

Quick Review of Model System Research

Measuring Depression After Spinal Cord Injury: Development and Psychometric Characteristics of the SCI-QOL Depression Item Bank and Linkage with PHQ-9 ¹

What is the study about?

Researchers developed and tested a bank of depression related items for use in people with spinal cord injury (SCI). They utilized the Patient Reported Outcome Measurement Information System (PROMIS) item bank and linked it to the Patient Health Questionnaire-9 (PHQ-9). The goal was to provide a valid instrument that was specific for SCI-related depressive symptoms that could be used clinically and for research purposes.

Who participated in the study?

Researchers recruited 716 adults from 6 different sites as a part of a large-scale study to calibrate items measuring depressive symptoms. All participants were age 18 years and older, community dwelling, able to read and understand English, and had a medically-documented traumatic SCI at least 4 months prior to assessment. Participants were grouped by level and completeness of injury as well as time since injury (≤ 2 years, > 2 years).

How was the study conducted?

Researchers developed and tested the SCI-QOL as follows: (1) Items were created using comments from focus groups and structured interviews with SCI patients and clinicians experienced treating people with SCI to establish domains of measurement and create item pools; (2) The item pool was calibrated and the item bank was created and field tested; and (3) The item bank was validated with criteria measures. The items were calibrated, reviewed and revised using expert review, the research team, and respondent cognitive debriefing. Cognitive debriefing had the respondents answer each item, then describe the process they used to come up with their answer and relate whether they perceived anything to be confusing, unclear, or derogatory, or whether they thought any items could be better phrased. After these revisions, researchers administered the survey to the sample to collect data. Researchers analyzed results using a variety of approaches to confirm and validate findings in the patients with SCI and compare the results of using the PHQ-9. A separate group of 245 patients with SCI were used to determine re-test reliability.

What did the study find?

The SCI-QOL Depression item bank is a valid measure of depressive symptoms and is the first to have been developed specifically for people with SCI. This new instrument, which has 28 items can be used with all items, or may be used reliably as a short form. It may be used in place of PHQ-9. Additionally, it offers clinicians and researchers a precise, population-relevant, and flexible method to describe symptoms related to depression.

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¹ Tulskey, D.S., Kisala, P.A., Kalpakjian, C.Z., Bombardier, C.H., Pohlig, R.T., Heinemann, A.W., ... Choi, S.W. (2015). Measuring depression after spinal cord injury: Development and psychometric characteristics of the SCI-QOL Depression item bank and linkage with PHQ-9. *The Journal of Spinal Cord Medicine*, 38(3).

*The contents of this quick review have not been reviewed by the corresponding author of the original study.