Results: 192 patients took part in the study: 170 female with median age 50 years. Among respondents only 35 (18.2%) were not depressed. Depression was sub-clinical or mild in 68 (35.4%), moderate in 42 (21.9%), moderately severe in 30 (15.6%), and severe in 17 (8.9%). 16 (8.3%) of respondents declared to have depressive symptoms and 7 of 16 were under psychiatric therapy. Moreover, patients were grouped according to diagnosis.

124 respondents had inflammatory arthritis (rheumatoid arthritis, psoriatic arthritis and ankylosing spondylitis). 23 (18.5%) were not depressed. Depression was sub-clinical or mild in 41 (33%), moderate in 26 (21%), moderately severe in 21 (17%), and severe in 13 (10.5%). Among them, 8 (6.5%) declared to have depressive symptoms and 3 of 8 were under psychiatric therapy.

49 respondents had a connective tissue disease or vasculitis. 11 (22.5%) were not depressed. Depression was sub-clinical or mild in 19 (38.8%), moderate in 13 (26.5%), moderately severe in 2 (4%), and severe in 4 (8.2%). Among them, 3 (6%) declared to have depressive symptoms and 1 of 6 were under psychiatric therapy.

19 respondents had other rheumatic diseases. 1 (5.3%) was not depressed. Depression was sub-clinical or mild in 8 (42.1%), moderate in 3 (15.8%), moderately severe in 7 (36.8%). Among them, 5 (26.3%) declared to be depressed and 3 of 5 were under psychiatric therapy.

Conclusion: Our study confirmed that the overall real-life burden of depressive symptoms is relevant in all RDs. At the same time, these results highlighted that depressive symptoms are overlooked by physicians and unperceived by patients since fewer than half of respondents (46.4%) had a clinical depression (PHQ-9>10). These results suggested that screening for depression should form part of the routine clinical assessment of RD patients.

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AB1193

WORK INSTABILITY AMONG POLISH RHEUMATOID ARTHRITIS PATIENTS

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Background: Rheumatoid arthritis (RA) affects patients' capacity to work. Rheumatoid Arthritis Work Instability Scale (RA-WIS) is a reliable method to measure work instability (WI) (1–3). We lack data on relationship between RA and work instability among Polish patients.

Objectives: The aim of our study was to assess WI and associated factors among patients with RA.

Methods: 315 patients from three rheumatology centres were enrolled and filled questionnaires including demographic and self-reported clinical data, RA-WIS, and The Health Assessment Questionnaire (HAQ). Swollen and tender joints count (SJC, TJC) were assessed by attending physician and current erythrocyte sedimentation rate (ESR) and C-reactive protein (CRP) were collected. We excluded 41 patients due to incorrectly filled form and analysed questionnaires of 274 patients. DAS28 (Disease Activity Score in 28 joints) and DAS28-CRP were calculated. We performed statistical analysis with Statistica v. 13.3 using Mann-Whitney U test, chi-square test and Spearman's correlation

Results: 140 (51 %) patients were employed and their characteristics are presented on Table 1. In univariable analysis we identified following risk factors for high risk WI: moderate-to-high disease activity (DAS28 $\geq$ 3.2 – OR 2.29, 95%CI 1.06-4.96, p=0.033; DAS28-CRP $\geq$ 3.2 – OR 2.34, 95%CI 1.04-5.27, p=0.038), ESR $\geq$ 30mm/h in women and $\geq$ 20mm/h in men (OR 2.65, 95%CI 1.20-5.89, p=0.010), CRP $\geq$ 1mg/dL (OR 4.02, 95%CI 1.78-9.10 p<0.001), HAQ-DI $>$ 1.0 (OR 2.23, 95%CI 1.04-4.81, p=0.037) and at least moderate pain on visual analogue scale (VASp $\geq$ 4.5 cm – OR 5.31, 95%CI 2.36-11.96, p<0.001). Correlations were moderate between RA-WIS and VASp ($R_s=0.59$, p<0.001) and HAQ-DI ($R_s=0.52$, p<0.001) whereas weak with disease activity indices (DAS28 - $R_s=0.31$, p<0.001; DAS28-CRP - $R_s=0.28$, p<0.001).

