

S15-1: The Effects of Functional Impairments on Physical Performance in Schools for Children With Disabilities in Latvia

Aija Klavina, Zinta Galeja, Nadija Strazdina, Rihards Ansons, Edgars Ozols

Rīga Stradiņš University Latvian Academy of Sport Education, Riga, Latvia

Evidence-based research indicates that functional impairments significantly affect the physical performance of school-aged children with disabilities. These impairments can lead to limitations in motor skills, mobility, and participation in daily activities (Manojvolic et al., 2023). This study aimed to investigate the impact of functional impairments on physical fitness (EUROFIT) outcomes in school age children with different disabilities in Latvia. **Results** are based on the fitness measurement data of 241 children with disability (116 with moderate and severe intellectual disability (ID), 15 with visual impairment (VI), 18 with physical disability (PD), 22 with hearing disability (HD), average age: 14.02, standard deviation (SD) = 2.07 years) compared to 70 control group (CG) participants with average age 13.89 (SD = 1.92). Based on the results, children with ID, VI, and HD demonstrated similar scores to CG in six out of nine tests, while children with PD only in one. The lowest scores for all participants were in upper body muscular endurance test. When analysing the effect of functional impairment on physical performance, a statistically significant large effect was found in balance test ($\eta_p^2 = .249$), upper body speed test ($\eta_p^2 = .192$), lower body strength ($\eta_p^2 = .215$), grip strength ($\eta_p^2 = .161$ (R), $\eta_p^2 = .170$ (L)) and 10 × 5 m shuttle run ($\eta_p^2 = .370$), 20 m shuttle run ($\eta_p^2 = .168$), all $p < .001$. **Conclusions:** Children with PD had the lowest fitness results. The most significant differences were found in upper body speed and strength test across the four groups. However, there are several factors (e.g., gender, age, severity of functional impairment) that might affect results and will be analysed in more detail during the presentation. Compared to few studies investigating physical fitness of children with disability, participants in this study had higher scores in upper body strength and agility tests (Kalbli et al., 2021).

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