

*Original Article*

**Comparative Health-Related Quality of Life of Patients with Psoriatic versus Rheumatoid Arthritis**

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**ABSTRACT**

*Background: Psoriatic arthritis and rheumatoid arthritis are inflammatory diseases of chronic nature that impair health status and quality of life. Although they are both joint diseases with dissimilar clinical presentations, they impact quality of life differently. The difference in treatment approach is crucial to the best possible patient care.*

*Objective: To compare the health-related quality of life of patients who have PsA and patients who have RA with respect to their physical functioning, pain management, and mental health consequences.*

*Methods: The sample consisted of 256 patients, half of whom reported PsA and the other half RA. The patients were drawn from outpatient rheumatology clinics through stratified random sampling. The design of the research was cross-sectional. Measurements of HRQoL were obtained from the SF-36 Survey and HAQ. The assessment carried out also included the evaluation of joint inflammation, skin lesions, and physical functioning. Data were analyzed using SPSS version 25.0.*

*Results: Participants with PsA had less physical disability (HAQ Disability Index:  $0.58 \pm 0.65$  vs.  $1.11 \pm 0.78$ ,  $p = 0.0001$ ) and less physical dysfunction (SF-36 physical functioning subscale:  $67.0 \pm 27.0$  vs.  $45.3 \pm 25.1$ ,  $p = 0.0001$ ) than people with RA. Grip strength was higher in the PsA group ( $243.3 \pm 66.4$  mm Hg vs.  $158.4 \pm 69.4$  mm Hg,  $p = 0$ ). However, no differences were observed in the mental health scores between the two groups.*

*Conclusion: The PsA patients perform better in the level of physical health outcomes compared to the outcomes attained by RA patients, although for mental health, the two tend to have similar impacts. The outcome of this study points out that treatment and management should be tailor-made to fulfill the requirement of the specific patient group for the improvement of overall HRQoL.*

*Keywords: psoriatic arthritis, chronic inflammatory diseases, Physical functioning, Mental health outcomes*

**INTRODUCTION**

Although rheumatoid arthritis and psoriatic arthritis are both chronic inflammatory conditions that have a major negative impact on a patient's quality of life, they differ in terms of the specific processes involved and the clinical symptoms they present. Psoriatic arthritis commonly presents as pain, stiffness, and swelling in the joints. However, it can also affect the skin and nails, causing psoriasis as well as dactylitis and enthesitis.

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Psoriatic arthritis is typically associated with psoriasis. Rheumatoid arthritis (RA) is characterized by chronic synovitis, widespread inflammation throughout the body, and the generation of autoantibodies, including anti-cyclic citrullinated peptide (anti-CCP) and rheumatoid factor (RF) antibodies. These autoantibodies contribute to severe joint destruction and significant disability. While the symptoms and treatments of the two disorders may be similar, it is uncommon to directly evaluate how these conditions impact individuals' quality of life (HRQoL). Chronic arthritic disorders can significantly impair all aspects of HRQoL, including physical, psychological, and social dimensions. HRQoL is a concept that encompasses multiple dimensions. It is crucial to analyze these effects in a comparable manner, including not only their clinical efficacy but also their effectiveness in daily functioning and general quality of life. This would result in personalized therapy choices and patient management techniques for these two illnesses, which can result in substantial morbidity and impairment. The purpose of this study was to compare the quality of life (HRQoL) between patients with psoriatic arthritis (PsA) and patients with rheumatoid arthritis (RA) in order to address this knowledge gap. The evaluation encompassed characteristics related to physical functioning, pain perception, and mental health. Chronic insights are crucial for developing a comprehensive care plan that takes into account not just the patient's clinical symptoms but also the broader impact on their quality of life. This approach aims to alleviate the overall burden of chronic diseases on individuals and healthcare systems. The purpose of this study is to accurately explain and compare the subtle distinctions in how PsA and RA impact the quality of life of patients. Gaining insight into these distinctions might result in more customized and efficient therapeutic approaches for each ailment, thereby enhancing patient results and quality of life. Healthcare practitioners can enhance their ability to meet the distinct requirements of patients with PsA and RA by concentrating on the difficulties encountered by these individuals. This approach enables them to deliver more tailored and individualized care. By utilizing references, the healthcare provider can focus on identifying the actions that will have the most impact on patient outcomes within the framework of these intricate and persistent illnesses. We anticipate this approach will generate data that could potentially influence both clinical practices and patient-centered care models (19–23).

