Sensory Processing Patterns in Autism, Attention Deficit Hyperactivity Disorder, and Typical Development.

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Abstract

AIMS:
The purpose of this study was to examine sensory processing in children ages 3-14 years with autism spectrum disorder (ASD), attention deficit hyperactivity disorder (ADHD), and typical development (TD) using the Sensory Profile 2nd Edition (Dunn, 2014).

METHODS:
Participants included 239 children (ASD = 77; ADHD = 78; TD = 84) matched on age and gender. Multivariate analysis of covariance was used to compare the extent to which the three groups differed on sensory processing patterns (i.e., sensitivity, avoiding, registration, seeking) and sensory systems (i.e., auditory, visual, touch, movement, body position, oral, conduct, attention, social). We also examined the effect of chronological age.

RESULTS:
Children with ASD and ADHD did not differ in sensory processing patterns which were elevated as compared to a TD group. Children with ASD showed the highest rate of oral processing differences, followed by ADHD and TD. Children with ADHD had higher visual processing scores than children with ASD and TD. Older children had lower scores for seeking, auditory, visual, movement, touch, and conduct than younger children, regardless of diagnosis.

CONCLUSIONS:
Findings suggest that sensory features may be an area of overlap of behaviors in ASD and ADHD, which may have implications for intervention approaches for children with these conditions.