International Journal of Rehabilitation Research:Volume 31(2)June 2008pp 165-169

Reliability and validity of the visual analogue scale for disability in patients with chronic musculoskeletal pain

[Brief research reports]

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Received 9 June 2007 Accepted 10 October 2007

Abstract

To determine the reliability and concurrent validity of a visual analogue scale (VAS) for disability as a single-item instrument measuring disability in chronic pain patients was the objective of the study. For the reliability study a test-retest design and for the validity study a cross-sectional design was used. A general rehabilitation centre and a university rehabilitation centre was the setting for the study. The study population consisted of patients over 18 years of age, suffering from chronic musculoskeletal pain; 52 patients in the reliability study, 344 patients in the validity study. Main outcome measures were as follows. Reliability study: Spearman's correlation coefficients (ρ values) of the test and retest data of the VAS for disability; validity study: ρ values of the VAS disability scores with the scores on four domains of the Short-Form Health Survey (SF-36) and VAS pain scores, and with Roland-Morris Disability Questionnaire scores in chronic low back pain patients. Results were as follows: in the reliability study ρ values varied from 0.60 to 0.77; and in the validity study ρ values of VAS disability scores with SF-36 domain scores varied from 0.16 to 0.51, with Roland-Morris Disability Questionnaire scores from 0.38 to 0.43 and with VAS pain scores from 0.76 to 0.84. **The conclusion of the study was that the reliability of the VAS for disability is moderate to good. Because of a weak correlation with other disability instruments and a strong correlation with the VAS for pain, however, its validity is questionable.**