Prevalence of autism and attention-deficit–hyperactivity disorder in Down syndrome: a population-based study

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Abstract

Aim
To investigate the prevalence of autism spectrum disorder (ASD) and attention-deficit–hyperactivity disorder (ADHD) in a population-based group of children and adolescents with Down syndrome, and to relate the findings to level of intellectual disability and to medical conditions.

Method
From a population-based cohort of 60 children and adolescents with Down syndrome, 41 individuals (29 males, 12 females; mean age 11y, age range 5–17y) for whom parents gave consent for participation were clinically assessed with regard to ASD and ADHD. The main instruments used were the Autism Diagnostic Interview–Revised, Autism Diagnostic Observation Schedule, Swanson, Nolan, and Pelham–IV Rating Scale, and the Adaptive Behavior Assessment System–II.

Results
High rates of ASD and ADHD were found: 17 (42%) and 14 (34%) of the 41 children met DSM criteria for ASD and ADHD respectively.

Interpretation
Children with Down syndrome and coexisting neurodevelopmental/neuropsychiatric disorders in addition to intellectual disability and medical disorders constitute a severely disabled group. Based on the results, we suggest that screening is implemented for both ASD and ADHD, at the age of 3 to 5 years and early school years respectively, to make adequate interventions possible.