

## Original Research Article

# Quality of life in patients with vitiligo

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**Received:** 03 March 2020

**Accepted:** 02 April 2020

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### ABSTRACT

**Background:** Vitiligo is an acquired disorder characterized by well circumscribed depigmented macules and patches that result from a progressive loss of functional melanocytes. In India and perhaps elsewhere also patients with vitiligo have severe psychological and social problems. Quality of life is multidimensional index of different social, behavioural and cultural factors. Different tools were developed for measuring quality of life focusing on different conditions and diseases. The dermatology life quality index (DLQI) questionnaire is designed for use in patients of age more than 16. It can be used to measure the impact of vitiligo on quality of life. To assess the dermatology specific quality of life in patients with vitiligo. To study impact of vitiligo on their quality of life.

**Methods:** In this study 150 patients diagnosed with vitiligo during a 1-year period were included. DLQI was calculated for every patient.

**Results:** The mean DLQI score in our study was 6.14. There was a statistically significant difference in mean DLQI of unmarried as compared to married. There were no statically significant differences in other groups. Out of 150 patients of vitiligo, 3 (2%) patients had no effect, 66 (44%) patients had small effect, 69 (46%) patients have moderate effect, while 12 (8%) patient had very large effect of vitiligo on their quality of life.

**Conclusions:** Vitiligo affects quality of life in majority of patients. So, it should be treated aggressively with various treatment modality along with proper counselling and psychological support.

**Keywords:** Vitiligo, DLQI, Quality of life

### INTRODUCTION

Vitiligo is an acquired disorder characterized by well circumscribed depigmented macules and patches that result from a progressive loss of functional melanocytes.<sup>1</sup> Few believed that the word 'vitiligo' is derived from the Latin word 'vitelius' meaning vale, i.e. pink pale flash of calf, since the clinical lesions resembled the white patches of spotted calf, while others think that it is derived from the word 'vitium' meaning blemish. Although Vitiligo affects all races worldwide, But the highest incidence of vitiligo is noted in India and Mexico.<sup>2</sup> Various factors play important role in pathogenesis of vitiligo like autoimmunity, dysregulated

immunity, genetic factors and environmental factors.<sup>3</sup> It is classified as mentioned in (Table 1).

In India, vitiligo is associated with higher stigma as depigmentation is much obvious in darker skin types. Vitiligo patients face many psychiatric morbidities like anxiety, depression, sleep disturbance etc. They have a lower self-esteem.<sup>4</sup> They feel difficulty in participating in various social events. Vitiligo can affect patient's quality of life.<sup>5</sup> Vitiligo is a chronic disease with unpredictable course and there is no uniformly effective treatment is available for it. These factors also contribute to impair quality of life in patients with vitiligo. Quality of life is multidimensional index of different social, behavioural and cultural factors.<sup>6</sup> There are many tools designed to

measure quality of life including general tools, disease specific tools and dermatology specific tools. Dermatology specific tools are the dermatology life quality index (DLQI), skindex and the dermatology quality of life scales (DQoLS).<sup>7</sup> DLQI is a simple tool for routine clinical use.<sup>8</sup> It contains simple 10 questions which are asked to patients. Each question is answered either ‘Very much’ (score 3), ‘A lot’ (score 2), ‘A little’ (score 1) or ‘Not at all’ (score 0).

**METHODS**

In our study, we included 150 patients aged more than 16 years diagnosed as vitiligo visiting the outpatient department of dermatology, venereology and leprosy, PDU Govt. Medical College and Hospital, Rajkot during year 2018-19. Patients personal data like age, sex, marital status, education was collected. History and clinical examination including type of vitiligo, stability of vitiligo, presence of facial lesion was performed and the dermatology life quality index questionnaire were asked to each patient.

According to answers given by patient, dermatology life quality index was calculated. DLQI score is interpreted as following: 0-1 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, and 21-30 extremely large effect on patient's life. Mean DLQI scores for different groups were calculated and compared by using unpaired t test.

**Table 1: Types of vitiligo.**

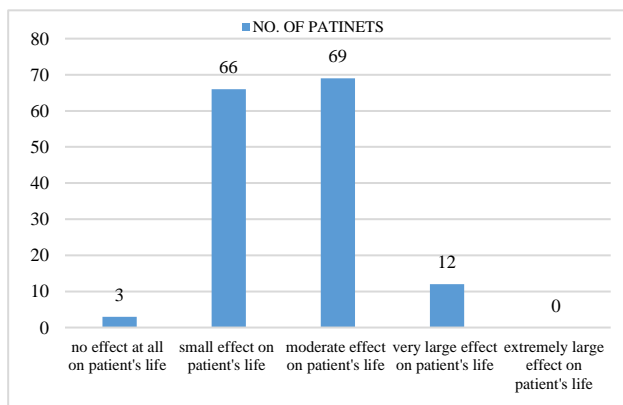
Localized	Focal
	Unilateral/segmental
Generalized	Mucosal
	Vulgaris
	Acrofacial
	Mixed
	Universal

**RESULTS**

Out of 150 patients of vitiligo, 3 (2%) patients felt no effect of vitiligo on their quality of life, 66 (44%) patients felt small effect of vitiligo on their quality of life, 69 (46%) patients felt moderate effect of vitiligo on their quality of life while 12 (8%) patient felt very large effect of vitiligo on their quality of life. None of the patients felt extremely large effect of vitiligo on their quality of life (Figure 1).

