

# Study supports new diagnostic structure in toddlers with ASD

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A study published in the August 2013 issue of the Journal of the American Academy of Child and Adolescent Psychiatry demonstrates support for the changes in [autism](#) symptom structure for toddlers with autism spectrum disorder (ASD found in the newly released Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5)).

Using a sample of 237 toddlers (aged 12-30 months) diagnosed with ASD by expert clinicians, a group of researchers from Florida State University (FSU), the National Institute of Mental Health (NIMH), and Weill Cornell Medical College, led by Ms. Whitney Guthrie of FSU, were the first to compare the new DSM-5 symptom structure to other models of autism symptom structure in toddlers. The study included children at low and high risk for ASD. Some children were recruited for the study at the FSU Autism Institute from the First Words Project, a screening program to detect communication delays and ASD through pediatric primary care settings. Others were recruited at the University of Michigan Autism and Communication Disorders as well as the New York-Presbyterian Center for [Autism](#) and the Developing [Brain](#), because of parental or professional concern or because they had an older sibling diagnosed with ASD.

The researchers assessed the toddlers using the DSM-5 model, which includes two new domains: (1) Social Communication and Social Interaction, and (2) Restricted, Repetitive Interests and Behaviors. The DSM-5 model of autism symptom organization was compared to the DSM-IV model (1-Communication, 2-Social Interaction, and 3-Restricted, Repetitive Interests and Behaviors), another independently validated model (van Lang and colleagues, 2006; 1-Social Communication, 2-Stereotyped Speech and Behaviors, and 3-Play Skills), and a model comprised of one domain of autism symptoms. Children's item level scores on the Autism Diagnostic Observation Schedule - Toddler Module assessment tool were subjected to confirmatory factor analysis to determine which of these models best characterized these autism symptoms in toddlers.

The study found that the DSM-5 model was a better fit to the data than were the other models used during toddler assessment. Among the changes included in DSM-5 and supported by the study as an appropriate framework for ASD is the addition of one new symptom (i.e., hypo- or hyper-reactivity to sensory input/unusual sensory interests), removal of other symptoms (i.e., delay in expressive language, impaired functional play skills, though shared imaginative play remains in DSM-5), and reorganization of some symptoms (i.e., categorizing stereotyped and repetitive language with stereotyped and repetitive behaviors, and combination of several Communication and Social Interaction symptoms).

Although the DSM-5 symptom structure has been examined and supported in a small number

of other studies, this is the first to demonstrate the appropriateness of the new edition and the two domain framework for children as young as 12-30 months of age. Although the study does not examine the sensitivity and specificity of the diagnostic criteria, it provides support for the new diagnostic structure in toddlers, as observable [autism](#) symptoms are first emerging.

Ms. Guthrie said of the study, "It is critical for researchers to examine the organization, or structure, of autism symptoms in toddlers, because studies of older children may not inform our understanding of very young children, whose observable symptoms of ASD are just beginning to emerge. Studies of this nature have the potential to inform early screening and diagnosis, and positively affect the age at which clinicians identify ASD in toddlers. This study is particularly timely, given the recent release of DSM-5 and the transition for researchers and clinicians to the new diagnostic manual."

Source: American Academy of Child and Adolescent Psychiatry