CODEN [USA]: IAJPBB ISSN : 2349-7750

INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES
SJIF Impact Factor: 7.187
http://doi.org/10.5281/zenodo.4319829

Avalable online at: http://www.iajps.com *Research Article*

STUDY TO DETERMINE THE EFFECT OF VITILIGO ON PATIENTS QUALITY OF LIFE

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Article Received: October 2020 **Accepted:** November 2020 **Published:** December 2020

Abstract:

Background:

Vitiligo has a significant impact on quality of life (QOL) in a society like ours with pigmented skin. The Dermatological Quality of Life Index (DLQI) is a simple and practical tool that can be used to study the impact of any disease on quality of life.

Aims: *To assess the impact of vitiligo on our patients' quality of life using DLQI and to associate the DLQI score with age, gender, marital status and sites of occurrence.*

Place and Duration: *In the Dermatology department of Mayo Hospital, Lahore for one-year duration from April 2019 to April 2020.*

Patients and methods: *100 patients (52 women and 48 men) with vitiligo were enrolled in the study. Using ten DLQI entries translated into Urdu, patients were asked to indicate how this had affected their lives during the previous week.*

Results: *The mean DLQI score was 9.56, ranging from 0 to 29. The difference between the mean DLQI score for men (8.17) and women (10.85) was statistically significant. Young women (n = 40) had a mean DLQI score of 11.2. Unmarried women (n = 16) had a greater impairment in quality of life (mean DLQI score = 8.28). Patients with exposed body parts assessed (mean DLQI score = 11.03) higher than patients with covered body disease.*

Conclusions: *Vitiligo has a greater effect on QOL in young and unmarried women with exposed body parts.*

Keywords: *Vitiligo, DLQI, quality of life.*

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Please cite this article in press Muneeb ul Hassan et al, ***Study To Determine The Effect Of Vitiligo On Patients Quality Of Life.,*** *Indo Am. J. P. Sci, 2020; 07(12).*

INTRODUCTION:

Vitiligo is a common pigmented disease characterized by white spots and spots. The worldwide prevalence of vitiligo is 2-3% in all races [1-2]. Although vitiligo causes mild physical impairment, it has a devastating effect on QOL. These patients suffer from low self-esteem, poor body image, feelings of stigma and guilt. In extreme cases, they were rejected by those around them, which led to severe depression and suicidal tendencies [3-4]. Since our race is pigmented, vitiligo can lead to a psychosocial disaster, especially with skin phototype IV [5-6]. Widespread prejudice, ignorance, and a lack of scientific knowledge can have a significant impact on the quality of life of people suffering from this disease. In dermatological practice, there are several indicators for measuring the degree of disability caused by skin diseases [7-8]. Some of them are applicable to specific diseases such as psoriasis, acne and eczema. There are other scales that are used in various skin conditions, such as the Quality-of-Life Index in Dermatology [9-10]. In order to assess the impact of vitiligo on the quality of life in our society, the 10-item DLQI translated into Urdu was used. It is a reliable, simple and practical questionnaire designed to measure disability caused by various skin diseases. It is the first of its kind in Pakistan.

PATIENTS AND METHODS:

This study was conducted in the Dermatology department of Mayo Hospital, Lahore for one-year duration from April 2019 to April 2020. One hundred retrospective and prospective clinically diagnosed vitiligo cases were included in the study. The study enrolled patients of both sexes, 15 years of age and older, who were able to complete the Urdu version of the DLQI on their own. All relevant details of the interview, examination, type of vitiligo, and places of seizure were recorded pro forma. The DLQI questionnaire consists of 10 questions covering six different QOL domains: symptoms and feelings (questions 1, 2), daily activities (questions 3, 4), leisure (questions 5, 6), work / school (question 7), personal relationships (question 8 and 9) and treatment (question 10). Using the DLQI, patients were asked to rate, on a scale of 0 to 3, for each of the ten items, how it had affected their lives during the previous week. The maximum score was 30. The higher the score, the greater the deterioration in quality of life. Student's t-test was used to compare the means. A p value of less than 0.05 was considered significant.

RESULTS:

100 patients suffering from vitiligo were enrolled in this study. There were 52 women and 48 men, their age ranging from 15 to 58 years, average 23.46 years. The mean DLQI score was 9.56, ranging from 0 to 29. The difference between the mean DLQI score for men (8.17) and women (10.85) was statistically significant.

