The Neck Pain and Disability (NPAD) Scale: cross-cultural adaptation into German and evaluation of its psychometric properties in chronic neck pain and C1-2 fusion patients.

Summary / Zusammenfassung
Study design. Cross-cultural adaptation of an outcome questionnaire.
Objectives. The aim of the study was to cross-culturally adapt the Neck Pain and Disability Scale (NPAD) for the German language, and to assess its psychometric qualities.
Summary of Background Data. Neck pain and its associated disability represent an extremely common musculoskeletal problem. Reliable and valid questionnaires for its assessment are available in English, but no German versions of these exist.
Methods The English version of the NPAD was translated into German (NPAD-D) and back-translated according to established guidelines. 23 patients with chronic neck pain completed the NPAD-D twice over 1-2 weeks, to assess its test-retest reliability. A further 80 patients (40% male, mean (SD) 54 (18) years) completed the questionnaire and underwent a clinical follow-up exam, 1 to 14 y after C1-2 fusion. These patients also documented their satisfaction with the surgery.
Results Cronbach’s alpha values (internal consistency) for the NPAD-D whole scale and for the NPAD-D sub-scales pain, disability and neck-specific function were 0.97, 0.95, 0.97 and 0.87, respectively. The intraclass correlation coefficient for the test-retest reliability of the NPAD-D was excellent (0.97) and the standard error of measurement was relatively low (3.8), giving a “minimal detectable difference” for the scale of 10.5 (scale range is 0-100). The range of motion (ROM) in rotation, assessed during the clinical exam, correlated significantly with the scores on NPAD-D item 16 (stiffness of neck) (Rho = -0.52, p < 0.0001) and item 17 (trouble turning neck) (Rho = -0.59, p < 0.0001). ROM in flexion-extension correlated significantly with the scores on item 18 (trouble looking up and down) (Rho = -0.60, p < 0.0001) and item 19 (trouble working overhead) (Rho = -0.45, p < 0.0001). The NPAD-D scores differed significantly between patients who were satisfied with the result of their operation and those who were not (mean values 36.4 (SD 24.3) and 58.1 (SD 27.4) respectively; p=0.008).
Conclusions The NPAD-D is a reliable and valid patient-orientated instrument for use in future studies of neck pain and disability in German speaking patients.

Publications / Publikationen

Keywords / Suchbegriffe
C1-2 fusion, neck pain and disability questionnaire, chronic neck pain, outcome
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