267 VALIDITY AND REPRODUCIBILITY OF THE FRENCH TRANSLATION OF THE REDUCED KOOS AND HOOS (KOOS-PS AND HOOS-PS)

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Purpose: The KOOS-PS and HOOS-PS short measures of physical function were developed under an OARSI/OMERACT initiative as one element of criteria for determining outcome in DMOAD trials for OA of the hip or knee. They were developed from the HOOS/KOOS physical function and sports and recreational subscale items, using the Rash analysis and data from samples representing a spectrum of OA severity. The KOOS-PS and HOOS-PS include 7 and 5 items, respectively, that represent the progression of physical disability from early to late disease. The aim of the study was to evaluate the validity and reliability of the French translation of the KOOS-PS and HOOS-PS.
Methods: The KOOS and HOOS questionnaires were translated and cross-culturally adapted (translation, then backward translation, then meeting of a multidisciplinary committee, and pre-testing of the final version on 15 patients). Consecutive outpatients consulting for primary knee or hip OA were included. During the initial assessment, patients were asked to fill in the KOOS or HOOS questionnaire and the OsteoArthritis Knee and Hip Quality Of Life questionnaire (OAKHQOL). Two weeks later, the patients completed a second KOOS or HOOS questionnaire which they mailed back. The questions included in the reduced-PS versions of KOOS and HOOS were extracted in order to calculate the results for the KOOS-PS and HOOS-PS.
Feasibility was assessed based on the percentages of missing items and floor and ceiling effects. Convergent and divergent construct validity was determined by comparing the results of the KOOS-PS or HOOS-PS and OAKHQOL questionnaires using Spearman's rank test. Reliability was evaluated using the intra-class correlation coefficient (ICC).
Results: Thirty-seven patients with knee OA (mean age = 70±10 years, 68% women) and 30 hip OA patients (mean age = 65±7 years, 73% women) were included. The KOOS-PS and HOOS-PS scores could be obtained in all patients: there were no missing items. Neither a floor nor a ceiling effect was observed. A strong or moderate correlation was observed, as expected, between KOOS-PS, HOOS-PS, and the OAKHQOL physical activities, pain, and mental health domains. A weak correlation was observed, as expected, between KOOS-PS, HOOS-PS, and the other OAKHQOL domains, except for a moderate correlation between the KOOS-PS and social functioning. The ICC of KOOS-PS and HOOS-PS were 0.773 (95% CI = 0.589−0.881) and 0.859 (95% CI = 0.725−0.929), respectively, comparing responses two weeks apart.
Conclusions: The French versions of the KOOS-PS and HOOS-PS are valid and reliable instruments to capture specific aspects of functional disability affecting quality of life of knee and hip OA patients.

268 COMPARATIVE EVALUATION OF VALIDITY AND RESPONSIVENESS OF THE HOOS-PS/KOOS-PS, HOOS/KOOS AND WOMAC FOLLOWING TOTAL JOINT REPLACEMENT

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Purpose: The HOOS-PS and KOOS-PS short measures of physical function were developed under an OARSI/OMERACT initiative as one element of criteria for determining outcome in DMOAD trials for OA of the hip or knee. The measures were developed from the HOOS/KOOS physical function subscales: Activities of Daily Living (ADL); and, Sport and Recreation. The ADL subscale includes the physical function (PF) items of the WOMAC LK 3.0. The HOOS-PS and KOOS-PS also may be viable outcomes for physical function for primary hip (THR) or knee (TKR) replacement. This work describes the construct validity and responsiveness of the HOOS-PS and KOOS-PS in comparison to the PF and the PF excluding the items in the short measures (PF-exclusions) in Canadian THR and TKR samples. Evaluation of the PF excluding these items was critical to assist in understanding the attenuation of the correlations of the PF and the short measures.
Methods: Secondary analysis of a longitudinal sample of THR and TKR patients was conducted. Participants completed the full HOOS or KOOS, a measure of fatigue (POMS), the HADS (anxiety and depression) and the Chronic Pain Grade (CPG) pre surgery and the HOOS or KOOS at 6 months post surgery. As a measure of construct validity, it was hypothesized that correlations between the HOOS-PS or KOOS-PS and PF and PF-exclusions with the POMS, CPG, HADS anxiety and depression and HOOS/KOOS pain scales would differ by magnitudes of less than 0.1. The standardized response mean (SRM) was calculated for each of the HOOS-PS or KOOS-PS and PF and PF-exclusions and was hypothesized to be large and greater than 1 for all measures.
Results: The THR group (n = 201) ranged in age from 31−86 years (mean = 62.3) with 57.2% female. The TKR group (n = 226) ranged in age from 35−88 years (mean = 64.5) with 57.7% female. The correlation of the HOOS-PS to the PF and PF-exclusions was 0.90 and 0.86 respectively. The KOOS-PS was highly correlated with the PF (r = 0.90) and the PF-exclusions (r = 0.85). Table 1 and 2 present the correlations for construct validity for the hip and knee samples.

Table 1: Hip

	Pain-HOOS	CPG	POMS	Anxiety	Depression
HOOS-PS	0.70	0.56	0.38	0.19	0.36
PF	0.80	0.62	0.40	0.19	0.35
PF-exclusions	0.80	0.62	0.38	0.19	0.33

Table 2: Knee

	Pain-KOOS	CPG	POMS	Anxiety	Depression
KOOS-PS	0.73	0.56	0.42	0.39	0.42
PF	0.80	0.66	0.52	0.36	0.47
PF-exclusions	0.78	0.64	0.48	0.39	0.46

Irrespective of the measure of physical function or the joint replaced, all participants experienced large improvements in physical function from pre surgery to 6 months post-operatively. For those with THR, the SRM was 1.5, 1.7 and 1.7 for the HOOS-PS, PF and PF-exclusions respectively. For those with TKR, the SRM was 1.4, 1.5 and 1.7 respectively.
Conclusions: The HOOS-PS (5 items) and KOOS-PS (7 items) have similar construct validity and responsiveness as compared to the longer 17-item PF. The high correlations of the HOOS-PS and KOOS-PS to the PF-exclusions further support that the items in the longer PF provide minimal additional information. The HOOS-PS and KOOS-PS appear to be parsimonious, valid and responsive for evaluating the outcome of physical function in THR and TKR. Further cross-cultural validation is required.

269 DEFINING 18-MONTH OUTCOME IN CLINICAL SUB-GROUPS OF HAND OSTEOARTHRITIS IN OLDER ADULTS: THE CLINICAL ASSESSMENT STUDY OF THE HAND (CAS-HA)

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Purpose: Osteoarthritis (OA) is not a single disease but comprises different sub-groups, which are thought to have different outcomes. The aim of this study was to establish subgroups of OA based on clinical features of hand OA in a population of community dwelling adults aged 50 years and over with hand pain and hand problems, and to compare changes in pain and disability across these sub-groups at 18 months.
Methods: 623 community dwelling adults aged 50 years and over with hand pain and hand problems attended a research assessment clinic (mean age 64 yrs; 62% female). In each hand 30 joints were assessed by one of 5 examiners (10 DIPJs; 8 PIPJs; 10 MCPJs; 2 CMCJs). We studied