Table I Mean DLQI score in relationship to age and sex

Age (years)	*Male* n	Mean DLQI score	*Female* n	Mean DLQI score
15-25	35	8.55	40	11.3
26-35	7	7.86	8	8.38
36-45	2	8.00	4	8.00
46-55	3	7.67	-	-
56-65	1	6.00	-	-

The mean DLQI score was higher in the younger patients aged 15 to 25 years. In this age group, women (n = 40, mean DLQI 11.2) scored higher than men (n = 35, mean DLQI 8.55). This difference was statistically significant ($p < 0.05$). Of the 100 patients, 17 men and 16 women were married. A statistically significant difference was found between the mean DLQI score of unmarried women (11.58) and married women (8.28) [Table 2].

Table 2 Mean DLQI score in relationship to marital status

Sex	*Married*		*Unmarried*	
	n	Mean DLQI score	n	Mean DLQI score
Male	17	7.77	40	11.3
Female	16	8.28	36	11.58
Total	33	8.02	67	11.23

Women with lesions on exposed parts of the body obtained the highest scores (mean = 13.08). There was a statistically significant difference between the mean DLQI score of men with exposed and covered parts (p <05) and women with changes in the exposed and covered parts (Table 3).

Table 3 Mean DLQI score in relationship to site of involvement

Sex	*Exposed*		*Unexposed*	
	n	Mean DLQI score	n	Mean DLQI score
Male	32	8.98	16	4.93
Female	36	13.08	15	6.93
Total	69	11.03	31	5.93

The mean difference in the scores of individual DLQI questions for men and women is presented in Table 4.

Table 4 Dermatology Life Quality Index - mean score of individual parameters

Questions	*Dimensions of QOL*	*Mean score*	
		Males	*Females*
1.	Symptoms	0.85	0.88†
2.	Embarrassment	2.23	2.84*
3.	Daily activities	0.38	0.65†
4.	Clothes	0.6	1.04*
5.	Social activities	0.9	1.33*
6.	Sports	0.25	0.17†
7.	Work/School	0.54	0.54†
8.	Relationships	1.23	2.42*
9.	Sexual problems	0.21	0.06†
10.	Treatment	0.98	0.92†
Total	8.17	10.85*	

Statistically significant difference in the mean DLQI scores of men and women for questions about confusion and self-awareness, choice of clothes, leisure activities, and problems with a partner, close friends or relatives.

DISCUSSION:

Quality of life questionnaires are used to highlight specific areas of an affected patient's life so that appropriate clinical interventions are undertaken to improve the patient's quality of life. They can also identify patients who need additional support. In this study, the DLQI was used to quantify impairment in 100 diagnosed vitiligo cases [8-10]. It is Pakistan's first rigorous disability assessment for the disease. The mean DLQI score was 9.56, almost twice the score reported by Kent and Al-Abadie (mean = 4.82). 8 The difference between the mean DLQI score for women (mean = 10.85) and men (mean = 8.17) was statistically significant [11-12]. Women aged 15–25 who were unmarried had higher DLQI scores. These results indicate that young and unmarried women experience greater psychosocial impairment. Women with exposed lesions had a greater impairment in quality of life compared to men with exposed lesions. These findings are similar to those presented by Porter

et al who reported that the worst overall adaptation was among women, people with lesions, young adults, black people and single people. Our study found that vitiligo leads to more self-awareness and shame in women than in men. Avoiding social interaction with close relatives and friends was more noticeable in women. The influence of the disease on clothing selection was more pronounced in women. In most cases, respondents replied that they could not wear short sleeve dresses at social gatherings [13-14]. Apart from asymptomatic vitiligo, physical activity such as sports, home activities, work / school was affected very slightly. Treatment of vitiligo had no significant effect on QOL. These observations are the same as described by Papadopoulos et al. 2 that vitiligo is not symptomatic, nor is it physically overwhelming in any way. Almost all of the patients in the study reported that vitiligo does not lead to sexual problems with a life partner. Due to social norms and values, none of the patients mentioned sexual problems with the opposite sex. This study shows that the DLQI can be used to evaluate the impact of vitiligo on quality of life. However, for a disease such as vitiligo that is not only difficult to treat but also progresses, it may be important to recognize and deal with the psychological and social consequences of the disease [15]. Patients with high scores may benefit from individual counseling and / or contact with a psychologist.

CONCLUSION:

The DLQI is a practical and simple tool that can be used to evaluate and quantify the impact of vitiligo on quality of life. The impact of vitiligo on quality of life is greater in women than in men, especially young and unmarried patients and patients with injuries on exposed parts of the body. Embarrassment, self-awareness, and avoidance of social interactions as a result of illness are greater in women. The symptoms and physical disability are minimal compared to the psychosocial effects of the disease.

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