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# Health-related quality of life of patients with psoriasis: A pilot study in Vietnam

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## ABSTRACT

**Background:** Psoriasis is a chronic proliferative skin inflammation associated with an immune-allergic mechanism. Long-term treatment regimen and abnormal recurrences may negatively affect the patients' health-related quality of life (HR-QoL). In Vietnam, the HR-QoL of patients with psoriasis has not been fully and comprehensively researched. **Objective:** Evaluation of HR-QoL of patients with psoriasis and its related factors. **Methods:** Cross-sectional descriptive study was conducted using the structured 3-part questionnaire, including socio-demographic and clinical characteristics, Dermatology Life Quality Index (DLQI) and visual analogue scale (VAS). Patients with psoriasis treated at Ho Chi Minh City Hospital of Dermato Venereology and satisfying inclusion, exclusion criteria were chosen in the study. Face-to-face interview with patients has been conducted from January to March of 2018. Analyzing related factors was performed with relevant statistical tests using 95% confidence interval by SPSS software. **Results:** Study sample including 310 patients treated at Ho Chi Minh City Hospital of Dermato Venereology with the average age of  $48.84 \pm 16.27$  years and 58.39% male. The mean DLQI score was  $6.92 \pm 3.89$  points. Among 6 dimensions of QoL, symptoms and feeling dimension were affected by psoriasis most with the score of  $2.99 \pm 1.33$  (moderate level), followed by treatment dimension ( $1.77 \pm 1.24$ ). Age, living place, occupation, and marital status were related factors to the overall DLQI scores. **Limitations:** The study did not clarify the relationship of pathological factors with HR-QoL of psoriasis patients. **Conclusion:** Psoriasis had moderate effect on Vietnamese patient's HR-QoL. Age, living place, occupation, marital status are related factors on the HR-QoL impairment of psoriasis.

**Keywords:** psoriasis, health-related quality of life, Dermatology Life Quality Index, HCMC Hospital of Dermato Venereology

## 1. INTRODUCTION

Psoriasis is a chronic proliferative skin inflammation with prevalence ranging from 0.6% to 4.8% in the world [1]. Psoriasis affects not only aesthetics, mentality, but also living and working capacity [2]. Those were causes of social stigmatization, pain, discomfort, physical disability and psychological distress [3]. The survey from National Psoriasis Foundation reveals that psoriasis had been affected negatively on HR-QoL of 79% severe patients [4]. Patients with psoriasis were more likely to be depressed than the general population with patients' age, education and disease severity being important predictors of psychological distress in the patient cohort [5, 6]. According to study of Gupta et

al. [7], there were 9.7% of patients reported that they wished to be dead, and 5.5% reported active suicidal ideation at the time of the study among 127 patients with psoriasis.

To assess HR-QoL of psoriasis patients, many scales have been used, including psoriasis-specific, skin specific, general HR-QoL, and "mixed" scales [8]. Among those scales, the Dermatology Life Quality Index (DLQI), the SF-36 and EQ-5D are most frequently used. DLQI has been used in many studies to estimate the HR-QoL of patients with psoriasis such as Amira A. Eid and Heba M. Elweshahi [9], Eliseo Martenez-Garceia et al. [10],

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Al Raddadi et al. [11], Mork et al. [12], Sampogna et al. [13], ... The results of these studies revealed that psoriasis had affected HR-QoL of patients from moderate to very high level.

The impact of psoriasis on HR-QoL of patients has not been fully and comprehensively studied in Vietnam. Therefore, the aim of this study is to evaluate the impact of psoriasis on HR-QoL and related factors on HR-QoL impairment of Vietnamese patients with psoriasis, using DLQI scale.

**2. METHODS**

**2.1. Study design**

A cross-sectional descriptive study was performed with data collected from interviewing psoriasis

patients at Hochiminh city (HCMC) Hospital of Dermato Venerology by structured questionnaire.

**2.2. Study sample**

All psoriasis outpatients came to treat at HCMC Hospital of Dermato Venerology from January to March of 2018, satisfying the inclusion and exclusion criteria (Table 1) were interviewed orally and individually after understanding the aims of the study and accepting to participate in research. Selected patients were given time to read the consensus on research and sign the consensus if agree to participate in research. After that, a face-to-face interview took approximately 15-20 minutes each. Other necessary data of patients were retrieved from patients' records.

**Table 1.**The inclusion and exclusion criteria

Inclusion criteria	Exclusion criteria
<ul style="list-style-type: none"> <li>- Patients with psoriasis were treated at HCMC Hospital of DermatoVenerology</li> <li>- Patients agree to participate in the research</li> <li>- Patients have ability to read, write and answer all questions in the survey questionnaire</li> </ul>	<ul style="list-style-type: none"> <li>- Patients are not able to communicate in Vietnamese</li> <li>- Patients do not complete the survey questionnaire.</li> </ul>

**2.3. Measuring instruments**

Questionnaire was structured in 3 parts, including: Socio-demographic and clinical informations (age, living place, academic level, marital status, occupation, disease detection time, treatment time), DLQI scale and VAS.

