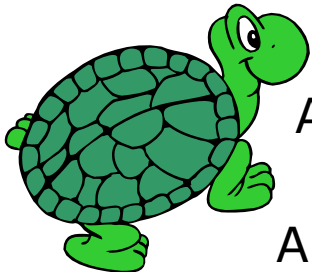


# The Turtle Project:

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## Helping Shy Preschoolers Come Out of their Shells

Kelly O'Brien, PhD\*, Andrea Chronis-Tuscano, PhD\*, Laura Knight, PhD, Kenneth Rubin, PhD\* Robert Coplan, PhD, and Lea Dougherty, PhD\*



ADAA Conference, April 14, 2012

An NIMH-funded collaboration between the Departments of Psychology & Human Development at the University of Maryland\*  
(PIs: Drs. Chronis-Tuscano & Rubin)



# Outline for talk

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1. Description of treatment development in the university setting (NIMH R34)
2. Preliminary results of RCT
3. Considerations for effectiveness, transportability, and dissemination

Funding Source: NIMH R34 MH083832-01A2 (to Drs. Chronis-Tuscano & Rubin)

# Behavioral Inhibition (BI)

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- A biologically-based **temperamental style** in which young children consistently respond to **novel stimuli**, including unfamiliar situations, objects, and people, with **negative emotion** and **withdrawal**

(Fox, Henderson, Marshall, Nichols, & Ghera, 2005; Hirshfeld-Becker et al., 2008; Kagan, 1997)

- Stable BI is risk factor for later anxiety disorders, and particularly social anxiety disorder

(Hudson, Dodd, & Bovopoulos, 2011; Hirshfeld-Becker et al., 2007; Muris, van Brakel, Arntz, & Schouten, 2011)

# Need for Developmentally-Grounded Treatment

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- Few treatment studies for very young children, despite early presence and stability of BI
- Downward extensions of CBT for children ages 4 – 7 with anxiety
  - Parent only and parent-child CBT sessions for children ages 4 - 7 (17.1 mean sessions; Hirshfeld-Becker, 2010)
  - Parent and child CBT (parallel groups) for children ages 5 - 7 (12 sessions; Monga et al, 2009)

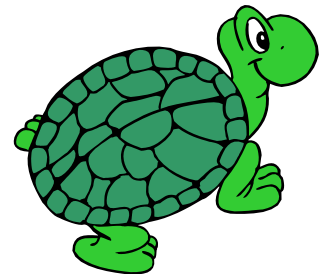
# Parent Child Interaction Therapy (PCIT)

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- PCIT is an empirically supported treatment for children ages 2 to 7 with Disruptive Behavior Disorders
  - Two phases: Relationship enhancement and behavior management
  - Uses in-vivo coaching to assist parents in skill mastery
- PCIT previously adapted for children with Separation Anxiety Disorder
  - Addition of Bravery Directed Interaction (BDI) phase for exposure in anxious situations

# Program Development: The Turtle Project

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- Developmentally-grounded: Parallel extension of PCIT with BDI phase
- Concurrent parent and child groups allow for in-vivo coaching and exposure practice with unfamiliar peers and adults

# Intervention Format

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- 8 sessions, 1.5 hours weekly
- 5-6 families per group
- Concurrent parent and child groups
  - 2 parent group leaders & 2 child group leaders
- Three Phases
  - Child Directed Interaction
  - Bravery Directed Interaction
  - Parent Directed Interaction



# PARENT GROUP

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# First phase: Child Direction Interaction

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- Positive attention skills and differential attention to encourage and increase independence, flexibility, and social skills
- Parent-child relationship enhancement

# Second Phase: Bravery Directed Interaction

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- Application of CDI skills in anxious situations
  - Attend to approach behaviors
  - Ignore avoidant behaviors
- Gradual exposure with bravery ladders and rewards
- In-session exposure practice examples: Invite child to play, ask child or adult survey question, ask adult permission to press elevator button, answer questions from adult



# Third Phase: Parent Directed Interaction


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- Differentiate anxious/avoidant behaviors from oppositional behaviors
- Effective Commands and time-out



# CHILD GROUP

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- Coaching and positive reinforcement of social initiations and skills
  - Didactics
    - Introducing yourself, eye contact, sharing your interests, relaxation, etc.
  - Exposures
    - Show and Tell
    - Scavenger hunt
    - “Party” games

# Study Assessments

## (Pre, Post, 2 Mo FU)

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- Diagnostic Interview (Preschool Age Psychiatric Assessment; Egger, 1999)
- Parent Reported:
  - Child behavior (e.g., BIQ, CBCL)
  - Parent mental health (e.g., BSI, STAI)
  - Parenting (e.g., PSOCS)
  - Family/Marital functioning (e.g., DAS)
- Teacher Reported:
  - Social Anxiety and Generalized Anxiety symptoms (Spence School Anxiety Scale)
  - Social skills (Classroom Behavior Rating Scale)
- Behavioral Observations:
  - Parent-child interactions during free play, clean-up, and lego tasks in the laboratory
  - Preschool Play Observation Scale (POS): solitary play, parallel play, initiations to teacher and students (Rubin)



