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CROSS-CULTURAL ADAPTATION AND VALIDATION OF THE KOREAN VERSION OF THE FUNCTIONAL INDEX FOR HAND OSTEOARTHRITIS (FIHOA)

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Background: Osteoarthritis (OA) is one of the most common type of arthritis and it most frequently involves joints of the hands. Measuring functional ability of hand OA patients is important in terms of assessment of treatment response, patient management and improvement of quality of life. The functional index for hand osteoarthritis (FIHOA) is one of the most frequently utilised questionnaire to assess the physical function of hand OA patients. The FIHOA has been translated into 17 languages, however, no Korean version of FIHOA is yet available.

Objectives: To translate the FIHOA into Korean, and establish the reliability and validity of the cross-culturally adapted Korean version of FIHOA (K-FIHOA) in patients with hand OA.

Methods: The FIHOA was translated into Korean following cross-cultural adaptation guidelines. The K-FIHOA was pretested in 40 hand OA patients (defined by ACR classification criteria). The adapted K-FIHOA was then administered to 100 consecutive hand OA patients together with the modified Health Assessment Questionnaire (mHAQ) and visual analogue scale (VAS) for hand pain. The test-retest reliability of each item and total scores were assessed using Spearman's correlation coefficient and intraclass correlation coefficient (ICC). The internal consistency reliability was evaluated as the Cronbach's alpha. The external construct validity was assessed using correlation between K-FIHOA and mHAQ and hand pain VAS.

Results:

Abstract AB0966 – Table 1

K-FIHOA items	Test-retest reliability				Internal consistency		
	Test	Retest	Spearman's correlation coefficient	ICC	Adjusted item-total Correlation	Item-item correlation	Cronbach's alpha if item is deleted
Item 1	0.19 ±0.54	0.20 ±0.55	0.63	0.58	0.37	0.20–0.36	0.88
Item 2	0.25 ±0.59	0.25 ±0.59	0.58	0.54	0.51	0.26–0.48	0.88
Item 3	0.22 ±0.60	0.25 ±0.61	0.73	0.74	0.52	0.31–0.60	0.87
Item 4	0.35 ±0.66	0.30 ±0.59	0.62	0.58	0.59	0.33–0.52	0.87
Item 5	0.83 ±1.06	0.74 ±1.04	0.76	0.74	0.70	0.33–0.62	0.87
Item 6	0.40 ±0.85	0.40 ±0.88	0.66	0.75	0.63	0.22–0.73	0.86
Item 7	0.43 ±0.88	0.32 ±0.74	0.70	0.71	0.70	0.32–0.73	0.86
Item 8	0.19 ±0.53	0.13 ±0.37	0.62	0.56	0.47	0.25–0.60	0.87
Item 9	1.10 ±1.16	1.07 ±1.16	0.81	0.79	0.74	0.28–0.62	0.88
Item 10	0.43 ±0.79	0.39 ±0.69	0.85	0.80	0.44	0.20–0.52	0.88

Values are given as mean ± standard deviation.

Abbreviations: K-FIHOA, the Korean version of functional index of hand osteoarthritis; ICC, intra-class correlation coefficient.

The mean total score of the K-FIHOA was 4.39 [Standard deviation (SD)=5.56] in the first assessment and 4.04 (SD=5.22) in the second assessment. The test-retest reliability for the total score was strong ($r=0.87$ and $ICC=0.75$). Spearman's rho for single item correlation ranged from 0.58 to 0.85 and ICC between single items were good or excellent (0.54–0.80). Cronbach's alpha was high (0.88) suggesting a strong internal coherence in the items of the questionnaire. We identified significant correlations between K-FIHOA and hand pain VAS ($r=0.53$, $p<0.01$), mHAQ ($r=0.52$, $p<0.01$), and mHAQ hand function score ($r=0.57$, $p<0.01$).

Abstract AB0966 – Figure 1. External construct validity of K-FIHOA with hand pain VAS, mHAQ, mHAQ hand function.

Conclusions: The K-FIHOA is a reliable and valid instrument for evaluating functional disability in Korean hand OA patients.

Disclosure of Interest: None declared

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IS THE ICOAP A VALID TOOL FOR MEASURING PAIN AND FUNCTION IN PATIENTS WITH KNEE OA AND RA IN CLINICAL PRACTICE?

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Background: Osteoarthritis (OA) is primarily managed in general practice however, care is provided on an ad hoc basis, and a structured approach to continuing care is not offered. Studies have demonstrated the high prevalence of secondary OA of the knee in patients with RA, however, about 52% of these cases are under-reported or under graded by general radiological reports. With its increasing prevalence, it is important to use valid and responsive instruments to evaluate the effectiveness of interventions and to understand the pathology's impact on functioning and general health status.

Objectives: We hypothesised that the ICOAP can accurately measure the severity of pain in patients with OA in the clinical setting and can equally detect secondary OA in patients with pre-existing RA.

Methods: Patients with longstanding knee OA or RA from outpatient rheumatology clinics alongside GP surgeries were recruited. The ICOAP's formatting was modified and brief abstract was added to the top of the questionnaire to aid patient comprehension. After its modification, it was tested for internal consistency, reliability and construct validity by correlating its yield with other disease activity parameters including the WOMAC and DAS. To examine the test-retest reliability patients were asked to fill out the ICOAP questionnaire again after two weeks.

Results: The study included 57 patients with OA and 45 with RA. Total ICOAP-C was 42 with patients with OA compared to 56 in patients with RA while ICOAP-I was 49 in patients with OA compared to 53 in patients with RA. Subgroup analysis of ICOAP-C and ICOAP-I identified that while intermittent pain had a greater impact on QOL in patients with OA, constant pain had a greater impact on OA patient QOL. Patients with RA for more than 10 years had more similar results to patients with OA.

Conclusions: The ICOAP questionnaire is easy to use clinically, with the majority of patients approached willing to participate. Respondents with both OA and RA also commented on the lack of complication and ease of understanding of questions. It was responsive to changes in management, proving to be a useful tool in general practice to follow disease progression. The findings demonstrate that the ICOAP has a potentially wider clinical utility in measuring pain in patients with both OA and RA. The similarities in responses of the majority of respondents with knee OA and long-standing RA also strongly suggest that ICOAP might be likely detecting under-reported secondary OA. Future research will examine the effects of variables like pain catastrophizing on pain perception and response.

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