

Assessing Children with Developmental Coordination Disorder Internationally

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Introduction:

Developmental Coordination Disorder (DCD) is a condition that affects children in every nation. It is sometimes recognized in the preschool years but most often the challenges are obvious when there are motor demands at school. These challenges continue to be present into adolescence and adulthood. Identifying the problem early may ameliorate some of the secondary consequences of DCD; although no gold standard exists, several instruments are now available in various languages.

Objectives:

To present a sound process of cross cultural adaptation (CCA) of assessment instruments.

To exemplify the process by describing the CCA of the DCD Questionnaire (DCDQ) into Portuguese for use in Brazil.

To review CCAs of the DCDQ in other countries and discuss the international implications.

Methods:

Translation of the DCDQ into Portuguese was conducted according to guidelines for cross-cultural adaptation of instruments. As a pilot project, the questionnaire was completed by parents of 15 children with motor coordination problems and parents of 30 children who were typically developing. Ten parents completed the questionnaire twice to examine test-retest reliability. Parent's opinion regarding the quality of the questionnaire was recorded. Data collection is continuing (expected n = 500).

Results: 91% of Brazilian parents reported no difficulty in completing the DCDQ. Examination of psychometric properties revealed that two items showed limitations due to cultural differences. After item substitution, sensitivity increased from 0.66 to 0.73 and specificity from 0.83 to 0.87. Test-retest reliability was 0.97, and internal consistency (Cronbach's alpha) was 0.92. Preliminary analysis indicates cut-off scores may be different from Canadian ones.

Conclusion: The adapted instrument has potential as a screening tool for children in Brazil. Differences in cut-off scores suggest that, in addition to CCA, specific cut-off scores for each country may be necessary. The results of CCA process in other countries will be compared and discussed. The international use of the DCDQ will allow the comparison of epidemiological data.

Implication: The CCA of the DCDQ, besides facilitating international collaboration, will facilitate more accurate and efficient identification of a common childhood disorder. This will also increase awareness of DCD and subsequently improve occupational therapy support for these children.