

Assessment of Quality of Life among outpatients Visiting Dermatology Department at a Hospital in Pokhara, NepalSujata Bhandari,¹ Gulam Muhammad Khan¹¹School of Health and Allied Sciences, Pokhara University, Kaski, Nepal**ABSTRACT:**

Introduction: Skin is the outer covering of the body and thus it is exposed to injury by various extrinsic factors such as environmental, chemical, infectious agents as well as intrinsic factors such as metabolic, genetic and immunological. Considering the fact that these are the major contributors of disease burden in society, this study was conducted to assess the impact of dermatological conditions on quality of life by using dermatological life quality index (DLQI).

Methods: A prospective observational study was conducted in the outpatient department of Green Pastures Hospital of Pokhara, Nepal. The validated dermatology Life Quality Index questionnaires were assessed to analyze the result.

Results: A total of 246 patients (135 females and 111 males) were enrolled. The skin diseases were seen mostly in the age group of 19-29 (39.4%). The major skin disease seen in the study were Tinea skin infections (21.1%), Urticaria (11.8%), Eczema (11.1%), Dermatitis (10.6%) followed by Acne (8.1%) and so on. The quality of life of patients had improved after taking the medication.

Conclusion: Demographic variants did not have significant effect on quality of life. However, the study showed that there was a notable improvement in quality of life of patients after follow-up visit in comparison to the first visit. Therefore, the proper use of medication showed the positive impact on quality of life among the patient of skin diseases.

Keywords: *Dermatology, Quality of life, Dermatology Quality of Life Index*

INTRODUCTION

Dermatology is the science concerned with skin and diseases of skin, which is directly in contact with the environment and can alter the skin physiology either intrinsic (genetic and metabolic process) or extrinsic way (chemicals and pathogens).¹ The most prevalent dermatological disorders include scabies, dermatitis, urticaria, pyoderma, fungal skin infection, acne, alopecia and less common are eczematous disorder such as psoriasis, skin cancer and cutaneous adverse drug reaction.²

World Health Organization (WHO) defines quality of life as the individual's perception of their position in the context of culture and value systems in which they live and in relation to their goals, expectations, standards and concerns.³ Measurement of quality of life is done with validated questionnaires like dermatology life quality index (DLQI), acne disability index (ADI) and Cardiff acne disability index (CADI).^{4,5} Skin diseases in developing countries have a serious impact on people's quality of life due to the presence of physical symptoms as they can cause anxiety, depression, anger and embarrassment which leads to social isolation and absenteeism at work and public places.⁶ The dermatology life quality index (DLQI) is one of the qualities of life questionnaires that is specially

designed for skin diseases and can be used to measure quality of life. Irrational drug combinations, over use of multivitamins, emollients, unnecessary use of antibacterial in fungal infections and prescribing drug from same class led to the unnecessary skin diseases and deteriorates people's quality of life.⁷ This study aimed to evaluate the impact of dermatological conditions on quality of life by using DLQI.

METHODS

The study was a prospective observational study which was conducted in the outpatient department of Green Pastures Hospital, Pokhara, Nepal. Patients of all gender and age above 18 years, who attended the dermatology outpatient's department and hospital pharmacy for purchasing medicines, were included in this study with written consent.

The data were collected from July 2019 to October 2019. The study was approved by Institutional Review Committee (IRC), Pokhara University Research Centre Kaski, Nepal (Ref. No.

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8/076/077) and data collection approval were obtained from INF Research and Ethics committee GPHRC, Pokhara, Nepal (102/076/077).

The data were collected in a structured pro forma, which include the validated dermatology life quality index questionnaires and follow up was carried after 2 weeks.

The DLQI was calculated by adding the score of each question, resulting in the maximum of 30 and a minimum of 0. The higher the score, the more the quality of life is impaired. The meaning of scores who scored from 0-1 had no effect at all on patient's life, 2-5 had small effect, 6-10 had moderate effect, 11-20 had very large effect and scored 21-30 had extremely large effect on patient's life.⁵ The data were entered and analysed using statistical Package for the Social Science 22.

RESULTS

A total of 246 prescriptions of the participants were screened for the evaluation of quality of life. The overall mean and SD of age was 38.82 ± 17.84 years. Majority of the patients were in the age group 19-29 (39.4%) followed by age group 30-39 (21.5%) and 40-49 (11.8%). Along with gender distribution female patients (54.9%) were more in comparison with male patients (45.1%).

