Lay Abstracts

Title: Bamboo shoots after the rain: Development and challenges of autism intervention in China

Authors: McCabe

DOI: 10.1177/1362361313501276

Lay abstract: The purpose of this study was to gain an in-depth understanding of autism intervention in China, including history, progress, and current challenges. This research study included interviews with experienced professionals and observation at autism intervention organizations. Analysis of this data led to three themes regarding this field. First, the development of the field can be described using the Chinese expression, mozhe shitou guohe (feeling stones to cross the river). Owing to limited exposure to outside information, methods are often created independent of research-based best practices. Second, autism intervention in China has had a strong, and until recently, almost exclusive, focus on young children. Finally, there exist continued challenges to providing effective services that relate to the desires of parents and professionals to provide “more”; a focus on quantity may be preventing a focus on quality. The Discussion concludes with an analysis of the findings and practical implications that may be used by practitioners or scholars planning to do work in China.

Title: The First Year Inventory: A longitudinal follow-up of 12-month-old to 3-year-old children

Authors: Turner-Brown, Baranek, Reznick, Watson and Crais

DOI: 10.1177/1362361313501276

Lay Abstract: The First Year Inventory is a parent-report tool designed to identify 12-month-old infants at risk for autism spectrum disorder. First Year Inventory looks for behaviors that suggest risk in the developmental domains of sensory–regulatory and social–communication functioning. This study followed 699 children at 3 years of age from a community sample whose parents completed the First Year Inventory when their children were 12 months old. Parents of all 699 children completed the Social Responsiveness Scale–Preschool version and the Developmental Concerns Questionnaire to determine age 3 developmental outcomes. In addition, children deemed at risk for autism spectrum disorder based on liberal cut points on the First Year Inventory, Social Responsiveness Scale–Preschool, and/or Developmental Concerns Questionnaire were invited for in-person diagnostic appointment. We found nine children who had a confirmed diagnosis of autism spectrum disorder from the sample of 699. We determined that a two-domain cutoff score resulted in the best classification of children: 31% of those meeting the tool’s cutoffs had autism spectrum disorder and 85% had a developmental disability or concern by age 3. These results suggest that the First Year Inventory
is a promising tool for identifying 12-month-old infants who are at risk for an eventual diagnosis of autism spectrum disorder.

Title: White matter and development in children with an autism spectrum disorder
Authors: Mak-Fan, Morris, Vidal, Anagnostou, Roberts and Taylor
DOI: 10.1177/1362361312442596

Lay abstract: Recent research suggests that brain development follows an abnormal path or trajectory in children with autism spectrum disorders (ASD). Comparing a group of typically developing (TD) children and a group of children with ASD (aged 6–14 years), the current study examined whether this idea was true in “white matter pathways.” White matter is the part of the brain that connects different brain regions, located all over the brain, and helps them to communicate. Here, measures of “diffusivity” (which can give us information about the quality of the white matter pathways) were investigated. The results showed evidence for differences between the white matter pathways of the ASD and TD groups from many different parts of the brain, when we looked at the children’s age. In all cases, these measures of diffusivity decreased with age in the TD children, but showed little or no change in the ASD children. These findings support the idea that white matter pathways develop in an abnormal way in people with ASD. This could have profound effects on the development of brain connectivity in this group and could be a factor that contributes to atypical cognitive development in children with ASD.

Title: Predicting language and social outcomes at age 5 for later-born siblings of children with autism spectrum disorders
Authors: Malesa, Foss-Feig, Yoder, Warren, Walden and Stone
DOI: 10.1177/1362361312444628

Lay abstract: Joint attention involves the sharing of attention or interest with another person about an object or event. This study examined how children’s early joint attention skills contribute to their later language ability and social skills, such as cooperation and empathy. Younger siblings of children with autism spectrum disorder (ASD siblings) were compared with younger siblings of children with typical development (TD siblings) in this study. Two types of joint attention were assessed: initiating joint attention (for example, when the child points toward the sky, says “moon,” and looks back at his mother) and responding to joint attention (for example, when the child looks at a picture in a book that his mother is showing him). These behaviors were measured four times between the ages of 12 and 34 months by observing the child’s interactions with a clinician in specific situations. Language and social outcomes were measured at 5 years of age. Results revealed similar patterns for the ASD and the TD siblings: (1) initial levels of initiating joint attention (i.e. measured at an average age of 15 months) were associated with children’s language skills at age 5; and (2) improvement in responding to joint attention over time was associated with social skills at age 5. In addition, at age 5, the performance of the ASD siblings was comparable with that of the TD siblings on the
language and social measures used. These findings highlight the different developmental functions served by initiating and responding to joint attention, emphasize the importance of measuring growth over time in predicting later outcomes, and provide an optimistic outlook for ASD sibling outcomes at age 5.

**Title: The distribution of and relationship between autistic traits and social anxiety in a UK student population**

**Authors:** Freeth, Bullock and Milne

**DOI:** 10.1177/1362361312445511

**Lay abstract:** Mental health conditions are often expressed in mild forms in the general population and can cause individuals considerable difficulty and distress. This study looked at autistic traits and social anxiety in a UK student population. These difficulties may be particularly problematic for students studying for a degree as the typical work environment is extremely social. Questionnaires assessing traits associated with autism and social anxiety were completed by 1325 undergraduate students at the University of Sheffield. The results found that 10% of students experienced clinically significant levels of social anxiety; 3% of students had clinically significant amounts of autistic traits; 2% of students experienced both clinically significant levels of social anxiety and autistic traits. There was a positive relationship between autistic traits and social anxiety, with individuals who self-reported having more autistic traits also tending to report experiencing more social anxiety. The autistic traits that were particularly associated with social anxiety were poor social skills (especially in males), difficulties switching attention between tasks (especially in females), and poor communication skills. Having a poor imagination was also relevant for females but not for males. Students with high levels of autistic traits were more likely to report heightened anxiety overall, and in situations necessary for the successful completion of their degree, for example, participating in a small group activity; working while being observed; giving a prepared oral talk to a group. We suggest that these students in particular may benefit from additional support during their studies.