# Preliminary Results

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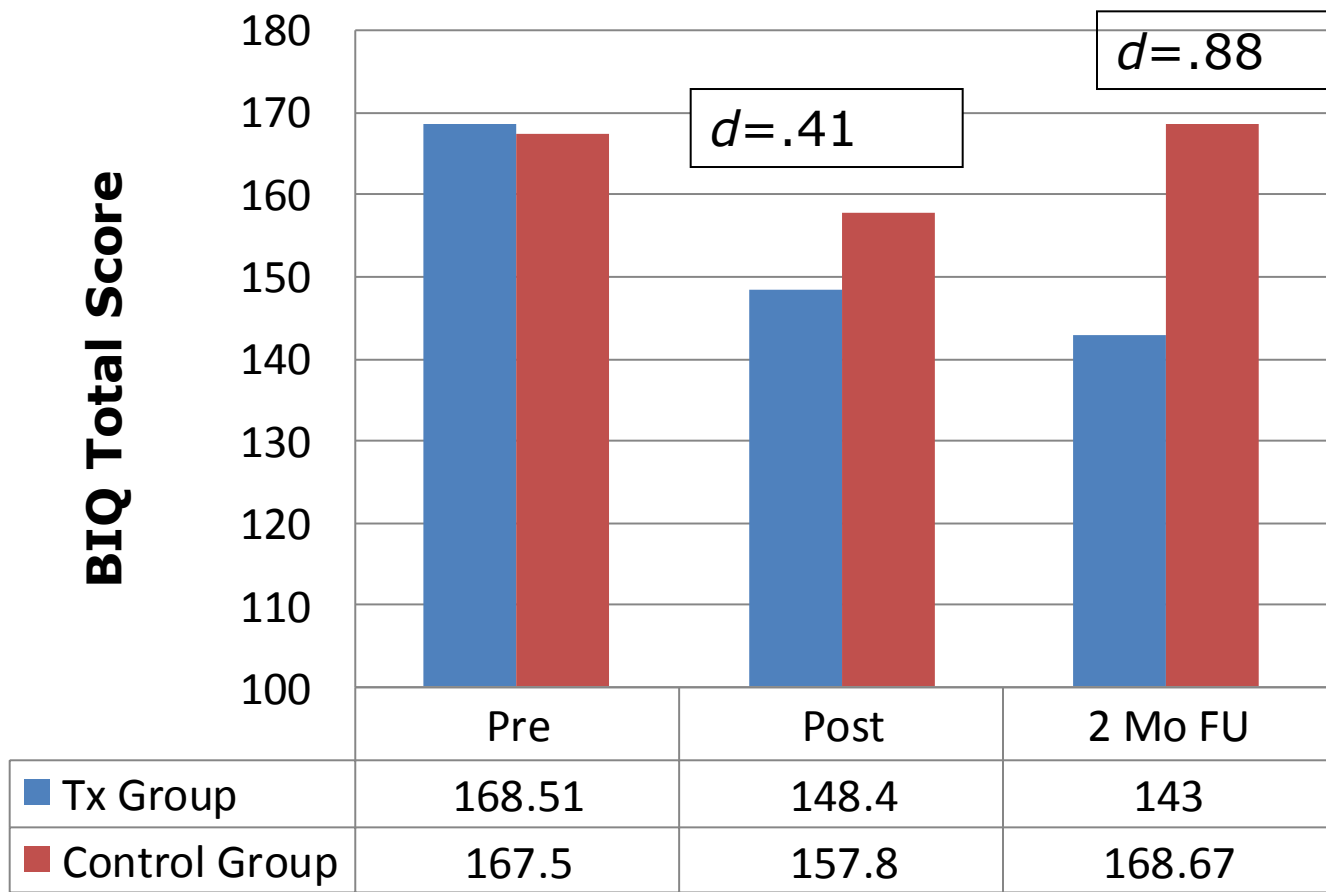
# Participants (*N*=19)

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Child Mean Age	51.5 months
Child Sex	
Male	47.4%
Female	52.6%
Child Ethnicity	
Non-Hispanic White	57.9%
African American	10.5%
Asian	15.8%
Biracial/Multiracial	15.8%
Maternal Mean Age (years)	36.8 years