Table 1. Demographic and clinical characteristics of employed patients according to work instability risk, N(%) or mean($\pm$ SD).

Characteristic	RA-WIS score	
	low-to-moderate (0-17)	high (>17)
Patients	94 (67.1%)	46 (32.9%)
Sex, female	73 (77.7%)	38 (82.6%)
Age (years)	47.9 ($\pm$ 11.8)	50.4 ($\pm$ 9.3)
Disease duration (years)	13.0 ($\pm$ 8.4)	14.0 ($\pm$ 8.7)
RF, positive	68 (72.3%)	34 (73.9%)
ACPA, positive	59 (62.8%)	29 (63.0%)
ESR (mm/h)	18.3 ($\pm$ 16.0)	28.2 ($\pm$ 21.9)*
CRP (mg/dL)	0.6 ($\pm$ 1.0)	1.1 ($\pm$ 1.0)*
TJC	4.5 ($\pm$ 4.0)	7.6 ($\pm$ 6.3)*
SJC	2.7 ($\pm$ 3.0)	5.2 ($\pm$ 5.5)*
HAQ-DI	0.7 ($\pm$ 0.5)	1.1 ($\pm$ 0.5)*
pain - VAS 10 cm	3.9 ($\pm$ 1.9)	6.5 ($\pm$ 2.2)*
DAS28	3.5 ($\pm$ 1.2)	4.2 ($\pm$ 1.4)*
DAS28-CRP	3.9 ($\pm$ 1.0)	4.3 ($\pm$ 1.2)*

WI – work instability, RA-WIS – Rheumatoid Arthritis Work Instability Scale, RF – rheumatoid factor in IgM class, ACPA – anti-citrullinated protein antibodies, ESR – erythrocyte sedimentation rate, CRP – C-reactive protein, TJC – tender joints count, SJC – swollen joints count, HAQ-DI – Health Assessment Questionnaire Disability Index, VAS – visual analogue scale, DAS28 – Disease Activity Score in 28 joints

*p<0.05, Mann-Whitney U test

Conclusion: Pain and disability are main factors associated with work instability among patients with RA.

References:

- [1] Gilworth G, Chamberlain MA, Harvey A, Woodhouse A, Smith J, Smyth MG, et al. Development of a work instability scale for rheumatoid arthritis. *Arthritis Rheum.* 2003;49(3):349–54.
- [2] Gilworth G, Emery P, Gossec L, Vlieland TPMV, Breedveld FC, Hueber AJ, et al. Adaptation and cross-cultural validation of the rheumatoid arthritis work instability scale (RA-WIS). *Ann Rheum Dis.* 2009;68(11):1686–90.
- [3] Revicki D, Ganguli A, Kimel M, Roy S, Chen N, Safikhani S, et al. Reliability and Validity of the Work Instability Scale for Rheumatoid Arthritis. *Value Health J Int Soc Pharmacoeconomics Outcomes Res.* 2015;18(8):1008–15.

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AB1194

STRIKING DIFFERENCES IN THE COURSE OF OSTEOARTHRITIS (OA) COMPARED TO RHEUMATOID ARTHRITIS (RA) OVER THE FIRST 24 MONTHS OF RHEUMATOLOGY CARE AT ONE PRIVATE PRACTICE SETTING

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Background: Recent reports indicate that disease burden in osteoarthritis (OA) is similar to or greater than in rheumatoid arthritis (RA) when an identical measure is used to assess patients with either disease, generally an MDHAQ/RAPID3 (multidimensional health assessment questionnaire/routine assessment of patient index data). The data suggest that a traditional view that RA is more severe than OA no longer is valid at this time. One concern is that similar disease burdens in OA vs RA may result entirely from superior treatments for RA, and RA may be considerably more severe than OA at initial presentation.

