Co-occurrence of Developmental Coordination Disorder (DCD)/Dyspraxia and Childhood Apraxia of Speech (CAS)

Priscila [Caçola] Tamplain, Ph.D.
Associate Professor
Department of Kinesiology
Developmental Coordination Disorder (DCD)

- DCD occurs when a delay in the development of motor skills, or difficulty coordinating movements, results in a child being unable to perform common, everyday tasks.
- By definition, children with DCD do not have an identifiable medical or neurological condition that explains their coordination problems.
- It affects 5-6% of children.

https://www.canchild.ca/en/diagnoses/developmental-coordination-disorder
Problems in:

- Maintaining balance
- Being able to quickly change their movement in new situations
- Moving their body in the right way
- Learning new movements
- Predicting the outcome of their movements
- Finding and using solutions to motor task problems
DSM-5 criteria:

• Learning and execution of coordinated motor skills is below age level given the child's opportunity for skill learning

• Motor difficulties significantly interfere with activities of daily living, academic productivity, prevocational and vocational activities, leisure and play

• Onset is in the early developmental period

• Motor coordination difficulties are not better explained by intellectual delay, visual impairment, or other neurological conditions that affect movement.
Dyspraxia?

The term ‘dyspraxia’ is used in many ways, by different people. Some people use the term dyspraxia interchangeably with DCD. Other people use the term dyspraxia to refer to something quite different. Unlike DCD, there is no internationally agreed definition or description of the term dyspraxia, and it is not included in DSM-5.

International recommendations:

International clinical practice recommendations on the definition, diagnosis, assessment, intervention, and psychosocial aspects of developmental coordination disorder

Rainer Blank1,2 | Anna L Barnett3 | John Cairney4,5 | Dido Green6 | Amanda Kirby7 | Helene Polatajko8 | Sara Rosenblum9 | Bouwien Smits-Engelsman10 | David Sugden11 | Peter Wilson12 | Sabine Vinçon1

1 Clinic for Child Neurology and Social Pediatrics, Child Centre Maulbronn, Maulbronn; 2 Heidelberg University, Heidelberg, Germany; 3 Department of Psychology, Health & Professional Development, Oxford Brookes University, Oxford, UK; 4 Faculty of Kinesiology and Physical Education, University of Toronto, Toronto, ON; 5 Department of Family Medicine, McMaster University, Hamilton, ON, Canada; 6 Department of Rehabilitation, School of Health and Welfare, Jönköping University, Jönköping, Sweden; 7 Discovery Centre, University of South Wales, Newport, UK; 8 Department of Occupational Science and Occupational Therapy, Rehabilitation

Interesting study:

The Co-Occurrence of Possible Developmental Coordination Disorder and Suspected Childhood Apraxia of Speech

La cooccurrence d'un potentiel trouble développemental de la coordination chez les enfants soupçonnés d'avoir une dyspraxie verbale

Keywords:
- Developmental Coordination Disorder
- Childhood Apraxia of Speech
- Screening Procedure

Holly Duchow
Alanna Lindsay
Kayla Roth
Sylvia Schell
Delanie Allen
Carol A. Boliek
Interesting study:

• 35 children – 3-15 years of age
• DCDQ, sCAS

• Data from the present study sample of children with sCAS showed a proportion of pDCD (49%) – 17 out of 35 participants.
• Preliminary study, but it does show a possible indication of the prevalence of DCD and CAS
Our study:

• 16 children diagnosed with CAS, 4-8 years of age
• Tested with the MABC-2, DCDQ, and KBIT-2

• Preliminary results:
  • 11 (68%) suspect of DCD on the DCDQ
  • 10 (62%) red zone of the MABC-2
  • 3 children below average on the KBIT-2
Our study:

• With better screening and a motor assessment, it is possible that about half of children with CAS can also potentially qualify for a DCD diagnosis

• Not all children with CAS will have DCD – some will have motor problems that are not severe enough

• Some will have other co-morbidities that may exclude them from a DCD diagnosis

• The important thing is to assess and promote intervention specific for motor skills!
Researchers from UTA are conducting a study that aims to identify characteristics of DCD in 4- to 15-year-old children and adolescents diagnosed with CAS.

Developmental Coordination Disorder (DCD) is a motor skills disorder that affects five to six percent of all school-aged children. DCD occurs when a delay in the development of motor skills, or difficulty coordinating movements, results in a child being unable to perform common, everyday tasks.

The tests are quick, easy and fun. If you would like to help further this understanding by participating in the study, please contact us! To complete the assessments, we will need 1 session of about 45-60 (at most).

Inclusion criteria: DIAGNOSIS OF CAS, 4-15 years of age

Exclusion criteria: children diagnosed with Down syndrome, Autism, cerebral palsy, IQ deficit, muscular dystrophy, degenerative disorder, epilepsy, visual deficit (not corrected)

For an appointment, please contact Dr. Priscila Tamplain – priscila.tamplain@uta.edu
Great resources:

UNDERSTOOD

Understanding Developmental Coordination Disorder (DCD)

What You'll Learn
- Snapshot: What DCD Is
- DCD Signs and Symptoms
- Other Issues That Can Co-Occur With DCD
- Possible Causes of DCD
- How DCD Is Diagnosed
- How Professionals Can Help With DCD
- How You Can Help Your Child With DCD

CANCHILD

Diagnoses

Developmental Coordination Disorder

Overview

What is DCD?

Developmental Coordination Disorder (DCD) is a motor skills disorder that affects fine motor, gross motor, and body coordination. It can affect handwriting, sports, and other everyday tasks. Understanding and managing DCD can improve a child's overall functioning and confidence.
CONTACT:

- https://www.facebook.com/TheDMClab/