

you rate your fatigue since the last visit?). Response options were a lot better, a little better, the same, a little worse, and a lot worse. An RA disease activity change question followed a similar format. We compared mean change between visits across fatigue and RA change categories for the Fatigue NRS, Fatigue 5-point Likert (none to very severe), SF36 Vitality, and PROMIS Fatigue 4a, 7a, and 8a.

Results: The sample included 282 patients with stable RA who completed questionnaires 4.6 (SD 2.4) months apart. Patients were mostly white (78%) women (82%) with RA duration of 13 (11) years. At V1, most were in CDAI LDA (57%) or MDA (30%) with 5% in REM and 8% in HDA states. Using the Fatigue change anchor, 6% were a lot better, with mean change ranging from 11-11|points across scales (Table 1); among 13% a little better, smaller changes 10.4 to 5|were reported. Across all measures score changes for meaningful and minimal improvement were numerically larger for improvement than worsening.

	Fatigue Change Categories														
	Lot Better 6%			Little Better 13%			Same 49%			Little Worse 22%			Lot Worse 10%		
	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
Fatigue 11 point NRS	19	-2.2	2.4	37	-0.7	2.3	137	-0.5	1.9	61	0.4	1.9	26	1.3	2.1
Fatigue 5-point Likert	19	-0.8	1.2	36	-0.4	1.2	137	0.0	0.9	60	0.2	0.9	27	0.6	1.2
SF36 Vitality (0-100)	19	11.2	16.1	36	4.9	13.7	137	0.3	10.6	59	-3.2	15.3	26	-11.4	16.6
PROMIS Fatigue 7a	19	-5.9	8.5	37	-2.6	7.5	138	0.0	6.4	62	-0.3	6.5	27	4.3	8.3
PROMIS Fatigue 8a	19	-6.1	10.2	37	-2.7	7.1	138	-0.3	7.1	62	1.3	6.9	27	5.6	11.0
PROMIS Fatigue 4a	19	-6.8	9.9	37	-3.3	8.2	138	-0.4	7.4	60	1.2	7.2	27	5.2	11.5

Using the RA change categories, more people rated their RA as at least a little better compared with fatigue (28% vs. 19%, respectively) at the second visit (Table 2). Similar patterns were evident across RA change categories, though score changes associated with improvement and worsening were about half those observed using fatigue change anchors.

	RA Disease Activity Change Categories														
	Lot Better 13%			Little Better 15%			Same 42%			Little Worse 21%			Lot Worse 9%		
	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
Fatigue 11 point NRS	36	-0.8	2.3	43	-0.6	2.7	117	-0.2	1.9	58	-0.2	1.9	26	0.7	2.2
Fatigue 5-point Likert	35	-0.3	1.2	42	-0.3	1.1	118	0.1	1.0	58	0.1	0.8	26	0.3	1.3
SF36 Vitality (0-100)	35	6.4	17.4	43	3.8	13.0	117	-0.6	12.9	57	-3.7	11.3	25	-6.0	17.0
PROMIS Fatigue 7a	37	-1.6	9.5	43	-1.5	7.4	118	-0.3	7.0	59	0.5	5.6	26	1.3	7.5
PROMIS Fatigue 8a	37	-2.1	9.5	43	-1.7	9.0	118	0.1	7.6	59	0.7	4.8	26	3.0	11.4
PROMIS Fatigue 4a	36	-2.7	9.6	43	-2.3	9.0	118	0.1	8.1	59	0.4	5.6	25	2.6	12.0

Conclusion: The score change associated with meaningful improvement and worsening between visits on commonly used fatigue scales was much larger with fatigue vs. RA change categories. More people rated their RA improved as compared with fatigue at the 2nd visit. Symptom-specific anchors are likely to offer more relevant change scores associated with meaningful improvement and worsening than RA change anchors. These estimates offer new information about meaningful and detectable improvement and worsening on common measures for trialists, researchers, and clinicians monitoring fatigue in people with RA.

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POS0268-HPR PATIENT-REPORTED ACTIVITY LIMITATIONS IN HIP AND KNEE OSTEOARTHRITIS IN PRIMARY CARE

T. Moseng¹, H. Solveig Dagfinrud¹, B. Natvig², N. Osteras¹. ¹Diakonhjemmet Hospital, National Advisory Unit on Rehabilitation in Rheumatology, Department of Rheumatology, Oslo, Norway; ²University of Oslo, Institute of Health and Society, Department of General Practice, Oslo, Norway

Background: To ensure delivery of high-quality osteoarthritis (OA) care, structured care models incorporating patient education and exercise are increasingly implemented in primary care ¹. A goal is to improve patients' physical function and coping with daily life demands and activities. Yet, there is limited knowledge regarding the type and severity of activity limitations experienced by people with hip and knee OA.

Objectives: 1) To map activity limitations reported by patients with hip and knee OA participating in a research study implementing an OA care model in primary care. 2) To investigate potential changes in self-reported difficulty performing these activities from baseline to 12-weeks follow-up.