Prevalence of skin diseases

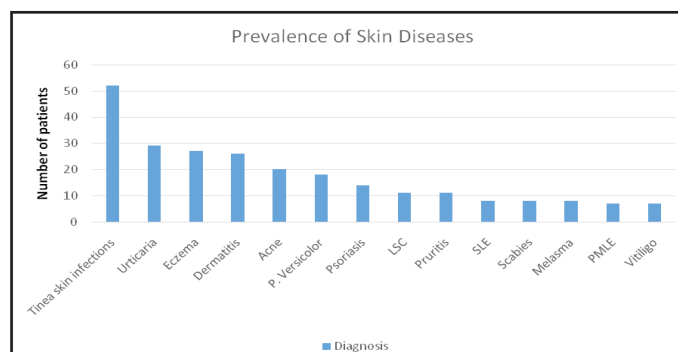


Figure 1: Prevalence of Skin Diseases

The diagnosis made in the prescription was analyzed and it was found that, Tinea skin infections (21.1%) was the most common dermatological disorder followed by Urticaria (11.8%), Eczema (11%) and so on.

Association of Socio-demographic characteristics and Quality of life

Chi-square test was used to see the association of various socio-demographic variables and first and follow up visit quality of life of patients. There was no significant association found between socio-demographic variable i.e. $P > 0.05$. Demographic variants did not have major effect on QOL.

Table 1: Association of Socio-demographic characteristics and Quality of life

Variable	Category	First visit					P value	Follow up visit				P value
		0-1	2-5	6-10	11-20	21-30		0-1	2-5	6-10	11-20	
Age	19-29	1	9	29	85	26	0.153	22	82	36	10	0.05
	30-39	0	0	4	39	13		1	30	18	7	
	40-49	0	1	2	23	8		1	12	15	6	
	50-59	0	0	0	6	0		0	2	4	0	
	60-69	0	0	0	0	0		-	-	-	-	
	>70	0	0	0	0	0		-	-	-	-	
Gender	Male	1	6	19	62	23	0.300	17	55	29	10	0.60
	Female	0	4	16	91	24		7	71	44	13	
Family Type	Nuclear	0	5	16	71	22	0.734	10	58	35	11	0.119
	Joint	1	5	19	82	25		14	68	38	12	
Education	Illiterate	0	2	1	15	6	0.170	2	5	13	4	0.074
	Informal Education	0	0	0	6	0		0	4	2	0	
	Basic Education Grade (1-8)	0	3	14	89	25		10	69	39	13	
	Secondary School Education (9-10)	1	4	14	89	25		11	35	14	5	
	Undergraduate and above	0	1	6	10	3		1	13	5	1	
Source of Income	Agriculture	0	4	7	49	13	0.248	7	38	25	3	0.084
	Family Business	0	0	10	24	10		2	26	13	3	
	Remittance	0	2	4	27	7		4	24	7	5	
	Private/Gov job	1	1	5	11	3		4	10	6	1	
	Labour/Daily wages	0	2	3	12	7		4	5	9	6	
	Pension	0	1	6	30	7		3	23	13	5	

DLQI profile of the study Respondents

Table 2 showed the frequency and percentages of study respondents of each and every options. During the first visit most of the patients were having a lot and very much effect but after the medication a little response seen.

Table 2: DLQI Profile of the Study Respondents

SN	Questions	Options	First visit-Score		Follow up- Score	
			Frequency (n)	%	Frequency (n)	%
1	Over the last week, how itchy, sore, painful, stinging has your skin been?	Not at all	13	5.3	56	22.8
		A little	46	18.7	137	55.7
		A lot	56	22.8	52	21.1
		Very much	131	53.3	1	0.4
2	Over the last week, how embarrassed or self-conscious have you been because of your skin?	Not at all	11	4.5	84	34.1
		A little	69	28	127	51.6
		A lot	111	45.1	34	13.8
		Very much	55	22.4	1	0.4
3	Over the last week, how much has your skin interfered with you going shopping or looking after your home or garden?	Not at all/Not relevant	27	11	116	47.2
		A little	81	32.9	109	44.3
		A lot	89	36.2	21	8.5
		Very much	49	19.9	-	-
4	Over the last week, how much has your skin influenced the clothes you wear?	Not at all	60	24.4	170	69.1
		A little	83	33.7	65	26.4
		A lot	64	26.0	11	4.5
		Very much	39	15.8	-	-
5	Over the last week, how much has your skin affected any social or leisure activities?	Not at all/Not relevant	19	7.7	196	79.7
		A little	166	67.5	48	19.5
		A lot	57	22.0	2	0.8
		Very much	7	2.8		
6	Over the last week, how much has your skin made it difficult for you to do any sport?	Not at all/ Not relevant	53	21.5	204	82.9
		A little	129	52.4	35	14.2
		A lot	44	17.9	5	2.0
		Very much	20	8.1	2	0.8
7	Over the last week, has your skin prevented you from working or studying?	Not at all	50	20.3	126	51.2
		A little	5	2.0	118	48.0
		A lot	3	1.2	2	0.8
		Very much	188	76.4	-	
8	Over the last week, how much has your skin created problems with your partner or any of your close friends or relatives?	Not at all/ not relevant	23	9.3	145	58.9
		A little	128	52	98	39.8
		A lot	79	32.1	3	1.2
		Very much	16	6.5	-	-
9	Over the last week, how much has your skin caused any sexual difficulties?	Not at all/not relevant	151	61.4	222	90.2
		A little	78	31.7	22	8.9
		A lot	17	6.9	1	0.4
		Very much	-	-	1	0.4
10	Over the last week, how much of a problem has the treatment for your skin been, for example by making your home messy, or by taking up time?	Not at all/ not relevant	7	2.8	28	11.3
		A little	29	11.8	149	60.6
		A lot	83	33.7	69	28.0
		Very much	127	51.6	-	-