# Maternal Reported Behavioral Inhibition Questionnaire (RCT Cohorts 1 and 2)

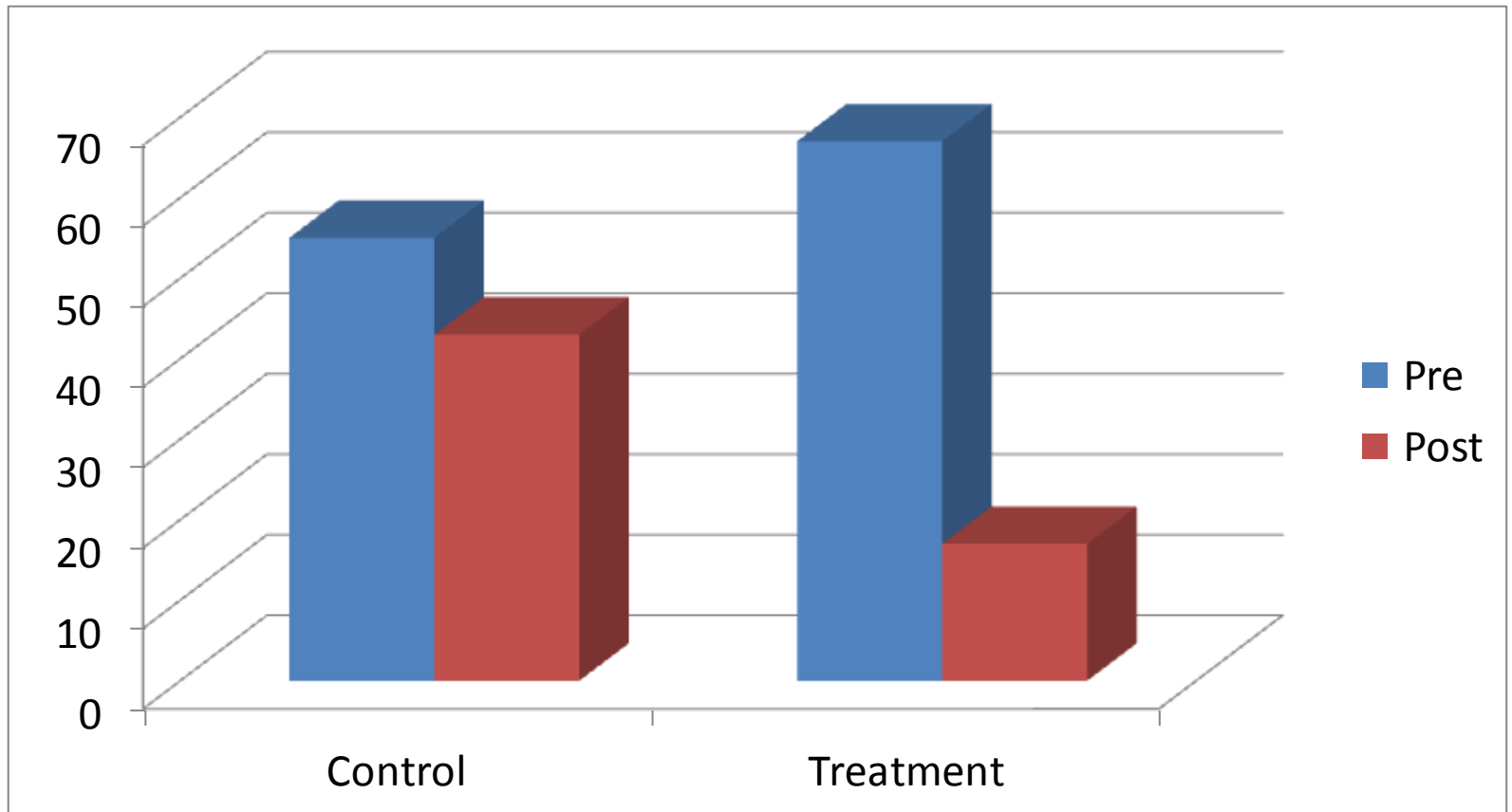


Tx Group:  $N=11$  at pre and post,  $N=4$  at FU

Control Group:  $N=8$  at pre and post,  $N=3$  at FU

Effect size ( $d$ ) reported is between group at post and FU

# Social Anxiety Disorder Diagnosis (%)



Control pre *N*: 11  
Control post *N*: 6


Treatment pre *N*: 12  
Treatment post *N*: 12



## Discussion:

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- Preliminary evidence for efficacy of intervention
- Barriers to transportability and dissemination of intervention
  - Advantages of considering practice variables and dissemination goals in the initial construction of intervention

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- Where do we go from here?
    - Considerations for different practice settings, practitioners, and populations
  - What are the active ingredients of the intervention? What are other mechanisms of change?
  - How do changes in program format, practice setting, practitioners, and supervision impact efficacy?

# Research Team

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- **Principal Investigators:**

- Andrea Chronis-Tuscano, PhD
- Kenneth Rubin, PhD

- **Co-Investigators:**

- Robert Coplan, PhD
- Lea Dougherty, PhD
- Laura Knight, PhD

- **Project Coordinator:**

- Kelly O'Brien, PhD

- **Consultant:**

- Donna Pincus, PhD

- **Graduate Student RAs:**

- Abigail Mintz
- Suzanne Huggins
- Sharon Thomas
- Katie Ellis
- Melissa Menzer
- Jennifer Wang

- **Undergraduate RAs:**

- Jackie Isabelle
- Alissa Mahler
- Elizabeth Frechette
- Wesley Vaughan
- Meir Hauser
- Brittany Pollack
- Martina Cade
- Shiv Choudhury
- Emily Utz
- Catrina LaRocca
- Lindsey Vernon
- Meghan Riordan
- Julia Finlayson
- Fallon Goodman
- Rochelle Schatz

- **Postdoctoral Fellows:**

- Kristina McDonald, PhD
- Erin Lewis-Morrarty, PhD
- Annie Schulz Begle