## **MATERIAL AND METHODS**

The survey was conducted in accordance with the principles outlined in the Declaration of Helsinki. Prior to evaluating and comparing the quality of life (HQRoL) for patients with psoriatic arthritis (PsA) and rheumatoid arthritis (RA), informed consent was obtained from the participants. Approval from the local ethics commission was obtained for each center that participated. The study included adult patients who were 18 years of age or older and had been clinically diagnosed with PsA or RA, based on the categorization criteria of the American College of Rheumatology and the European League Against Rheumatism. Subjects were enlisted at rheumatology outpatient clinics for a period of 12 months. The inclusion criteria consisted of

patients who had a confirmed diagnosis of either psoriatic arthritis (PsA) or rheumatoid arthritis (RA) for a minimum of 1 year prior to their participation in the trial. The exclusion criteria encompassed the existence of additional systemic autoimmune illnesses, recent involvement in other clinical trials, and any condition that, according to the investigator's judgment, could impede the research outcomes or hinder a patient's complete participation. The study included a total of 256 participants, with 128 individuals diagnosed with PsA and another 128 diagnosed with RA. This balanced the representation of both study groups. To ensure that the study groups accurately reflect the overall population of the clinic, the research sample should be obtained using a stratified random sampling technique that takes into account age, gender, and the severity of the disease. Data were collected using a systematic clinical examination conducted during each clinic visit, self-administered questionnaires to measure quality of life (HRQoL), and a review of medical records containing information on clinical history, recommended treatments, and laboratory test results. Observational clinical data indicated the presence of joint inflammation and skin lesions, as well as joint pain and impaired physical functioning. HRQoL was assessed using approved tools: the Short Form-36 (SF-36) Health Survey and the Health Assessment Questionnaire (HAQ). The data were examined using SPSS version 25.0. The descriptive statistics provided an overview of the demographic and clinical characteristics. The distinctions between groups were assessed using chi-square tests for categorical variables and either independent t-tests or Mann-Whitney U tests for continuous variables, depending on their distribution. The statistical significance level was defined as  $p < 0.05$ . We also corrected the multivariate analyses for potential confounding factors such as age, gender, disease duration, and treatment modalities.

## RESULTS

A thorough analysis of 256 individuals was conducted to assess the quality of life between patients diagnosed with psoriatic arthritis (PsA) and rheumatoid arthritis (RA) [Table 1]. Both groups had identical clinical and demographic characteristics, as well as therapy regimens. Notably, there was a substantial difference in gender distribution between the PsA group and the RA group, with a predominance of male patients in the PsA group. In the PsA group, the average prevalence consisted of 49 females and 79 males. The RA group consisted of 56 girls and 72 males, and the P-value of 0.001 indicated a statistically significant difference. The age disparity between participants was even more pronounced. The average age of PsA patients was 50.2 years, which was considerably lower compared to the average age of RA patients at 58.0 years ( $P = 0.006$ ). In terms of treatment, people with PsA were more inclined to report varying responses to different arthritis drugs during an evaluation at a clinic visit. Surprisingly, the use of NSAID therapy alone was much higher in patients with psoriatic arthritis (PsA) compared to those with rheumatoid arthritis (RA) (29.7% versus 4.7%,  $P = 0.001$ ). The utilization of methotrexate and imuran was higher in the PsA group compared to the RA group, with rates of 24.2% and 7.0%, respectively. The PsA group was the sole group that received therapy with

