



QUALITY OF LIFE IN ADULT PATIENTS WITH PSORIASIS IN MALAYSIA: EVIDENCE FROM THE MALAYSIAN PSORIASIS REGISTRY

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INTRODUCTION

Psoriasis is a common immune-mediated skin disease. It tends to run a chronic course, and the main goal of treatment is to control the disease. Psoriasis can have a major impact on patient health-related quality of life (HRQoL). Most patients reported experiencing anger, helplessness, embarrassment and self-consciousness due to psoriasis. There are several well-known instruments to assess quality in life in patients with psoriasis. Some are generic, like SF-36, Dermatology Quality of Life Index (DLQI) and some are psoriasis specific, like Psoriasis Disability Index (PDI).

OBJECTIVE

The objective of this study was to determine the quality of life in adult patients (aged 18 years and above) with psoriasis in Malaysia and the factors associated with the reduction in health-related quality of life.

METHOD

Data was obtained from the Malaysian Psoriasis Registry between July 2007 and December 2014. The Dermatology Life Quality Index (DLQI) was used to assess health-related quality of life. Factors associated with the reduction in health-related quality of life were determined.

RESULTS

A total of 6,037 patients were included in this study. The mean DLQI was 8.5 ± 6.5 and 33.3% of patients had DLQI >10 (Fig. 1). The domains of DLQI that were most affected were symptoms & feelings, followed by leisure and daily activities (Fig. 2). After adjusting for confounding factors, five factors emerged as predictive factors of DLQI >10 in adult patients with psoriasis, namely ethnicity (Malay (OR 1.51; CI 1.26,1.80) and Indian (OR 1.44; CI (1.15,1.79)), severity of psoriasis with BSA >10% (OR 2.20;CI 1.88,2.58), psoriasis involving the face (OR 1.42;CI 1.23,1.64), face psoriasis severity Grade 2 (OR 1.82; CI (1.47, 2.26) & 3 (OR 2.88; CI 1.58,5.25) and arthropathy (OR 1.47; CI 1.23,1.76) (Table 1). In patients with psoriatic arthropathy, morning stiffness >30 minutes (OR 1.63; CI 1.23,2.17), joint pain (OR 1.71; CI 1.20,2.42) and spondylitis/sacroiliitis (OR 1.74; CI 1.12,2.71) were the predictor factors of DLQI >10.

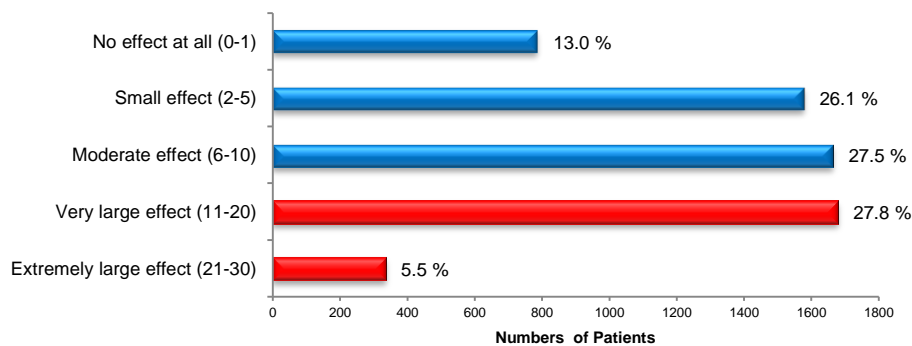


Figure 1 Dermatology Life Quality Index in adult patients with psoriasis

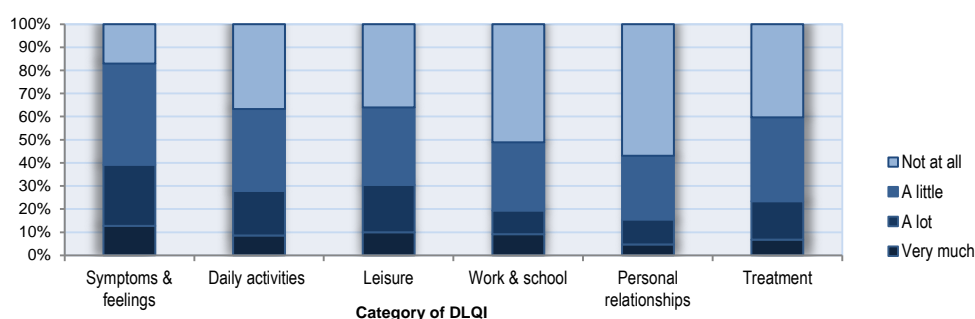


Figure 2 QoL impairment in adult patients with psoriasis based on category of DLQI

