



# Research Brief

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### New River Valley Autism Action Group

## Raising awareness through early screening: A partnership between the Virginia Tech Autism Clinic and Carilion Pediatric Clinic

Angela Scarpa and Rachel Rhoades

### A Note from the Editor

by Angela Scarpa, Ph.D.

As Autism Awareness Month comes to a close, I could not let this month go by without discussing the importance of early detection for Autism Spectrum Disorders (ASD). We are all keenly aware that prognosis is much improved when treatment is started early, often before the age of 3-5 years, and so early detection becomes crucial. To address this issue, The American Academy of Pediatrics has recommended that all toddlers be routinely screened as part of their 18- and 24-month well-visits. This newsbrief will discuss the rationale behind these recommendations and describe a new partnership between the Virginia Tech Autism Clinic (VTAC) and Carilion Pediatric Clinic in Roanoke. Through a grant funded by Carilion Clinic to Drs. Angela Scarpa (VTAC), Varsha Desai (Carilion Pediatric Clinic), and Kathryn Kerkering (Carilion Pediatric Neurodevelopmental Clinic), we will assess the effectiveness of this pediatric screening for promoting early identification of children at-risk for ASD. Our hope is to raise awareness of the early signs of autism, improve detection, and refer for services as quickly as possible to improve the prognostic picture for these toddlers.

### Summary:

There is consensus among experts that early intervention for children with Autism Spectrum Disorders (ASD) is critical. The Modified Checklist for Autism in Toddlers (M-CHAT), a 23-item survey completed by parents, was developed to identify ASD in 18 to 30-month old children. In order to replicate and extend previous research on the M-CHAT, we propose screening children for ASD using the M-CHAT in the Carilion Pediatric Clinic and examining its utility. This will be part of a larger multi-site study being conducted nation-wide by researchers at Georgia State University and the University of Connecticut. We believe that using the M-CHAT will enable early identification of children with ASD, allowing parents to receive information, interventions, and supportive services earlier, greatly improving their child's prognosis.

### Introduction

A multi-disciplinary consensus panel that was supported by the American Academy of Neurology and endorsed by the American Academy of Pediatrics (AAP) recommended that Primary Care Providers incorporate standardized developmental screenings at child well-visits in order to identify

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children with delays as early as possible (Filipek et al., 2000; Filipek et al., 1999). In fact, as per guidelines released in November 2007, the AAP now recommends that all children be screened for ASD twice before age 2 -- once at 18 months and once at 24 months - - as part of well baby checkups (Johnson & Myers, 2007). Further, it recommends that treatment for autism be started when ASD is suspected, rather than when a formal diagnosis is made.

These recommendations are consistent with a general consensus in the professional community that early intervention is critical for children with ASD (Wiggins, 2006). Research has found that children with ASD have a better prognosis if interventions start before age 5 (Heidgerken et al., 2005; Koegel, 1995; Robins & Dumont-Mathieu, 2006), and even more positive outcomes if started before age 3 (Connor, 1998). Studies have also shown that parents notice symptoms as early as 6 months of age, but diagnosis typically does not occur until age 3 or 4 (Planche, 2004). This delay in diagnosis and uncertainty about their child causes parents even greater anxiety (Wiggins, 2006). Given this evidence and the significant lag between when parents first notice symptoms and their child's diagnosis, it is critical to find first-line screening instruments that will identify toddlers at risk for ASD.

### **ASD Screening Options**

The Parent's Evaluation of Developmental Disorders (PEDS, Glascoe, 2000) is designed to screen for general developmental delays, but is not specific to autism. The Checklist for Autism in Toddlers (CHAT) is specific for autism and is meant to be given by the primary care physician at the child's 18

month check-up. It includes a section completed by the parent and then the physician observes five items. The CHAT has low sensitivity for autism, does not assess for milder spectrum cases, and in the United States the observation of specific behaviors by physicians is not practical because it is time consuming (Robins & Dumont-Mathieu, 2006). The CHAT was modified as the M-CHAT to address these issues and make it easier to use in practices (Robins, Fein, Barton, & Green, 2001). The M-CHAT includes 23 yes/no questions that parents complete while in the waiting room or exam room of a pediatrician's office. The fact that parents complete the survey is optimal because they are knowledgeable of their children's behavior and it does not burden the physician with extra work. Parent reports also can be more accurate than brief professional observations, especially if the child is in an unfamiliar environment (Robins & Dumont-Mathieu, 2006). The M-CHAT was validated in 16-30 month old children and is currently recommended as a level 1 pediatric screening for ASDs (Johnson & Myers, 2007).

For first line screenings in pediatric settings, the M-CHAT is one of the most practical and reliable devices available to detect children who are at risk for ASD (Mawle & Griffiths, 2006; Robins et al., 2001; Robins & Dumont-Mathieu, 2006; Wong et al., 2004)). In the proposed study, we plan to give the PEDS and M-CHAT to parents of all children who are presenting for their 18 or 24 month well-visit at the Carilion Pediatric Clinic. If children are found to be at risk for ASD by the M-CHAT, they will be referred for further diagnostic assessment by our research team to confirm or disconfirm the diagnosis, or to rule

out other developmental delay. The PEDS will also be examined to see if it adds any improvement in the ability to detect ASD or another developmental delay. If an ASD diagnosis is confirmed, the parent will be provided with information about ASD and referred for follow-up care. This will be part of a larger multi-site study being conducted by the University of Connecticut and Georgia State University testing the M-CHAT's validity.

## Significance

If, as we suspect, the M-CHAT is a valid screening device in this pediatric setting, many children with ASD will be identified and treated earlier, thus improving their prognoses, and families can be referred to local support networks. Additionally, this work will provide pilot data on the feasibility, utility, and validity of using this screening device in a pediatric clinic as currently recommended by the AAP.

More information on early signs and screening for ASD can be obtained at [www.firstsigns.org](http://www.firstsigns.org). To view a copy of the M-CHAT, visit <http://www.firstsigns.org/downloads/m-chat.PDF>.

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### **Stay Tuned:**

*Through a community services grant funded by Autism Speaks, VTAC will be hosting a workshop on Pivotal Response Treatment in Fall 2008. Details will be provided on our web site this summer.*