
A1: What are the Attitudes & Practices of Paediatric Therapists Concerning Power Mobility use in Children?

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Learning objectives:

At the completion of this session, attendees will be able to:

1. Describe the survey research methodology used in this study.
2. Identify 3 factors from the perspective of survey respondents that may impact a therapist's decision to trial power mobility (including use of battery powered ride-on toys).
3. Identify 3 factors from the perspective of survey respondents that may impact a therapist's decision to prescribe a power wheelchair.

Session description:

Objectives: The purpose of this study was to explore the current attitudes and practices of pediatric occupational therapists (OTs) and physical therapists (PTs) in Canada and the United States related to power mobility use for children with mobility deficits/limitations. Study Design: Descriptive, cross-sectional survey Study Participants & Setting: Of the 1115 people who accessed the survey, 1009 pediatric OTs and PTs from Canada and the United States met the inclusion/exclusion criteria. Therapists from all 50 United States, all 10 Canadian provinces, and one of the 3 Canadian territories responded to the survey. Sixty-five percent of the respondents practiced in a school system or outpatient setting.

Materials/Methods: The web-based survey collected primarily quantitative data and was reviewed and piloted by an expert panel prior to data collection. Questions pertaining to therapists' decisions to trial and use power mobility, agreement or disagreement with various published statements regarding the introduction and use of power mobility, and the

frequency of performance of tasks related to power mobility prescription and training were included. Results: A majority of respondents reported that certain child characteristics (e.g., cognition, safety awareness) were important factors in decisions about power mobility, while other child characteristics (e.g., communication abilities, age) were considered less important. Family resources and home accessibility were also not considered as important. Respondents expressed agreement (range 66%-96%) with various published statements regarding the introduction and use of power mobility. Respondents most frequently performed power mobility tasks either 1-2x/year or never. Conclusions/Significance: A majority of respondents appeared to have a positive attitude towards introducing power mobility to young children. However, few therapists appeared to be actively engaged in providing such power mobility experiences and most commonly referred children to specialty clinics. Determining the facilitators of and barriers to implementation of power mobility experiences warrants further exploration.

Content references:

1. Livingstone R, Field D. Systematic review of power mobility outcomes for infants, children and adolescents with mobility limitations. *Clin Rehabil.* 2014;28(10):954-964.
2. Livingstone R, Paleg G. Practice considerations for the introduction and use of power mobility for children. *Dev Med Child Neurol.* 2014;56(3):210-221.
3. Jones M, McEwen IR, Neas BR. Effects of power wheelchairs on the development and function of young children with severe motor impairments. *Pediatr Phys Ther.* 2012;24(2):131-140.
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A2: “There is Power in Mobility”: A Qualitative Study Exploring How Children Learn to Use a Power Mobility Device

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Learning objectives:

At the completion of this session, attendees will be able to:

1. Discuss the qualitative research methods used in this study.
2. Identify 3 factors from the perspective of the study participants that may positively impact a child who is learning to use a power mobility device.
3. Identify 3 factors from the perspective of the study participants that may create barriers for a child who is learning to use a power mobility device.

Session description:

Objective: The aim of this study was to explore, from the perspectives of both parents and paediatric therapists, the process of how a child learns to use a power mobility device. Study Design: Qualitative study using focus groups and one-on-one interviews Study Participants & Setting: The purposive sample included 14 parents of children 18 months to 13 years of age who were learning to use or had learned to use a power mobility device and 17 paediatric physical or occupational therapists from a variety of settings. Two additional therapists with extensive research experience in the area of paediatric power mobility also participated in the study as a way to gather and explore data relevant to emerging concepts and codes within the data. Materials/Methods: Separate interview guides were developed for parents and therapists. Data were gathered via 7 focus groups and 8 one-on-one interviews. All focus groups and one-on-one interviews were digitally recorded and transcribed verbatim. Data collection continued until data saturation was reached. Data were analysed throughout the research process. Results: Three main themes were identified: 1) “Power in mobility” – depicted how learning to use power mobility changed

more than just a child’s locomotor abilities and was transformative on multiple levels; 2) “There isn’t a cookbook” – revealed how learning to use power mobility occurred along an individualized continuum of skills that often unfolded overtime in a cyclical process; and 3) “Emotional journey” – explored how learning to use power mobility was an emotionally charged process for children, families, and therapists. Conclusions/Significance: Data revealed factors that positively impacted learning to use a power mobility device as well as obstacles that created potential barriers to the learning process.

