

Children with autism and attention deficit hyperactivity disorder. Relationships between symptoms and executive function, theory of mind, and behavioral problems

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Abstract

BACKGROUND:

The underlying mechanisms of comorbidity between autism spectrum disorder (ASD) and attention deficit hyperactivity disorder (ADHD) are still unknown. Executive function (EF) deficits and theory of mind (ToM) have been the most investigated cognitive processes.

AIMS:

This study proposed to analyze EF, ToM and behavioral problems in children with ASD + ADHD, ADHD, ASD and typical development (TD). The relationship between ADHD and ASD symptoms with EF, ToM and behavioral problems in children with ASD + ADHD was also explored.

METHODS AND PROCEDURES:

Participants were 124 children between 7 and 11 years old (22 ASD + ADHD, 35 ADHD, 30 ASD, and 37 TD), matched on age and IQ. Teachers evaluated EF, and parents assessed ToM skills and behavioral problems through Strengths and Difficulties Questionnaire (SDQ).

OUTCOMES AND RESULTS:

Children with ASD + ADHD and ADHD showed impairments in EF whereas the difficulties in ToM skills of ASD + ADHD group were similar to ASD group. Inattention symptoms were significantly associated with EF metacognitive deficits and ToM difficulties in ASD + ADHD, while ASD symptoms were associated with total score in behavioral problems.

CONCLUSIONS AND IMPLICATIONS:

These findings show the complex difficulties of children with both ASD and ADHD and support the need to take these difficulties into account when designing the treatments.