
ORIGINAL ARTICLE

A Study on Dermatology Life Quality Index in Patients with Vitiligo

Archana Manohar¹, Sivaramakrishnan. S², Sukanya G³, Sane Roja Renuka⁴, K. Manoharan^{5*}

Department of Dermatology, Venereology and Leprosy,

Sree Balaji medical college and hospital,

Chrompet, Chennai-600044.

Email: Drkmanoharan1957@gmail.com

ABSTRACT

Vitiligo commonly presents as asymptomatic, well defined, de-pigmented patches affecting any area of mucosa & skin on the body. Though its not life- threatening, it considerably affects the patient's life quality and mental health. So this study is to assess the quality of life and coping methods in patients with Vitiligo. This study concluded that it has a very large & extremely large impact on QoL among females more than males and most common coping strategy adopted by patients was poor adjustment to vitiligo.

Keywords: Autoimmune, Coping, Vitiligo

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INTRODUCTION

Vitiligo is one of the most commonly encountered diseases by dermatologists. It is described as an autoimmune disease with multifactorial causative factors. It is classified under de - pigmentary disorders as it is characterised by loss of pigment in areas mucosa & skin leading to obvious clinical manifestations[1]. Vitiligo is a disease with universal occurrence, affecting 60 million people globally highlighting the seriousness of the issue. The WHO now recognises Vitiligo as a disabling and disfiguring disease that affects the life quality of patients and their families, due to the social stigma created around it. This highlights the importance of assessing the patient's QoL [2]. As medical professionals our treatment should not only be aimed at treating this skin condition, but to help bring about a sense of overall wellbeing. The patient's QoL suffering with vitiligo is assessed through the "Dermatology Life Quality Index" which is universally accepted, simple yet effective tool [3]. The DLQI is a simple questionnaire with 10 questions which the patients can fill by themselves, that grades the impact on various attributes of patient's life like grading of symptoms, work, study, leisure activities, sport, relationships, sex and treatment. It was created by Finlay and Khan (Cardiff university), UK in 1993 like a measure to easily evaluate effect of skin condition on patient's QoL within the span of 1 week. Each question can be graded from 0 to 3 with a total possible score of 30 [4]. Analysing the DLQI during the early phases may help guide our clinical decisions and provide a more personalised treatment option which can help avert much of the suffering.

MATERIAL AND METHODS

Study Area: Dermatology OPD, Sree Balaji Medical College and Hospital

Study Design: Cross sectional study

Study Sample:100

Study Population: Patients attending Dermatology OPD who are clinically diagnosed with vitiligo

Exclusion criteria :

1. Patients not consenting for study

2. Patients below 18 years

Inclusion criteria :

1. Patients above 18 years
2. Patients who give consent for study Recruited patients were put through,
 - a. Detailed Complete History taking
 - b. Thorough general & dermatological examination
 - c. DLQI Questionnaire

STATISTICAL ANALYSIS

A cross sectional study was carried out in 100 patients to review the effect on life quality in vitiligo patients of different categories. Distribution of quantitative variables like age and DLQI score is expressed as Mean, Median and Standard Deviation. Association of category of vitiligo, gender, marital status with DLQI impact score is conducted by using chi square test. All analysis was directed at 5% level of significance with 'p' value < 0.05 were said to be significant statistically. Analysis was conducted using SPSS (PASW statistics version 21) and graph were created in MS excel.

RESULTS

Table 1: Distribution of patients as per age, gender and marital status:

Variable	Subgroup	No. of study subjects	Percentage (%)
Age group	18-25 years	32	32
	26-40 years	37	37
	>40 years	31	31
Gender	Male	46	46
	Female	54	54
Marital status	Married	56	56
	Unmarried	44	44

Table 2: Distribution of patients as per type of vitiligo:

Type of vitiligo	No. of study subjects	Percentage (%)
Acrofacial vitiligo	18	18
Lip-tip vitiligo	13	13
Localised vitiligo	24	24
Vitiligo vulgaris	45	45
Total	100	100

Table 3: Degree of embarrassment due to vitiligo:

Effect	No. of study subjects	Percentage (%)
Not at all	18	18
A little	32	32
A lot	13	13
Very much	37	37
Total	100	100

Table 4: Effect on going for shopping and taking care of home, garden etc., (daily activities):

Effect	No. of study subjects	Percentage (%)
Not at all	44	44
A little	18	18
A lot	14	14
Very much	24	24
Total	100	100

Table 5: Influence on clothes worn:

