

Translation and Cross-Cultural Adaptation of the Danish Version of the Hip Dysfunction and Osteoarthritis Outcome Score 2.0 (HOOS 2.0)

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Introduction: The hip dysfunction and osteoarthritis outcome score 2.0 (HOOS 2.0) is a valid and reliable patient-reported outcome (PRO) questionnaire when evaluating patients with hip osteoarthritis (OA), and/or patients undergoing total hip replacement (THR) (1,2). Furthermore, HOOS 2.0 is more responsive to clinical changes over time than WOMAC, in patients with hip osteoarthritis undergoing THR (1).

Objective: To translate and cross-culturally adapt HOOS 2.0 from the original Swedish version into a Danish version, according to existing guidelines (3).

Design and Methods: The translation and cross-cultural adaptation process involved the following six steps: 1) Forward translation by three bilingual health professionals, individually. 2) A consensus meeting in which the three versions were harmonised into a preliminary version. 3) The preliminary version was tested on 24 patients (23-88 years) with hip-dysfunction, hip-osteoarthritis or total-hip replacement for wording and understanding, by experienced health-professionals. 4) A second consensus meeting, where responses from patients and feedback from health professionals were evaluated. Based upon the evaluation, relevant items were culturally adapted and rephrased. 5) A professional translator, with no health professional background, back translated HOOS 2.0 into the Swedish language. 6) The three translators and the originator of the HOOS 2.0 compared the back translation with the original Swedish version. Final adjustments were incorporated and consensus on the Danish version of HOOS 2.0 was made.

Results: The translation process revealed minor discrepancies concerning wording and understanding in some of the items. The items: S2, P2, P9, A16 and SP3 had to be rephrased due to cultural and linguistic differences between Sweden and Denmark.

Conclusion: We recommend the use of the Danish HOOS 2.0 in Danish patients with hip osteoarthritis and/or patients undergoing THR. However, testing of validity, reliability and responsiveness of the HOOS 2.0 in a Danish population needs to be done in future research.

1. Nilsson AK et al. Hip disability and osteoarthritis outcome score (HOOS) – validity and responsiveness in total hip replacement. *BMC Musculoskelet Disord.* 2003;4:10.
2. de Groot I et al. Validation of the Dutch version of the Hip disability and Osteoarthritis Outcome Score. *Osteoarthritis Cartilage* 2007; 15:104-9.
3. Guillemin F et al. Cross-cultural adaptation of health-related quality of life measures: literature review and proposed guidelines. *J Clin Epidemiol* 1993;46:1417-32.