**Table 2: The mean DLQI of different groups with their SD and mean value.**

Demographic variable		No. of patients	Mean DLQI ±SD	SD	P value
Sex	Male	82	5.98	2.85	0.4729
	Female	68	6.34	3.33	
Marital status	Married	68	3.29	1.04	Less than 0.0001
	Unmarried	82	8.5	2	
Education	Literate	72	6.32	3.01	0.4931
	Illiterate	78	5.97	3.13	
Type of vitiligo	Generalized	101	6.1	2.93	0.8151
	Localized	49	6.22	3.36	
Stability of vitiligo	Stable	101	5.83	2.79	0.0771
	Unstable	49	6.78	3.53	
Facial involvement	Present	58	6.57	3.64	0.1747
	Absent	92	5.87	2.63	



**Figure 1: Interpretation of DLQI score.**

**The mean DLQI score**

The mean DLQI of different groups are given in (Table 2). The mean DLQI in unmarried patients was 8.5 as compared to 3.29 of married ones with p value less than 0.0001 suggesting statistically significant difference in mean DLQI of unmarried as compared to married patients. Hence marital status had great effect on quality of life in patients with vitiligo.

The mean DLQI was higher in female patients, patients with unstable vitiligo and with facial involvement as compared to male patients, patients with stable vitiligo and patients without facial involvement respectively. But the p value for these groups found was greater than 0.001.

Hence this difference in mean DLQI of these groups was not statistically significant. Other groups showed almost similar mean DLQI.

**DISCUSSION**

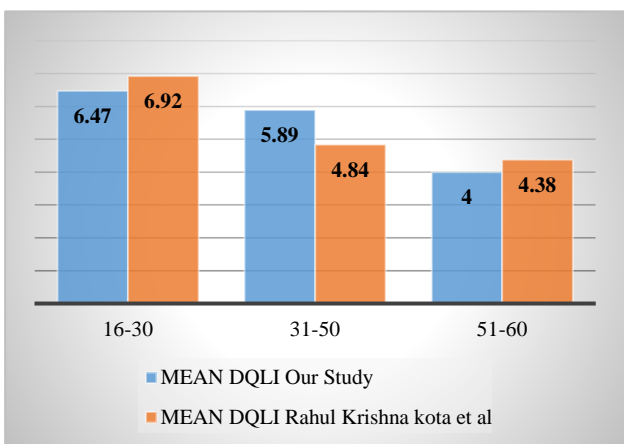
Several interesting observations have been made in our study. In our study mean DQLI was 6.14 which is almost similar to previous study done by Mishra et al (6.86) and lower than study done by Krishna et al (7.02) (Table 3).<sup>6,10</sup> In our study, mean age of patients was 30.16 years, which is almost similar to other studies done by Mishra et al (29.36) and Aghaei et al (28.3).<sup>6,9</sup>

Patients in age group of 16-30 years had highest mean DLQI (6.47) comparable to study done by Krishna et al (6.92) while patients in age group of >50 had lowest mean DLQI (4) (Figure 2).<sup>10</sup>

In our study there was a statistically significant difference in mean DLQI between married and unmarried while in previous study done by Mishra et al, there was no statistically significant difference between married and unmarried.<sup>6</sup> This finding may be due to social stigma for vitiligo in society as unmarried patients with vitiligo face more difficulty for getting married.

**Table 3: Comparison of mean DQLI with other study.**

Studies	Our study	Mishra et al <sup>6</sup>	Kota et al <sup>10</sup>
<b>Mean DLQI</b>	6.14	6.86	7.02



**Figure 2: Comparison of mean DLQI of different age group with other study.**

There was no statistically significant difference in mean DLQI score between male and female vitiligo patients, literate and illiterate vitiligo patients, localized and generalized vitiligo patients, stable and unstable vitiligo patients and vitiligo patients with facial involvement and without facial involvement. These findings are similar to previous study done by Mishra et al.<sup>6</sup>

**CONCLUSION**

To conclude, vitiligo carries significant stigmata in our society with associated psychological morbidities. It is not only a cosmetic problem for the patients, but also affects the social, behavioural and cultural aspects of patient’s life. Data that acquired from our study suggests majority of patients with vitiligo have moderate effect of vitiligo on their quality of life. Unmarried patients are affected more. So, vitiligo despite of a cosmetic problem, more aggressive attitude is required while treating vitiligo. Along with treatment, proper counselling and psychological support is must.

**ACKNOWLEDGEMENTS**

It gives me immense pleasure to be a part of D.V.L department of prestigious P.D.U Govt. Medical College and Hospital, Rajkot where this study was conducted. I am indebted to each and every person who were involved to make this study a success.

*Funding: No funding sources*

*Conflict of interest: None declared*

*Ethical approval: The study was approved by the institutional ethics committee*

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**Cite this article as:** Bhuptani NV, Parmar PJ, Selot NK, Patel BK. Quality of life in patients with vitiligo. *Int J Res Dermatol* 2020;6:388-91.