Effect	No. of study subjects	Percentage (%)
Not at all	32	32
A little	17	17
A lot	30	30
Very much	20	20
Not relevant	1	1
Total	100	100

Table 6: Interference with leisure/social activities:

Effect	No. of study subjects	Percentage (%)
Not at all	44	44
A little	14	14
A lot	28	28
Very much	14	14
Total	100	100

Table 7: Interference with sports activities:

Effect	No. of study subjects	Percentage (%)
Not at all	32	32
A little	14	14
A lot	10	10
Very much	4	4
Not relevant	40	40
Total	100	100

Table 8A: If vitiligo has prevented the patient from studying/working:

Variable	No. of study subjects	Percentage (%)
No	61	61
Yes	39	39
Total	100	100

Table 8B: If No, degree of interference with study/work:

Effect	No. of study subjects	Percentage (%)
Not at all	29	47.5
A little	17	27.8
A lot	13	21.3
Very much	2	3.2
Total	61	100

Table 9: Effect on relationship with close friends and relatives:

Effect	No. of study subjects	Percentage (%)
Not at all	65	65
A little	19	19
A lot	12	12
Very much	4	4
Total	100	100

Table 10: Sexual difficulty due to vitiligo:

Effect	No. of study subjects	Percentage (%)
Not at all	39	39
A little	7	7
A lot	9	9
Very much	2	2
Not relevant	43	43
Total	100	100

Table 11: Difficulties in treatment:

Effect	No. of study subjects	Percentage (%)
Not at all	19	19
A little	26	26
A lot	45	45
Very much	10	10
Total	100	100

Table 12: Mean, Median and Standard deviation of Age and DLQI scores:

	Age	DLQI score
Mean	34.770	8.940
Median	32.500	8.500
Standard deviation	14.7510	6.7821
Minimum	18.0	0
Maximum	80.0	22

Table 13: Association between age and impact of vitiligo

Age groups	No impact	Small and Moderate impact	Very large and Extremely large impact	Total
18-25 years	6 (18.8%)	7 (21.9%)	19 (59.4%)	32 (100%)
26-40 years	9 (24.3%)	15 (40.8%)	13 (35.1%)	37 (100%)
>40 years	5 (16.1%)	17 (54.8%)	9 (29.0%)	31 (100%)
Total	20 (20.0%)	39 (39.0%)	41 (41.0%)	100 (100%)

Pearson Chi-square = 9.05, p = 0.06

Table 14: Association between gender and impact of vitiligo

Gender	Impact			Total (%)
	No effect	Small/ Moderate effect	Very large/Extremely large effect	
Female	6 (13.0%)	14 (30.4%)	26 (56.5%)	46 (100.0%)
Male	14 (25.9%)	25 (46.3%)	15 (27.8%)	54 (100.0%)
Total (%)	20 (20.0%)	39 (39.0%)	41 (41.0%)	100 (100.0%)

Pearson Chi-square=8.6, p=0.01 (Significant)

Table 15: Association between marital status and impact of vitiligo:

Marital status	No effect	Small/Mode rate effect	Very large/ extremely large effect	Total (%)
Married	11 (19.6%)	25 (44.6%)	20 (35.7%)	56 (100.0%)
Unmarried	9 (20.5%)	14 (31.8%)	21 (47.7%)	44 (100%)
Total (%)	20 (20.0%)	39 (39.0%)	41 (41.0%)	100 (100.0%)

Pearson Chi-square = 1.9, p = 0.38

Table 16: Association between type of vitiligo and impact of vitiligo:

Type of vitiligo	No effect	Small/ Moderate effect	Very large/Extremely large effect	Total (%)
Acrofacial vitiligo	1 (5.6%)	10 (55.6%)	7 (38.9%)	18 (100.0%)
Lip-tip vitiligo	5 (38.5%)	5 (38.5%)	3 (23.1%)	13 (100.0%)
Localised vitiligo	9 (37.5%)	10 (41.7%)	5 (20.8%)	24 (100.0%)
Vitiligo vulgaris	5 (11.1%)	14 (31.1%)	26 (57.8%)	45 (100.0%)
Total (%)	20 (20.0%)	39 (39.0%)	41 (41.0%)	100 (100.0%)

Pearson Chi-square = 18.0, p = 0.006 (Significant)

Table 17: Frequency of Coping strategies by vitiligo patients:

Coping strategy	No. of study subjects	Percentage (%)
Active mastery	18	18
Passive acceptance	37	37
Poor adjustment	45	45
Total	100	100

Table 18: Association between age and coping strategies:

Age group/ Coping strategy	Active mastery	Passive acceptance	Poor adjustment	Total (%)
18 - 25 years	3 (9.4%)	10 (31.3%)	19 (59.4%)	32 (100.0%)
26 - 40 years	6 (16.2%)	16 (43.2%)	15 (40.5%)	37 (100.0%)
>40 years	9 (29.0%)	11 (35.5%)	11 (35.5%)	31 (100.0%)
Total (%)	18 (18.0%)	37 (37.0%)	45 (45.0%)	100 (100.0%)

Pearson Chi-square = 6.4, p = 0.16

Table 19: Association between gender and coping strategies:

Gender/Coping strategy	Active mastery	Passive acceptance	Poor adjustment	Total (%)
Females	7 (15.2%)	11 (23.9%)	28 (60.9%)	46 (100.0%)
Males	11 (20.4%)	26 (48.1%)	17 (31.5%)	54 (100.0%)
Total (%)	18 (18.0%)	37 (37.0%)	45 (45.0%)	100 (100.0%)

Pearson Chi-square = 9.0, p = 0.01 (Significant)

Table 20: Association between marital status and coping strategies:

Marital status/ Coping strategy	Active mastery	Passive acceptance	Poor adjustment	Total (%)
Married	12 (21.4%)	21 (37.5%)	23 (41.1%)	56 (100.0%)
Unmarried	6 (13.6%)	16 (36.4%)	22 (50.0%)	44 (100.0%)
Total (%)	18 (18.0%)	37 (37.0%)	45 (45.0%)	100 (100.0%)

Pearson Chi-square = 1.2, p = 0.52

Table 21: Association between type of vitiligo and coping strategies:

Type of vitiligo/ Coping strategy	Active mastery	Passive acceptance	Poor adjustment	Total (%)
Acrofacial vitiligo	5 (27.8%)	5 (27.8%)	8 (44.4%)	18 (100.0%)
Lip-tip vitiligo	3 (23.1%)	8 (61.5%)	2 (15.4)	13 (100.0%)
Localised vitiligo	4 (16.7%)	13 (54.2%)	7 (29.2%)	24 (100.0%)
Vitiligo vulgaris	6 (13.2%)	11 (24.4%)	28 (62.2%)	45 (100.0%)
Total (%)	18 (18.0%)	37 (37.0%)	45 (45.0%)	100 (100.0%)

Pearson Chi-square = 14.9, p = 0.02 (Significant)

DISCUSSION

Most cases in this study are between ages 26 to 40 years. The Impact of vitiligo was very large & extremely large in children & young adults and small and moderate effect seen in older age group [5]. Also the Impact of vitiligo is very large & extremely large in unmarried cases in comparison with married patients [6]. Among the vitiligo types, vitiligo vulgaris patients have very large and extremely large impact on QoL in comparison to other groups of vitiligo and also it is most frequently occurring vitiligo in both genders and irrespective of marital status[7]. Among the domains affected, embarrassment because of vitiligo was most frequent followed by treatment difficulties, clothes worn, daily activity, social/leisure activity, study/work, interpersonal relationships, sports and sexual difficulty in that order[8]. According to Khatu SS et al adjustment disorder accounting for about 65% , was one of the most common psychiatric morbidities seen in vitiligo patients[4]. When looking into QoL, most of the have very large effect on QoL. Most common coping strategy adopted by patients was poor adjustment to vitiligo. Females coped by poorly adjusting with vitiligo whereas males coped by passively accepting the disease. This shows that regardless category of vitiligo, patient's QoL is affected, this is because DLQI questionnaire takes into account various life domains. Different vitiligo types affect various domains differently. Treatment should not only focus on clearance of the disease but also to improve QoL. Hence there is paramount importance that dermatologists incorporate DLQI in evaluation of patients of vitiligo with grading of clinical severity before starting treatment as reduction in DLQI scores during follow up becomes an important indicator of treatment success and satisfaction among dermatologists and patients alike.

CONCLUSION

Vitiligo had an extremely large impact on QoL in cases below 40 years compared to the ones more than 40 years. they had an extremely effect on life quality in females more than males. Also the Effect of vitiligo is very large in unmarried cases in compared to married. Considering the different vitiligo types, vitiligo vulgaris cases had an extremely large impact on QoL compared to other vitiligo categories. Most frequently used way of coping adopted was poor adjustment to vitiligo. This study concludes that irrespective of type of vitiligo, life quality is significantly impaired and treatment should be aimed at improving life quality and bringing down severity of vitiligo.

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