Screening and Identification of Developmental Coordination Disorder in Children with and without ADHD

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Introduction

- Developmental Coordination Disorder (DCD) is characterized by a delay in the acquisition of appropriate motor skills.
- Specifically, difficulties in fine motor skills and handwriting are associated with DCD.
- ADHD is often comorbid with DCD (30-50%). Despite this, motor problems and DCD remain under-recognized and, consequently, undertreated.
- This study examined whether children with ADHD have more parent reported DCD symptoms than children without ADHD, as well as the prevalence of undiagnosed DCD.
  - It was predicted that children with ADHD would have more DCD symptoms than children without ADHD.
  - As DCD is under-recognized generally, it was predicted that some children without a DCD diagnosis would screen positive for DCD.

Participants & Methods

- Participants (*N* = 32) included parents of Canadian children aged 8- to 14-years-old (M_{age} = 11.6, 59% female) recruited from the community as part of a larger study examining fine motor control and ADHD.
- Half of the group (*n* = 16) met criteria for ADHD.
- Parents completed the Developmental Coordination Disorder Questionnaire 2007 (DCDQ'07). Subscales include: Control During Movement, Fine Motor Skills, and General Coordination.
- Analysis of Variance was used to assess for significant differences between children with and without ADHD on the DCDQ'07 global summary and its subscales using SPSS.

Results

- Children with ADHD had significantly more DCD symptoms overall compared to children without ADHD.
- Children with ADHD also had significantly more difficulty with Control During Movement, Fine Motor Skills, and General Coordination compared to children without ADHD.
- Despite no previous DCD diagnosis, 34% of children screened positive for the disorder.

DCDQ'07	ADHD *M*	Control *M*	*F*(1, 30)	*p*
Global Summary	51.75	65.25	14.15	.001
Control During Movement	22.56	26.92	7.72	.009
Fine Motor Skills	12.50	17.00	15.57	<.001
General Coordination	16.69	21.33	9.85	.004

Discussion & Conclusions

- Consistent with the hypotheses and previous research, children with ADHD had more problems in all rated areas of motor functioning compared to children without ADHD.
- Many children screened positively for DCD despite not having a previous diagnosis.
- Findings indicate the value of using screening measures to identify children at risk for DCD.
- Since these deficits can cause added difficulty in the daily functioning of children with ADHD, diagnosis and treatment are especially important for this population.

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