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ASSOCIATION OF BODY MASS INDEX WITH ACTIVITY PARTICIPATION AMONG CHILDREN WITH DEVELOPMENTAL COORDINATION DISORDER.

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Background: Children with Developmental Coordination Disorder (DCD) often have motor coordination difficulties that can limit participation in physical activities. Increased Body Mass Index (BMI) may further influence activity levels and contribute to reduced physical fitness, social participation, and overall health outcomes in this population, especially during critical developmental years and school-based activities.

Purpose: To examine the relationship between BMI and activity participation among children with DCD.

Methods & Materials: This non-experimental observational study used convenience sampling. A total of 100 children aged 8–11 years were recruited from selected schools and hospital settings. Children with neurological disorders, sensory impairments, cognitive impairments, epilepsy, or those undergoing physiotherapy were excluded. BMI was calculated using height and weight measurements. Motor coordination was assessed using the Developmental Coordination Disorder Questionnaire (DCDQ) and activity participation using the Physical Activity Questionnaire for Older Children (PAQ-C). Pearson correlation analysis was used to determine the association between BMI and activity participation, with statistical significance set at $p < 0.05$ and appropriate statistical software was used for analysis.

Results: The mean BMI of participants was 26.7±2.3 kg/m², mean DCDQ score was 41.9±5.8, and mean PAQ-C score was 2.3±0.5. Correlation analysis showed a significant negative association between BMI and PAQ-C scores ($p < 0.05$), indicating that higher BMI was associated with lower activity participation among children with DCD.

Conclusion: Higher BMI was associated with reduced activity participation among children with Developmental Coordination Disorder. These findings highlight the importance of early intervention strategies targeting weight management and physical activity promotion to improve functional participation, long-term health outcomes, overall well-being, and reduce risk of future comorbidities.

Keywords: Body Mass Index, Developmental Coordination Disorder, Physical Activity, Participation.