The DLQI is a compact self-reported questionnaire to measure HR-QoL over the previous week in patients with psoriasis. It consists of 10 questions covering 6 dimensions of HR-QoL, including symptoms and feelings (question 1 and 2), daily activities (question 3 and 4), leisure (question 5 and 6), work and school (question 7), personal relationships (question 8 and 9) and treatment (question 10). Each question is scored on a four-point scale with higher scores indicating greater impairment in HR-QoL [14]. In detail, 3 scored for “very much”, 2 – “a lot”, 1 – “a little”, 0- not at all, not relevant or unanswered question. The DLQI is calculated by adding the score of each question. The maximum score is 30 and the minimum is 0. The higher the score, the more quality of life is impaired. Meaning of DLQI Scores as follows: score of 0 to 1 means “no effect at all on patient's life”, 2- 5 – “small effect on patient's life”, 6-10 – “moderate effect on patient's life”, 11-20 – “very

large effect on patient's life”, 21-30 – “extremely large effect on patient's life” [15].

VAS is a scale for patient to self-rate their health from a 0– 100 unit 'thermometer-type' scale with 100 representing “the best health you can imagine” and 0 – “the worst health you can imagine” [16]. Then, interviewer confirmed once again about patient's current health point by repeating the question and recording it in numbers to ensure accuracy.

**2.4. Statistical analysis**

Collected data was coded and transferred into a specially designed format to be suitable for the IBM SPSS 20.0 software. Describing and summarizing variables were presented by frequency and percentages or mean and standard deviation. Analyzing related factors was performed with relevant statistical tests with the 95% confidence intervals.

**3. RESULTS AND DISCUSSION**

**3.1. RESULTS**

**3.1.1. Socio-demographic and clinical characteristics of study sample**

The demographic and pathological characteristics

of 310 participants are shown in Table 2.

According to Table 2, the men: women ratio was 1.40:1 with average age of  $48.84 \pm 16.27$  years. Among those, 85.8% of patients were married, 12.6% were single and the rest (1.6%) were divorced. According to living place, 68.4% were living in Ho Chi Minh City and 31.6% were from other cities or provinces. A half of patients were

under high school (52.6%), 35.2% graduated high school and the rest (12.3%) had university or college diploma. According to occupation, nearly half of patients were unemployed (45.2%), 34.5% had manual work, 14.5% retired, 4.8% had intellectual work and 1.0% had other works (freelance, part-time job). The mean detecting disease duration was  $11.51 \pm 9.82$  years and mean of treatment duration was  $9.69 \pm 8.87$  years.

**Table 2.** Demographic and pathological characteristics of the participants

Characteristics/Gender		Total	Male	Female
Living place	HCMC	212 (68.4%)	117 (64.6%)	95 (73.6%)
	Other provinces/cities	98 (31.6%)	64 (35.4%)	34 (26.4%)
Academic level	Under high school	163 (52.6%)	89 (49.2%)	74 (57.4%)
	High school	109 (35.2%)	67 (37.0%)	42 (32.6%)
	University/College	38 (12.3%)	25 (13.8%)	13 (10.1%)
Marital status	Single	39 (12.6%)	26 (14.4%)	13 (10.1%)
	Married	266 (85.8%)	151 (83.4%)	115 (89.1%)
	Divorced	5 (1.6%)	4 (2.2%)	1 (0.8%)
Occupation	Intellectual work	15 (4.8%)	23 (12.7%)	14 (10.9%)
	Manual work	107 (34.5%)	37 (20.4%)	72 (55.8%)
	Unemployed	140 (45.2%)	24 (13.3%)	2 (1.6%)
	Retired	45 (14.5%)	35 (19.3%)	26 (20.2%)
	Others	3 (1.0%)	62 (34.3%)	15 (11.6%)
Age (years)		$48.84 \pm 16.27$	$48.67 \pm 15.71$	$49.06 \pm 17.01$
Detection time (years)		$11.51 \pm 9.82$	$10.75 \pm 9.35$	$12.58 \pm 10.39$
Treatment time (years)		$9.69 \pm 8.87$	$8.98 \pm 8.40$	$10.68 \pm 9.43$

