Journal of Physiotherapy 66 (2020) 54

AUSTRALIAN PHYSIOTHERAPY ASSOCIATION

Journal of PHYSIOTHERAPY

journal homepage: www.elsevier.com/locate/jphys

Appraisal

Critically appraised paper: Participation-focused therapy for children with cerebral palsy improves perception of leisure-time physical activity goal performance, satisfaction and confidence

Synopsis

Summary of: Reedman SE, Boyd RN, Trost SG, Elliott C, Sakzewki L. Efficacy of participation-focused therapy on performance of physical activity participation goals and habitual physical activity in children with cerebral palsy: a randomised controlled trial. *Arch Phys Med Rehab.* 2019;100:676–686.

Question: Does participation-focused intervention improve leisure-time physical activity goals and habitual physical activity in children with cerebral palsy? ***Design***: Randomised controlled trial with concealed allocation. ***Setting***: Community based in Australia. ***Participants***: Inclusion criteria were children aged 8 to 12 years, with cerebral palsy and who were ambulant. Children were excluded if they had an unstable medical condition, moderate to severe intellectual, communication, hearing and/or visual impairment, or required surgery in the previous 6 months. Randomisation of 37 participants allocated 18 to intervention and 19 to a wait-list control group. ***Interventions***: Both groups received usual care as well as individual face-to-face sessions with a physiotherapist at three time points: baseline (to set goals) and at 8 and 16 weeks (to score goals). In addition, over the first 8 weeks, the intervention group had a further six physiotherapy sessions aimed at enabling the child's ongoing participation in leisure activities at home, community and/or school. This was tailored to the individual child and family, and based upon their baseline goals. ***Outcome measures***: The primary outcomes were performance on leisure-time physical activity participation goals, and satisfaction and confidence with these goals measured using a modified Canadian Occupational Performance Measure at 8 weeks. Secondary outcome measures collected at 8 and 16 weeks were parent-reported barriers to participation, parent-reported community participation frequency and involvement, child-reported quality of life and physical activity measured with accelerometers. ***Results***: Thirty-two participants completed the study. At the end of 8 weeks, when compared with the control group, the intervention group demonstrated better performance on leisure-time physical activity participation goals (MD 3.58, 95% CI 2.19 to 4.97), satisfaction (MD 1.87, 95% CI 0.37 to 3.36) and confidence (MD 1.31, 95% CI 0.12 to 2.50) for these goals. At 16 weeks, these differences were retained. Parents reported fewer barriers/more facilitators to participation in the intervention group (MD 27, 95% CI 6 to 47) at 8 weeks, which was not retained at 16 weeks. There was no between-group difference for other measures at 8 and 16 weeks. ***Conclusion***: In children with cerebral palsy, when compared with usual care, individualised participation-focused therapy improved their perception of performance, satisfaction and confidence with leisure-time physical activity. However, the intervention did not have an effect on community participation, quality of life or objective measures of physical activity.

Provenance: Invited. Not peer reviewed.

Alicia Spittle
Department of Physiotherapy, University of Melbourne, Australia
Victorian Infant Brain Studies, Murdoch Children's Research Institute, Australia

https://doi.org/10.1016/j.jphys.2019.10.002

Commentary

The study by Reedman et al helps us to answer the question: What can we do to increase participation in physical activity by young people with cerebral palsy? The one-size-fits-all approach used in most studies is unlikely to be effective, given the breadth of family preferences regarding physical activity programs.[1] The highly tailored ParticiPAte CP intervention developed in this study enabled children with cerebral palsy and their parents to participate in leisure-time physical activities that met *their* needs and preferences. This is in line with others who advocate for determining what *the child* wants to do, including activities the child enjoys participating in.[2] This approach resulted in improvement in performance of self-selected leisure-time physical activity goals, satisfaction and confidence at follow-up, but did not translate into improvement in habitual physical activity. These findings are particularly relevant since a recent systematic review concluded that physical training did not increase physical activity in children with cerebral palsy, and reported conflicting evidence for the effect of interventions with a behavioural component.[3]

Ultimately, we must ask ourselves: Is meeting physical activity guidelines more important than having fun while being active? The ParticiPAate CP program used behaviour change and communication techniques combined with sport-specific training and context-specific strategies to achieve long-term improvement in self-selected leisure-time physical activity goals, satisfaction and confidence. This program might have greater potential for encouraging sustainable physical activity, due to consideration of contextual factors and ensuring alignment between the activities and child's preferences. Given the research that demonstrates many children with cerebral palsy have low physical activity levels, being moderately active over the long-term may be better than short-term physical training alone.

Provenance: Invited. Not peer reviewed.

Olaf Verschuren
Center of Excellence for Rehabilitation Medicine, Utrecht, The Netherlands

https://doi.org/10.1016/j.jphys.2019.10.001

References

1. Wiart L, et al. *Phys Occup Ther Pediatr.* 2015;35:73–87.
2. Rosenbaum P, et al. *Child: Care, Health Dev.* 2011;38:457–463.
3. Bloemen M, et al. *Dev Med Child Neurol.* 2017;59:1004–1010.