

### Manual Wheelchair Skills Capacity Predicts Quality of Life and Community Integration in Persons With Spinal Cord Injury<sup>1</sup>

#### What is the study about?

This study was conducted to determine proficiency in manual wheelchair (WC) skills, user characteristics related to proficiency, and how proficiency in manual WC skills related to perceived quality of life (QOL) and community participation (CP) among users with spinal cord injury (SCI).

#### Who participated in the study?

This study involved 214 WC users with SCI from 6 SCI Model Systems sites. All participants had incurred a SCI at least 11 months before study entry that resulted in paraplegia (72%) or tetraplegia (28%) and used a manual WC as their primary means of mobility.

#### How was the study conducted?

A variety of surveys were used to determine QOL and CP by assessing participants' anxiety, self-described life satisfaction, self-described general health, mobility, occupation, social integration, and physical independence. The Wheelchair Skills Test (WST) was used as a standard measure of proficiency in WC use. Thirty-one WC skills such as going up and down stairs, ramps and curbs of different heights, transferring from ground to WC, and turning 180 degrees in wheelie position were included in the test. Skills were measured as pass or fail. Data were collected on only one occasion for a total time of approximately 1.5 hours per participant.

#### What did the study find?

Overall, the authors concluded that those with higher total WST scores tended to have higher self-perceived health status, life satisfaction, and community participation. The authors also indicated that greater proficiency on several WST skills correlated with participants' characteristics such as male sex, paraplegia, employed status, lower education, younger age at injury, and white race. Because the study used a one-time survey design, it could not determine if proficiency in WC skills was the cause of higher QOL and CP, only that these characteristics were related.

The contents of this quick review were developed under a grant from the Department of Education, NIDRR grant number H133A110004. However, those contents do not necessarily represent the policy of the Department of Education, and you should not assume endorsement by the Federal Government.

---

<sup>1</sup> Hosseini, S. M., Oyster, M. L., Kirby, R. L., Harrington, A. L., & Boninger, M. L. (2012). Manual Wheelchair Skills Capacity Predicts Quality of Life and Community Integration in Persons With Spinal Cord Injury. *Arch Phys Med Rehabil*, 93, 2237-2243.