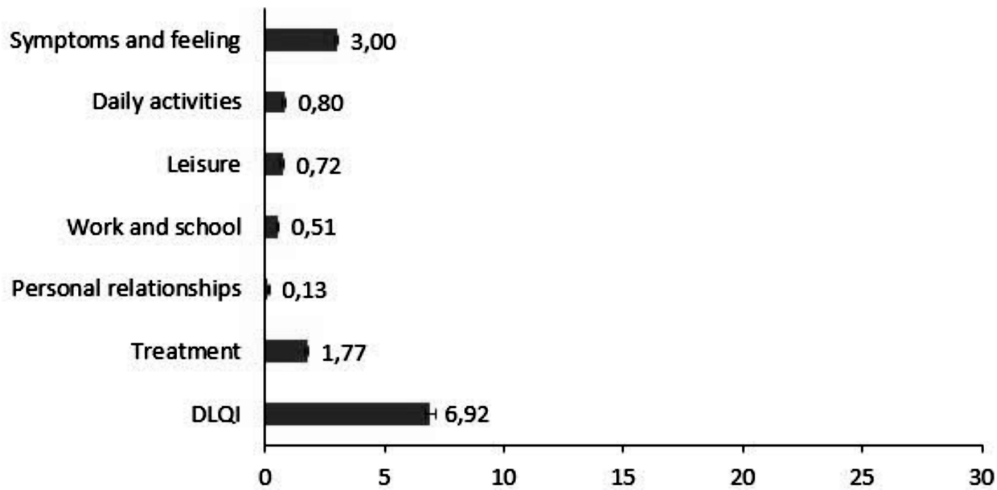
**3.1.2. Impact of psoriasis on health-related quality of life of patients with psoriasis**

The influence of psoriasis on HR-QoL of 310 patients was estimated by DLQI and presented in Table 3. DLQI scores in the studied patients ranged from 1 to 25, with a mean of  $6.93 \pm 3.88$ . It is indicated that psoriasis had moderate impact on HR-QoL of patients. In male patients, the overall mean DLQI scores ranged from 1-21 and valued at  $6.59 \pm 3.72$ , whereas in female patients they

ranged from 1-25 and valued at  $7.40 \pm 4.06$ . Psoriasis had affected moderately on half of patients (43.6% male and 47.3% female). Among 310 surveyed patients with psoriasis, 34.5% claimed that psoriasis had small effect on their HR-QoL, 45.2% of the patients had moderate effect and 14.5% of the patients had very large effect. Details of the DLQI scores, subscores, the interpretation of the overall DLQI scores were presented in Table 3.

**Table 3.** The influence structure of psoriasis on HR-QoL

	Total (n=310)	Male (n=181)	Female (n=129)
Mean DLQI	$6.93 \pm 3.88$	$6.59 \pm 3.72$	$7.40 \pm 4.06$
Range DLQI	1-25	1-21	1-25
DLQI interpretation	n(%)	n(%)	n(%)
No effect	15 (4.8)	11 (6.1)	4 (3.1)
Small effect	107 (34.5)	66 (36.5)	41 (31.8)
Moderate effect	140 (45.2)	79 (43.6)	61 (47.3)
Very large effect	45 (14.5)	24 (13.3)	21 (16.3)
Extremely large effect	3 (1.0)	1 (0.6)	2 (1.6)



**Figure 1.** The level of psoriatic patients affects the QoL of patients in six aspects

The level of psoriasis affects the HR-QoL of patients in six dimensions and the mean DLQI score were presented in Figure 1.

According to Figure 1, among 6 dimensions of HR-QoL, symptoms and feeling dimension has been affected by psoriasis most with the score of  $2.99 \pm 1.33$  (moderate level), followed by treatment dimension ( $1.77 \pm 1.24$ ). Other dimensions have

very low impact with the score under 1.

The HR-QoL of 310 patients with psoriasis estimated by VAS was presented in Table 4.

According to Table 4, the HR-QoL mean of patients with psoriasis estimated by VAS was  $0.773 \pm 0.124$  and ranged from 0.400 to 1.000. The HR-QoL median was 0.800 (0.700 – 0.900), which stated that 75% of patients had over 0.700.

**Table 4.** HR-QoL of 310 patients with psoriasis estimated by visual analog scale

Mean	Std. Deviation	Minimum	Maximum	Percentiles		
				25	50	75
0.773	0.124	0.400	1.000	0.700	0.800	0.900

**3.2. Related factors on DLQI score of patients with psoriasis**

**3.2.1. Impact of living place on Dermatology Life Quality Index**

This study noted that there was a statistically significant difference between patients living in HCMC and other provinces/cities in overall DLQI scores (with mean rank 139.00 compared to 191.18;  $p=0.000$ ), symptoms and feelings (142.56 vs 183.48;  $p=0.000$ ), daily activities (147.76 vs 172.25;  $p=0.013$ ), leisure (144.91 vs 178.41;  $p=0.001$ ) and treatment (147.07 vs 173.74;  $p=0.010$ ). The higher mean rank, the higher DLQI scores. Both male and female showed statistically significant differences between living place in the overall DLQI scores, leisure, symptoms and feelings dimensions. More information was presented in Table 5.

