

Objectives: To evaluate the validity and responsiveness of the 8-item Neuro-QoL UEF in RA. We hypothesized scores would be strongly ($r > .70$) associated with MHAQ, MD-HAQ, and PROMIS PF, moderately ($r = .4$ to $.7$) to symptoms, disease activity, and QoL indicators, and be responsive to change in disease activity and PF.

Methods: Data were from the 0 and 6-month visits of adults with early RA ($sex < 1$ yr) enrolled in the Canadian Early Arthritis Cohort, a prospective real-world study at 16 sites across Canada. Participants completed the Neuro-QoL UEF, MHAQ, MDHAQ, PROMIS-29, and PT Global at each visit. Rheumatologists recorded joint counts and MD Global. To evaluate content validity, we examined descriptive statistics across CDAI disease activity levels, and Pearson correlations between the Neuro-QoL UEF, legacy measures, CRP & ESR. Responsiveness was assessed by correlating change scores from visits 0-6 between Neuro-QoL UEF, disease activity and legacy PF scores.

Results: The 262 participants were mostly white (83%) women (71%) with a mean (SD) age of 55 (13). Summary statistics at 6-months are shown in Table 1. Neuro-QoL UEF was moderately-strongly correlated with MHAQ, MDHAQ, PROMIS-PF ($Irl = .63-.75$) and moderately correlated with pain and stiffness, ($Irl = .59, -.64$), and CDAI, SDAI, PT&MD Global, TJ & SJ ($Irl = .39-.58$). Neuro-QoL UEF was moderately correlated with PROMIS QoL domains Pain, Fatigue, Anxiety, Depression, Sleep & Participation ($Irl = .39-.60$).

Table 1. Summary statistics of physical function and RA disease activity indices at 6 months.

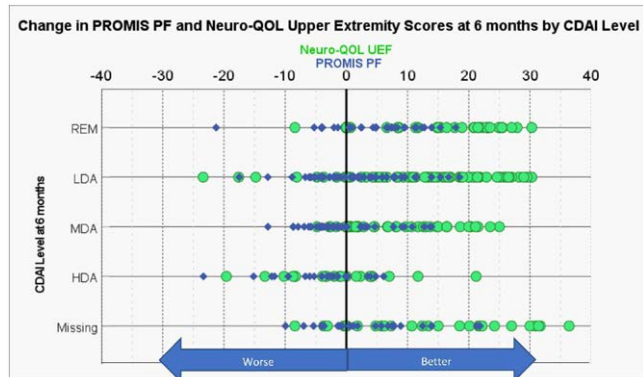
	Mean	SD	Mdn	25%	75%	(Min, Max)
Physical Function						
Neuro-QoL UEF	46.5	9.7	53.8	37.5	53.8	(21.8, 53.8)
MHAQ (0-3)	0.29	0.43	0.13	0.00	0.38	(0.00, 2.25)
MD-HAQ (0-10)	1.39	1.64	0.70	0.00	2.00	(0.00, 8.00)
PROMIS-PF	46.4	8.5	46.2	39.5	56.0	(23.3, 56.0)
RA Disease Activity						
CDAI	9.3	9.9	6.0	3.0	13.0	(0.0, 56.0)
SDAI	10.7	10.9	6.8	3.1	15.2	(0.0, 57.0)
Patient Global	3.0	2.5	3	1	5	(0, 10)
MD Global	1.8	2.2	1	0	3	(0, 9)
Swollen Joints (28)	2.1	3.7	0	0	2	(0, 20)
Tender Joints (28)	2.4	3.9	1	0	3	(0, 24)

Neuro-QoL scores decreased in a dose-response manner across worsening CDAI DA states reflecting increasing impairment (Table 2). Persons with HDA reported the highest disability, scoring nearly 0.5 SD lower on the Neuro-QoL UEF than PROMIS PF. Change from baseline to 6 months in Neuro-QoL UEF was moderately correlated with changes in PROMIS PF, MHAQ, PT Global, and CDAI ($Irl = .44-.65$). The mean change and range from 0-6 months in Neuro-QoL was significantly larger than in PROMIS (8.9 [95% CI 7.5, 10.4] vs. 5.4 [95% CI 4.4, 6.4]) (see Figure).

Table 2. Mean scores (95% CI) at 6 months by CDAI level.

	REM	LDA	MDA	HAD
NeuroQoL UEF	52.8 (51.8, 53.7)	48.1 (46.6, 49.7)	42.0 (39.4, 44.6)	33.8 (30.5, 37.1)
MHAQ (0-3)	0.05 (0.02, 0.09)	0.19 (0.14, 0.24)	0.45 (0.34, 0.57)	0.90 (0.63, 1.17)
MD-HAQ (0-10)	0.31 (0.17, 0.46)	1.11 (0.90, 1.32)	2.15 (1.71, 2.59)	3.56 (2.56, 4.56)
PROMIS-PF	52.8 (51.4, 54.2)	46.8 (45.3, 48.2)	42.3 (40.4, 44.2)	38.0 (34.4, 41.6)

Conclusion: Clinicians, researchers, and patients benefit from practical self-report tools that reliably and precisely monitor hand function in RA. Results offer initial evidence of validity and responsiveness and support use of Neuro-QoL UEF to self-assess inflammatory activity in the hands and day-to-day experiences of living with RA.



