



KIT

"Keeping In Touch"

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Resource Article

Dr. Filippo Muratori of the University of Pisa and author of this month's feature KIT article, "Early Indicators of Autism Spectrum Disorders," presents a series of questions asked of parents that can help shed light on the likelihood of autism in very young children. As the field continues its search for a reliable and stable means to diagnosis autism in the first two years of life, Muratori discusses how early diagnosis has "shifted from looking at symptoms to observing how children are developing expected typical behaviors" (p. 18) especially with regard to social communication behaviors.



The 12 questions presented in this article are in part based on a body of research examining the behaviors of children with autism retrospectively. Looking back, older children diagnosed with autism did not demonstrate typical development of these skills when they were very young.

Examining the possibility of autism in very young children requires careful consideration of the child's history and examination of his/her current behaviors and abilities. While a psychologist or pediatrician makes the diagnosis, early intervention providers often work with families before, during and after the diagnosis is made, making them a valuable resource for families as they work through the diagnostic process.

Within the article, Muratori discusses each of the following 12 questions including helpful accounts of why the skill is included in the series of questions and

what types of atypical behaviors have been observed in children with autism.

1. *Does your infant display varied and symmetric movements?*

Research shows a connection of motor disturbances and autism. Interestingly, a study by Teitelbaum and colleagues (1998) using home movies of 4-6 month olds found motor issues mostly on the right side.

2. *Does your infant imitate your gestures, sounds, or actions with a toy? Does your infant engage in back and forth vocalizations?*

Delays in or the absence of imitation is regarded as a red flag in young children. Very early on, typical infants are able to imitate facial movements; these skills expand dramatically as the infant grows and interacts with a variety of objects, toys, and others. However, in the presence of autism imitation skills are impaired.

3. *Does your infant open his mouth when you feed him?*



During familiar games like "I'm gonna get you", does your infant get excited because he knows what will happen next? Does your infant orient, lean, stiffen his body, or raise his arms to be picked up?

According to Muratori this lack of anticipatory action, which involves the ability to understand the interactions of others, is "one of the strongest indicators to be used on a screening tool trying to detect autism in the first year of life" (p. 19).

4. *Does your infant take the initiative to search your eyes? Does your infant seek to look at you? Does your infant establish appropriately sustained eye contact*

with you? Does your infant use gaze to regulate interaction?

Atypical eye gaze, including avoiding, fleeting, and peripheral gazing have all been associated with autism.

5. Does your infant prefer people to objects? When you show your infant an object, does he also look in your eyes?

As the child with autism nears two years of age his raptness with objects becomes more apparent. As the typical child engages with objects and shares intent with people a child with autism is absorbed in his exploration of objects.

6. Is it difficult to keep your infant's attention? How many times do you have to call your infant to get her attention? Do you need to use active physical or verbal prompts in order to get your infant to respond to you or to objects?

Parents of children with autism may need to display a variety of exaggerated efforts just to gain their child's attention.

7. Does your infant invite you to do something joyful together? Does your infant try to get your attention to play peek-a-boo, to obtain a favorite toy, or to play physical games like swinging, tickling, or being tossed in the air?



Typically developing infants display the ability to respond to a variety of interactions as well as initiate interaction on their own. Children with autism however do not demonstrate the ability and interest to engage others.

8. Is your infant able to show a variety of emotions? Is it easy to understand your infant's facial expressions? Does your infant smile while looking at you? In new situations, does your infant look at your face for comfort? Does your infant discriminate expressions of happiness and fear in others?

An increasing complexity of emotional expressions and ability to read the expressions of others are abilities expected in young children. However, children with autism lack these abilities.

9. Does your infant respond to his name when you call him from behind? Does your infant turn his head, smile, or babble in reaction to your voice? Does your infant seem to have hearing problems?

Muratori notes that “the lack of response to name, in combination with the decreased attention to faces, is one of the most reliable early indicators of autism” (p. 21).

10. Is your infant interested in new toys? Does your infant look up from playing with a favorite toy if you show him a different toy?

Typically developing children demonstrate a growing repertoire of ways to play with toys. In addition, they can shift their attention. In autism however, the child's interest in toys can appear stuck or unusual.



11. Does your child point to an object and look at your eyes to be sure that you both are sharing the same object of attention?

The communicative intent of gestures, specifically pointing has been extensively studied. Research shows a distinct differences in children with and without autism and the function of the gestures and pointing (i.e., *imperative* to request some behavior from another person and *declarative* to direct a person's attention to an object or something) that they use. Children with autism will use imperative gesturing or pointing, but do not use gestures for declarative purposes. Included in this article are instructions for conducting a “pointing task” to elicit imperative and declarative pointing in toddlers (p. 22).

12. Are you worried about your infant? Do you have any concern about your infant's development in any area? Has your infant recently lost any competencies previously achieved?

“Half of the parents of children later diagnosed with autism suspect a problem before their child is 1 year old” (Muratori, p. 22).

The questions included in this article are intended to aid parents and practitioners in early detection of behaviors associated with autism. From an early intervention perspective these questions and the associated body of research provide valuable insight. Early interventionists often play a role in helping families navigate the process

of answering the question “could it be autism?” By understanding early indicators of possible autism early interventionist can help families seek answers to their questions earlier rather than later in life.

Muratori, F. (2008). Early indicators of autism spectrum disorders. *Zero to Three, March 2008*, 18- 24.

