The Craig Handicap Assessment & Reporting Technique (CHART)

Assessment Overview

Assessment Area

ICF Domain:
Participation
Subscales (dimensions):
Physical Independence
Cognitive Independence
Mobility
Occupation
Social Integration
Economic Self-sufficiency

You Will Need

Length:
32 items, 30 minutes
Training:
None, but reading the manual is recommended
Scoring:
Each dimension scored 0-100; 100 = role fulfillment equivalent to individuals without disabilities

Summary

The Craig Assessment & Reporting Technique (CHART) is a patient-reported outcome measure designed to measure the level of handicap in a community setting. CHART collects information on the degree to which the respondent fulfills the roles typically expected from people without disabilities.

A short form (CHART-SF) has been developed, containing the same domains as the CHART.

Availability

Worksheet: Can be found here.

Languages: English, Spanish, Japanese, Chinese, Korean and Italian

Assessment Interpretability

Minimal Clinically Important Difference

Not established in SCI

Statistical Error

Standard Error of Measurement:
40.7
(Japanese version; Tozato et al. 2005; n=293; 246 males, mixed injury types, mean time since injury (SD) = 8.7 (6.6) years)

Minimal Detectable Change
53.3
(De Wolf et al. 2010; n=58; 45 males; traumatic SCI; 25 paraplegia, 33 tetraplegia; ASIA A-D; data collected at 6 weeks and 1 year post-discharge from inpatient rehab)

Typical Values

Mean (SD) Scores:
CHART Total = 378.7 (86.8)
(Japanese version; Tozato et al. 2005; n=293; 246 males, chronic SCI)
Median (IQR) Scores:
Phys. Indep. = 93 (80-100)
Cog. Indep. = 100 (94-100)
Mobility = 81 (65-95)
Occupation = 79 (37-100)
Social Integration = 85 (70-100)
Econ. Self-suff. = 100 (50-100)
(Whiteneck et al, CHART Guide; SCI individuals; no injury type, duration & sample size data available)

Measurement Properties

Validity – Low to High

High correlation with Sydney Psychosocial Reintegration Scale (SPRS):

ρ = 0.72

Moderate correlation with Community Integration Measure (CIM):

r = 0.47

(De Wolf et al. 2010; n=58; 45 males; traumatic SCI; 25 paraplegia, 33 tetraplegia; ASIA A-D; data collected at 6 weeks and 1 year post-discharge from inpatient rehab)

Low to Moderate correlation with self-report FIM:

CHART total score: r= 0.26

CHART mobility subscale: r = 0.30

CHART physical subscale: r = 0.49

(Masedo et al. 2005; n=84; 67 males; level of injury: cervical, thoracic, and lumbar/sacral; mean time since injury (SD): 13.96 (9.36) years)

Number of studies reporting validity data: 8

Reliability – Low to High

High Test-retest Reliability (CHART total score):

ICC = 0.93

(Whiteneck 1992; n=135; 113 males; 41 complete quadriplegia; 38 incomplete quadriplegia, 42 complete paraplegia, 14 incomplete paraplegia; 2-35 years post-injury living in the community)

Low to High Participant-proxy agreement:

Total CHART: ICC=0.84

Physical Independence: ICC=0.69

Cognitive Independence: ICC=0.34

Mobility: ICC=0.86

Occupation: ICC=0.60

Social Integration: ICC=0.57

Economic Independence: ICC=0.59

(Cusick 2001; n=983 + their proxies; 560 males; SCI (n=224) and other disabilities, community living)

High Test-retest Reliability:

ICC = 0.87

(Walker et al. 2003; N SCI = 236, 75% male)

Number of studies reporting reliability data: 4

Responsiveness

Floor/Ceiling Effect:

Ceiling effects occurred for the Social and Cognitive dimensions at both 6 weeks post-discharge from inpatient rehab (57-66% and 65-66%, respectively) and 1-year post-discharge (44-66% and 84-86%, respectively)

(De Wolf et al. 2010; n=58; 45 males; traumatic SCI; 25 paraplegia, 33 tetraplegia; ASIA A-D; data collected at 6 weeks and 1 year post-discharge from inpatient rehab)

Effect Size:

Not established in SCI

Number of studies reporting responsiveness data: 2