| Variables | DLQI >10 (n=390) | | DLQI ≤10 (n=578) | | Simple Logistic Regression | | |
|---|------------------|------|------------------|------|----------------------------|--------------|----------------------|
| | n | (%) | n | (%) | Crude OR | (95% CI) | P-value ^a |
| Morning stiffness >30 minutes | | | | | | | |
| Yes | 135 | 34.6 | 150 | 26.0 | 1.63 | (1.23, 2.17) | 0.001 |
| No | 220 | 56.4 | 399 | 69.0 | 1.00 | - | |
| Enthesopathy/Dactylitis | | | | | | | |
| Yes | 53 | 13.6 | 69 | 11.9 | 1.21 | (0.83, 1.79) | NS |
| No | 300 | 76.9 | 474 | 82.0 | 1.00 | - | |
| Type | | | | | | | |
| Oligo-/Monoarthropathy | 150 | 38.5 | 247 | 42.7 | 0.87 | (0.67, 1.14) | NS |
| Distal hand joints arthropathy | 123 | 31.5 | 164 | 28.4 | 1.22 | (0.92, 1.62) | NS |
| Symmetrical polyarthropathy | 131 | 33.6 | 169 | 29.2 | 1.27 | (0.96, 1.68) | NS |
| Spondylitis/Sacroiliitis | 46 | 11.8 | 42 | 7.3 | 1.74 | (1.12, 2.71) | 0.014 |
| Arthritis mutilans | 14 | 3.6 | 18 | 3.1 | 1.17 | (0.57, 2.38) | NS |
| Symptoms | | | | | | | |
| Pain | 316 | 81.0 | 432 | 74.7 | 1.71 | (1.20, 2.42) | 0.003 |
| Swelling | 132 | 33.8 | 172 | 29.8 | 1.24 | (0.94, 1.63) | NS |
| Deformity | 83 | 21.3 | 146 | 25.3 | 0.81 | (0.60, 1.11) | NS |

^aResult was based on available information. Percentage (%) was calculated based on number of cases over total number for each group (score>10 or scores≤10). NS = Not significant

^aWald statistic.

Table 2 Predictive Factors of Higher DLQI Score in Patients with Psoriatic Arthropathy

| Variables | DLQI>10 (n=2011) | | DLQI ≤10 (n=4026) | | Multiple Logistic Regression ^a | | |
|---|------------------|------|-------------------|------|---|---------------|------------------|
| | n | (%) | n | (%) | Adj. OR | (95% CI) | P-value |
| Age: | | | | | | | NS |
| 18-40 years | 1046 | 52.0 | 1147 | 28.5 | 1.00 | - | |
| 41-60 years | 787 | 39.1 | 1814 | 45.1 | 0.50 | (0.43, 0.58) | |
| >60 years | 178 | 8.9 | 1065 | 26.5 | 0.20 | (0.16, 0.25) | |
| Age of onset: | | | | | | | NS |
| ≤ 40 years (Type 1) | 1508 | 75.0 | 2356 | 58.5 | 1.00 | - | |
| > 40 years (Type 2) | 473 | 23.5 | 1612 | 40.0 | 1.13 | (0.92, 1.38) | |
| Gender: | | | | | | | NS |
| Male | 1074 | 53.4 | 2334 | 58.0 | 0.96 | (0.83, 1.11) | |
| Female | 937 | 46.6 | 1692 | 42.0 | 1.00 | - | |
| Ethnicity | | | | | | | <0.001 |
| Malay | 1106 | 55.0 | 1880 | 46.7 | 1.51 | (1.26, 1.80) | |
| Chinese | 345 | 17.2 | 1102 | 27.4 | 1.00 | - | |
| Indian | 341 | 17.0 | 723 | 18.0 | 1.44 | (1.15, 1.79) | |
| Orang Asli | 3 | 0.1 | 3 | 0.1 | 8.33 | (0.78, 89.09) | |
| Others | 216 | 10.7 | 317 | 7.9 | 1.54 | (1.17, 2.03) | |
| Marital status | | | | | | | NS |
| Single | 626 | 31.1 | 770 | 19.1 | 2.20 | (0.47, 10.23) | |
| Married | 1273 | 63.3 | 3003 | 74.6 | 2.07 | (0.45, 9.55) | |
| Widow | 20 | 1.0 | 94 | 2.3 | 1.36 | (0.26, 7.06) | |
| Divorced | 28 | 1.4 | 26 | 0.6 | 4.44 | (0.85, 23.13) | |
| Type of psoriasis | | | | | | | NS |
| Plaque | 1747 | 86.9 | 3537 | 87.9 | 2.34 | (0.52, 10.53) | |
| Guttate | 75 | 3.7 | 158 | 3.9 | 2.28 | (0.49, 10.67) | |
| Pustular | 26 | 1.3 | 55 | 1.4 | 1.78 | (0.35, 8.94) | |
| Erythrodermic | 63 | 3.1 | 59 | 1.5 | 3.78 | (0.78, 18.19) | |
| Flexural/Inverse | 4 | 0.2 | 18 | 0.4 | 1.00 | - | |
| BSA involved | | | | | | | <0.001 |
| ≤ 10% | 924 | 45.9 | 2481 | 61.6 | 1.00 | - | |
| > 10% | 543 | 27.0 | 547 | 13.6 | 2.20 | (1.88, 2.58) | |
| Face/Neck psoriasis | | | | | | | <0.001 |
| Lesion | 1144 | 56.9 | 1687 | 41.9 | 1.42 | (1.23, 1.64) | |
| No lesion | 791 | 39.3 | 2213 | 55.0 | 1.00 | - | |
| Face/Neck psoriasis severity grade | | | | | | | <0.001 |
| 1 | 912 | 79.7 | 1489 | 88.3 | 1.00 | - | |
| 2 | 202 | 17.7 | 181 | 10.7 | 1.82 | (1.47, 2.26) | |
| 3 | 30 | 2.6 | 17 | 1.0 | 2.88 | (1.58, 5.25) | |
| Nail involvement | | | | | | | NS |
| Yes | 1257 | 62.5 | 2470 | 61.4 | 0.98 | (0.84, 1.14) | |
| No | 716 | 35.6 | 1499 | 37.2 | 1.00 | - | |
| Joint disease | | | | | | | <0.001 |
| Yes | 390 | 19.4 | 578 | 14.4 | 1.47 | (1.23, 1.76) | |
| No | 1575 | 78.3 | 3383 | 84.0 | 1.00 | - | |
| Systemic therapy | | | | | | | NS |
| Yes | 549 | 27.3 | 940 | 23.3 | 1.13 | (0.95, 1.34) | |
| No | 1406 | 69.9 | 2993 | 74.3 | 1.00 | - | |

