

Article Title

Attitudes and Behaviors of Physical Activity in Children with Cerebral Palsy: Findings from PLAY Questionnaire

Article Citation

Sugimoto, D., Rabatin, A. E., Shea, J. E., Parmeter, B., Shore, B. J., & Stracciolini, A. (2022). Attitudes and Behaviors of Physical Activity in Children with Cerebral Palsy: Findings from PLAY Questionnaire. *Children*, 9(7), 968.

Adaptive Sport/Recreation Categories

- Physical Activity
- Sports
- Play/Leisure

Study Type: Cross-sectional study

Summary

Physical activity (PA) for children with disabilities promotes inclusion, improves physical and mental health, and enhances wellbeing. Investigations of PA behaviour in children with CP are limited, specifically related to: daily behavior, knowledge and understanding, motivation/attitudes, and physical competence. Thus, the purpose of this study was to investigate these four domains surrounding physical activity in children with CP (GMFCS level I-II) and to compare these findings to typically developing (TD) children. 53 children with CP were recruited from the Cerebral Palsy Clinic at Boston Children's Hospital. Children with CP included GMFCS level I [N = 26 (49.1%)] and level II [N = 26 (49.1%)] (1 not reported). With 58 TD children, they completed the Play Lifestyle and Activity in Youth (PLAY) questionnaire capturing the four physical activity domains of PA: daily behavior, knowledge and understanding, motivation/attitudes, and physical competence.

There were no differences in average number of weekly active days between children with CP and TD children but the reported number of active days in the past week was greater in children with CP. Additionally, children with CP participated in physical education class, outside play time including free play, organized (adaptive) sports, and recess more than TD children. Children with CP slept less and watched less TV than TD children. However, lower percentage of children with CP reported being familiar with general health tips and information and lower percentage of children with CP reported feeling physically competent compared to their peers. Furthermore, 1 in 2 children with CP reported feeling sad if they are not able to play sports or run around during the day and a large majority (97.2%) reported feeling happy when they are able to. 94% of children with CP reported that they enjoy participating in physical education, gym class, and sports. Future studies are warranted to evaluate a long-term effect of physical activity in children with CP.

Article Strengths

- Investigated daily behavior, knowledge and understanding, motivation/attitudes, and physical competence relating to PA participation among children with CP.

- Showed that children with CP participate in physical education, gym, and sports more than TD children but were less familiar about health tips and information regarding PA.
- Highlighted the potential relationship between PA participation and mental health (ie. sad when unable to participate in PA and happy when able)

Article Weaknesses

- Cross-sectional study without showing direct associations between PA participation and other health outcomes.
- Parent-report measure of child's PA.
- Only 2 questions addressed the Physical Competence domain- one asking about handwriting for which the link to PA is not made clear.
- Limited generalizability as recruitment was done in one geographic region.
- Only included GMFCS I/II
- No formal validation of PLAY questionnaire with the CP population.

Take Home Messages

- Children with CP participate in PA more than TD children and enjoy participation.
- Children with CP report less familiarity with health tips and information regarding PA.
- PA participation can potentially be related to mood among children with CP.

Impacts on Clinical Practice

- PA should be promoted among children with CP.
- More information and tips should be provided to children with CP and their families related to PA and PA participation.