (BRIEF)
- Emotional regulation (RATC)

# Key Components

- Body awareness
- Emotional awareness
  - How does your engine run?
- Planning skills
- Labeling emotions
- Self-regulation with relaxation training
- Self-monitoring skills
- Self esteem
- Memory



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