^aResult was based on available information. Missing cases were excluded.

Adj. OR = Adjusted odds ratio; NS = Not significant

^aEnter method was applied

Multicollinearity was checked and not found

Hosmer-Lemeshow test (p=0.896), classification table (overall correctly classified percentage=70.6%) and area under the ROC curve (70.8%) were applied to check the model fitness

Table 1 Predictive Factors of Higher Mortality in Patients with Psoriasis

DISCUSSION

Psoriasis is a chronic disease that has a significant negative impact on patients' health related quality of life (HRQoL). In a survey by the National Psoriasis Foundation, almost 75% of patients believed that psoriasis had moderate to large negative impact on their quality of life (QoL). Psoriasis has also been linked to depression and suicidal tendencies in the patients. The physical and emotional effects of psoriasis were found to have a significant negative impact at patients' workplace, resulting in absenteeism from work. The costs associated with reduction in the quality of life, lost of productivity, and work absenteeism may be enormous, increasing overall costs associated with the disease management.

Patients with psoriasis suffer comparable disability as other patients with chronic illnesses. Various factors may be attributed to the lower QoL in psoriasis patients. The chronic and recurring nature of this disease often brings about a feeling of hopelessness in terms of cure for the condition. Lack of control of the disease is also one of the most bothersome aspects in patients with psoriasis.

In one qualitative study carried out to assess the determinants of QoL in the US population with psoriasis, body surface area showed the strongest association with decrements in QoL, among other factors including patients' age, gender, income, duration of psoriasis, and number of physicians seen in last two years. Our study showed five factors were related to higher DLQI, namely ethnicity (Malay and Indian patients), severe psoriasis (BSA>10%), psoriasis involving the face, severity of facial psoriasis Grade 2&3 and presence of arthropathy. In patients with arthropathy, morning stiffness >30 minutes, joint pain and spondylitis/sacroiliitis were the predictor factors of higher DLQI scores.

CONCLUSION

Malay & Indian ethnic group, severe psoriasis, face involvement, severity Grade 2&3 face psoriasis and arthropathy were the predictor factors of DLQI >10 in adult patients with psoriasis in Malaysia.

Pharmacological interventions, along with patient counseling and education may be an effective strategy to improve QoL among psoriasis patients.

CONFLICT OF INTEREST & ACKNOWLEDGEMENT

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