
Participation in physical activities for children with physical disabilities: feasibility and effectiveness of physical activity referrals

Katarina Lauruschkus^{*1}, Inger Hallström , Lena Westbom , åsa Tornberg , and Eva Nordmark

¹Lund University [Lund] (Faculty of Medicine, Department of Health Sciences) – Health Sciences Centre (HSC), Box 157, Baravägen 3, S-221 00 Lund., Sweden

Abstract

Background: Children with physical disabilities are at risk to develop cardiometabolic diseases because of inactivity. An active lifestyle with increased habitual physical activity and reduced sedentary behaviour is recommended. Physical Activity Referral (PAR) is an effective intervention to promote a lifestyle change in adults. There is a lack of knowledge about PAR in children with disabilities.

Aim: To evaluate the feasibility and effectiveness of PAR for children with physical disabilities

Method: 11 children with CP and 3 children with other physical disabilities, aged 7-12 years, and their parents participated in PAR, with assessments at baseline, 8 and 11 months. Sociodemographic, clinical and physical activity questionnaires were conducted at baseline; GMFM-66, physical activity and heart rate monitors and time use diaries were used at baseline and at 8 months. Motivational Interviewing and the Canadian Occupational Performance Measure (COPM) led to a written agreement between each child, its parents and the physiotherapist by using Goal Attainment Scaling (GAS). At 8 and at 11 months COPM and GAS were evaluated and PAR-evaluation, physical activity and costs & time spent questionnaires were completed. At 11 months feedback was given of measured physical activity levels and GMFM-66 scores.

Result: Each child participated in 1-3 self-selected physical activities with support of the physiotherapist. PAR involved both everyday physical activities as biking to school and organised physical activities as wheelchair hockey due to individual preferences, opportunities and facilities. Measuring physical activity levels was motivating, COPM, GAS and GMFM-66 scores increased and several children made new friends.

Conclusion: PAR seems to be feasible and effective. PAR promotes an active lifestyle through increased participation, motivation and engagement in physical activities and increased social participation. Further research is needed, preferably in a RCT including health economic analysis.

Keywords: Children, participation, physical activity, physical activity referral, physical disability, sedentary behaviour

^{*}Speaker