Enthesis thickness was significantly increased in PsO, in every examined site. Enthesophyte length was significantly increased in PsO group at quadriceps tendon, patellar distal insertion and Achilles tendon.

Conclusion: No differences in clinical manifestation and rheumatological history between IBD and PsO patients were observed. Subclinical (US) abnormalities were significantly increased in IBD patients with associated PsO, as compared to patients affected by IBD.

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HPR - Understanding and measuring: expanding the toolbox

POS0266-HPR PATIENT-PERCEIVED ASPECTS OF RA FLARE EVOLVE OVER TIME, AS REFLECTED BY THE FLARE-RA QUESTIONNAIRE: POST-HOC ANALYSIS OF TAPERA

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Background: Flares are common in rheumatoid arthritis (RA). While flares negatively impact clinical and patient-reported outcomes, different aspects of disease activity may constitute a flare to patients. Flare Assessment in RA (FLARE-RA) is a patient-reported questionnaire aiming to detect active or recent RA flares (1). During its validation, arthritis and general health subscales were identified and the instrument was adapted from 13 questions (1-6 Likert scale) to 11 questions (0-10).

Objectives: To investigate which patient-perceived aspects of flare are assessed by FLARE-RA in the context of a TNFi-tapering trial, using exploratory factor analysis (EFA).

Methods: Patients with RA in DAS28CRP/ESR-remission (≥ 6 months) and treated with etanercept 50mg weekly (≥ 1 year) were included in the 12-month TapERA (Tapering Etanercept in Rheumatoid Arthritis) trial between 2012 and 2014. Participants completed 3-monthly FLARE-RA questionnaires.

The first and final follow-up visits (M3 & M12) were analyzed. Missing data were imputed with multiple imputation ($n = 10$). Sampling adequacy was assessed by Kaiser-Meyer-Olkin (KMO) and correlations between variables were evaluated with Bartlett's sphericity test. Spearman correlation matrices were constructed in each of the 10 imputed datasets. The pooled matrix was then analyzed by EFA with principal component extraction and promax-rotation. EFA aims to identify clusters of questions that elicit similar responses because of association with the same underlying latent (not observable) constructs/factors.

Results: Sixty-six patients (68% female) with a mean age of 55 years (SD 13) and a mean disease duration of 14.8 years (SD 9) completed a total of 330 FLARE-RA questionnaires. Sampling adequacy was acceptable (KMO = 0.94) and correlation between items was sufficient for factor analysis ($p < 0.001$).

Table 1 shows the results of EFA in TapERA compared to the validation study (1). Factor loadings indicate how strongly each item correlates with its underlying factor. EFA of the full 13-item FLARE-RA at M3 revealed 3 factors: Arthritis,

General health and a Medication factor relating to management of flare. The Arthritis factor explained the largest proportion of variance (31%). EFA at M12 showed the same underlying factors, but a less robust factor structure (cross-loadings > 0.3) and a larger proportion of variance explained by the General health factor (33%).

Conclusion: FLARE-RA assessed similar patient-perceived aspects of RA flare within the context of a TNFi-tapering trial when compared to the validation study, including a Medication factor reflecting use of both glucocorticoids and analgesics. This underlines the usefulness of FLARE-RA in providing a multi-faceted view of patients' conceptions of RA flare. However, these aspects and their relative importance do seem to evolve over time. Further research is needed to assess if this is due to the influence of time or specific to the studied population/tapering setting.

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Table 1. Factor loadings (> 0.3) from exploratory factor analysis of the 13-question FLARE-RA collected in TapERA, compared to results from the FLARE-RA validation study (1). Factors presented in descending order of % variance explained. Q5 & Q7 were removed in the final FLARE-RA.

ITEM	FLARE-RA Validation		TapERA M3			TapERA M12		
	GF	AF	AF	GF	MF	GF	AF	MF
Q1: stiffness	0.33	0.75	0.93				0.73	
Q2: pain	0.47	0.65	0.91				1.00	
Q3: swelling	0.35	0.80	0.92				0.93	
Q4: nocturnal pain	0.39	0.82	0.67				0.76	
Q5: overall	0.39	0.84	0.86				0.86	
Q6: analgesics	0.36	0.81			0.68	0.47		0.51
Q7: glucocorticoids					0.91			0.96
Q8: fatigue	0.68	0.51		0.70		0.87		
Q9: limitation	0.73	0.48	0.30	0.75		0.74		
Q10: irritability	0.85	0.39		0.77		0.69		
Q11: mood	0.83	0.44		0.97		0.79		
Q12: withdrawal	0.90			0.89		1.06		
Q13: needing help	0.81	0.38		0.72		0.60	0.30	
Variance explained (%)	66	10	31	31	12	33	31	10

AF = arthritis factor, GF = general health factor, MF = medication factor

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POS0267-HPR IDENTIFYING MEANINGFUL AND DETECTABLE CHANGE FROM THE PATIENT PERSPECTIVE ACROSS COMMON FATIGUE MEASURES IN RHEUMATOID ARTHRITIS

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Background: Different tools are commonly used to assess fatigue in RA including single items (visual analogue (VAS), numeric rating (NRS), and Likert scales), SF-36 Vitality, and PROMIS. Evidence is needed to identify scores that reflect meaningful change to patients to interpret fatigue results in trials and for clinical care.

Objectives: To use symptom-specific and RA change anchors to estimate meaningful and detectable change scores from the patient perspective across several fatigue measures.

Methods: Stable RA patients (ACR/EULAR 2010 criteria) were recruited from 3 academic clinical practices across the Southern, Mid-Atlantic, and Northeastern United States. Scales were administered at 2 consecutive visits to capture PROs including fatigue. We also asked a fatigue-specific change question (*How would*

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

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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).