Impact of clinical features on patient reported outcomes and treatment satisfaction in psoriatic arthritis

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BACKGROUND & OBJECTIVE

Psoriatic arthritis (PsA) is a chronic immune-mediated disease characterised by joint inflammation and skin lesions. PsA is a complex condition and can manifest itself through several other clinical features, including enthesitis, dactylitis, inflammatory back pain and sacroiliitis[1].

PsA negatively impacts patients' health-related quality of life (HRQoL)[1]. There are several patient-reported outcome measures (PROMs) that can be used to ascertain the impact of PsA on different aspects of the patient's life[2].

The objective of this study was to examine the impact of various PsA clinical features on patients' HRQoL and assess patient and physician satisfaction with current treatment.

METHODS

- Data were collected via the Adelphi PsA Disease Specific Programme (DSP)™[3]; a cross-sectional survey, with retrospective data collection, of rheumatologists, dermatologists, and their consulting patients in the United States and Europe (France, Germany, Italy, Spain and United Kingdom); conducted in 2021.
- Rheumatologists and dermatologists were eligible to participate in this study provided that they had 3-30 years' experience treating patients with PsA.
- Patients were eligible if they consulted a participating physician, had a confirmed diagnosis of PsA, were ≥18 years of age, provided informed consent and not involved in a clinical trial at data collection.
- Rheumatologists and dermatologists completed patient record forms reporting on patient demographics and disease characteristics.
- Physicians provided data on patients' PsA severity and symptoms, and their satisfaction with current treatment.
- Patients self-completed PROMs; including the EuroQol 5-dimension 5-level utility score (EQ-5D-5L), Work Productivity and Activity Impairment Index questionnaire (WPAI) and 12-item psoriatic arthritis impact of disease questionnaire (PSAID-12) .
- Linear regression analyses assessed the impact of disease severity, affected body surface area, fatigue, enthesitis, dactylitis, inflammatory back pain (IBP), sacroiliitis and tender and swollen joints on PROMs. The impact of time since diagnosis was also assessed. Logistic regression analyses were used for each of the five individual EQ-5D-5L domains and for patient and physician satisfaction.

CONCLUSIONS

- **Individual PsA clinical features had a significant impact on patients' HRQoL, daily activity, and treatment satisfaction for both physicians and patients, highlighting the importance of effective symptom management to improve patients' HRQoL.**
- **Tender joints, enthesitis, fatigue and moderate/severe disease severity stood out as the clinical features that are most likely to impact patients HRQoL as assessed by PROMs.**
- **The WPAI: Overall work impairment and PsAID12 were influenced by the most PsA clinical features.**
- **Several clinical features were identified that significantly reduced patient and physician satisfaction; presence of fatigue was the only feature found to influence both.**
- **Understanding how each of the clinical characteristics of PsA impact different aspects of a patient's life could be important for improving future treatment decisions and improving patient and physician satisfaction.**
- **Physicians could focus on the use of treat-to-target methods to create treatment plans that aim to improve patients HRQoL by targeting specific symptoms.**

RESULTS

Demographics

- 351 rheumatologists and 169 dermatologists provided data for 2113 patients.
- Overall, 50.4% of patients were male, 88.5% of patients were white, and mean age of 47.2 (12.6 SD) years.

Results

- Tender joints were associated with a 0.61-point increase in PsAID12 score, a 3.2-fold increase in the odds of affected mobility, and a 2.4-fold increase in the odds of experiencing pain/discomfort (all p<0.001). Tender joints also increased impairment while working (p<0.01), negatively impacted self care (p<0.01) and impaired the patients' ability to carry out their usual activities (p=0.001).
- Enthesitis was associated with a 0.93-point increase in PsAID12 score (p<0.01) and an 8.6 percentage point (pp) increase in activity impairment score (p<0.05). Enthesitis also negatively affected four of the five EQ-5D-5L domain measures significantly: self care, usual activities, pain/discomfort and anxiety/depression (all p<0.05).
- Moderate/severe disease severity was associated with an 11.21 pp increase in activity impairment (p<0.001), a 0.93-point increase in PsAID12 score (p<0.001) and 0.06-point decrease in EQ-5D-5L (p<0.001). Physicians were less likely to be satisfied with their patient's treatment if their disease severity was moderate/severe (p<0.001). Moderate/severe disease was also associated with an increase in the likelihood that patients experienced problems with mobility (p<0.05), self care (p<0.01) and pain/discomfort (p<0.01).
- Fatigue was found to be associated with significantly increased odds that both patients (p<0.001) and physicians (p<0.05) were dissatisfied with the patient's treatment. Fatigue was associated with a 9.6 pp increase in activity impairment score (p<0.001), a 1.04 point increase in PsAID12 score (p<0.001) and a 0.07-point decrease in EQ-5D-5L score (p<0.05).
- Increasing time since diagnosis, dactylitis, sacroiliitis, IBP, swollen joints and affected body surface also influenced the results of PROMs and treatment satisfaction as shown in Table 1.

Table 1: Coefficients and odds ratios for the presence of each clinical feature for each PROM and patient and physician satisfaction. There are three levels of shading, lightest indicates p≤0.05, medium indicates p≤0.01 and darkest indicates p≤0.001.