Dermatology Quality of Life scores (DLQI)

The first visit score's mean value was 15.9, standard deviation was 5.394, minimum score was 0 and maximum score was 29 and in second visits the mean value was 5.39, standard deviation was 3.471, minimum score is 0 and maximum score was 17. The impact on quality of life was evaluated using Student T test which showed proper use of medication had positive impact after follow up at 5% level of significance ($p=0.000$).

From the first visit data, large number of patients had very large effect 153 in number. After the follow up study, patients DLQI scores had been improved so that most 126 number of patients showed small effect.

Table 3: Interpretation of DLQI Scores

DLQI Scores	First visit data	Follow up
0-1 (No Effect)	1	24
2-5 (Small Effect)	10	126
6-10 (Moderate Effect)	35	73
11-20 (Very Large Effect)	153	23
21-30 (Extremely Large Effect)	47	-

DISCUSSION

Skin diseases have a genuine detrimental effect on people's quality of life regardless of other factors. Skin- appearance has direct impact on an individual's personality which relates to self-confidence and, sometimes, invites psychological consequences. This study is mainly focused on evaluation of quality of life in dermatology outpatient department.

In our study, number of male patients (45.1%) was slightly lower than female patients (54.9%) as already been observed in various study⁹ where male to female ratio was 0.88 and¹⁰ where female patients were 50.1%. It showed that females were more prone to dermatological problems. The reason behind it may be hormonal changes in female, cosmetics use, genetic makeup and stress.

In this study, most of patients were seen in age group of 19-29 (39.4%) which resembled the study carried out by TK MS and Nishad VK, 2012 where highest number of (25%) of patients were in age group of 20-29 years. Also, from Sumana MH showed that majority were between the age group of 20-59 years. From¹³ also maximum number of patients 26.5% found in age group 31-40 years, followed by 23.5% of patients in the age group of 21-30 years. This suggests that skin diseases are highly prevalent below 30 years.

Tinea skin infections (21.1%) was the most common disease among 246 patients followed by Urticaria 11.8%, Eczema (11.1%), and so on. Study conducted by¹⁴ among the

dermatological diseases diagnosed Tinea Corporis was found to be the highest prevalence (29.17%) followed by other fungal infection (20.84%). Other study conducted by¹⁵ the most common disease was infectious in nature of which tinea was the most common (22.69%) which was similar to our study. The common fungal infections were dermatophytosis e.g. tinea cruris, tinea capitis, tinea corporis. This may be due to seasonal effect, sweating, high humidity and poor personal hygiene.

Dermatology Life Quality Index (DLQI)

The current study showed significant (P Value < 0.000) improvement in the quality of life DLQI of patients in comparison with first and follow up visit with mean of 15.9 and 5.39 respectively. A study conducted by¹⁶ on impact on the quality of life dermatology patients, the results shows a mean if 6.73 and 3.69 for 1st visit and follow up visit respectively. ¹⁷conducted a study on the impact of quality of life among dermatology patients in southern Brazil. The results show a median of 7 and a mean 7.7 (SD=5.0) were obtained with the dermatology quality life index. The skin diseases with higher scores on the dermatology life quality index was psoriasis (median=15.5), vitiligo (median=13), atopic dermatitis (median=12) and acne (median=10). Also, demonstrated that quality of life can be affected by skin diseases, especially in domains such as physical symptoms and feelings, social /leisure activities and work. The overall mean DLQI score 7.7 obtained in this study was similar to that obtained in other studies carried out in several countries which ranged from 6.5 to 7.8. According to¹⁸ there was no significant statistical relation between quality of life and age, gender and severity $P > 0.05$ in psoriasis patients. Demographic variants do not have major effect on quality of life. The very diagnosis and presence of disease adversely impacts the quality of life. However, those who had regular treatment showed a better quality of life.

CONCLUSION

This study confirms that there's a negative impact of dermatological problems on quality of life. Treatment improved the quality of life of patients. Assessment of quality of life strengthens the doctor-patient rapport and improves better patient adherence to therapy and achieves faster and better control of the disease.

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