

The experience of powered wheelchair use over time. A mixed-methods, longitudinal study

Delphine Labbé^{1,3}, W. Ben Mortenson^{1,3}, Paula Rushton^{1,4}, Louise Demers^{1,5}, William C. Miller^{1,3}

¹University of British Columbia, Vancouver, BC, Canada, ²Université de Montréal, Montréal, Québec, Canada, ³GF Strong Rehabilitation Research Lab, Vancouver, BC, Canada, ⁴CHU St-Justine research center, Montréal, Québec, Canada, ⁵Centre de recherche de l'institut universitaire de gériatrie de Montréal, Montréal, Québec, Canada, ⁶ICORD, Vancouver, BC, Canada

Introduction/Rationale. Power wheelchairs are essential devices to facilitate occupational engagement for many people with mobility problems; however, issues with usability, safety, and cost have been reported. Unfortunately, most research has focused on the experiences of new device users and very few studies have explored the impact of power wheelchairs longitudinally.

Objectives. To explore the lived experiences of power wheelchair users over time based on a life course perspective.

Method. This study used a mixed-methods approach. We conducted a series of four open-ended qualitative interviews over a two-year period with 19 power wheelchair users. Data were also collected at regular intervals about participants' wheelchair driving skills, driving confidence, device perception, mental health, social and daily activity participation, and social support.

Results. From the qualitative data we identified three themes that highlight the sense of continuity and disruption that the participants experienced with power wheelchair use. "It's my legs", explored how PWC enables users to take part in activities and affects their identities. "Wheels of change" emphasized the dynamic nature of the PWC use. "Getting around" revealed how the power mobility mediates the interaction of the users with their social and physical environments. Similarly, the objective measures revealed the dynamic experiences of power wheelchair users over time.

Conclusion. This study provides new insights into the experiences of power wheelchair users and how this use is influenced over the life course. The study findings help occupational therapists to understand the complexity of power mobility provision and user's engagement in meaningful activities.