**3.2.2. Impact of academic level on Dermatology Life Quality Index**

Academic level had no impact on the overall DLQI

scores and 5 dimensions of HR-QoL, except for work and school dimension ( $p=0.013$ ); in which, the group of patients had university/college degrees tended to have the highest DLQI (mean rank was 177.86 compared to 143.94 – under high school and 164.99 – high school). In male patients, academic level had no effect on overall DLQI scores and individual subscores of 6 items of the questionnaire. In female patients, the overall DLQI scores and 2 subscores (including daily activities, work and school) were affected by academic level (Table 5).

**3.2.3. Impact of marital status on Dermatology Life Quality Index**

The mean rank of married group was totally lower than other groups with mean rank 148.46 compared to 190.40 – divorced and 199.01 – single; that difference was significant with  $p=0.003$ . Furthermore, the study found that there

were statistically significant differences between the scores of personal relationships dimension, treatment dimension and marital status in total patients and group of male patients (Table 5). Meanwhile, leisure, work and school were 2 dimensions that were affected by marital status in female patients (p=0.038 and 0.008, respectively).

**3.2.4. Impact of occupational status on Dermatology Life Quality Index**

Group of intellectual and manual work had the higher DLQI mean rank than other groups (196.24

and 170.91, respectively; compared to 117.65 – Unemployed and 110.49 - retired). This difference was statistical significant with p=0.000. Moreover, this study noted that occupational status had effect on the overall DLQI scores in group of male patients and group of female patients with intellectual work had the highest DLQI mean rank (115.48; p=0.000 and 81.79; p=0.016, respectively). Both male and female illustrated statistically significant differences between occupational status and two dimensions subscores (daily activities and leisure) (Table 5).

**Table 5.** Qualitative impact factors on HR-QoL of patients with psoriasis

			DLQI		Symptom and feeling		Daily activities		Leisure		Work and school		Personal relationships		Treatment	
			Mean Rank	p-value	Mean Rank	p-value	Mean Rank	p-value	Mean Rank	p-value	Mean Rank	p-value	Mean Rank	p-value	Mean Rank	p-value
Living place	Male	HCMC	79.2	0.000	81.72	0.001	84.21	0.007	84.07	0.008	87.66	0.185	91.8	0.547	84.76	0.022
		Others	112.58		107.97		103.42		103.67		97.11		89.53		102.41	
	Female	HCMC	59.48	0.005	59.96	0.009	63.18	0.319	61.52	0.050	63.9	0.486	65.96	0.351	62.3	0.144
		Others	80.41		79.07		70.09		74.74		68.07		62.32		72.54	
	Total	HCMC	139	0.000	142.56	0.000	147.76	0.013	144.91	0.001	150.57	0.093	157.41	0.258	147.07	0.010
		Others	191.18		183.48		172.25		178.41		166.16		151.36		173.74	
Academic level	Male	Under high school	91.66	0.766	94.19	0.381	91.47	0.357	88.84	0.608	86.89	0.494	93.12	0.494	94.21	0.220
		High school	88		91.53		86.36		90.66		94.73		89.38		83.14	
		University/ College	96.68		78.22		101.76		99.62		95.62		87.8		100.64	
	Female	Under high school	56.86	0.009	62.36	0.628	56.39	0.003	60.42	0.201	58.5	0.006	62.87	0.201	61.77	0.382
		High school	73.02		68.14		74.02		71.26		70.55		66.3		67.58	
		University/ College	85.38		69.85		84.85		70.85		84.08		72.92		75.04	
	Total	Under high school	148.16	0.180	156.87	0.590	147.13	0.051	148.25	0.212	143.94	0.013	155.29	0.919	155.43	0.289
		High school	159.08		158.17		158.85		161.09		164.99		154.88		149.11	
		University/ College	176.72		141.95		181.78		170.58		177.86		158.2		174.13	
Marital status	Male	Single	114.69	0.017	106.94	0.172	93.75	0.220	96.83	0.595	122.54	0.001	87.4	0.004	109.06	0.106
		Married	86.09		87.83		89.51		89.54		85.71		90.59		87.55	
		Divorced	122.38		106.88		129.38		108.13		85.88		129.88		103.75	
	Female	Single	87.73	0.065	74.77	0.225	84.12	0.097	86.46	0.038	89.04	0.008	63.31	0.893	58.46	0.311
		Married	62.53		63.47		62.7		62.83		62.45		65.25		66.14	
		Divorced	53		114.5		81		35		46		58.5		18.5	
	Total	Single	199.01	0.003	178.18	0.133	172.36	0.092	180.32	0.119	212.06	0.000	149.74	0.031	169.96	0.514
		Married	148.46		151.5		151.94		151.68		147.46		155.42		153.52	
		Divorced	190.4		191.4		213.3		165		141.8		204.7		148.3	
Occupation	Male	Intellectual work	115.48	0.000	91.83	0.160	103.02	0.018	108.28	0.183	105.33	0.000	88.13	0.469	112.02	0.000
		Manual work	112.38		105.78		107.96		99.26		106.95		91.18		102.93	

