Psychometric properties of the Swedish versions of Spinal Cord Independence Measure IV (SCIM IV) and Self-report (SCIM-SR) in inpatient and outpatient rehabilitation settings

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Conclusion

Our results support the data completeness, targeting, internal consistency reliability and convergent validity of the s-SCIM IV and s-SCIM-SR. Based on this initial psychometric testing, these outcome measures can be considered suitable to assess physical independence in inpatient and outpatient rehabilitation and long-term follow-up after SCI. The available and psychometrically sound Swedish versions will now enable a uniform national assessment of SCI-specific physical independence and facilitate research and international collaborations and comparisons.

AIM

To explore the psychometric properties of the newly translated Swedish version of the Spinal Cord Independence Measure IV (SCIM-IV) and Self-report (SCIM-SR) in inpatient and outpatient rehabilitation settings.

BACKGROUND

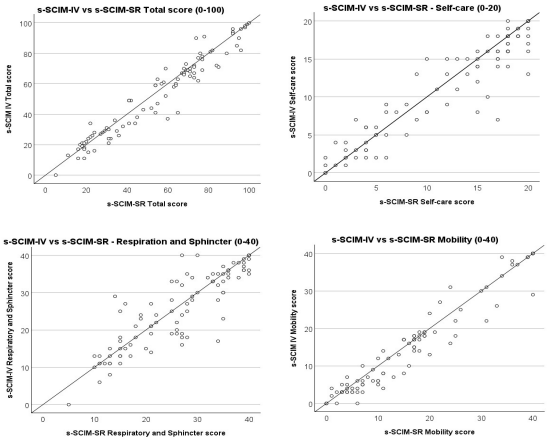
To assess the outcome of interventions and to monitor improvements, valid and reliable outcome measures that evaluate functioning and disability over time after spinal cord injury (SCI) are needed. There is a need for international translations and validation studies of SCI-specific outcome measures to facilitate both comparison and pooling of international data as well as to allow for multi-center studies. The Spinal Cord Independence Measure (SCIM) assesses the performance of daily activities in individuals with SCI. A self-report version, SCIM-SR, has also been developed.

The translation process was based on guidelines and involved experts and consumers (see figure).

To our knowledge, there have been no studies testing a translated version of the SCIM-IV, and no studies exploring correlations between SCIM IV and SCIM-SR.

RESULTS

In total, 101 participants (82% men) were included. There were no missing data for the s-SCIM IV and 92% had answered all items in the s-SCIM-SR. No ceiling or floor effects were observed. Cronbach´s alpha for the total s-SCIM IV scale was 0.91 (subscales 0.68–0.93) and for the total s-SCIM-SR scale 0.91 (subscales 0.62-0.93), with the lowest alphas for the subscale Respiration and Sphincter management in both outcome measures. The s-SCIM-IV and s-SCIM-SR correlated strongly with each other and with FIM™. The figure shows the plotting of s-SCIM-IV and s-SCIM-SR domains and total score.



METHODS

This study is part of STRIVE-SCI (Strengthening rehabilitation pathways to promote equitable recovery after SCI), a prospective, multicenter project aiming to generate comprehensive knowledge of patient outcomes, needs and experiences following an acute SCI in Sweden.

The translation process followed established guidelines and involved researchers, clinicians and consumers. s-SCIM IV and FIM™ assessments were performed by observation and/or interview. Data for s-SCIM-SR were self-reported.

We developed and delivered a workshop for clinicians on how to administer and score s-SCIM IV. This workshop includes a newly developed instructional video presenting items where there is a need for clarifications and two study cases to exemplify the assessment of different levels of functioning. The video is openly available and has English subtitles.

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MORE DETAILS

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