

# Attention deficit hyperactivity disorder and autism spectrum disorder symptoms in school-age children born very preterm.

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Abstract

## BACKGROUND:

Very preterm (VP) children face a broad range of neurodevelopmental sequelae, including behavioral problems.

## AIM:

To investigate prevalence, pervasiveness and co-occurrence of symptoms of attention deficit hyperactivity disorder (ADHD) and autism spectrum disorder (ASD) in school-age children born very preterm.

## METHODS:

Using questionnaire and diagnostic interview data, parent and teacher reported symptoms of ADHD and ASD of 57 VP-children (mean age = 9.2 years) were compared with 57 gender and age matched full-term children using t-tests. Intra-class correlation coefficients quantified parent-teacher agreement. Correlation analysis investigated co-occurrence of ADHD/ASD symptoms. ADHD/ASD measures were aggregated using principal component analysis. Regression analyses investigated the contribution of perinatal risk factors, sex and SES to ADHD/ASD symptoms.

## RESULTS:

VP-children showed higher levels of parent and teacher reported attention problems, social impairment and compromised communication skills. Fair to strong agreement was found between parent and teacher reported ADHD and ASD symptoms, indicating pervasiveness of observed difficulties. Co-occurrence of ADHD and ASD symptoms in VP-children was found. Lower gestational age was associated with higher ADHD and ASD symptom levels, male sex with higher ADHD symptom levels and lower SES with higher ASD symptom levels.

## CONCLUSION:

School-age VP-children show higher levels of ADHD and ASD symptoms, and attention, socialization and communication difficulties in particular. Routinely screening for these problems is recommended in follow-up care.