Objectives: To analyze MDHAQ disease burden in patients with OA vs RA at initial visit and at 24-month follow-up in routine care at a single solo-rheumatologist private practice setting.

Methods: All patients at this setting complete an MDHAQ at each visit in the waiting area, prior to seeing the rheumatologist. The MDHAQ includes three 0-10 scores for physical function, pain visual numeric scale (VNS), and patient global VNS, which may be compiled into a 0–30 RAPID3, as well as a 0-10 fatigue VNS, and 0-16 rheumatoid arthritis disease activity index (RADAI) self-report painful joint count. Mean MDHAQ scores were analyzed

for all 73 OA and 116 RA patients seen for an initial visit between 2011 and 2017. Mean scores at initial and 24-month visits were compared for all 25 OA and 63 RA patients seen at 24 month (21-27 month) follow-up visits, using paired t tests.

Results: Mean MDHAQ scores at first visit were similar for all 73 OA and 116 RA patients, and also for 25 OA and 63 RA patients who were also seen 24 months later, e.g., mean RAPID3 was 12.0-14.2. However, mean changes over 2 years were strikingly different in OA versus RA patients (Table). Almost all mean scores in OA were somewhat higher, while all mean scores in RA were clinically and statistically significantly improved at 24 months, e.g., mean RAPID3 worsened from 13.0 to 15.2 (+2.2 units, 17%) in OA patients, compared to improvement from 12.5 to 8.2 (-4.3 units, -34%) in RA patients. The smallest mean change in RA patients involved the joint count (7.7 to 6.1, -21%) (Table), suggesting possible control of inflammation, but continued damage to specific joints. An important limitation is that the data do not include follow-up on patients not seen over the 24 month "window," because of substantially better or poorer status, joint surgery, or other reasons, although the data present an accurate characterization of one rheumatology practice setting.

Mean values of patient MDHAQ scores in patients with OA or RA at first visit and 24-month follow-up

MDHAQ score:	OA first visit of those seen at 24 months (n=25)	OA 24- month visit (n=25)	% change, over 24 months	RA first visit of those seen at 24 months (n=63)	RA 24- month visit (n=63)	% change, over 24 months
RAPID3	13.0	15.2	+2.2, +17%	12.5	8.2	-4.3, -34%
Function	0.81	0.77	-0.04, -5%	0.71	0.50	-0.21, -29%
Pain	5.2	6.4	+1.2, +23%	5.1	3.2	-1.9, -37%
Patient global	5.1	5.9	+0.8, +16%	5.1	3.3	-1.8, -35%
Fatigue	4.1	4.4	+0.3, +7%	4.8	3.5	-1.3, -27%
Pt joint count	7.5	7.8	+0.3, +4%	7.7	6.1	-1.6, -21%

Abbreviations: MDHAQ=multidimensional health assessment questionnaire, OA=osteoarthritis, RA=rheumatoid arthritis, RAPID3=routine assessment of patient index data.

In change data, negative numbers indicate improvement, positive numbers indicate worsening.

Conclusion: Mean MDHAQ/RAPID3 scores were similar in RA or OA at the initial visit. Over 24 months, scores worsened slightly in OA and improved considerably in RA, resulting in considerably poorer status in OA versus RA, likely reflecting superior treatments for RA vs OA. At an individual level, patients with primary OA may have better or poorer status than patients with primary RA. Nonetheless, at a group level, the severity of disease burden in OA appears similar to RA, and becomes greater over the next 24 months, likely as a result of better treatments. The severity of OA is underrated, suggesting a need for increased resources for research toward better treatments for OA.

