

Relationship Between the Total Percentage Scores on the Questionnaire (WST-Q) and Objective (WST) Versions of the Wheelchair Skills Test (Version 4.2) for Manual Wheelchair Users with Spinal Cord Injury

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ABSTRACT

To assess the relationship between the questionnaire (WST-Q) and objective (WST) versions of the Wheelchair Skills Test Version 4.2 for manual wheelchair users with spinal cord (SCI) injury, we conducted a multi-center descriptive study based on cross-sectional data collected at baseline as part of a larger study. Participants were community-dwelling people with SCI who used manual wheelchairs as their primary means of mobility. Each completed the WST-Q and the WST at a single session. The mean (SD) WST-Q total percentage capacity score (n = 120) was 84.7% (13.2) and the median (interquartile range [IQR]) was 88.0% (77-97). The mean (SD) WST-Q total percentage performance score was 74.6% (13.2) and the median (IQR) was 75.5% (66.0-83.8). The mean (SD) WST total percentage capacity score (n = 113) was 77.3% (15.2) and the median (IQR) was 81.0 (81-90). The Spearman correlation coefficient for WST-Q capacity vs WST-Q performance was 0.629 (p < 0.001). The mean WST-Q capacity score exceeded the WST-Q performance score by 10.1% (p < 0.001). The Spearman correlation coefficient for WST-Q capacity vs WST capacity was 0.770 (p < 0.001). The mean WST-Q capacity score exceeded the WST capacity score by 7.4% (p < 0.001). The total percentage WST-Q and WST scores are correlated highly but WST-Q capacity scores slightly exceed both WST-Q performance scores and WST capacity scores. These findings should be considered when choosing and interpreting these outcome measures.

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