Symptoms of Attention-Deficit/Hyperactivity Disorder in Down Syndrome: Effects of the Dopamine Receptor D4 Gene.

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Abstract
This study examined individual differences in ADHD symptoms and executive function (EF) in children with Down syndrome (DS) in relation to the dopamine receptor D4 (DRD4) gene, a gene often linked to ADHD in people without DS. Participants included 68 individuals with DS (7-21 years), assessed through laboratory tasks, caregiver reports, and experimenter ratings. Saliva samples were collected from the DS group and 66 children without DS to compare DRD4 allele distribution, showing no difference between the groups. When the sample with DS was stratified for ethnicity (n=32), the DRD4 7-repeat allele significantly related to parent and experimenter ratings, but not to laboratory assessments. These results suggest that nontrisomy genetic factors may contribute to individual differences in ADHD symptoms in persons with DS.