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Fundamental Motor Skills in Terms of Locomotion of Youth With Visual Impairments

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Background and Aim. The lack of visual stimuli in early childhood reduces the motivation to explore the environment, which negatively impacts motor development. Consequently, youth with visual impairment (VI) demonstrate consistently low levels of physical activity (PA), which impacts their overall fitness and quality of life. Interventions aimed at developing fundamental motor skills (FMS) may significantly improve the overall wellbeing and health of youth with VI. Therefore, the aim of our study was to identify areas of FMS in terms of locomotion requiring intervention.

Methods. The study included youth (aged 13.71 ± 2.41) with VI ($M = 43$; $F = 28$), divided into three groups (B1, B2, B3) based on the severity of impairment (lower class – more severe impairment). Locomotor skills were evaluated using the TGMD-3. Statistical analysis involved Kruskal–Wallis, ANOVA, and correlation tests.

Results. The level of locomotor skills varied among the participants based on the degree of impairment (H 22.56; $p = 0.000$). The lowest level was observed in group B1 (69% of the maximum possible score), and the highest in group B3 (93%). The most difficult tests for group B1 were running (51%), skipping and hopping (52%). Group B3 achieved scores between 81% and 99% in all tests.

Conclusions. The level of FMS differs in youth according to the degree of VI, which may be related to the lower level of PA in people with a significant degree of dysfunction. The results obtained allowed us to identify areas of motor skills that require support for individuals with VI. Further actions are aimed at implementing strategies to support the development of motor skills, considering VI.

Keywords: Physical activity; visual impairments (VI); fundamental motor skills

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Informed Consent Statement: All participants provided written informed consent prior to participation. The study was conducted in accordance with the Declaration of Helsinki.