**Title: Using the Language Environment Analysis (LENA) system in preschool classrooms with children with autism spectrum disorders**

**Authors:** Dykstra, Sabatos-DeVito, Irvin, Boyd, Hume and Odom

**DOI:** 10.1177/1362361312446206

**Lay Abstract:** This study describes the language environment of preschool programs serving children with autism spectrum disorders (ASDs) and examines relationships between child characteristics and an automated measure of language in the classroom. The Language Environment Analysis (LENA) system was used with 40 children with ASD to collect data on adult and child language. Assessments were used to obtain language, cognitive, and autism severity scores for participants. We recorded over 5 hours in 2 days several months apart. We found that two of the three LENA language variables were related to language age-equivalents. Cognitive age-equivalents were also related to two LENA variables. Autism severity
scores and LENA variables were not related. Implications for using the LENA system with children with ASD in the school environment are discussed further in this article.

**Title: Using the Child Behavior Checklist and the Teacher’s Report Form for identification of children with autism spectrum disorders**

*Authors: So, Greaves-Lord, van der Ende, Verhulst, Rescorla, and de Nijs*

DOI: 10.1177/1362361312448855

**Lay abstract:** This study evaluated how well two questionnaires—the Child Behavior Checklist (CBCL) and the Teacher’s Report Form (TRF)—could identify children with a diagnosis of autism spectrum disorders (ASD) from (1) children from the general population, (2) referred children without a clinical diagnosis, and (3) referred children with other psychiatric disorders such as anxiety disorders. Both questionnaires contained a large number of questions (118; each scored on a three-point scale) that ask about the child’s behavior during the past 6 months. First, the ten questions that differentiated best between children with ASD and children in the other groups were selected. Second, whether these shortened versions (termed ‘ASD scales’) could be used to differentiate children with ASD from children in the other groups was tested in an independent sample of children (i.e., not those that were originally assessed). Both the CBCL and the TRF ASD scales were able to discriminate children with ASD from children in all comparison groups. Finally, “cut-off scores” were calculated by combining the CBCL and TRF ASD scales for the children from the general population, as well as for the referred children, and identifying what scores on the questionnaire were or were not within a typical range. The combined CBCL/TRF ASD scale did well to identify children with ASD and children in the general population sample (known as “high predictive validity”), making it a good scale for use in general screening settings. In a referred population the scale is especially good at identifying children who do not need further evaluation with a tool that is more specific to children with ASD.

**Title: To enforce or not to enforce? The use of collaborative interfaces to promote social skills in children with high functioning autism spectrum disorder**

*Authors: Ben-Sasson, Lamash and Gal*

DOI: 10.1177/1362361312451526

**Lay abstract:** The goal of the study was to examine whether a technological touch-activated Collaborative Puzzle Game (CPG) increased positive social behaviors in children with high functioning autism spectrum disorder (HFASD). The CPG involved construction of a virtual puzzle by selecting and dragging pieces into the solution area on a touch screen table. The target picture was presented on the top of the screen. Six pairs of children with HFASD (aged 8–11 years) took part in the study. The children completed the CPG in a Free Play (FP) format (in which partners could move puzzle parts independently) versus an Enforced Collaboration (EC) format (in which partners could only move puzzle pieces together). Videos of the games were coded for the frequencies of positive and negative social interaction, affect, play, and autistic behaviors. Parents also
completed a questionnaire called the Social Responsiveness Scale (SRS), which assessed social and communication problems. Findings indicated that children with HFASD showed significantly higher frequencies of positive social interaction and collaborative play in the EC versus FP formats, but there were no differences in negative social behaviors. Differences in social behaviors between partners were not significant, however there were differences in the severity of social deficits as assessed by the SRS questionnaire. In summary, using the CPG in an EC format was effective in promoting positive social interaction by requiring children to work together towards a mutual goal. However, the increased challenge in this condition, particularly for children with lower social-communication skills, suggests the need for establishing selection criteria and mediation steps for such interventions.

**Title:** Short report: Improving record–review surveillance of young children with an autism spectrum disorder

**Authors:** Wiggins, Robins and Yeargin-Allsopp

DOI: 10.1177/1362361312452161

**Lay abstract:** We conducted a preliminary project to describe whether Centers for Disease Control and Prevention surveillance could identify younger children with an autism spectrum disorder evaluated as part of an ongoing screening study at Georgia State University. In all, 31 families of children who screened positive for autism spectrum disorder and received a clinical evaluation at Georgia State University agreed to participate in the project. Of these, 10 children lived inside the surveillance area and had records abstracted and reviewed for this project. Centers for Disease Control and Prevention surveillance results (i.e., autism spectrum disorder or non-autism spectrum disorder) were compared with Georgia State University evaluation results (i.e., autism spectrum disorder or non-autism spectrum disorder). We found that four of the ten children were diagnosed with an autism spectrum disorder after the Georgia State University evaluation. None of the four children with an autism spectrum disorder were identified by current Centers for Disease Control and Prevention surveillance methods, but all four children were identified by Centers for Disease Control and Prevention surveillance methods when additional record sources were included (i.e., records from the statewide early intervention program and Georgia State University evaluation). These findings suggest that partnering with early intervention programs and encouraging early autism spectrum disorder screening might improve autism spectrum disorder surveillance among young children.