			DLQI		Symptom and feeling		Daily activities		Leisure		Work and school		Personal relationships		Treatment	
Occupation	Male	Un-employed	71.04	0.000	96.25	0.160	74.08	0.018	90.25	0.183	72.81	0.000	99.38	0.469	61.5	0.000
		Retired	62.29		76		80.23		84.43		64.63		89.06		65	
		Others	93.1		88.31		89.05		83.66		98.1		89.81		102.18	
	Female	Intellectual work	81.79	0.016	60.11	0.608	81.96	0.016	72.21	0.112	82.82	0.002	67.43	0.934	79.75	0.205
		Manual work	64.08		64.91		63.14		66.39		62.43		64.85		66.08	
		Un-employed	70.5		101.25		32		103.5		46		58.5		37.5	
		Retired	47.67		62.08		53.33		51.92		52.63		63.31		55.06	
		Others	83.03		70.23		82.73		69.13		84.67		67.23		66.93	
	Total	Intellectual work	196.24	0.000	149.09	0.094	183.42	0.002	180.49	0.077	187.16	0.000	154.55	0.718	191.18	0.000
		Manual work	170.91		173.12		167.16		160.69		156.69		156.26		166.18	
		Un-employed	117.65		158.15		116.62		164.29		128.98		166.23		101.04	
		Retired	110.49		137.8		133.25		135.25		116.66		151.9		119.89	
		Others	162.55		146.75		156.34		149.22		178.32		154.1		169.84	

**3.2.5. Impact of age on Dermatology Life Quality Index**

In the studied patients, age was negatively correlated with the overall DLQI scores ( $r_s = -0.276$ ,  $p = 0.000$ ), DLQI subscores in daily activities ( $r_s = -0.146$ ,  $p = 0.010$ ), leisure ( $r_s = -0.115$ ,  $p = 0.043$ ), work and school ( $r_s = -0.295$ ,  $p = 0.000$ ) and treatment ( $r_s = -0.253$ ,  $p = 0.000$ ). In both male and female patients, age showed a significantly negative correlation with overall DLQI scores ( $p = 0.002$  and  $0.000$ , respectively), work and school ( $p = 0.000$  and  $0.000$ , respectively) and treatment ( $p = 0.000$  and  $0.0005$ , respectively). Furthermore, daily activities and leisure were 2 dimensions that

were impacted negatively by age in female patients ( $p = 0.001$  and  $0.0012$ , respectively) (Table 6).

**3.2.6. Impact of detection time and treatment time on Dermatology Life Quality Index**

The mean detection time and treatment time in studied patients was  $11.51 \pm 9.82$  years and  $9.69 \pm 8.87$  years respectively. They did not show any significant correlation with the overall DLQI scores and individual subscores of six items in all studied patients, both groups male and female patients. More detail about the p-values of Spearman correlation tests were illustrated in Table 6.

**Table 6.** Quantitative related factors on HR-QoL of patients with psoriasis

	Age			Detection time			Treatment time			Utility estimated by VAS		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
<b>DLQI</b>												
$r_s$	-0.230	-0.355	-0.276	-0.086	-0.034	-0.056	-0.008	-0.032	-0.006	-0.184	-0.011	-0.276
p-value	0.002	0.000	0.000	0.250	0.700	0.323	0.911	0.717	0.919	0.013	0.898	0.000
<b>Symptoms and feeling</b>												
$r_s$	-0.040	-0.049	-0.046	-0.007	-0.039	-0.01	0.083	-0.045	0.046	-0.068	-0.218	-0.140
p-value	0.589	0.581	0.423	0.927	0.661	0.867	0.268	0.615	0.423	0.364	0.013	0.013
<b>Daily activities</b>												
$r_s$	-0.046	-0.285	-0.146	-0.043	0.087	0.020	0.020	0.093	0.062	-0.137	0.019	-0.081
p-value	0.538	0.001	0.010	0.569	0.328	0.725	0.789	0.293	0.279	0.066	0.834	0.156

	Age			Detection time			Treatment time			Utility estimated by VAS		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
<b>Leisure</b>												
$r_s$	-0.042	-0.221	-0.115	-0.108	0.155	0.003	0.012	0.086	0.042	-0.248	0.019	-0.133
p-value	0.571	0.012	0.043	0.147	0.079	0.958	0.876	0.331	0.457	0.001	0.830	0.019
<b>Work and school</b>												
$r_s$	-0.285	-0.316	-0.295	-0.129	0.039	-0.068	-0.093	-0.001	-0.066	-0.009	0.122	0.051
p-value	0.000	0.000	0.000	0.083	0.663	0.232	0.212	0.995	0.244	0.903	0.170	0.375
<b>Personal relationships</b>												
$r_s$	0.020	-0.152	-0.052	0.029	0.131	0.077	-0.001	0.152	0.076	-0.135	-0.081	-0.112
p-value	0.791	0.086	0.360	0.701	0.14	0.175	0.993	0.085	0.183	0.069	0.360	0.048
<b>Treatment</b>												
$r_s$	-0.262	-0.247	-0.253	-0.008	-0.158	-0.067	0.001	-0.131	-0.047	-0.073	0.158	0.022
p-value	0.000	0.005	0.000	0.915	0.074	0.241	0.993	0.139	0.406	0.332	0.074	0.697