Content references:

1. Livingstone R, Field D. Systematic review of power mobility outcomes for infants, children and adolescents with mobility limitations. *Clin Rehabil.* 2014;28(10):954-964.
2. Livingstone R, Paleg G. Practice considerations for the introduction and use of power mobility for children. *Dev Med Child Neurol.* 2014;56(3):210-221.
3. Jones MA, McEwen IR, Neas BR. Effects of power wheelchairs on the development and function of young children with severe motor impairments. *Pediatr Phys Ther.* 2012;24(2):131-140.
4. Guerette P, Furumasu J, Teft D. The positive effects of early powered mobility on children’s psychosocial and play skills. *Assist Technol.* 2013;25:39-48.
5. Livingstone R. A critical review of powered mobility assessment and training for children. *Disabil Rehabil Assist Technol.* 2010;5:392-400.

A3: From buggy to wheelchair: Exploring the experiences of whanau/carers

Tess Wallis, PT
Ana Pacheco, OT

Learning objectives:

After the session, the participant will be able to:

- Identify 3 different common themes associated with transitioning children from a buggy into their first wheelchair
- Have an understanding of how a first wheelchair may impact on family life
- Able to take parents and care givers perspectives into account when selecting equipment to transition from buggy to wheelchair

Session description:

Background

Most young children with significantly limited independent mobility will at some point in their lives outgrow their buggy and receive their first wheelchair. In the greater Auckland area in New Zealand, these children will usually be referred by their child development therapist to Mobility Solutions, a government run specialised wheelchair and seating service that caters for people with complex wheelchair and seating needs. A wheelchair clinician will then aim to determine the most appropriate mobility solution, after a thorough assessment and in liaison with caregivers and external therapists.

Method

The purpose of this study is to explore the experiences of whanau/carers when a child transitions from a buggy to a wheelchair.

A literature review and a file audit will be completed, and carers will be invited to participate. A qualitative questionnaire will be developed and it will be completed with parents of children who have recently transitioned from a buggy to a wheelchair for their essential mobility needs.

Inclusion criteria are: the child must be under the care of Mobility Solutions in the last 5 years and requiring complex wheeled mobility equipment for all essential mobility including indoors.

Depending on the response rate during the data collection period, it is likely that there will be a mix of neurological and musculoskeletal conditions and a varied range of mobility solutions such as self-propelling, transit and power chairs.

Additionally, a questionnaire regarding clinician's expectations will be completed by experienced wheelchair and seating therapists. The collated qualitative data will be analysed and common themes, if available, will be categorised.

Findings

It is hypothesised by the authors that parents and clinicians may have different expectations about potential positive and negative impacts of a child's first wheelchair. Clinicians are likely to consider transportation issues, improved postural support and participation as important aspects regarding to the decision making process and the final equipment solution. To the authors' best knowledge, there is not much information available in New Zealand that highlights parents opinions, experiences and requirements.

Discussion

Depending on the results of this study, it may become clear that service guidelines or a best practice protocol may need to be developed to smooth the transitioning process and to optimise functional outcomes related to wheeled mobility for parents and children.

Content references:

1. Ann Eubank, L. M. S. W., Brown, D., Hoskins, E., Mueller, S., & Marie, A. (2015, February). IC18: Independent Living: Captivating Live Interviews with Wheelchair Users. In *International Seating Symposium* (p. 91).
2. Bray, N., Noyes, J., Edwards, R. T., & Harris, N. (2014). Wheelchair interventions, services and provision for disabled children: a mixed-method systematic review and conceptual framework. *BMC health services research*, *14*(1), 309.
3. Casey, J., McKeown, L., McDonald, R., & Martin, S. (2012). Wheelchairs for children under 12 with physical impairments. *The Cochrane Library*.
4. Cronin, S. (2012). Exploring the lived experiences of children with specialised

wheelchair and seating needs from a family perspective.

5. Shahid, M. (2004). Buggy-to-wheelchair progression for children with cerebral palsy: Parents' and therapists' opinions. *International Journal of Therapy & Rehabilitation, 11*(12).
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