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Dr. Pincus holds a copyright and trademark on MDHAQ and RAPID3 for which he receives royalties and license fees from profit-making organizations, all of which are used to support further development of quantitative clinical measures for patients and health professionals., Martin Bergman Shareholder of: Johnson & Johnson – stockholder, Consultant of: AbbVie, BMS, Celgene Corporation, Genentech, Janssen, Merck, Novartis, Pfizer, Sanofi – consultant, Speakers bureau: AbbVie, Celgene Corporation, Novartis, Pfizer, Sanofi – speakers bureau
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AB1195

CO-RELATION BETWEEN SELF EFFICACY, DEPRESSION AND PAIN AMONG CAREGIVERS WITH AND WITHOUT ARTHRITIS

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Background: People with arthritis, like others, are often informal caregivers. Caregiving adds burdens of stress and depression. Caregiver studies have shown these to be mitigated by self-efficacy or the confidence to achieve specific caregiving behaviors. Caregivers with arthritis have seldom been studied. We have been unable to find studies specific to caregiving and self-efficacy as they apply to those with and without arthritis. In this study, we evaluated the relationship between self-efficacy, pain, and depression among caregivers with and without arthritis.

Objectives: 1)To examine the correlation between caregiver self-efficacy and depression and pain. 2). To examine how these correlation differ for caregivers with and without arthritis.

Methods: A caregiver questionnaire was distributed via social media, mainly list serves and blogs to a convenience sample. Those receiving the links were urged to send them to other populations. Respondents self-reported arthritis and weekly hours spent caregiving. They reported pain using a pain (visual numeric scale (1-10)), depression with the Patient Health Questionnaire (PHQ-8), and Self-Efficacy was reported with the short caregiver self-efficacy scale). For caregivers and non-caregivers we compared caregiving hours, pain, depression and self-efficacy. We examined the distribution of caregiving hours by arthritis status and plotted mean pain scores by caregiving hours for caregivers with and without arthritis. The correlation between depression and self-efficacy was measured using Pearson correlation coefficient overall and by arthritis status.

Results: Over two weeks 155 individuals responded, with data on self-reported arthritis status. Of the respondents, 88% were female and 64% were 50-69 years of age. 46% self-reported arthritis (osteoarthritis was the most common type). Nearly 25% of caregivers reported spending less than 10 hours weekly on caregiving, while approximately 23% reported at the other end of the extreme (at least 40 hours weekly). The distribution by arthritis status of the caregiver is provided in Table 1.

Table 1.

Arthritis	Caregiving hours						
	0-9 hrs	10-19 hrs	20-29 hrs	30-35 hrs	40+ hrs	Missing	All
No	26 (31%)	26 (31%)	11 (13%)	5 (6%)	15 (18%)	1 (1%)	84 (54.2%)
Yes	12 (17%)	21 (30%)	11 (15.5%)	7 (9.9%)	20 (28%)	0	71 (45.8%)
Total	38 (24.5%)	47 (30.3%)	22 (14.2%)	12 (7.7%)	35 (22.6%)	1 (0.7%)	155

Caregivers with arthritis reported higher pain in the past week. Mean pain score among caregivers with arthritis was 4.4 (SD 2.2) compared to 2.7 (SD 1.7) among caregivers without arthritis (figure 1). This divergence widened for caregivers with 40 or more hours of caregiving. There was a strong negative correlation (Pearson correlation= -0.473, p-value <0.0001) between depression and self-efficacy. The correlation was -0.59 for caregivers without arthritis (p<0.0001, n=74 with data on all three variables) compared to the caregivers self-reporting arthritis (r=-0.35, p=0.006, n=60 with data on all three variables).

Figure 1.

Conclusion: This study suggests that lower caregiver self-efficacy has a direct and strong association with higher depressive symptoms and that this is more pronounced among caregivers with arthritis. This study also shows that caregivers with arthritis have more pain than caregivers without arthritis, and that this peaks and remains consistent for those doing twenty or more hours of caregiving weekly. The stronger negative correlation of depression and self-efficacy among patients without arthritis may be explained by other independent contributors (such as pain) to depression in caregivers with arthritis.

References:

- [1] Lorig K, Ritter PL, Laurent DD, Yank V. Building Better Caregivers: A Pragmatic 12-Month Trial of a Community-Based Workshop for Caregivers of Cognitively Impaired Adults. *J Appl Gerontol*. 2019;38(9):1228-1252. doi:10.1177/0733464817741682

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