**3.2.7. Impact of HR-QoL score on Dermatology Life Quality Index**

The study found that there was a negative correlation between total DLQI score and HR-QoL estimated by VAS with  $r_s = -0.276$ ,  $p = 0.000$ . In male patients, the decreasing in overall DLQI scores and leisure scores were associated with the increasing HR-QoL. However, in group of female patients, symptoms and feeling was the only dimension that had association with the rise of HR-QoL estimated by VAS.

**4. DISCUSSION**

Psoriasis has negative effect on different aspects of patients' HR-QoL. Psoriasis not only affects the skin, but also complicates bone and joints, even affecting negatively more than other serious illnesses.[17] In recent study, the proportion of patients affected from the lowest (no effect) to the highest level (extremely large effect) were 4.84%, 34.52%, 45.16%, 14.52%, and 0.97%, respectively. However, there was a difference in the effect structure of psoriasis on HR-QoL. It has been found in the study that the overall DLQI scored  $6.93 \pm 3.88$  points with range from 1.00 to 25.00 points. According to research by Amira A. Eid and Heba M. Elweshahi [9], the overall DLQI scores varied from 1.00 to 26.00 scores. In which, 0.70% of patients with psoriasis were not affected on their HR-QoL; 10.60% of patients were affected at small level and 28.10% were affected at moderate level; 54.00% at very large effect and 6.6% at extremely large effect. Therefore, HR-QoL of patients with psoriasis treated at HCMC Hospital of Dermato

Venerology were totally higher than Egyptian patients.

On the other hand, female patients had the mean DLQI score higher than that of male, which was similar to other studies[12, 13]. It can be explained that women were more concerned about their appearance, therefore, skin diseases had more negative effect on their HR-QoL[18].

In recent study, married patients had statistically significantly lower DLQI score than unmarried patients. This is in accordance with the findings of Zachariae R et al. [19]. According to the result of study of Amira A. Eid et al. [9], HR-QoL impairment detected was lower in married than in unmarried patients, but that difference was not significant. According to previous report Bhatti Z et al. [20], the increase in the severity of psoriasis may affect marriage decision of unmarried patients. This could be explained by the fact that unmarried patients were more likely to be embarrassed or self-conscious because of their skin, be afraid of disease inheritance to children or be the economic burden of their family.

This study found that occupational status had influence on the overall DLQI scores of patients. This finding was opposed to the previous study in Egypt which concluded that occupational status had no effect on HR-QoL of patients with psoriasis [9]. In fact, intellectual and manual work require patients working stressfully while work-related stress is one of psoriasis risk factors.

This study showed that age was negatively correlated with the overall DLQI scores. This

finding is in contrast to previous report of Mørk C et al. [12], which had reported that HR-QoL decreased with increasing age; and similar to Sampogna et al. research [13], which had discovered that the total DLQI scores of female patients over age 65 was higher. The finding of current study is accordance with the findings of McKenna KE et al. [21] The reason may be that older patients were in the age of retirement or had less workload, therefore, they have more time to enjoy their lives and hobbies. In addition, older patients had more detection and treatment time, thus patients had adapted and were socially sympathetic.

Moreover, in this study, younger ages were associated with higher HR-QoL impairment. This is similar to the findings of Krueger G et al. [4] which reported greater HR-QoL impairment and psychological impact of psoriasis in younger patients. This could be explained by the fact that psoriasis leads young patients to embarrassment and self-consciousness in schoolwork environment. Furthermore, follow-up examination loses the time of patients who were in working age. Furthermore, this study claimed that retired patients had higher HR-QoL. It is maybe because with these patients psoriasis did not influence on their working and time.

In this study, the overall DLQI scores in this study was impacted by age, living place, occupation and marital status, there was no relationship between

disease duration and HR-QoL. Similarly, Fortune et al. [22] reported that there was no correlation between disease duration and HR-QoL indexes. However, according to Gelfand et al. [23] extent of skin involvement was the most important factors which reducing HR-QoL. Based on the study of Lee et al. [24], HR-QoL of patient was low in case of prolonged disease duration.

This study had some limitations. Firstly, this study did not evaluate the impact of treatment intervention to the HR-QoL impairment due to the limitation in accessing treatment data in Vietnam. Secondly, the study did not compare the HR-QoL impairment before and after treatment due to the limitation of study duration with the long-term duration of disease treatment. These limitations should be considered in future research on related topics, particularly regarding the importance of patient counseling and education, and how better disease control through proper drug treatment (with fewer side effects) may contribute to an improved quality of life (QoL).

