Wheelchair Outcome Measure (WhOM)

Assessment Overview

Assessment Area

ICF Domain:
Activities and Participation
Subcategory:
Mobility, Community, Major Life Areas, General Tasks and Demands

You Will Need

Length: Approx. 30 minutes, number of items varies based on outcomes identified by the participant
Scoring:
In part I, Imp and Sat are rated (0-10) for each identified activity. Sat x Imp score (0-100) for each activity is the product of the two values. Mean Sat and mean Sat x Imp scores are the means of the respective activity scores.
In part II, change (post-pre) scores can be calculated.
Training:
No training required, however good clinical interviewing skills are essential.

Summary

The Wheelchair Outcome Measure (WhOM) is a semi-structured interview/assessment focused on participation outcomes as identified by the participants.

In Part I, participants identify their participation outcome goals (i.e. specific things that they want to do and achieve) at home and in the community, and they then rate the **importance (Imp)** of the goals and **satisfaction (Sat)** with their performance in reaching their goals.
Part II consists of structured questions about body function: comfort with wheelchair seating, satisfaction with positioning, as well as skin breakdown.

This information is intended to be re-tested to:
1) Monitor a participant's performance (post-intervention or over time);
2) To assist them in participating fully in their lives; and
3) Helping people to choose appropriate seating equipment.

Availability

Worksheet: Can be found here.

Languages: English, French, Farsi, Hebrew, and Italian versions can be found here.

Video: https://www.youtube.com/watch?v=0_RDzuaqdlU

Assessment Interpretability

Minimal Clinically Important Difference

Not established in SCI

Statistical Error

Minimum Detectable Change:
Mean Sat: 1.19-1.61
Mean Sat x Imp: 15.02-16.27

Standard Error of Measurement:
Mean Sat: 0.43-0.58
Mean Sat x Imp: 5.42-5.87

(Miller et al. 2011; n=50, 42 males; mean (SD) age: 43.7 (10.7) years; tetraplegia and paraplegia; mean (SD) time post-SCI: 16.1 (10.1) years)

Typical Values

Not established in SCI

Measurement Properties

Validity – **Low** to **High**

Moderate correlation with Spinal Cord Independence Measure (SCIM-III):

WhOM mean Sat: 0.338

WhOM mean Sat x Imp: 0.507

Low correlation with Beck Depression Inventory (BDI-II):

WhOM mean Sat: -0.220

WhOM mean Sat x Imp: -0.262

(Alimohammad et al. 2016; n=75 with SCI; no info on injury type; Farsi speakers, wheelchair as primary mobility device; mean (SD) time post-SCI: 60 (61) months)

Low to **High** correlation with Assessment of Life Habits (LIFE-H):

WhOM mean Sat: 0.18-0.62

WhOM mean Sat x Imp: 0.16-0.55

(Miller et al. 2011; n=50, 42 males; mean (SD) age: 43.7 (10.7) years; tetraplegia and paraplegia; mean (SD) time post-SCI: 16.1 (10.1) years)

Number of studies reporting validity data: 4

Reliability – **High**

High Test-retest Reliability:

WhOM Sat ICC = 0.90

WhOM Sat x Imp ICC = 0.93

WhOM Body Function ICC = 0.83

(Alimohammad et al. 2016; n=75 with SCI; no info on injury type; Farsi speakers, wheelchair as primary mobility device; mean (SD) time post-SCI: 60 (61) months)

High Inter-rater Reliability:

ICC = 0.99

(Alimohammad et al. 2016; n=75 with SCI; no info on injury type; Farsi speakers, wheelchair as primary mobility device; mean (SD) time post-SCI: 60 (61) months)

Number of studies reporting reliability data: 3

Responsiveness

Floor/Ceiling Effect:

Ceiling effect detected for mean Sat in home activities (22%). No ceiling or floor effect detected in all other scores.

(Alimohammad et al. 2016; n=75 with SCI; no info on injury type; Farsi speakers, wheelchair as primary mobility device; mean (SD) time post-SCI: 60 (61) months)

Effect Size:

Not established in SCI

Number of studies reporting responsiveness data: 1