

Spinal Cord Injury—Quality of Life (SCI-QOL)

Assessment Overview

Assessment Area

ICF Domain:

Quality of Life

Subcategory:

N/A

You Will Need

Length:

19 items

Scoring:

IRT-based scores on all SCI-QOL banks/scales use a standardized T metric, with a mean of 50 and a standard deviation of 10. Higher scores on a SCI-QOL item bank represent a greater amount of the construct being measured.

Summary

The Spinal Cord Injury--Quality of Life (SCI-QOL) measurement system was developed to address the shortage of relevant and psychometrically sound patient-reported outcome measures (PROMS) available for clinical care and research in spinal cord injury (SCI) rehabilitation. Using a computer adaptive testing (CAT) approach, the SCI-QOL builds on the Patient Reported Outcomes Measurement Information System (PROMIS) and the Quality of Life in Neurological Disorders (Neuro-QOL) initiative.

The SCI-QOL measurement system is divided into four domains: physical-medical, physical functioning, emotional, and social health. It also consists of 19 item banks, including the SCI-Functional Index banks, and 3 fixed-length scales measuring physical, emotional, and social aspects of health-related QOL (HRQOL).

Availability

Unable to locate a copy of this scale for use at this time; however, an overview can be found through PubMed at:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4445018/>.

Assessment Interpretability

Minimal Clinically Important Difference

Not established in SCI

Statistical Error

Root mean square error of approximation (RMSEA) = 0.094

(Bertisch et al. 2015; n=717, mean age (SD): 43.0 (15.3) years, mean duration (SD): 7.1 (10) years, 22% female; 25% Paraplegia complete, 20% Paraplegia incomplete, 22% tetraplegia complete, 32% tetraplegia incomplete)

Typical Values

Mean score (SD): 53.10 (9.89)

(Cohen et al. 2018; n=57, mean age (SD): 42.9 (15.5) years, 20.9% female, mean duration (SD): 6.7 (9.9) years; 23.9% Paraplegia complete, 18.5% Paraplegia incomplete, 23.1% tetraplegia complete, 34.4% tetraplegia incomplete)

Measurement Properties

Validity – **Low to High**

High correlation of SCI-QOL depression scales with PHQ-9 scores:

$r = 0.76$

(Tulsky et al. 2015a; n=716, mean age (SD): 43.0 (15.3) years, mean duration (SD): 7.1 (10) years, 22% female)

Low to Moderate item/total correlations for bladder complications:

$r = 0.38-0.60$

Low to High item/total correlations for bladder management difficulties:

$r = 0.38-0.78$

(Tulsky et al. 2015b; n=757, mean age (SD): 42.9 (15.5) years, mean duration (SD): 6.7 (9.9) years, 20.9% female)

Number of studies reporting validity data: 2

Reliability – **Moderate to High**

High internal consistency for bladder management difficulties scales:

$\alpha = 0.91$

High test-retest reliability for bladder management difficulties scales:

$r = 0.77$ (ICC = 0.76)

High internal consistency for bladder complications scales:

$\alpha = 0.72$

Moderate test-retest reliability for bladder complications scales:

$r = 0.70$ (ICC = 0.69)

(Tulsky et al. 2015b; n=757, mean age (SD): 42.9 (15.5) years, mean duration (SD): 6.7 (9.9) years, 20.9% female)

High internal consistency for depression scales:

$\alpha = 0.72$

High test-retest reliability for depression scales:

$r = 0.80$ (ICC = 0.80)

(Tulsky et al. 2015a; n=716, mean age (SD): 43.0 (15.3) years, mean duration (SD): 7.1 (10) years, 22% female)

High internal consistency for positive affect and well-being scales:

$\alpha = 0.97$

(Bertisch et al. 2015; n=717, mean age (SD): 43.0 (15.3) years, mean duration (SD): 7.1 (10) years, 22% female; 25% Paraplegia complete, 20% Paraplegia incomplete, 22% tetraplegia complete, 32% tetraplegia incomplete)

High test-retest reliability for pain interference and pain behaviour assessment scales:

$r = 0.84$ (ICC = 0.83)

(Cohen et al. 2018; n=57, mean age (SD): 42.9 (15.5) years, 20.9% female, mean duration (SD): 6.7 (9.9) years; 23.9% Paraplegia complete, 18.5% Paraplegia incomplete, 23.1% tetraplegia complete, 34.4% tetraplegia incomplete)

High internal consistency for SCI-QOL-23 questionnaire:

$\alpha = 0.97$

(Ebrahimzadeh et al. 2013; n=52, mean age (SD): 49.3 (7.9) years, 88.5% incomplete paraplegia)

Number of studies reporting reliability data: 5

Responsiveness

Floor/Ceiling Effect:

Not established in SCI

Effect Size:

Not established in SCI

Number of studies reporting responsiveness data: 0

