

Osteoarthritis and Cartilage (2009) 17, 132

© 2008 Osteoarthritis Research Society International. Published by Elsevier Ltd. All rights reserved.

doi:10.1016/j.joca.2008.05.014

Osteoarthritis and Cartilage



International
Cartilage
Repair
Society



Letter to the Editor

Validation of the Dutch version of the Hip disability and Osteoarthritis Outcome Score

Key words: HOOS, Hip, Osteoarthritis, Validity, Questionnaire.

To the Editor,

The authors encountered, despite good psychometric properties of the Dutch version of the Hip disability and Osteoarthritis Outcome Score¹ (HOOS) questionnaire, two issues. The first point concerns the discrepancy in phrasing of Q3 between the English version and the Dutch version, which can lead to paradoxical scoring values. We have translated the Dutch version of the HOOS questionnaire from the original Swedish version. The used translation procedure has been described in the manuscript of the validation of the HOOS. We have once again presented the translation of question Q3 to the translators. The Dutch version of question Q3 is a correct translation of the Swedish version. However, there is a discrepancy in the formulation between the Swedish HOOS questionnaire and the English HOOS questionnaire. We can reassure the reviewers: the syntax of Q3 was adapted for validating the questionnaire so that the final Quality of Life (QoL) subscale could be calculated. As a result, the converted values were between 0 and 100 and we found positive inter-item correlations which are reflected in the Cronbach's alpha. To keep the Dutch version of the HOOS entirely the same as the original Swedish version we have decided not to reformulate the Q3 the question, as suggested by the authors, but we have decided to change the order of the answer options. Adaptation of the syntax of Q3 for calculating the definite QoL score is then not necessary on the site of [Koos.nu](http://www.koos.nu)². In our opinion it is not necessary to validate the Q3 question once again, however, future users can look at the internal consistency for certainty.

The second point concerns omitted values and calculation of HOOS scores. We thank the authors for bringing an ambiguity regarding scoring of missing items in the HOOS to our attention. In the HOOS User's Guide 2003 (available at www.koos.nu)² no information is given on how to score missing values.

From the HOOS Users Guide 2003: "Missing data: If a mark is placed outside a box, the closest box is used. If two boxes are marked, the box which indicates the most severe problems has to be chosen."

If more than two items are omitted, the response is considered invalid."

Not giving information on how to score missing items is ambiguous. The correct way to score missing data is given in the Knee injury and Osteoarthritis Outcome Score (KOOS) User's Guide 2003 (available at www.koos.nu)²:

From the KOOS Users Guide 2003: "Missing data. If a mark is placed outside a box, the closest box is chosen. If two boxes are marked, that which indicated the more severe problems is chosen. Missing data are treated as such; one or two missing values are substituted with the average value for that subscale. If more than two items are omitted, the response is considered invalid and no subscale score is calculated."

We have now added the sentence "Missing data are treated as such; one or two missing values are substituted with the average value for that subscale." to the HOOS User's Guide to make the information similar to the information given in the KOOS User's Guide. Again, thank you for pointing this out.

I. B. de Groot, M.Sc.*, **M. Reijman, Ph.D.**,
C. B. Terwee, Ph.D., **S. Bierma-Zeinstra, Ph.D.**,
M. M. Favejee, M.Sc., **E. Roos, Ph.D.**,
J. A. Verhaar, M.D., Ph.D.
Erasmus Medical Center,
Department of Orthopaedics,
Dr Molewaterplein 40, 3015 GD Rotterdam,
Netherlands

References

- de Groot IB, Reijman M, Terwee CB, Bierma-Zeinstra SM, Favejee M, Roos EM, et al. Validation of the Dutch version of the Hip disability and Osteoarthritis Outcome Score. *Osteoarthritis Cartilage* 2007; 15(1):104–9.
- Roos EM. www.koos.nu. 2008.

*Address correspondence and reprint requests to: Dr Ingrid B. de Groot, M.Sc., Erasmus Medical Center, Department of Orthopaedics, Dr Molewaterplein 40, 3015 GD Rotterdam, Netherlands. Tel: 31-104635088; Fax: 31-104631002; E-mail: i.b.degroot@erasmusmc.nl