Craig Hospital Inventory of Environmental Factors (CHIEF)

Assessment Overview

Assessment Area

ICF Domain:
Environmental Factors
Subcategory:
Multiple

You Will Need

Length:
10-15 minutes, 25 items
Scoring:
For each item, a frequency score (0-4), a magnitude score (1-2), and an impact score (product of the former two, 0-8) is obtained. Overall or subscale scores are the means of respective item impact scores

Summary

Craig Hospital Inventory of Environmental Factors (CHIEF) assesses the perceived impact of various types of environmental barriers. The CHIEF takes into account the type, frequency, and magnitude of problem resulting from these barriers.

The CHIEF contains 5 subscales: physical and structural barriers, attitudinal and support barriers, barriers to services and assistance, policy barriers, and barriers at work and school. A CHIEF short-form (CHIEF-SF) is also available, with 12 items.

Availability

Available for free here:
http://tbims.org/combi/chief/index.html
Information regarding the CHIEF was provided by Craig Hospital. Please contact Cindy Harrison-Felix, PhD, at charrison-felix@craighospital.org for more information.
Languages: English, Hindi

Assessment Interpretability

Minimal Clinically Important Difference

Not established in SCI

Statistical Error

Standard Error of Measurement:
0.36

Minimal Detectable Change:
0.99

(Hindi version; Soni et al., 2016; N=30, 26 male; mixed injury types; mean (SD) time post-SCI = 29.87 (25.68) months)

Typical Values

Mean (SD) Scores:
Physical & structural: 1.51 (0.92)
Attitudinal & support: 1.91 (0.95)
Services & assistance: 0.91 (0.68)
Policy: 1.17 (0.70)
Work & school: 1.50 (0.90)
Overall: 1.44 (0.82)

(Hindi version; Soni et al., 2016; N=30, 26 male; mixed injury types; mean (SD) time post-SCI = 29.87 (25.68) months)

Measurement Properties

Validity – none

NO RANKING:

Discriminant Validity:
Total score, all items and subscales produced statistically significant differences across impairment groups. People with disabilities consistently reported higher overall level of barriers on all subscales and total CHIEF score than those without disabilities. People with severe disabilities generally scored higher on subscales and the total score than all people reporting any disability

Factory Analysis (N=2269)**:**
Principle components factor analysis created 5 factors/subscales, with 3-7 items each.

Content Validity:
4 separate groups of subject matter experts produced 4 instruments representing common environmental factors. High consistency between groups allowed for authors to combine into one instrument.

(Whiteneck et al., 2004a; N=409; mixed impairments, N=124 with SCI; no info on injury type or chronicity)

Number of studies reporting validity data: 2

Reliability – **Moderate** to **High**

High **Test-retest Reliability:**
Physical & structural: ICC = 0.786
Attitudinal & support: ICC = 0.891
Services & assistance: ICC = 0.857
Policy: ICC = 0.770
Work & school: ICC = 0.800
Overall: ICC = 0.930

Moderate **to** ***High*** **Internal Consistency:**
Physical & structural: α = 0.77
Attitudinal & support: α = 0.79
Services & assistance: α = 0.76
Policy: α = 0.77
Work & school: α = 0.81
Overall: α = 0.93

(Whiteneck et al., 2004a; N=409; mixed impairments, N=124 with SCI; no info on injury type or chronicity)

Moderate **to** ***High*** **Internal Consistency:**
Longer version: α = 0.77
Shorter version: α = 0.79

(Soni et al., 2016; N=30, 26M; Mean age: 31.67 (10.09) years ; Time since injury: 29.87 (25.68) months; mixed AIS grades)

Number of studies reporting reliability data: 2

Responsiveness

Floor/Ceiling Effect:
Not established in SCI

Effect Size:
Not established in SCI

Number of studies reporting responsiveness data: 0