

# Quick Review of Model System Research

## Development and psychometric characteristics of the SCI-QOL Ability to Participate and Satisfaction with Social Roles and Activities Item Banks and Short Forms <sup>1</sup>

### What is the study about?

This study described the development of a standardized tool to measure long term rehabilitation outcomes focused on participation in and satisfaction with social roles and activities. Social roles and activities include: Domestic Life, Interpersonal Interactions and Relationships, Major Life Areas, and Community, Social and Civic Life. The study outlines the development and evaluation of questions, as well as transforming the scoring of the test for clinicians to use.

### Who participated in the study?

A total of 1671 individuals with traumatic SCI participated in the development and evaluation of the tool. Inclusion criteria were SCI due to traumatic event, age 18 or older at the time of study participation, and ability to read and understand English. There were no further exclusion criteria. Level and severity of injury were confirmed through medical record review. The sample reflects the US population in terms of ethnicity; racial minority groups were somewhat over-represented. 641 subjects participated in the calibration portion and completed 2 item sets. 245 participants from Model Systems hospitals were recruited and twice completed the item banks.

### How was the study conducted?

Researchers used a mixed-methods design to develop and evaluate Ability to Participate in Social Roles and Activities and Satisfaction with Social Roles and Activities items. Focus groups helped define the constructs; cognitive interviews helped revise items; and confirmatory factor analysis and item response theory methods helped calibrate item banks and evaluate differential item functioning related to demographic and injury characteristics.

### What did the study find?

Researchers found that Ability to Participate and Satisfaction with Social Roles and Activities items provide state-of-the-art measures that can be administered using computer adaptive tests or short forms. The measures are compatible with the PROMIS and Neuro-QOL family of measures, which are regularly used by clinicians. The use of the Ability to Participate and Satisfaction with Social Roles and Activities augments the existing measures and retains good measurement properties. They also suggest that screening during outpatient visits allows clinicians to identify individuals with low levels of Ability to Participate or Satisfaction with Social Roles and Activities. However, researchers chose to exclude questions related to employment and recommend further research to develop item banks focused exclusively on employment issues.

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<sup>1</sup> Heinemann, A.W., Kisala, P.A., Hahn, E.A., Tulsy, D.S. (2015). Development and psychometric characteristics of the SCI-QOL Ability to Participate and Satisfaction with Social Roles and Activities item banks and short forms. *Journal of Spinal Cord Medicine*, 38(3).