

Does physical functioning, emotional and behavioral problems differ in children with ADHD +ASD and ADHD?

ADHD and autism spectrum disorder (ASD) are two of the most common neurodevelopmental disorders, affecting approximately 5% and 1% of the population, respectively. Up to 79% of children with ASD and 50% of children with ADHD are estimated to have problems with gross and fine motor development, such as drawing, tying shoe laces and running and riding a bike. Children with ADHD or ASD alone commonly experience comorbid behavioral and emotional disorders, as well as reduced health-related quality of life (QoL). Children with a dual diagnosis of ADHD+ASD experience higher proportions of parent-reported emotional and behavioral problems, compared with those with ADHD or ASD alone.

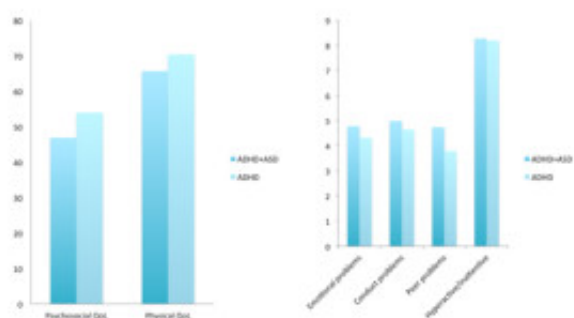


Fig. 1. Differences in quality of life, emotional and psychosocial problems in children with ADHD+ASD and ADHD.

In a group of 299 children with ADHD and 92 with ADHD+ASD, aged 5-12 years we aimed to (a) compare emotional and behavioral problems, psychosocial QoL, and physical QoL in children with ADHD+ASD with those with ADHD alone and (b) examine whether poorer physical QoL in children with ADHD+ASD was associated with increased emotional and behavioral problems.

The ADHD+ASD and ADHD groups were similar in relation of child and parent age and use of ADHD medication. Children with ADHD+ASD had more severe ADHD symptoms as reported by both parents and teachers, than children with ADHD.

The results of our study indicate that children with ADHD+ASD had poorer psychosocial and physical QoL (see Figure 1). Children with ADHD+ASD also had elevated parent-reported peer problems and elevated teacher-reported emotional problems compared with children with ADHD. When taking into account the children's gender, age, ADHD medication use, parent age, parent education level, and neighborhood socioeconomic disadvantage score, the results remained the

same. The results indicated that and additional diagnosis ASD was not associated with parent-reported emotional, conduct, and hyperactivity/inattention problems, or teacher-reported conduct, peer, or hyperactivity/inattention problems for children with ADHD.

The results also indicate that Physical QoL appears to influence the association between ADHD+ASD and elevated parent-reported emotional and behavioral problems, however, this was not the case by teacher report.

The frequent co-occurrence of ADHD and ASD highlights the need to gain further understanding of this clinical presentation to plan and implement interventions. Specifically, interventions that improve motor difficulties experienced by children with ADHD+ASD may not only benefit their communication and social skills but may also improve their daily adaptive skills and overall QoL. The significance of this study is further established by application of the International Classification of Functioning framework to understand the impact of motor problems on a child's daily functioning participation, and QoL.

In conclusion, children with ADHD+ASD experience poorer daily functioning, compared with children with ADHD alone. Poorer physical QoL was also shown to influence the emotional and behavioral functioning of children with ADHD+ASD. This study sets the scene for future research to investigate the relationship between physical and psychosocial functioning in children with ADHD+ASD. Furthermore, by adopting a broader psychosocial approach, findings have direct implications for clinical practice as they may help inform interventions that address the child's specific clinical, motor, and psychosocial profile. Furthermore, the preliminary findings of this study support the need for further studies to explore motor impairment and participation in this group.

Publication

[Physical Functioning, Emotional, and Behavioral Problems in Children With ADHD and Comorbid ASD: A Cross-Sectional Study.](#)

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J Atten Disord. 2015 May 25