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Reliability of Movement Assessment Battery for Children-2 Age Band 3 Using Multiple Testers

Authors : Jernice S. Y. Tan

Abstract : Introduction: Reliability within and between testers is vital to ensure the accuracy of any motor assessment instrument. However, reliability checks of the Movement Assessment Battery for Children-2 (MABC-2) age band 3 using multiple testers assigned to different MABC-2 tasks for the same group of participants are uncommon. Multiple testers were not stated as a choice in the MABC-2 manual. Therefore, the purpose of this study was to determine the inter- and intra-tester reliability for using multiple testers to administer the test protocols of MABC-2 age band 3. Methods: Thirty volunteered adolescents (n = 30; 15 males, 15 females; age range: 13 – 16 years) performed the eight tasks in a randomised sequence at three different test stations for the MABC-2 task components (Manual Dexterity, Aiming and Catching, Balance). Ethics approval and parental consent were obtained. The participants were videotaped while performing the test protocols of MABC-2 age band 3. Five testers were involved in the data collection process. They were Sports Science graduating students doing their final year project and were supervised by experienced motor assessor. Inter- and intra-tester reliability checks using intra-class coefficient (ICC) were carried out using the videotaped data. Results: The inter-tester reliability between the five testers for the eight tasks ranged from $r_i$cc = 0.705 to $r_i$cc = 0.995. This suggests that the average agreement between them was considered good to excellent. With the exception of one tester who had $r_i$cc = 0.687 for one of the eight tasks (i.e. zip-zap hopping), the intra-tester reliability within each tester ranged from $r_i$cc = 0.728 to $r_i$cc = 1.000, and this also suggested good to excellent consistency within testers. Discussion: The use of multiple testers with good intra-tester reliability for different test stations is feasible. This method allows several participants to be assessed concurrently at different test stations and saves overall data collection time. Therefore, it is recommended that the administering of MABC-2 with multiple testers should be extended to other age bands ensuring the feasibility of such method for other age bands.

Keywords : adolescents, MABC, motor assessment, motor skills, reliability
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