Narrative Production in Children with Autism Spectrum Disorder (ASD) and Children with Attention-Deficit/Hyperactivity Disorder (ADHD): Similarities and Differences.

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Abstract

The present study focuses on the similarities and differences in language production between children with autism spectrum disorder (ASD) and children with attention-deficit/hyperactivity disorder (ADHD). In addition, we investigated whether Theory of Mind (ToM), working memory, and response inhibition are associated with language production. Narratives, produced by 106 Dutch-speaking children (36 with ASD, 34 with ADHD, and 36 typically developing) aged 6 to 12 during ADOS assessment, were examined on several linguistic measures: verbal productivity, speech fluency, syntactic complexity, lexical semantics, and discourse pragmatics. Children were tested on ToM, working memory, and response inhibition and parents filled in the Children’s Communication Checklist (CCC-2). Gold-standard diagnostic measures (Autism Diagnostic Observation Schema [ADOS], Autism Diagnostic Interview Revised [ADI-R], and the Parent Interview for Child Symptoms [PICS]) were administered to all children to confirm diagnosis. Regarding similarities, both clinical groups showed impairments in narrative performance relative to typically developing children. These were confirmed by the CCC-2. These impairments were not only present on pragmatic measures, such as the inability to produce a narrative in a coherent and cohesive way, but also on syntactic complexity and their production of repetitions. As for differences, children with ADHD but not children with ASD showed problems in their choice of referring expressions and speech fluency. ToM and working memory performance but not response inhibition were associated with many narrative skills, suggesting that these cognitive mechanisms explain some of the impairments in language production. We conclude that children with ASD and children with ADHD manifest multiple and diverse language production problems, which may partly relate to their problems in ToM and working memory.