

CAN EXECUTIVE FUNCTIONS AND SEVERITY OF ATTENTION DEFICIT HYPERACTIVITY DISORDER PREDICT SYMPTOM LEVELS OF DEVELOPMENTAL COORDINATION DISORDER IN CHILDREN WITH ATTENTION DEFICIT HYPERACTIVITY DISORDER? A PRELIMINARY STUDY

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BACKGROUND AND AIM: Attention Deficit Hyperactivity Disorder (ADHD) is a neurodevelopmental disorder characterized by inattention, hyperactivity, impulsivity, and executive functioning difficulties. Developmental Coordination Disorder (DCD) is another neurodevelopmental disorder involving motor coordination impairments, making common motor tasks challenging. ADHD is the most frequent comorbidity of DCD, and even when not reaching diagnostic levels, DCD symptoms can impact daily functionality. This study aims to explore the relationship between DCD symptoms, ADHD severity, and executive functions in children and adolescents diagnosed with ADHD but without a DCD diagnosis.

METHODS: The study sample included children aged 7-15 years diagnosed with ADHD, evaluated at the Child and Adolescent Psychiatry outpatient clinic of Selçuk University. Exclusion criteria included medical conditions requiring physical therapy, neurological disorders, diagnosed DCD, tic disorders, movement disorders, autism spectrum disorder, and intellectual disability. ADHD severity was assessed using the Turgay Disruptive Behavior Disorders Screening and Evaluation Scale based on

DSM-IV. Executive functions were evaluated using the Stroop Test. The Revised Developmental Coordination Disorder Battery was used to assess DCD symptoms. Ethical approval was granted by the Selçuk University Faculty of Medicine Local Ethics Committee (2024/411).

RESULTS: The study included 31 girls and 41 boys (mean age: 10.39±2.49 years). DCD symptoms correlated with the Turgay total scale ($p=0.020$, $r=-0.403$) and Stroop Test errors in stage five ($p=0.043$, $r=-0.359$).

CONCLUSIONS: This study examined the relationship between ADHD severity, executive functions, and DCD symptoms in children and adolescents with ADHD. Findings suggest that DCD symptoms may be associated with ADHD severity rather than executive functioning difficulties. However, the single-center design and small sample size limit generalizability. Future research with larger samples is necessary to further investigate these associations.

Keywords: ADHD, Turgay, developmental coordination disorder