SCI Exercise Self-Efficacy Scale (ESES)

Assessment Overview

Assessment Area

ICF Domain:
Body Function
Subcategory:
General Functions

You Will Need

Length:
5 minutes, 10 items
Scoring:
4-point Likert scales for items (1 = "not always true", 4 = "always true")
Total score (out of 40) is sum of items scores.
Higher score represents greater perceived self-efficacy

Summary

The SCI Exercise Self-Efficacy Scale (ESES) is a scale developed to measure a person with SCI's beliefs or confidence that they can perform various physical activities and exercise (on a scale of 1-4).

Availability

Worksheet: Can be found here.

Languages: English, Dutch, and Brazilian-Portuguese

Assessment Interpretability

Minimal Clinically Important Difference

Not established in SCI

Statistical Error

Not established in SCI

Typical Values

Mean (SD) scores:
Item 1: 3.2582 (.8027)
Item 2: 3.3533 (.8450)
Item 3: 3.1739 (.8268)
Item 4: 3.1359 (.8073)
Item 5: 2.8152 (.8881)
Item 6: 2.9918 (.9116)
Item 7: 3.2092 (.9666)
Item 8: 3.2989 (.9470)
Item 9: 3.2880 (.8912)
Item 10: 3.2446 (.9367)
(Kroll et al. 2007; n=368, 221 males, mixed injury types, no information on chronicity)

Measurement Properties

Validity – **Low** to **High**

Low correlation with the Generalised Self Efficacy Scale (GSE):

r = 0.316

(Kroll et al. 2007; N=53; 31 males)

Moderate correlation with the revised Self-Efficacy in Wheeled Mobility scale (SEWM):

r = 0.64, p < 0.05

(Fliess-Douer et al. 2013; N=79; 49 males; mean age: 33 years; 64 paraplegia, 15 tetraplegia; 46 complete, 25 incomplete)

High correlation with SF-36 Questionnaire and FIM domains

r = 0.708

(Pisconti et al. 2017; N=10; 8 males, 2 females; mean age = 42.72; 5 cervical and 5 thoracolumbar; Brazilian version)

Number of studies reporting validity data: 3

Reliability – **High**

High Test-retest Reliability:

ICC = 0.81

(Nooijen et al. 2013; N=53; 44 males; Dutch version of ESES; 33 paraplegia, 20 tetraplegia; 34 complete, 19 incomplete; mean (SD) time since injury: 107.2 (122.3) months)

High Internal Consistency:

α = 0.81-0.93

(Kroll et al. 2007; N=368; 221 males)

(Fliess-Douer et al. 2013; N=79; 49 males; mean age: 33 years; 64 paraplegia, 15 tetraplegia; 46 complete, 25 incomplete)

High Internal Consistency:

- ESES-1: 0.856
- ESES-2: 0.855
- ESES-3: 0.822

(Pisconti et al. 2017; N=10; 8 males, 2 females; mean age = 42.72; 5 cervical and 5 thoracolumbar; Brazilian version)

High Intra-rater reliability:

ICC = 0.97 (range 0.92-0.99)

High Inter-rater reliability

ICC = 0.99 (range 0.97-0.99)

(Pisconti et al. 2017; N=10; 8 males, 2 females; mean age = 42.72; 5 cervical and 5 thoracolumbar; Brazilian version)

Number of studies reporting reliability data: 4

Responsiveness

Floor/Ceiling Effect:

Neither was noted, but distribution is negatively skewed

(Nooijen et al. 2013; N=53; 44 males; Dutch version of ESES; 33 paraplegia, 20 tetraplegia; 34 complete, 19 incomplete; mean (SD) time since injury: 107.2 (122.3) months)

Effect Size:

Not established in SCI

Number of studies reporting responsiveness data: 1