Clinical feature	WPAI: Work Time missed	WPAI: Work impairment (0-100) (n=368)	WPAI: Activity impairment (0-100) (n=497)	WPAI: Overall work impairment (0-100) (n=307)	PsAID12 (0-10) (n=485)	EQ-5D-5L (0-1) (n=497)	EQ5D: Mobility (0-5) (n=500)	EQ5D: Self-care (0-5) (n=500)	EQ5D: Usual activities (0-5) (n=500)	EQ5D: Pain/ Discomfort (0-5) (n=498)	EQ5D: Anxiety/ Depression (0-5) (n=499)	Patient satisfaction (n=492)	Physician Satisfaction (n=1,251)
		Coefficient					Odds ratio						
Tender joints	-0.12 (p=0.930)	**4.76 (p=0.008)**	**4.8 (p=0.015)**	**4.2 (p=0.031)**	**0.61 (p<0.001)**	**-0.04 (p=0.005)**	**3.18 (p<0.001)**	**2.14 (p=0.002)**	**2.02 (p=0.001)**	**2.43 (p<0.001)**	1.50 (p=0.067)	0.51 (p=0.132)	0.56 (p=0.064)
Enthesitis	-1.62 (p=0.591)	4.76 (p=0.205)	**8.6 (p=0.014)**	4.59 (p=0.302)	**0.93 (p=0.003)**	**-0.07 (p=0.043)**	2.01 (p=0.054)	**2.35 (p=0.016)**	**2.15 (p=0.030)**	**2.64 (p=0.038)**	**2.15 (p=0.018)**	0.52 (p=0.155)	1.22 (p=0.606)
Dactylitis	6.04 (p=0.065)	**8.10 (p=0.023)**	5.20 (p=0.117)	**9.2 (p=0.025)**	0.24 (p=0.402)	-0.04 (p=0.145)	1.60 (p=0.165)	1.44 (p=0.292)	1.44 (p=0.275)	1.07 (p=0.861)	1.49 (p=0.252)	**0.29 (p=0.008)**	0.54 (p=0.098)
Fatigue	0.09 (p=0.976)	3.61 (p=0.230)	**9.6 (p<0.001)**	1.42 (p=0.681)	**1.04 (p<0.001)**	**-0.07 (p=0.019)**	1.36 (p=0.327)	1.36 (p=0.356)	1.43 (p=0.227)	**2.13 (p=0.034)**	1.69 (p=0.087)	**0.22 (p<0.001)**	**0.47 (p=0.015)**
Moderate/severe disease	2.47 (p=0.152)	2.92 (p=0.229)	**11.21 (p<0.001)**	3.18 (p=0.229)	**0.93 (p<0.001)**	**-0.06 (p<0.001)**	**1.97 (p=0.011)**	**2.16 (p=0.004)**	1.38 (p=0.206)	**2.11 (p=0.009)**	1.15 (p=0.592)	0.53 (p=0.194)	**0.31 (p<0.001)**
Sacroiliitis	6.14 (p=0.392)	**12.2 (p=0.019)**	1.21 (p=0.738)	**14.5 (p=0.016)**	0.32 (p=0.465)	-0.05 (p=0.392)	3.07 (p=0.076)	1.26 (p=0.723)	1.69 (p=0.422)	0.79 (p=0.765)	0.93 (p=0.909)	2.41 (p=0.520)	0.67 (p=0.474)
Affected body surface area (%)	0.14 (p=0.419)	**0.55 (p=0.003)**	**0.62 (p=0.001)**	**0.56 (p=0.012)**	**0.06 (p=0.001)**	**-0.003 (p=0.041)**	1.03 (p=0.225)	1.00 (p=0.876)	**1.06 (p=0.007)**	**1.09 (p=0.007)**	1.02 (=0.212)	1.00 (p=0.934)	**0.31 (p=0.004)**
IBP	7.26 (p=0.116)	6.34 (p=0.112)	4.95 (p=0.181)	**9.4 (p=0.042)**	0.41 (p=0.222)	-0.02 (p=0.504)	1.09 (p=0.817)	1.21 (p=0.649)	1.04 (p=0.922)	1.22 (p=0.657)	1.37 (p=0.395)	0.77 (p=0.662)	0.47 (p=0.114)
Time since diagnosis (years)	-0.02 (p=0.784)	**-0.48 (p=0.001)**	**0.43 (p=0.041)**	**0.45 (p=0.003)**	**0.04 (p=0.013)**	-0.003 (p=0.056)	1.03 (p=0.221)	1.02 (p=0.535)	1.03 (p=0.227)	1.04 (p=0.163)	**1.06 (p=0.010)**	**0.93 (p=0.009)**	1.00 (p=0.972)
Swollen Joints	4.15 (p=0.115)	0.71 (p=0.798)	3.47 (p=0.207)	2.72 (p=0.342)	0.20 (p=0.393)	-0.03 (p=0.128)	0.82 (p=0.534)	1.19 (p=0.581)	1.49 (p=0.170)	1.28 (p=0.448)	1.40 (p=0.246)	0.62 (p=0.338)	**0.42 (p=0.007)**

LIMITATIONS

This sample is representative of consulting patient population.

Recall bias is a common limitation of surveys; however, data in the study were collected at the time of consultation to limit recall bias.

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