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The association of motor competence, health-related fitness, and perceived sport competence with dropout from organized sports during adolescence

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Background: It is well established that motor competence and fitness are associated with physical activity in children. Motor competence can be viewed as a cornerstone for a physically active lifestyle. For children, a common way to engage in physical activity is through participation in organized sports. However, dropout rates from organized sports accelerate in adolescence, and there is limited evidence regarding the role of motor competence and health-related fitness. Therefore, this study aimed to examine how baseline health-related fitness, motor competence, and perceived sport competence at the age of 11 predict dropout from organized sports participation over the following four years.

Methods: Out of 1162 participants, 672 children who were involved in organized sports at baseline were included in the analysis (Mean age = 11.37 ± 0.37). Motor competence, physical fitness, and BMI were assessed by trained researchers, while perceived sports competence and organized sports participation were evaluated through a questionnaire. All predictors were assessed at age 11, and a binary logistic regression model was employed to predict participation and dropout by age 15.

Results: Motor competence (throw-catch combination, 5-leaps, and lateral jumps) and physical fitness (shuttle run, pushups) at age 11 significantly predicted dropout from organized sports by age 15. BMI and perceived sports competence were not significant predictors.

Conclusions: Enhanced motor skills and health-related fitness may encourage children’s participation in organized sports throughout adolescence, which is a critical period for adopting lifelong physical activity behaviors. Early promotion of motor skills and health-related fitness could facilitate children’s involvement in organized sports.

Relevance: Previous studies have shown that those children who participate in organized sports tend to be more physically active and have better fitness. This study offers evidence that better motor competence and health-related fitness at the age of 11 predict continued participation in organized sports at the age of 15, emphasizing the crucial role of motor skills and fitness development in early childhood.