Autism Lab

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Lab Overview

The MSU Autism Lab was founded in 2007 by Brooke Ingersoll, PhD. Our lab studies social communication development in children with autism spectrum disorders (ASD). In particular, we are interested in the development and evaluation of interventions to improve these skills. We are also interested in the effect of ASD on the family.

Special Topic: Parent Training

A growing body of research has demonstrated that parent training is an effective intervention model for young children with autism. Research also states that parents can learn to use both developmental and behavioral intervention strategies with their children with ASD with precision, and with the same degree of effectiveness as many of their children's outside therapists.

Parents' use of these evidence-based strategies results in their children's increased language development and frequency, social interactions, joint attention, play skills, and imitation skills.

In addition to child skill acquisition, there are many other benefits to parent training. When parents implement intervention strategies with their children on a regular basis, children are able to maintain their skills for longer and are able to display these skills in several settings (generalization). Possibly due to its cost-effectiveness and the ability to have an impact on their child's lives, parents who practice intervention techniques with their children tend to have lower stress levels, increased ability to have leisure/recreation time, and a higher level of optimism about their child's future.
Research Highlights

In April, we presented two posters at the Society for Research on Child Development (SRCD) in Montreal and we will be presenting 4 posters at the upcoming International Meeting for Autism Research (IMFAR) in San Diego in May. Here are highlights of research that we will present at IMFAR.

Pilot Study of Project ImPACT in Schools

One potential way to increase access to parent training for children with autism is to offer it through the public schools. We examined the effect of a parent training program designed to be implemented by teachers in special education settings. Project ImPACT (Improving Parents As Communication Teachers) is a parent training program for children with autism. Pilot data indicate that the parents improved their use of the intervention strategies and their children increased their rate of appropriate language during parent-child interactions in the home. Parents and teachers reported improvements in child social-communication skills and parents reported decreases in parenting stress. Parents and teachers rated the program as highly acceptable. The pilot data are promising and suggest that this program can be effectively implemented in school settings.

Internet-Based Parent Training: Reciprocal Imitation Training (RIT)

Another potential way to increase access to parent training for children with autism is to offer training over the internet. We examined the effect of an internet-based training program to teach parents and therapists autism intervention techniques.

We designed an internet-based program to introduce techniques from Reciprocal Imitation Training (RIT), a naturalistic behavioral intervention that has been shown to improve imitation skills in young children with autism. Results from this study found that parents and therapists were able to learn about and correctly use RIT after working through the internet-based program! Children participating in the study also showed improved rates of imitation during RIT sessions in this study. Finally, participants found the internet-based training to be effective, acceptable, and user-friendly.

We are excited to continue our work with the development and evaluation of internet-based training programs!
Current Projects

**Project ImPACT:** This project trains providers to teach parents of children with ASD evidence-based strategies for improving their child's social-communication skills during ongoing family routines.

We are working with a number of programs to implement the Project ImPACT curriculum with their families, including Ottawa Area ISD, Livingston ESA, Clinton County RESA, Clinton-Eaton-Ingham CMH, Ingham ISD, San Diego County BRIDGE Collaborative, and Kaiser Permanente Health System in Ottawa, CA.

In addition to implementation in the school environment, our lab is training several families using this program by individual format. We also have recently added a project which consists of direct implementation of the Project ImPACT interventions to children in our lab, using trained research assistants as the intervention providers.

**Component Analysis of RIT:** We are beginning a new study to examine which treatment components of RIT, a developmentally-based imitation intervention, are most effective for teaching imitation to young children with autism. Participating children will receive 9 weeks of intervention targeting imitation skills.

**Word Learning in Children with ASD:** This project aims to understand strategies children with ASD use to learn new words. We are recruiting children with ASD and typically-developing children with a language age of 18-30 months. Children will be administered several standardized assessments and will participate in a brief word learning task over 2-3 visits.

**ImPACT Online:** Coming Soon!

We have begun the development of ImPACT Online, an internet-based distance learning program for parents of children with autism based on the Project ImPACT curriculum with funding from the US Department of Defense's Autism Research Program. ImPACT Online will teach parents to promote their child's social communication during play and daily routines using distance learning technology. We recently conducted our first focus group (THANK YOU, PARTICIPANTS!!!) and plan to begin enrolling families in September 2011.

*If you are interested in learning more about any project listed, or want to be on our waiting list for our intervention studies, please call Nikki Bonter at 517-432-8031 or email: bonterni@msu.edu.*
Project ImPACT Workshop: Teaching Social Communication to Children with Autism

Our lab is offering a two day workshop on Project ImPACT, an evidence-based intervention that teaches social communication to children with autism spectrum disorders (ASD) ages 18 months to 6 years. It uses a blend of developmental and naturalistic behavioral intervention models. There is a parent training component that uses effective methods for teaching parents and can be implemented in either an individual or group format.

The workshop will be on May 19-20, 8:30-4:00 at Michigan State University. To find out more about the workshop, or to register, go to www.impact.eventsbot.com If you have further questions, please contact Nikki Bonter at 517-432-8031.

Family Tidbits

In this section of our newsletter, we would like to highlight little family stories, or exciting “tidbits” concerning your child with ASD. It can be anything that brings a smile to your face; an accomplishment; a new word; a happy day; a funny happening.

When you have something to share, please e-mail it to bonterni@msu.edu, and we will be sure to add it to one of our upcoming newsletters. Thank you!

Beny, 6y

Beny is learning to read! The other day he was driving with his mom, and he asked, “mom, what does u-h-a-u-l spell?” His mom answered, “u-haul.” A few minutes later he asked, “how do you spell ‘hallway’?” And his mom then spelled it for him. Then, Beny said, “that is stupid, hallway and uhaul sound the same, so they should be spelled the same way.” His mom says to her little “literal” guy, welcome to the English language Beny! *Way to go Beny!

Cooper, 6y

Cooper and his family have just returned from a 5 day trip to Disney World. Mom reports, “never did we think we’d reach the day we could attempt a family vacation like this.”

Standing in front of Magic Kingdom
whole alphabet backwards all the way back to A! *Way to go Dominic!

*Thank you to all families who shared with us this month!

AJ, 4y
AJ is now attempting to verbalize his needs almost consistently! He is now using words to label objects, actions, and has even started singing songs! He will so sweetly wave hello and good-bye, and gives mom a huge hug when she comes home from work. He also is reading books with mom, and is even reading some words and verbalizing when he recognizes the word in a different setting. *Way to go AJ!

Dominic, 6y
It has been discovered that Dominic can recite the alphabet backwards! He has a set of alphabet blocks, and mom saw him lining them up starting with “Z.” Out of curiosity, she said “what comes before Z,” and Dominic answered “Y.” Mom asked “what comes before Y,” and Dominic said “X.” Later, Dominic’s sister heard the news and asked him to recite the alphabet backwards. She said “Z” and then Dominic recited the castle was a memory that their family will never forget...watching Cooper smile from ear to ear, watching the Disney characters on stage...and him chiming in with them...“dreams come true...dreams come true...DREAMS COME TRUE...” *Way to go Cooper, and so nice to hear of your family vacation!

We schedule several lab outings throughout the year. If you would like to be informed of upcoming outings, please email Nikki Bonter at bonterni@msu.edu and ask to be put on our contact list.