

0030

## **The Smart Wheelchair: Is it an appropriate mobility training tool for children with cerebral palsy?**

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*Background:* For children with severe to moderate disabilities independent mobility enhances occupational performance and participation in valued life roles, increasing feelings of self efficacy and competence. Advances in wheelchair technology, such as the Smart Wheelchair, offer increased opportunities for children previously unable to access powered mobility. However, little research has evaluated the effectiveness of the Smart Wheelchair as mobility training tool for children with disabilities.

*Aim:* The aim of the proposed research was to describe the impact of a mobility training program using the Smart Wheelchair on the driving skills of children with cerebral palsy.

*Method:* A multiple case study design using mixed methods was used. Four children with cerebral palsy were recruited through The Centre for Cerebral Palsy in Western Australia. The intervention was an eight week mobility training program using the Smart Wheelchair. Data was collected using a quantitative driving skills checklist, field notes and qualitative parent interviews.

*Results:* Findings to be presented will include pre and post test change scores (driving skills checklist), parent's perceptions of the impact of the mobility training program (parental interview), and trends and patterns within the data from the four case studies.

*Discussion:* The number of children living with cerebral palsy is expected to increase in coming years. Given the significant limitation that restrictions in mobility poses to participation for children with cerebral palsy, occupational therapists must begin to understand the effectiveness of interventions such as the Smart Wheelchair. The exploratory nature of this study allows for future, more rigorous research, to be conducted on the Smart Wheelchair as a mobility training tool.

### *Learning Outcomes:*

- To gain an understanding of the importance of independent mobility in child development.
- To gain an understanding about the Smart Wheelchair as a mobility intervention tool.
- To gain an understanding of advances in technology in occupational therapy