## 5. CONCLUSIONS

The mean DLQI score of patients with psoriasis treated at HCMC Hospital of Dermato Venerology was  $6.92 \pm 3.89$  scores, therefore, psoriasis had moderate effect on patient's life. There were some related factors to DLQI score of patients including age, living place, occupation, marital status and health-related quality of life of patients.

## REFERENCES

- [1] S. K. Kurd, Richardson, S. K. and Gelfand, J. M., "Update on the epidemiology and systemic treatment of psoriasis," (in z), *Expert review of clinical immunology*, vol. 3, no. 2, pp. 171-185, 2007.
- [2] D. W. Miller and Feldman, S. R. , "Cost-effectiveness of moderate-to-severe psoriasis treatment," (in y), *Expert opinion on pharmacotherapy*, vol. 7, no. 2, pp. 157-167, 2006.
- [3] D. G. Fortune, Richards, H. L. and Griffiths, C. E. , "Psychologic factors in psoriasis: Consequences, mechanisms, and interventions," (in x), *Dermatologic clinics*, vol. 23, no. 4, pp. 681-694, 2005.
- [4] G. Krueger, Koo, J., Lebwohl,... and Rolstad, T. , "The impact of psoriasis on quality of life: Results of a 1998 National Psoriasis Foundation patient-membership survey," (in w), *Archives of Dermatology*, vol. 137, no. 3, pp. 280-284, 2001.
- [5] H. Devrimci-Ozguven, Kundakci, ... and Boyvat, A. , "The depression, anxiety, life satisfaction and affective expression levels in psoriasis patients," (in v), *Journal of the European Academy of dermatology and venereology*, vol. 14, no. 4, pp. 267-271, 2000.
- [6] M. Esposito, Saraceno, R.,... and Chimenti, S. , "An Italian study on psoriasis and depression.," (in u), *Dermatology*, vol. 212, no. 2, pp. 123-127, 2006.
- [7] M. A. Gupta, Schork, N. J.,... and Ellis, C. N. , "Suicidal ideation in psoriasis," (in t), *International journal of*



*dermatology*, vol. 32, no. 3, pp. 188-190, 1993.

[8] M. J. Bhosle, Kulkarni,... and Balkrishnan, R. , "Quality of life in patients with psoriasis," (in r), *Health and quality of life outcomes*, vol. 4, no. 1, p. 35, 2006.

[9] A. A. Eid and Elweshahi, H. M. , "Quality of life of Egyptian patients with psoriasis: a hospitalbased cross-sectional survey," (in q), *Egyptian Journal of Dermatology and Venerology*, vol. 36, no. 1, p. 11, 2016.

[10] E. Martínez-García, Arias-Santiago,... and Buendía-Eisman, A., "Quality of life in persons living with psoriasis patients," (in p), *Journal of the American Academy of Dermatology*, vol. 71, no. 2, pp. 302-307, 2014.

[11] A. Al Raddadi, Jfri, A.,... and Mahdi, A. , "Psoriasis: Correlation between severity index (PASI) and quality of life index (DLQI) based on the type of treatment," (in o), *Journal of Dermatology & Dermatologic Surgery*, vol. 20, no. 1, pp. 15-18, 2016.

[12] C. Mørk, Wahl, A. and Moum, T., "The Norwegian version of the dermatology life quality index: A study of validity and reliability in psoriatics," (in n), *Acta dermato-venereologica*, vol. 82, no. 5, 2002.

[13] F. Sampogna, Chren, M. M.,... and Italian Multipurpose Psoriasis Research on Vital Experiences (Improve) Study Group. , "Age, gender, quality of life and psychological distress in patients hospitalized with psoriasis," (in m), *British journal of dermatology*, vol. 154, no. 2, pp. 325-331, 2006.

[14] E. Mazzotti, Barbaranelli,... and Pasquini, P. , "Psychometric properties of the Dermatology Life Quality Index (DLQI) in 900 Italian patients with psoriasis," (in l), *Acta dermato- venereologica*, vol. 85, no. 5, 2005.

[15] M. K. A. Basra, M. S. Salek,... and A. Y. Finlay, "Conceptualization, development and validation of T-QoL© (Teenagers' Quality of Life): a patient-focused measure to assess quality of life of adolescents with skin diseases," *British Journal of Dermatology*, vol. 178, no. 1, pp. 161-175, 2018, doi: 10.1111/bjd.15853.

[16] S. J. Whitehead and S. Ali, "Health outcomes in economic evaluation: the QALY and utilities," *Br Med Bull*, vol. 96, pp. 5-21, 2010, doi: 10.1093/bmb/ldq033.

[17] G. Schmid-Ott, Schallmayer, S. and Calliess, I. T. , "Quality of life in patients with psoriasis andpsoriasis arthritis with a special focus on stigmatization experience," (in k), *Clinics in dermatology*, vol. 25, no. 6, pp. 547-554, 2007.

