Children with learning disabilities (LD) may have motor problems, which may discourage participation in physical activity and sports. The play and leisure activities of individuals with LD tend to be different (more passive) from that of their peers (Rimmer, 1996; Sherrill, 1998). Gross motor skills, such as running and throwing, are considered as motor skills that lay the foundation of motor play and sport activities (Malina & Bouchard, 1991).

The aim of the present study was to examine the quality of gross motor skills, and its association with overweight, self-reported physical activity, and degree of learning disability in children with LD. The study population included 281 children of two special schools in the northern Netherlands, aged 8-12. There were mentally retarded children (IQ 60-80; 49%) and children with learning disabilities or educational needs (IQ 80 or higher). Of the children, 23% was overweight, 77% participated in sports, and 54% was member of a sports club.

The Test of Gross Motor Development (TGMD-2) was used to assess the qualitative gross motor skill performance, i.e. locomotor skills (LS) and object control skills (OCS). Information on age, sex, degree of learning disability (on reading and arithmetic), and presence of behavioral problems was retrieved from the individual files of the children. Self-reported physical activity was measured by use of 10 comparisons in pairs on leisure activities. For statistical analysis, ANCOVAs were used with raw scores of LS and OCS as dependent variables, overweight, physical activity level, and degree of learning disability on academic skills as factors, and age, sex, and behavioral problems as covariates. Compared to the norms, a Gross Motor Quotient below average, poor or very poor was found for 90% of the children. With respect to LS and OCS, these figures were 69% and 88%. The ANCOVA of LS showed a significant main effect for overweight (F=9.089, p=.003), physical activity (F=5.352, p=.005), and degree of learning disability on reading (F=8.952, p=.000). The ANCOVA of OCS showed a significant main effect for physical activity (F=7.187, p=.001) and degree of learning disability on reading (F=3.213, p=.042). Overweight was not significantly related to OCS. Analogously, degree of learning disability on arithmetic was significantly related to LS and OCS.

In children with learning disabilities, attention should be paid to gross motor skills, especially in those that are most learning disabled and those that are overweight or have the lowest physical activity levels.

References

Keywords: Children Physical Activity, Motor Skills, Adapted Physical Activity