INFographic: Developmental Coordination Disorder (part I) – characteristics, diagnosis, and consequences

MARCELA C. FERRACIOLI-GAMA | PRISCILA TAMPLAIN

1 Institute of Physical Education and Sports, Federal University of Ceara (UFC), Fortaleza, CE, Brazil.
2 Department of Kinesiology, University of Texas at Arlington (UTA), Arlington, Texas, United States of America.

Correspondence to: Priscila Tamplain. Department of Kinesiology, University of Texas at Arlington (UTA), Arlington, Texas, United States of America.

email: priscila.tamplain@uta.edu

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ABBREVIATIONS
DCD Developmental Coordination Disorder

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INTRODUCTION

Developmental Coordination Disorder (DCD) is a common neurodevelopmental disorder characterized by motor coordination difficulties that affect academic achievement and everyday activities1, and clearly outlined in the DSM-51 and ICD-102. The prevalence of children with DCD is 2-20%, with 5-6% being the most prevalent rate in the literature3. Common co-occurring disorders are attention-deficit hyperactivity disorder, autism spectrum disorder, dyslexia, learning disabilities, and language impairments4. The goal of this infographic is to provide an overview of the main characteristics of DCD, diagnosis, and consequences in children's lives.

The movements of children with DCD are often described as “clumsy” and “uncoordinated,” and frequently lead to performance difficulties in activities of daily living and sports that typically developing children perform easily. Those general complications can be observed when children with DCD attempt to plan a motor task, organize movements, perform a coordinated action, and adjust movements when demands change, such as moving fast to catch a ball. More specifically, children with DCD may bump into, knock things over, spill, have difficulty learning how to ride a bike, catch a ball, use a knife and fork, tie their shoes, cut with scissors, handwrite, jump, and exhibit poor balance5.

The diagnosis of DCD requires the assessment of four criteria1. Criterion A: The acquisition and execution of coordinated motor skills is substantially below that expected given the individual’s chronological age and opportunity for skill learning and use; Criterion B: The motor skills deficit significantly and persistently interferes with activities of daily living appropriate to chronological age and affects academic productivity, preacademic and vocational activities, leisure and play; Criterion C: onset of symptoms in the early developmental period; and Criterion D: The motor skill deficits are not better explained by intellectual disability (intellectual developmental disorder) or visual impairment and are not attributable to a neurologic condition affecting movement (e.g., cerebral palsy, muscular dystrophy, degenerative disorder).

Although the scientific literature on DCD has advanced in the last decades, there is still little knowledge and awareness by health and educational professionals4. Children with DCD do not outgrow the disorder, and DCD impacts different domains, such as physical (e.g., lower levels of physical fitness) and psychological (e.g., anxiety, depression, lower self-concept)1. The consequences of DCD have been associated with reduced participation, especially in physical activity and social participation5. Not surprisingly, it is now accepted that children with DCD have an increased risk for mental health difficulties.
REFERENCES