Atypical sensory profiles as core features of adult ADHD, irrespective of autistic symptoms

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Abstract

Background
Abnormal sensory sensitivity is a feature of autism-spectrum disorder (ASD) but is also reported in attention-deficit/hyperactivity disorder (ADHD). In many cases, ADHD and ASD are comorbid. This study investigated the prevalence of sensory hyper- and hyposensitivity among adults with ADHD, controlling for autistic symptoms.

Method
One hundred and sixteen adults diagnosed with ADHD completed the Adolescent/Adult Sensory Profile-NL (AASP-NL) and the Autism-spectrum Quotient (AQ) questionnaires. Prevalences of hyper- and hyposensitivity and autism-spectrum symptoms were compared to norm values. Multivariate binary logistic regressions were used to determine the association of autistic symptoms, age, gender, ADHD subtype, self-reported severity of ADHD symptoms, comorbid disorders, and use of medication on the sensory hypo- and hypersensitivity in adults with ADHD.

Results
Adults with ADHD had more autistic symptoms, and they had both more hyper- and hyposensitivity compared to norm groups. This was especially apparent in the Activity level and Auditory sensory modalities. Sensory hypo- and hypersensitivity were both related to an increased ADHD score, even showing a dose-response relationship, but not to any autistic symptom or comorbid disorder. As much as 43% of the females with ADHD reported sensory hypo- and/or hypersensitivity, compared to 22% of the men.

Conclusions
Sensory hypo- and hypersensitivity may be viewed as key features of adult ADHD, especially in females, regardless of any autistic symptoms. Future research should be directed at the implications of this sensory dysregulation for the understanding of the pathophysiology of (female) ADHD and on the usefulness of assessment of atypical sensory profiles in the diagnostic procedure of ADHD in adults.