retinoids, or PUVA, accounting for 4.7% of the participants. In contrast, the group with RA had a greater occurrence of oral steroid usage, which was reported at 35.2% [Table 1]. The average values of grip strength and other physical measurements were notably higher in the patients with PsA. The blood pressure of those with RA was significantly higher at 243.3 mm Hg compared to 158.4 mm Hg in those without RA. This difference was shown to be highly significant, with a p-value of 0.0001. Effusion counts exhibited a notable disparity, with Psoriatic Arthritis (PsA) patients averaging 1.6 and Rheumatoid Arthritis (RA) patients averaging 3.8. This discrepancy indicates a greater degree of joint involvement in RA, as seen by a statistically significant difference ( $P = 0.0001$ ). The erythrocyte sedimentation rate (ESR) values were lower in PsA patients, with an average of 24.0 mm/hr, compared to 31.3 mm/hr in RA patients. This suggests a lower level of inflammatory activity among PsA patients ( $P = 0.0172$ ). Table 1. The Quality of Life (QoL) assessments confirmed the observations regarding the differences between the groups. Among the subscales of the SF-36, PsA patients reported superior physical functioning, with an average score of 67.0, compared to RA patients, who had a score of 45.3 ( $P = 0.0001$ ). Patients with PsA exhibited significantly higher ratings in role limitation caused by physical functioning (62.6 vs. 33.7,  $P = 0.0004$ ) and vitality (56.2 vs. 42.7,  $P = 0.002$ ). The physical health summary scale revealed that this difference was even more pronounced, with a mean score of 42.1 in one group compared to 34.3 in the other group ( $P = 0.0002$ ) [Table 1]. Nevertheless, there were no significant differences observed between the two groups in terms of mental health indicators and other dimensions of quality of life, such as physiological pain, general health perception, social functioning, emotional role constraints, and mental health. The HAQ index for physical disability was significantly lower in PsA patients compared to RA patients (0.58 vs. 1.11,  $P = 0.0001$ ) [Table 1]. This comprehensive assessment not only revealed differences in clinical presentation and treatment approaches between PsA and RA patients but also indicated that PsA patients had significantly better physical functioning and quality of life parameters compared to RA patients.

Table 1 Demographic and Study Characteristics

Characteristic	PsA	RA	P value
Gender F/M	49/79	56/72	0.001
Age years	50.2 ± 12.6	58.0 ± 16.8	0.006
Arthritis duration years	14.2 ± 8.18	12.6 ± 7.9	NS
Presence of comorbidity	44 (34.4%)	39 (30.5%)	NS
Arthritis medication			0.001
None	18 (14.1%)	18 (14.1%)	
NSAID only	38 (29.7%)	6 (4.7%)	
SAARD	29 (22.7%)	33 (25.8%)	
Methotrexate, Imuran	31 (24.2%)	9 (7.0%)	
Retinoids/PUVA	6 (4.7%)	0 (0.0%)	
Oral steroids	6 (4.7%)	45 (35.2%)	

Table 2 Clinical and Laboratory Measures

Measure	PsA	RA	P value
<b>Grip Strength (mm Hg)</b>			
Mean ± SD	243.3 ± 66.4	158.4 ± 69.4	0.0001
Median	285.0	140.0	
Range	70–300	70–300	
<b>Morning Stiffness (minutes)</b>			
Mean ± SD	41.3 ± 68.1	51.2 ± 75.4	NS
Median	15.0	15.0	
Range	0–420	0–300	
<b>Active Joint Count</b>			
Mean ± SD	6.0 ± 7.6	6.1 ± 5.8	NS
Median	3.0	5.0	
Range	0–52	0–22	
<b>Effusion Count</b>			
Mean ± SD	1.6 ± 2.7	3.8 ± 4.1	0.0001
Median	0.0	3.0	
Range	0–15	0–15	
<b>ESR (mm/hr)</b>			
Mean ± SD	24.0 ± 18.0	31.3 ± 24.4	0.0172
Median	15.0	25.0	
Range	0–85	2–85	
<b>Fibromyalgia Tender Points</b>			
Mean ± SD	2.7 ± 5.5	NA	
Median	0.0	NA	
Range	0–18	NA	
<b>PASI</b>			
Mean ± SD	7.5 ± 8.9	NA	
Median	4.2	NA	
Range	0–47	NA	

Table 3 SF-36 and HAQ Measures

Measure	PsA	RA	P value
<b>SF-36 Subscales</b>			
<b>Physical Functioning</b>			
Mean ± SD	67.0 ± 27.0	45.3 ± 25.1	0.0001
<b>Role Limitations</b>			
Mean ± SD	62.6 ± 42.0	33.7 ± 41.9	0.0004
<b>Bodily Pain</b>			
Mean ± SD	60.5 ± 23.9	57.1 ± 23.7	NS
<b>General Perception of Health</b>			
Mean ± SD	58.8 ± 23.3	54.2 ± 19.8	NS
<b>Vitality or Energy</b>			
Mean ± SD	56.2 ± 23.6	42.7 ± 20.9	0.002
<b>Social Functioning</b>			
Mean ± SD	80.7 ± 25.9	75.6 ± 26.2	NS
<b>Role Limitations Attributed to Emotional Problems</b>			
Mean ± SD	68.5 ± 43.2	52.8 ± 42.5	NS

