Title: Self-perception and participation in physical activity in children with and without DCD: A longitudinal study

Physical activity (PA) is important for health and wellbeing, but most children do not participate enough in PA, a potential public health disaster. Children with developmental coordination disorder (DCD) participate in less PA than typically developing children (TDC), yet few longitudinal DCD studies have examined characteristics associated children’s participation in PA. Links between motor competence (MC), self-perceived competence (SPC) and PA have been proposed. Aim: to investigate the characteristics and SPC over time of children with and without DCD who participate in PA. Method/Results: 34 schoolchildren, 7-14 years, screened for IQ, neurodevelopmental conditions and categorised by MC with Movement Assessment Battery for Children 2 (MABC2) and DCD DSM5 criteria applied. Parents were questioned. Children’s SPC was investigated with scores of CSAPPA [1] over 2 years along with MABC-2 scores. Nested cases of children with stable and changing profiles were interviewed. 44% of children participated in PA. Stable and changing motor profiles emerged over the 2 years [2]. Most CSAPPA scores deteriorated. Enjoyment of PA was associated with both TDC and DCD participation in PA. Other factors included positive parental attitude to PA and their regular participation. Conclusion: There were environmental and attitudinal barriers to participation in PA but SPC was not important for DCD or TDC. Child enjoyment of PA coupled with positive support from a parent was crucial for both TDC and DCD participation.

1. Hay, J. (1992). Adequacy in and predilection for physical activity in children. Clin. J. Sport Med. 2, 192–201. doi: 10.1097/00042752-199207000-00007

2. McQuillan, V., Swanwick, R., Chambers, M., Schluter, D., & Sugden, D. (2021). A comparison of characteristics, developmental disorders and motor progression between children with and without developmental coordination disorder. Human Movement Science, 78, <https://doi.org/10.1016/j.humov.2021.102823>

Relevance: Intervention is required to increase participation in all children’s PA to develop better lifelong habits and improve health and wellbeing outcomes. This should encourage child enjoyment of any PA and assist parents to enable active participation for children at every level of MC, rather than improving child SPC. Some children with DCD enjoy and participate in PA despite poor MC.

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