Article Title
Scootering is More Than Fun: Exploration of a Feasible Approach to Improve Function and Fitness

Commentary on "Scootering for Children and Youth Is More Than Fun: Exploration of a Feasible Approach to Improve Function and Fitness"

Article Citation


Adaptive Sport/Recreation Categories
- Physical activity

Study Type: Prospective observational study, Commentary

Summary
This research used the physical activity of scooter to determine muscle requirements using VICON motion capture systems and the relationship to the F words (fitness, function, family, friends, fun and future) in 5 children aged 5-14 years with cerebral palsy (CP) within Gross Motor Function Classification System (GMFCS) Level I-II. Results showed that scootering has the potential to address fitness, function, family, friends, fun and future and be used as a replacement for sedentary behavior for children with disabilities. Results from motion analysis showed that scooter provided relevant essential gait attributes in children with cerebral palsy.

Article Strengths
- Diverse research methods were used to integrate findings from a scooter physical therapy program to the F words.
- Scootering is a feasible and fun activity without significant adverse effects.
- Scootering aligns well with the F-words, indicating it meets the need of family as a participation in physical activity choice.
- Scootering provides relevant essential gait attributes, such as plantarflexion and hip extension during the terminal stance or knee flexion during swing phase.

Article Weaknesses
- Information about the therapy scooter programme is not provided and would be useful and interesting for clinicians.
- This is an observational study (with fitness and function not measured quantitatively) and warrants further studies in a randomized controlled trial or a pre-post design.
• Limited evidence for the effect of scootering at various aspects of everyday mobility, such as short-/long-distance walking speed.
• Very small sample (n = 5 CP, n = 7 typically developing peers).
• Ankle muscle firing was reported, but no information for the recruitment of other muscle groups during scootering.
• Motion analysis was limited to an indoor, smooth surface setting which is likely to result in different findings than a real world setting.

Take Home Messages
• Dose of intervention: Incorporated into daily accumulation of 60 mins of moderate to vigorous physical activity.
• Participants: Applied to children with cerebral palsy within GMFCS Level I and II.
• Scootering can be promoted outside of the clinic as a community-based physical activity that is accessible that meets the F words.

Impacts on Clinical Practice:
• Results of this observational study based on motion analysis.
• Scootering has the potential to improve mobility for children with disabilities.
• Scootering could be applied to children with cerebral palsy within GMFCS Level I to III.
• Protective equipment and appropriate supervision should be provided to avoid possible injuries, such as falls.