[18] D. A. Stowers and Durm, M. W. , "Does self-concept depend on body image? A gender analysis," (in j), *Psychological reports*, vol. 78, no. 2, pp. 643-646, 1996.

[19] R. Zachariae, Zachariae,...and Sigurgeirsson, B., "Quality of life in 6497 Nordic patients with psoriasis," (in i), *British Journal of Dermatology*, vol. 146, no. 6, pp. 1006-1016, 2002.

[20] Z. U. Bhatti, Salek, M. S. and Finlay, A. Y., "Chronic diseases influence major life changing decisions: a new domain in quality of life research," (in h), *Journal of the Royal Society of Medicine*, vol. 104, no. 6, pp. 241-250, 2011.

[21] K. E. McKenna and Stern, R. S., "The impact of psoriasis on the quality of life of patients from the 16-center PUVA follow-up cohort," (in g), *Journal of the American Academy of Dermatology*, vol. 36, no. 3, pp. 388-394, 1997.

[22] D. G. Fortune, Main, C. J.,... and Griffiths, C. E. M., "Quality of life in patients with psoriasis: the contribution of clinical variables and psoriasis-specific stress," (in f), *British Journal of Dermatology*, vol. 137, no. 5, pp. 755-760, 1997.

[23] J. M. Gelfand, Feldman, S. R., Stern,... and Margolis, D. J., "Determinants of quality of life in patients with psoriasis: A study from the US population," (in e), *Journal of the American Academy of Dermatology*, vol. 51, no. 5, pp. 704-708, 2004.

[24] Y. W. Lee, Park, E. J., Kwon,... and Kim, K. J., "Impact of psoriasis on quality of life: relationship between clinical response to therapy and change in health-related quality of life," (in d), *Annals of dermatology*, vol. 22, no. 4, pp. 389-396, 2010.

# Chất lượng cuộc sống liên quan đến sức khỏe của bệnh nhân vẩy nến: Nghiên cứu sơ bộ tại Việt Nam

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## TÓM TẮT

**Bối cảnh:** Bệnh vẩy nến là một viêm da mãn tính liên quan đến cơ chế miễn dịch dị ứng. Phác đồ điều trị dài hạn và các tái phát bất thường có thể ảnh hưởng tiêu cực đến chất lượng cuộc sống liên quan đến sức khỏe (HR-QoL) của bệnh nhân. Ở Việt Nam, chất lượng cuộc sống của bệnh nhân vẩy nến chưa được nghiên cứu đầy đủ và toàn diện. **Mục tiêu:** Đánh giá HR-QoL của bệnh nhân vẩy nến và các yếu tố liên quan. **Phương pháp:** Nghiên cứu mô tả cắt ngang được thực hiện bằng bảng câu hỏi cấu trúc gồm 3 phần, bao gồm các đặc điểm nhân khẩu học, lâm sàng, chỉ số chất lượng cuộc sống về da liễu (DLQI) và thang điểm thị giác (VAS). Các bệnh nhân điều trị tại Bệnh viện Da Liễu TP.HCM đáp ứng tiêu chí nghiên cứu đã được chọn. Phỏng vấn trực tiếp bệnh nhân từ tháng 1 đến tháng 3 năm 2018. Phân tích các yếu tố liên quan được thực hiện bằng các bài kiểm tra thống kê thích hợp với khoảng tin cậy 95% bằng phần mềm SPSS. **Kết quả:** Mẫu nghiên cứu gồm 310 bệnh nhân tại Bệnh viện Da Liễu TP.HCM với độ tuổi trung bình là  $48,84 \pm 16,27$  tuổi và 58,39% là nam giới. Điểm DLQI trung bình là  $6,92 \pm 3,89$ . Trong 6 khía cạnh của chất lượng cuộc sống, khía cạnh triệu chứng và cảm giác bị ảnh hưởng nhiều nhất với điểm số  $2,99 \pm 1,33$  (mức độ vừa phải), tiếp theo là khía cạnh điều trị ( $1,77 \pm 1,24$ ). Các yếu tố tuổi, nơi sống, nghề nghiệp và tình trạng hôn nhân có liên quan đến điểm số DLQI tổng thể. **Hạn chế:** Nghiên cứu chưa làm rõ mối quan hệ giữa các yếu tố bệnh lý và HR-QoL của bệnh nhân vẩy nến. **Kết luận:** Bệnh vẩy nến có tác động vừa phải đến HR-QoL của bệnh nhân Việt Nam. Tuổi, nơi sống, nghề nghiệp và tình trạng hôn nhân là những yếu tố liên quan đến sự suy giảm HR-QoL của bệnh nhân vẩy nến.

**Từ khóa:** vẩy nến, chất lượng cuộc sống liên quan đến sức khỏe, DLQI, Bệnh viện Da Liễu TP. HCM

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