PLAY AND LANGUAGE WITH AUTISTIC YOUNGSTERS TRAINING PROGRAM

PRINCIPAL INVESTIGATOR: DR. SHERYL ROSIN
CO-PRINCIPAL INVESTIGATOR: DR. KRISTIN WINSTON
CO-INVESTIGATOR: BARBARA ZUCKER

Community Partners:
Broward County School District – ESE preschool
Broward County CARD (Center for Autism and Related Developmental Disabilities)
PREVIEW

• The PLAY project
• PLAY research benefits
• Differences from the current research
• Research Methodology
• Limitations of the Research
• Future Studies
THE PLAY PROJECT

- PLAY: Play and Language for Autistic Youngsters.
- The PLAY Project Home Consultation program trains parents to interact with their children who are on the autism spectrum.
- Based on Developmental Individualized Relationship Based (DIR)/Floortime model of Greenspan (2005).
- Addresses language, sensory, social, and educational difficulties of children with autism.
Our research tests the PLAY intervention, brings a cost-effective intensive developmental intervention to the community, and teaches our students different skills related to theory as well as clinical work such as:

- Communicating and working with families of children with autism.
- Giving assessments (e.g., CARS, Greenspan Social Emotional Growth Chart, Receptive-Expressive Emergent Language Test, etc.).
- Recruiting subjects.
- Learning methods of intervention for use as future clinicians.
- Collecting and analyzing data.
HOW IS THE CURRENT PLAY STUDY (SOLOMON, 2012) DIFFERENT THAN OUR STUDY?

1. Control group - received less intensity and frequency of treatment in Solomon’s study. What if the treatments are equally intense/frequent in the experimental and control groups? Would there still be an advantage to the PLAY?

2. Focus is on improvements in the parent, clinician and child; noting that parents and clinicians interact better and can learn to implement the PLAY rather than focusing solely on the child’s improvement.

3. Only independent entity to examine PLAY.
RESEARCH METHODOLOGY

1. Used Solomon’s (2012) current NIMH methodology with some additions and or modifications.

2. Research Methodology:
   a. Design – changed control group
   b. Sampling – same type of participants
   c. Data Collection – additional instruments and procedures
   d. Data Analysis – additional statistics
1. **Design**: Prospective double-blind randomized controlled intervention trials.

**Groups:**
- Group 1: PLAY + Community Standard
- Group 2: Parent Education Group + Community Standard

In Solomon’s 2007 pilot study, he stated “Theoretically, simply instructing a parent, who is already skilled in interaction, to play 15 hours per week without further guidance may be enough to induce changes in the child’s functional development over time. Future studies should include an ‘education only’ control group that addresses this issue.” (Solomon, 2007, p. 220)
• **Experimental PLAY group** - Parents will be specifically taught techniques for altering the home environment and ways to enhance their child's language, social, and play development once per month for 10 months. Parents will be given guided practice (input and coaching from the Home Consultant) as they implement these techniques with their child (Solomon, 2012).

• **Control Parent Education group** - Parents will receive information on topics related to autism, language, play, social, sensory, and provide resources once per month for 10 months. The parents will be able to ask questions and discuss information about their own child. This intervention is manualized (Brereton & Tonge 2005).
METHODOLOGY

Design cont.

- **Number of Measurements**: Pre, Mid (5 months), Post (10 months), and follow up (3 months post intervention) for all participants.

- **Rationales**: for 5 months - allows us to tell if the program could be shortened from 10 months to 5 months; for 3 months – generalization.

- This design allows us to register in clinical trials database of the NIH: Clinical trials database considered the gold standard in research.
2. Sampling:

- **Participants**: N=40, 3-5 year old children, diagnosed with ASD.
- Recruited from Broward County ESE (Exceptional Student Education) preschools and Broward County CARD (Center for Autism and Related Developmental Disabilities) clients.
- Matched for age, gender, and severity.
- Randomly assigned to one of the 2 groups.
- **Exclusion Criteria**:
  - Involvement in a parent training program within one year prior to enrollment in this study.
  - Diagnosis of autism spectrum disorder must not be comorbid with other medical syndromes (e.g., Down syndrome, fragile X, etc.)
METHODOLOGY

3. Data Collection:
   - **Instruments:**
     - CARS-2 (Child Autism Rating Scales, 2010),
     - GSEG C (Greenspan’s Social Emotional Growth Chart, 2004),
     - SP (Sensory Profile, 2002),
     - REEL (Receptive-Expressive Emergent Language Test, 2003),
     - Mahoney’s Child (1998) and Caregiver (2008) Behavior Rating Scales,
METHODOLOGY

Data Collection cont.

- Procedures:
  - Participants receive intervention in both conditions for 2-3 hours each month for 10 months.
  - Groups provided same general consent form.
  - PI and Co-PI will administer interventions; PI provides PLAY to families; Co-PI provides the Caregiver Education Training to families. SLP/OT students are watching, learning the techniques, and collecting data.
  - Students will be pre-trained to administer assessments and collect data and will be blinded to group assignment and intervention methods.
4. Data Analysis:
   a. Independent and Dependent variables:
      1. IV: study groups (Experimental/Control), and points time (0, 5, 10, & 3 months post intervention);
      2. DV: severity of autism, child’s functional developmental level, sensory profile, communication, parent and child interaction, and teacher’s rating.
   b. Statistical analysis: 6, 2 way ANOVAs, post hoc MANOVA will be done to provide insight into future studies.
   c. Expected results: The 6 outcome variables will show a larger improvement across all their parameters in the PLAY group and not in the Caregiver Education group.
LIMITATIONS OF THE RESEARCH

- **Participants**: A lot of unknowns regarding the ages and severity levels of the children that will participate in the study.
- **Design**: Difficult to truly double blind raters using videos.
- **Design**: May be better to have participants serve as their own controls and compare within groups as opposed to between groups (use crossover design).
- **Generalization**: Videos may demonstrate that the parent/child dyads can learn methods and play well on camera, but what about when the camera is off (need a hidden camera)?
- **Ethical**: Not all participants will receive the PLAY project.
FUTURE STUDIES

• Research Design: Phase 2
  • Addition of cross over design
    • 1 group: PLAY (5 months) then Control (5 months).
    • 2 group: Control (5 months) then PLAY (5 months).
  • Rationale: All families will receive PLAY.
  • Remain ethical.

• Research Design: Phase 3
  • Generalization from family and familiar peers to new peers: generalization assessment.