

# 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:

$\alpha = 0.81-0.93$

(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**