

Baby Siblings Intervention Study: *Progress Update*

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Who is running the project?

▶ Primary Investigators:

- Susan Bryson (Halifax) and Jessica Brian (Toronto)

▶ Co-Investigators:

- Isabel Smith (Halifax), Wendy Roberts (Toronto),
Lonnie Zwaigenbaum (Edmonton)

▶ **Clinical Research Co-ordinators:

- Erin Dowds (Toronto), Terry McCormick and Stacey
MacWilliam (Halifax)

▶ Funded by Autism Speaks

Who is participating and what does the program look like?

- ▶ Babies (sibs from longitudinal study) showing concerns between 12-30 months
- ▶ Based on Pivotal Response Treatment model (*Koegel & Koegel*) --adapted
- ▶ Parent coaching model
- ▶ Home visits with on-line coaching; video review; telephone contact
- ▶ 12 weeks + 12 wk follow-up (6 mo total)

What are we working on?

- ▶ Functional communication
 - Initial goal = intentional vocalizations
- ▶ Positive emotion sharing
 - Find ways to engage child; have fun!
 - Face-to-face interactions
 - Smiling together

Foundation of our model

- ▶ Behavioural basis:
 - $A \rightarrow B \rightarrow C$
 - manipulate **A**ntecedents and **C**onsequences to foster targeted skills (**B**ehaviours)
- ▶ Play-based, fluid
- ▶ Naturalistic
- ▶ Integrate strategies into daily routines
 - Play, meals, care-giving activities, outings...

Guiding principles (Antecedents)

- ▶ Follow child's lead (↑ motivation)
 - *"movement toward..."*
- ▶ Gain shared control
- ▶ Ensure child's attention
- ▶ Provide clear opportunities for response
- ▶ Intersperse easy (maintenance) and more difficult (acquisition) expectations
- ▶ Keep interactions enjoyable for child

Guiding principles (Consequences)

- ▶ Reinforce all (vocal) communication attempts
 - Natural Reinforcement
 - Immediate Reinforcement
 - Contingent Reinforcement

Didactic + coaching

- ▶ Manual with 8 chapters
- ▶ Hands-on, live coaching for 8 weeks
- ▶ Tapering through weeks 9-12
- ▶ "Implementation" weeks 12-24
- ▶ Follow-up at week 24

Progress to date...

- ▶ We have worked with 30 families
- ▶ Babies have started between 14-31 mos
- ▶ Variability re. language level and social-communication skills at intake
- ▶ All had elevated scores on measures of social communication, behaviour and play

Preliminary outcomes

- *In the majority of cases, post-intervention gains in:*
- Positive Shared Affect:
 - child smiling and parent smiling
 - shared smiling (parent with child)
 - proportion of smiles to parent (vs. object)
- Communication:
 - Increased responsiveness to verbal models
 - Gains in Receptive and Expressive language
- ▶ Reductions in ASD symptomatology (AOSI or ADOS)

Where do we go from here?

- ▶ Evaluations of parent satisfaction
- ▶ Complete analysis of remaining cases
- ▶ Randomized Controlled Trial
 - Autism Speaks CANADA and Sinneave Foundation
 - 60 families (Toronto and Halifax) → 3 years
 - Start March/April 2011
- ▶ Community translation