Construct validity of the English version of the Perceived Motor Competence Questionnaire in Childhood (PMC-C)

Swantje Brandt[1], Till Utesch[2], Dennis Dreiskaemper[1], Farid Bardid[3,4]

[1] *Institute of Sport and Exercise Sciences, University of Münster, Germany*

[2] *Institute of Education, University of Münster, Germany*

[3] *School of Education, University of Strathclyde, Glasgow, UK*

[4] *Department of Movement and Sports Sciences, Ghent University, Belgium*

Abstract

Objectives: Perceived motor competence is an important part of the physical self-concept. Whilst there are various questionnaires measuring physical self-concept and its sub-components in children and adolescents, few have focused on assessing self-perception of motor skills. To this end, the Perceived Motor Competence Questionnaire in Childhood (PMC-C; Dreiskaemper, Utesch & Tietjens, 2018) was developed to measure children's perception of different locomotor and object control skills; the instrument has been validated in German. The present study aimed to investigate the construct validity of the English version of the questionnaire.

Methods: A total of 324 children aged 8-12 years (M = 10.17, SD = 1.16) from Scotland (UK) took part in the study and completed the 24-item questionnaire, which uses a 4-point Likert scale. The PMC-C covers 4 locomotor skills (hop, jump run, and skip) and 4 object control skills (bounce, catch, kick, and throw) with 3 items per skill. Internal consistency was examined using polychoric alphas or omegas. The latent structure of the original PMC-C was tested using confirmatory factor analysis (CFA).

Results: The results showed good internal consistency for locomotor skills (.78 – .88) and object control skills (.73 – .89), and ordered thresholds for all items. Furthermore, the CFA revealed a good model fit for the assumed structure of the original PMC-C ($\chi^2(243) = 501.1$, p < .001, TLI = .985, CFI = .987, RMSEA = .061).

Conclusion: The study provides evidence for the construct validity of the English version of the PMC-C. This questionnaire is thus considered an appropriate tool to assess children's self-perception of motor skills.