Methods: A structured OA care model was implemented in six Norwegian municipalities between January 2015 and October 2017, using a stepped-wedge cluster-randomized controlled design. Implementation was facilitated by interactive workshops for general practitioners and physiotherapists (PTs). The PTs provided a 3-hour, group-based patient education program followed by individually tailored 8-12 weeks exercise with twice weekly 1-hour supervised group sessions. Patients with clinically or radiologically verified symptomatic hip or knee OA ≥45 years were eligible. Patients who received the new model of care completed the Patient-Specific Functional Scale (PSFS) at baseline by identifying between one and three "important activities that you are unable to do or are having difficulty with because of your hip or knee OA". The patients rated their performance of the reported activities on an 11-point numeric rating scale (NRS) ranging from 0 (unable to perform activity) to 10 (perform activity with no problems). After 12 weeks the patients re-rated their previously identified activities. The reported activities were linked to the International Classification of Functioning, Disability and Health (ICF) at Chapter and Domain (second and third) level. Absolute change in scores from baseline to follow-up was calculated as the mean score of the reported activities. Change from baseline to follow-up was investigated using paired samples t-test. P-value was set to <0.05. Clinically important change was regarded 2 points on the 0-10 scale.

Results: A total of 284 patients received the new model of care. The mean age was 63 (SD 10) years, and 211 (74%) were female. The main affected OA joint was the knee for 174 (61%), the hip for 100 (35%) and other joints (e.g. hand) for 9 (3%). The PSFS was completed by 152 (53%) patients, of which 13 reported one, 42 reported two and 97 reported three activities. A total of 382 activities were linked with ICF. Of these, 362 (95%) were linked to the Activities and Participation chapter (D). On second-level, 318 (83%) activities were linked to the Mobility domain (D4). On the third-level, the majority of activities were linked to the domains Changing body positions (d410) (26%), Walking (d450) (23%) and Moving around (d455) (25%). The patients reported significantly less difficulty performing their self-reported activities at 12 week follow-up (4.1 (SD 1.7) versus 6.3 (SD 1.8), mean change 2.1 (95% CI 1.8, 2.5), p<0.001).

Conclusion: The majority of activity limitations reported by patients receiving a structured OA care model in primary care were within the ICF Mobility domain. The most common third-level ICF domains were Changing body positions, Walking and Moving around. After participating in OA patient education and structured 8-12 weeks of exercise, the patients reported a statistically significant and clinically important improvement in the difficulty of performing their individual activities.

REFERENCES:

- [1] Allen KD, Choong PF, Davis AM, et al. Osteoarthritis: Models for appropriate care across the disease continuum. *Best practice & research. Clinical rheumatology*. 2016;30(3):503-535.

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POS0269-HPR CONTENT VALIDITY OF A MULTIPLE LANGUAGES QUESTIONNAIRE FOR MEASURING FLARE IN KNEE AND HIP OA: DEVELOPMENT OF THE FLARE-OA

E. Guillemin¹, A. Barcenilla-Wong², M. Vitaloni³, L. Adarmouch⁴, M. T. Duruöz⁵, J. Epstein⁶, M. Sebbani⁴, Y. Traore⁶, C. Rutherford⁷, M. Cross², B. Fautrel⁸, T. Buttel⁹, G. A. Hawker¹⁰, L. March², D. Hunter², E. Spitz¹ on behalf of OMERACT Flares in OA. ¹Université de Lorraine, EA 4360 APEMAC, Metz, France; ²North Shore Private Hospital, Rheumatology, St Leonards, Australia; ³OAFI Foundation (Osteoarthritis Foundation International), General, Barcelona, Spain; ⁴Université de Marrakech, Public Health, Marrakech, Morocco; ⁵Marmara University, Rheumatology, Istanbul, Turkey; ⁶Université de Lorraine, School of Public Health, Nancy, France; ⁷University of Sydney, Faculty of Science, School of Psychology, Sydney, Australia; ⁸Assistance Publique – Hôpitaux de Paris, Rheumatology, Paris, France; ⁹OMERACT, Rheumatology, Sydney, Australia; ¹⁰University of Toronto - St. George Campus, Rheumatology, Toronto, Canada

Background: Flare in osteoarthritis (OA) of the knee and hip (KHOA) is an important outcome for patients' daily life and clinical research. A definition of a flare was set, and a core set of domains was recently endorsed by OMERACT/OARSI. No patient reported outcome (PRO) yet focusses on flare in OA specifically.

Objectives: To develop a self-reporting instrument measuring flare in 5 languages, using qualitative methods and international Delphi consensus.

Methods: We generated items using a dual-language (English and French) approach involving patients with OA from Australia, France and the United States and health care professionals (HCP) from international societies (OARSI, SFR, OMERACT). Item generation relied on semi-structured individual interviews conducted with OA patients and HCP and one focus group with patients. Content analysis allowed for identifying verbatim statements that were meaningful for patients and HCP. A Delphi consensus method was used to select the most relevant items, according to core domains set (OMERACT). A cross-cultural approach using current guidelines (1) was applied to produce Spanish (in Spain), Turkish and classical Arabic (in Morocco) versions using independent translation and expert committee to preserve its content validity.