On the WWW

The grandparents of a child with autism founded Autism Speaks, this month’s feature website.

www.autismspeaks.org

Since launching Autism Speaks, it has grown in numerous ways to achieve the ultimate goal “to change the future for all who struggle with autism spectrum disorders.” The site includes a vast array of resources for anyone interested in learning more about autism spectrum disorders (ASD) and or contributing to the work of Autism Speaks.

Within the “be informed” tab, you will find helpful resources, including video illustrations of behaviors associated with autism and links to news programs on autism. A must see at this site is the ASD Video Glossary. This portion of the site was recently upgraded and it includes over a hundred video clips that show typical and atypical development including red flags for ASD. You will need to register to logon the ASD Video Glossary.

The resources under the “community” tab include links to state programs and assets. Click on the state you are interested in and a list of web-linked categories will appear. Included in the resource library are educational tools and toys, books, DVDs/CDs, manuals and toolkits, and links to multiple websites. There are many resources here, including a video for hairdressers to watch before working with children with autism and giving haircuts. Also included are tips for parents in preparing their child for a haircut with an already made step-by-step visual chart of the process as well as tips for washing and brushing their hair. These tips come from the SNIP-Its hair salon at www.snipits.com

The School Community Kit is out of this world with information for nurses, lunch aides, office staff, paraprofessionals, bus drivers, etc. It is an extensive 209-page guide to help support special education and regular education teachers. There are classroom checklists, picture schedule information, positive behavior support guides, and data collection sheets.

Also under the “community” section click on “Family Services,” to see the Autism Safety Project. Here there is a host of informational handouts for the police department, EMTs, fire department, ER staff, judicial system, and more in working with children with autism as well as safety sheets for parents.

This site includes information for a variety of audiences. If you like you can even register to receive e-Speaks an electronic update of the news and happenings in the world of autism.

This website is so expansive and filled with great information. Bookmarking it is highly recommended!

What Do the Data Say?



What is the prevalence of ASD?

To answer this question data from the Centers for Disease Control and Prevention (CDC) and its organized Autism and Developmental Disabilities Monitoring (ADDMM) Network were reviewed. Using the DSM-IV criteria for diagnosing ASDs, the ADDMM Network specifically examined the prevalence of ASDs for children eight years of age in 2000 and 2002 by examining educational, health and diagnostic records across several states (AZ, GA, MD, NJ, SC and WV in 2000 and AL, AZ, AK, CO, GA, MD, MI, NJ, NC, PA, SC, UT, WV and WI in 2002). Based upon the results of these studies, it is estimated that an average of 1 in 150 children have an ASD.

As expected, based on earlier research, the prevalence of ASDs was higher among boys compared to girls. Based upon the 2002 surveillance data there were 5.0 to 16.8 per 1000 eight-year-old boys with ASDs compared to 1.4 to 3.1 per 1000 eight-year-old girls with ASDs.

Although these studies focused on the presence of ASDs in 8-year-old children, the researchers discovered, based upon the 2000 surveillance data, that between 69 and 88 percent of children with an ASD had documented developmental concerns before the age of three years. Similarly, the 2002 surveillance data showed that between 51 and 91 percent of children with an ASD had documented developmental concerns before the age of three years.

The median age range for the earliest reported ASD was 4 years 4 months (NJ, WV) to 4 years 8 months (GA) based upon the 2000 data and 4 years 1 month (UT) to 5 years 6 months (AL) based upon the 2002 surveillance data. With the nationwide emphasis on early identification of ASD we can be hopeful that the median age of an ASD diagnosis will be younger.

Looking at these data across the two surveillance years the total ASD prevalence rates remained relatively the same with 6.7 per 1000 for eight year olds in 2000 and 6.6 per 1000 eight year olds in 2002.

To review these data further and to see the data from the states involved please see the full report at the URL below. Click on the link "Read a full report on the ADDM findings."

<http://www.cdc.gov/ncbddd/autism/addm.html>

Consultation Corner

From September 2009 through January 2010 the consultation corner topic is:



ASD and the Role of Early Interventionists

Celine Saulnier, Ph.D., is the Training Director for the Autism Program at the Yale Child Study Center. She obtained her doctorate in Clinical Psychology from the University of Connecticut. She then completed a two-year postdoctoral fellowship awarded by the National Alliance for Autism Research training with Drs. Fred Volkmar and Ami Klin before joining the Yale faculty. Dr. Saulnier supervises and conducts diagnostic evaluations on infants, toddlers, and school-aged children, ranging from 6 months to 21 years of age. Her current research focuses on adaptive behavior

deficits in comparison to cognitive ability, particularly in higher functioning individuals.

Karyn Bailey is the Social Work Director for the Yale Child Study Center's Post-graduate Social Work Training Program. She received her master's degree in social work from the University of Kansas and completed post graduate fellowships at the Yale Child Study Center. In addition to directing social work trainees, she serves as a Clinical Social Worker in the Yale Autism Program's Infant and Toddler Clinic, where she provides clinical support for families, serves as a liaison between families and the community, consults with schools, and provides counseling in the areas of educational planning, special education law, and advocacy.

Continuing Education for KIT Readers

The Comprehensive System of Personnel Development (CSPD) is offering a continuing education opportunity for EDIS KIT readers.



In line with the focus on ASD and the Role of the Early Interventionist, readers are invited to receive continuing education contact hours for reading the monthly KIT publications (September 2009 through January 2010) and completing a multiple choice exam about the content covered in these KITs.

If you are interested, complete the exam online at www.edis.army.mil and upon successful completion, you will receive a certificate of non-discipline specific continuing education contact hours.

Please send your Consultation Corner questions and KIT ideas via email to ediscspd@amedd.army.mil