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OP0263-HPR THE ROLE OF PHYSICAL EXERCISES IN REDUCING CHRONIC FATIGUE IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Background: Physical activity is an important non-pharmacological intervention that has a combination of biological, physical and psycho-social benefits and can positively influence chronic fatigue in patients with rheumatoid arthritis (RA) [1, 2, 3].

Objectives: Evaluation of the effectiveness of the use of aerobic exercise (walking) to reduce fatigue in RA patients.

Methods: The study included 111 women with RA (mean age 54.4 ± 11.03 years old, mean duration of illness - 11.9 ± 9.3 years old). The DAS28-ESR indicator in RA patients was 2.84 [2.32; 3.05] points: low disease activity was diagnosed in 61.3% of patients, and remission in 38.7%. The average level of fatigue according to the VAS screening scale was 71.6 ± 8.93 points. Fatigue was assessed using the Bristol Rheumatoid Arthritis Fatigue Numerical Rating Scale (BRAFF-NRS V2). To assess the patient's tolerance to physical activity, a 6-minute walking distance (6MWD) test was used. A walking test at 50 meters was used to assess the functional state of patients in dynamics. The rehabilitation program (RP) of patients (for 21 days) included morning hygienic gymnastics, dosed walking (daily, duration 30-60 minutes) and walking in the air up to 3-3.5 hours a day. Vigorous movements "through pain" were contraindicated.

Results: No association was found between the duration of RA and all of the used numerical fatigue scales ($p > 0.05$), but there was a weak positive relationship between VAS and NRS-overcoming with age ($r = 0.21$ and $r = 0.28$). An association between DAS28-ESR and numerical fatigue scales VAS ($r = 0.21$), NRS effect ($r = 0.25$) and NRS - overcoming ($r = 0.24$) was found, despite the fact that this study did not include patients with moderate and high RA activity. There was a significant correlation between the walking time and the number of steps during the 50-meter test ($r = 0.6$, $p < 0.001$), as well as an association between the fatigue and the walking time ($r = 0.33$, $p = 0.001$ for VAS and $r = 0.41$, $p < 0.001$ for NRS-severity) and the number of steps ($r = 0.39$, $p < 0.001$ for VAS; $r = 0.47$, $p < 0.001$ for NRS-severity; $r = 0.44$, $p < 0.001$ for NRS-bridging).

Table 1. Dynamics of fatigue levels and physical indicators in RA patients

	Before RP	In the end of RP	p
VAS fatigue level	71,2 ± 9,08 (71,5; 64–78)	70,4 ± 9,15 (70; 64–78)	$p > 0,05$
BRAF-NRS: severity	6,83 ± 1,21 (7; 6–8)	6,51 ± 1,18 (7; 6–7)	$p < 0,01$
BRAF-NRS: effect	6,24 ± 1,07 (5; 4–6)	5,95 ± 1,08 (6; 5–7)	$p < 0,05$
BRAF-NRS: overcoming	5,0 ± 1,7 (7; 6–8)	7,76 ± 1,37 (5; 4–5)	$p > 0,05$
50 meter test, number of steps	79,3 ± 8,64 (78; 73–84)	78,91 ± 8,15 (78; 73–83)	$p > 0,05$
50-meter test, walking time, seconds	56,7 ± 8,72 (57; 50–63)	55,9 ± 8,59 (56; 51–60)	$p = 0,01$

* The data are presented as mean ± standard deviation (median; interquartile range) After the completion of RP (Table), RA patients showed a significant reduction in the aspects of fatigue according to the NRS-severity ($Z = 2.98$, $p = 0.003$) and NRS-effect ($Z = 2.08$, $p = 0.037$) scales. There was also a decrease in the time spent by patients performing the 50 m walking test ($t = 2.63$, $p = 0.01$), but the total number of steps did not change ($t = 1.44$, $p = 0.154$). Fatigue and pain are important barriers to physical activity, but it is severe fatigue that reduces physical activity in patients with RA [4]. At the same time, physical activity itself can become a factor in reducing fatigue [5], including by reducing the activity of the disease [6].

Conclusion: The severity of fatigue in RA patients can be reduced by actively using non-pharmacological treatment strategies. Walking is a simple and effective solution to increase physical activity and it has a significant effect on fatigue in RA.