Results: From semi-structured interviews with 29 patients and 16 HCPs and one focus group with 10 patients, 180 statements in French (106) and English (77) were generated. Based on similarity or redundancy, 50 items with equivalent meaning in both languages were retained by an expert committee. After two Delphi rounds involving 50 patients and 116 HCPs from 17 countries on four continents, it was reduced to 33 items (response 0=not at all, to 10=absolutely) in five domains (pain, swelling, stiffness, consequences of symptoms and psychological aspects). This questionnaire was cross-culturally adapted into Spanish, Turkish and classical Arabic. The Spanish version uncovered one inappropriate item in the original questionnaire that was amended accordingly in all 5 languages.

Conclusion: Flare is more than just an exacerbation of pain. The Flare-OA questionnaire includes all OMERACT recommended core domains. High content

validity was seen in 2 original and 3 cross-culturally adapted languages. The Flare-OA should be considered as fit for purpose and evaluation of responsiveness in clinical studies in 5 languages.

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POS0270-HPR FLARE-OA QUESTIONNAIRE TO MEASURE FLARES IN OSTEOARTHRITIS OF THE KNEE AND HIP: ASSESSMENT OF ITS PSYCHOMETRIC PROPERTIES

Y. Traore¹, J. Epstein^{1,2}, E. Spitz², L. March^{3,4}, J. F. Maillefert⁵, C. Rutherford^{6,7}, C. Ricatte², C. Alleyrat¹, M. Cross^{3,4}, L. King⁸, L. Callahan⁹, B. Fautrel^{10,11}, T. Buttel⁹, G. A. Hawker⁸, D. Hunter^{3,4}, F. Guillemin^{1,2}. ¹CHRU Nancy, CIC 1433 EC, Nancy, France; ²Université de Lorraine, EA 4360 APEMAC, Nancy, France; ³University of Sydney, Institute of Bone and Joint Research, Kolling Institute, Sydney, Australia; ⁴Royal North Shore Hospital, Rheumatology Department, Sydney, Australia; ⁵Dijon University Hospital, Department of Rheumatology, Dijon, France; ⁶University of Sydney, Faculty of Science, School of Psychology, Sydney, Australia; ⁷University of Sydney, Faculty of Medicine and Health, Sydney Nursing School, Sydney, Australia; ⁸University of Toronto, Department of Medicine, Toronto, Canada; ⁹University of North Carolina, Thurston Arthritis Research Center, Chapel Hill, United States of America; ¹⁰Sorbonne Université – Assistance Publique Hôpitaux de Paris, Rheumatology Department Pitié-Salpêtrière Hospital, Paris, France; ¹¹Institut Pierre Louis d'Epidémiologie et Santé Publique, INSERM UMR-S 1136, Paris, France

Background: Hip and knee OA is characterised by disease flares – understanding the determinants and consequences of OA flares has been hampered by lack of a standardized flare measure beyond the pain aspect. The patients point of view on the different aspect of their flares is essential.

Objectives: The objective was to assess the psychometric properties of a new questionnaire for measuring the multidimensional aspect of flares in OA.

Methods: Using a bilingual version of the questionnaire (33 items, response on a numeric scale, from 0 to 10), a multicentre survey (Australia, France and United States) was conducted on line with patients diagnosed with OA of the hip and/or the knee. Based on an international OMERACT/OARSI endorsed definition of the five core domains (pain, swelling, stiffness, consequences of symptoms and psychological aspects) composing a flare in OA [1], a confirmatory factorial analysis linked to the content analysis has been used to reduce the number of items and to determine the validity of the structure. The Flare-OA questionnaire (score from 0 to 100) has been tested in French and English for its internal consistency, its convergent validity with HOOS/KOOS and Mini-OAKHQOL questionnaires, and its discriminant validity.

Results: Out of 398 patients (mean age 64 years old) who completed the questionnaire, 70.4% were female and 86.7% had knee OA. The confirmatory factorial analysis retained a model with 19 items (RMSEA =0.06; SRMR =0.04; CFI =0.96 and TLI = 0.94). The Cronbach Alpha was > 0.9 for the 5 domains and for the whole questionnaire. The correlations between the Flare-OA and the other instruments were in line with that hypothesis flare is related but different from other concepts usually measured. The discriminant validity was evidenced by a significant score difference (31.8; p<0,0001) between patients with and without flare, i.e. over twice the standard measurement error.

Conclusion: The optimized Flare-OA questionnaire (19 items) is a reliable and valid instrument freely available for the authors for measuring the frequency and severity of flare in knee and hip OA in clinical research.

REFERENCES:

- [1] King LK, Epstein J, Cross M, et al. Establishing the Domains of Knee and Hip Osteoarthritis (OA) Flare: A Report from the OMERACT 2020 Inaugural Virtual Consensus Vote from the Flares in OA Working Group. (Submitted)

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