

Effectiveness of a Wheelchair Skills Training Program (WSTP) for Powered Wheelchair Users: A Randomized Controlled Trial

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ABSTRACT

Our primary objective was to test the hypothesis that powered wheelchair users who receive the Wheelchair Skills Training Program (WSTP) (the Intervention group) improve their post-training total percentage capacity and performance scores on the questionnaire version of the Wheelchair Skills Tests (WST-Q) in comparison with a Control group that receives standard care. We conducted a multi-centered, single-blinded, randomized controlled trial (RCT) on 116 powered wheelchair users. Those in the Intervention group received up to 5 training sessions. The mean (SE) change (T2-T1) scores in the total percentage WST-Q performance scores for the Intervention and Control groups were 3.9 (1.5)% and -1.0 (1.3)% ($p = 0.016$). There were no significant effects due to age ($p = 0.835$), sex ($p = 0.633$) or powered wheelchair experience ($p = 0.627$). For the Intervention group, the mean (SD) number of goals was 5.8 (1.8). The mean (SD) Goal Attainment Scale (GAS), expressed as the percentage of goals achieved, was 92.8% (11.4). Of the participants in the Intervention group, 39 (78%) found the training was neither stressful nor uncomfortable, 46 (92%) found it useful, 46 (92%) found they had improved their abilities to perform wheelchair skills and 50 (100%) said that they would recommend the training to others. At 3-month follow-up, there was no difference between the groups on the Wheelchair Use Confidence Scale for Power Wheelchair Users (WheelCon-

P) ($p = 0.503$) or Life Space Assessment (LSA) ($p = 0.532$). Powered wheelchair users who receive formal wheelchair skills training improve their wheelchair skills performance, particularly with respect to individualized goals that they have set.

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