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OP0264-HPR “I LITERALLY CONVINCED MYSELF I WAS GOING TO CATCH IT AND DIE”: LIVED EXPERIENCES OF THE COVID-19 PANDEMIC BY PEOPLE WITH RHEUMATIC DISEASES FROM FOUR EUROPEAN COUNTRIES

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Background: The COVID-19 pandemic has resulted in unforeseen challenges for humanity, taking a significant toll, especially the immune-suppressed individuals. In this regard, the health and general well-being of people with rheumatic diseases, the great majority users of immunosuppressives, have been at stake.

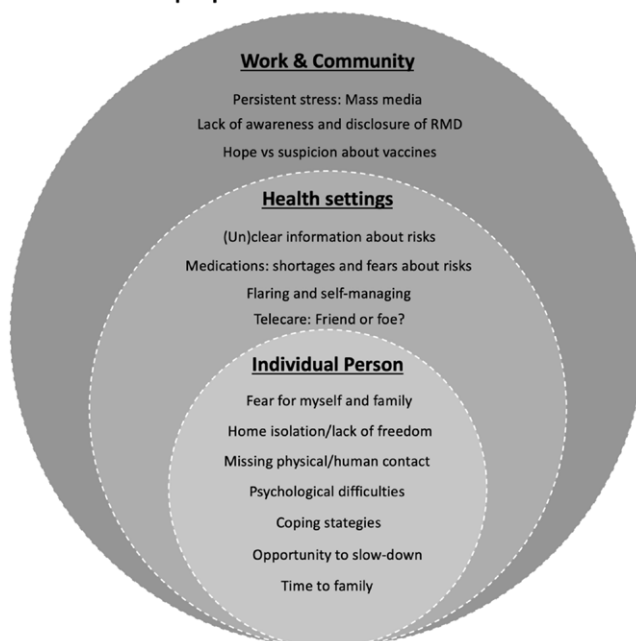
Objectives: To explore the impact of the COVID-19 pandemic on people with rheumatic diseases on immunosuppression during the first wave, concerning a) (self-)management of their disease; b) interaction with the health care team; c) emotional well-being and d) overall health.

Methods: A qualitative study was conducted following a phenomenological approach. Adults (>18 years) with a rheumatic disease from four European countries (Cyprus, England, Greece, Portugal). Patients were recruited through patient's associations and social media and were invited to participate in semi-structured, audio-recorded interview or focus groups, between July - August 2020. Following a pilot study the information provided was transcribed verbatim, anonymized and translated into English where necessary. An inductive approach was adopted to carry out a thematic framework analysis with the assistance of ATLAS.ti to identify key themes and subthemes. Data validation strategies were employed, and Ethical approval and informed consent were obtained.

Results: Participants were 24 patients (21 women, age range 33 to 74 years) divided by 7 focus-groups and 1 individual interview. Most frequent diagnoses were rheumatoid arthritis (n=7), lupus (n=4), juvenile idiopathic arthritis (n=3).

Three key themes with 3-7 subthemes were identified within the analytical framework, centred around the impact of the Covid-19 on patients' lives (Figure 1): i) individual person (e.g. fear for myself and family, social isolation and lack of personal freedom, more time with family) ii) health settings (e.g. (un)clear information about risks of contamination, fear or risk of shortages of medication, remote consultations), and iii) work and community (e.g. persistent stress due to mass media exposure, lack of awareness by others about patients' rheumatic disease and its disclosure, hope and suspicion about new vaccine development: "I hear that they will ask vulnerable groups to have the vaccine first (...) Why is that? we will be again the innocent victims"). Findings were similar across countries, except for spirituality (i.e. the pandemic as "the hand of God"), a coping sub-theme particular to Portugal. These main themes resonated well with the social ecological model and Walsh's Family Resilience Process [1,2].

Figure 1. Lived experiences of the Covid-19 pandemic by people with rheumatic diseases



Conclusion: When experiencing a significant life-event people require some time to process the different lived experiences. This study provides insights on how patients from four countries coped with the new challenges. Such insights are invaluable for health care providers and policy makers, in guiding more meaningful support tailored to individual needs, especially at times of crisis. The study highlights the impact of COVID-19 on the lives of people with rheumatic disease. A follow-up study is currently underway to examine the effect of subsequent waves of the pandemic.

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OP0265-HPR IMPACT OF COVID-19 PANDEMIC ON RHEUMATOLOGY PATIENTS IN NORTHERN IRELAND – A WEB BASED CROSS-SECTIONAL SURVEY

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Background: Concern for the susceptibility of rheumatology patients to severe COVID-19 illness has been raised since the start of the pandemic. Rheumatic disease and their immunosuppressant therapies placed many patients into the 'clinically extremely vulnerable' group when the UK's shielding guidance commenced on 23 March 2020. The impact of DMARDs/glucocorticoids/biologics on COVID-19 remains under investigation¹. A recent study suggested caution may be required with rituximab and sulfasalazine in COVID-19 patients².