Can a Little instrument make a big noise? A cross-cultural collaboration for identifying motor delay in young preschoolers

Introduction: Even though the diagnosis of DCD is not recommended before 5 years, it is essential to find ways of identifying and monitoring younger preschool children who are at risk of being diagnosed with DCD. Difficulties in motor function appear to exist before school age, and provision of early support may mitigate more severe deficits as well as secondary complications. Screening tools to identify motor difficulties are needed, but instruments developed in one country may not be psychometrically sound when shared between cultures. The purpose of this collaborative study was to collaboratively develop the Little Developmental Coordination Disorder Questionnaire (LDCDQ) (a screening instrument to identify motor difficulties in young preschoolers) between several countries, while ensuring numerous psychometrically sound, comparable versions of the tool. This project, the first of its kind in the field of DCD, will enable the analysis and comparison of different patterns of motor development and/or delay in different cultures.

Method: Based on the DCDQ, the Little DCDQ was developed in Hebrew and psychometric testing revealed a psychometrically sound, easy-to-use screening tool to identify motor delay in young preschoolers. At the first phase of this cross-cultural collaboration, an English version of the Little DCDQ was generated following recommended guidelines for the translation of assessment instruments. 21 researchers from 16 countries/locations adapted the instrument to their local cultures and languages and followed a similar protocol for psychometric assessment of their local Little DCDQ. During the next phase, each collaborator used their local version of the Little DCDQ to assess 40 children between the ages of 3-4.11 (20 typically developing and 20 with suspected motor difficulties) following the same protocol, and the data was compared to assess motor development across cultures.

Results: The process and outcomes of the first phase of this cross-cultural collaboration will be described. Initial cross-cultural comparative results will be reported based on data collected to date.

Conclusions: The outcomes of this collaboration have important implications for DCD research and practice. The use of different motor screening tools between studies is often cited as a limitation to understanding results of multiple studies. This is the first attempt to develop an instrument with the aim of facilitating cross-cultural comparison, which will enable a unified language for researchers investigating typical motor development as well as motor delay in young preschoolers.