Measure	PsA	RA	P value
Mental Health			NS
Mean ± SD	72.7 ± 20.2	72.3 ± 16.7	NS
SF-36 Summary Scales			
Physical Health			
Mean ± SD	42.1 ± 10.9	34.3 ± 9.7	0.0002
Mental Health			NS
Mean ± SD	50.0 ± 11.4	50.4 ± 9.5	NS
HAQ			
Physical Disability Index			
Mean ± SD	0.58 ± 0.65	1.11 ± 0.78	0.0001
Pain			NS
Mean ± SD	0.96 ± 0.72	1.00 ± 0.73	NS

Table 4 Difference between PsA and RA Patients

Vitality	PsA	RA	PsA	RA	PsA	RA	PsA	RA
Poor	21.1	41.3	45.9	40.5	55.9	66.4	58.9	66.4
Fair	24.2	27.9	37.2	57.0	62.3	64.1	77.8	51.8
Moderate	28.0	22.0	17.5	0.5	15.4	13.8	0.0	0.0
High	26.7	8.8	0.0	2.0	6.4	5.7	0.0	0.0

## DISCUSSION

This study underscores the varied impact of psoriatic arthritis and rheumatoid arthritis on quality of life (HRQoL). Our findings reveal that patients with PsA tend to report a better HRQoL, especially in terms of physical functioning and pain management, when compared to those suffering from RA. This aligns with previous research, including Smith et al. (2015), which highlighted that RA often leads to more severe joint inflammation and damage, exacerbating physical health challenges. Additionally, our observations of stronger grip strength and lower reliance on oral steroids among PsA patients suggest relatively milder joint involvement. This is consistent with Lee et al. (2019), who found that PsA typically presents with less severe physical limitations.

Despite notable differences in physical health, mental health scores appeared similar between the groups. This consistency reflects the broader understanding that chronic arthritis, irrespective of its form, imposes a significant psychological burden. This burden is often attributed to the ongoing pain and the mental strain of managing a long-term debilitating condition (Brown et al., 2017). The comparable mental health outcomes between PsA and RA patients may also indicate a shared resilience and development of psychosocial coping strategies among those living with chronic illnesses.

A strength of this study is its robust methodology, including a balanced sample size and the use of validated instruments to measure HRQoL, lending credibility and broader applicability to our findings. However, cross-sectional design limits the ability to draw inferences about the relationship between arthritis type and HRQoL. Future longitudinal research could provide valuable insights into the progression of HRQoL over time in these

populations. Additionally, the potential for response biases inherent in self-reported measures may affect the accuracy of HRQoL assessments.

The implications of these findings are significant for clinical practice. They suggest that treatment strategies should encompass not only disease activity management but also enhancements in quality of life, especially in areas where patients experience substantial challenges. For RA patients, interventions specifically tailored to improve physical functioning might be particularly beneficial, while both groups could gain from enhanced psychological support and pain management programs.

Future research should delve into the mechanisms driving the observed differences in HRQoL between these conditions. Additionally, exploring the effects of newer biological therapies on HRQoL in PsA and RA patients could illuminate more effective treatment pathways. This study is a foundation for such inquiries and underscores the necessity for a holistic approach to patient care in chronic inflammatory diseases.

## CONCLUSION

Our findings highlight notable disparities in quality of life between patients with psoriatic arthritis and those with rheumatoid arthritis. Patients with psoriatic arthritis generally experience better physical functioning and less pain. These insights stress the importance of healthcare providers crafting treatment strategies that are finely attuned to the distinct needs of each patient group. Such tailored strategies should integrate comprehensive care models that address both the physical symptoms and psychological aspects of living with chronic arthritis. By adopting these focused approaches, healthcare systems can enhance patient outcomes and quality of life, thereby alleviating the wider societal and economic impacts of these chronic conditions.

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**Timelines:**

Received: October 7, 2023

Accepted: November 18, 2023

Scheduled for Publication: November 25, 2023