

PSYCHO-SOCIAL IMPACT AND QUALITY OF LIFE AMONG PATIENTS WITH PSORIASIS ATTENDING A TERTIARY CARE INSTITUTE IN NORTH CHENNAI

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ABSTRACT

Objective: To assess the psycho-social impact of psoriasis and the quality of life (QoL) among psoriasis patients.

Methods: This is a cross-sectional study with a sample size of 140 done in a dermatology outpatient clinic in a tertiary care institution in North Chennai. The dermatology life quality index (DLQI) was the primary tool for assessing QoL.

Results: The study participants' mean±SD DLQI score was 8.84±4.59. Out of 140 patients, 32.9% had severely affected QoL with a DLQI score >10. About 81.4% of study participants felt embarrassed due to their skin lesions, and marital life was affected by 36.4%. Suicidal thoughts and alcohol addiction (for coping up) were found to be prevalent among 12.9% of the subjects, both of which were maladaptive coping strategies. It was found that patients with DLQI scores of 10 or more tend to cling to alcohol as a coping mechanism, and this association is statistically significant. Further, a significant association was also noted between the site of the lesion and marital life getting affected by psoriasis. ($\chi^2=9.893$, $p=0.042$).

Conclusion: Patients with psoriasis are subjected to an intricate web of physical and psycho-emotional challenges. Hence, the physician offering chronic follow-up care to those patients needs to adopt a holistic strategy to address their continuing medical and psychosocial needs.

Keywords: Psoriasis, Quality of life, Psychosocial, Perceptions, Alcohol use, DLQI, Suicidal thoughts, Coping mechanisms.

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INTRODUCTION

Psoriasis is a skin condition characterized by chronic inflammation and excessive skin cell growth. It commonly appears as distinct, red, and scaly patches, especially on areas like the outer joints, scalp, and nails, and typically exhibits a cycle of relapse and remission [1].

It occurs equally in both sexes and at any age; although it is uncommon under the age of 5 years, more than 50% of patients present before the age of 30 years [1].

Psoriasis is a complex and enigmatic condition in the realm of dermatology and autoimmune disorders. Its clinical significance extends beyond its visibly manifesting symptoms, delving into the intricate web of psycho-social factors that profoundly affect patients' lives. Psoriasis, a chronic skin ailment, presents unique challenges in terms of diagnosis and treatment and in understanding the holistic impact it has on the individuals it afflicts.

Each individual perceives the disease, its somatic effects, resultant dysfunction, and related problems differently. This attitude is primarily determined by one's character traits and type of illness [2].

The social impact of psoriasis is substantial. The red, scaly, and raised patches often seen in psoriasis can have a significant negative impact on a person's appearance, leading to feelings of disgust, fear, and aversion from others. As a result, the social stigma associated with psoriasis can be extremely distressing for individuals, causing them to feel ashamed and anxious about how others perceive them [3].

Psoriasis has been associated with an increased risk of depression and even suicidal thoughts or tendencies in some individuals. The costs related to decrements in quality of life (QoL), loss of productivity,

and work absenteeism may be enormous, increasing overall costs associated with disease management [4].

The World Health Organization defines QoL as how an individual perceives their place in the world within the framework of the culture and values of their society, taking into account their objectives, aspirations, standards, and worries [5].

In psoriasis, this includes both physical manifestations of symptoms (itching, pain, scaling of the skin) as well as psychological effects like stress, anxiety, frustration, and embarrassment, which affect the day-to-day activities of patients like clothing, using public transport, working place isolation, and avoiding public, social gatherings or functions [6].

Healthcare professionals have a pivotal role in recognizing the disease at an early stage, confining the lesion as much as possible to the primary site of the disease, and supporting affected patients. To establish a good relationship with family members and to be able to improve patients' compliance, dermatologists should develop greater insight into the lives of psoriasis patients and their relatives [6].

Hence, this study has been undertaken to assess the psycho-social impact and QoL of psoriasis patients and the effect of the disease on their day-to-day lives.

METHODS

A cross-sectional study was performed in the outpatient department and ward of the Department of Dermatology, Government Stanley Medical College, Chennai, India. A consecutive sampling method was chosen, and patients willing to participate were taken in this study.

Following ethical guidelines, formal approval was obtained from the ethical committee of the Government Stanley Medical College and Hospital. The determination of a sample size of 140 was made using the formula $n = Z^2pq/d^2$, where $p=75\%$ [The prevalence was taken from a survey by the National Psoriasis Foundation, which concluded that 75% of psoriasis sufferers reported a substantial adverse effect on their QoL, resulting in disruptions to their daily activities].

Patients diagnosed with chronic plaque psoriasis with involvement of $\geq 10\%$ BSA, above the age of 18 years of both sexes, were taken from May 2022 to September 2022. Patients who could have affected QoL due to diseases like tuberculosis, leprosy, AIDS, or any congenital abnormalities were excluded.

Written consent was taken from all patients. Demographic information about the study participants and their self-reported psychosocial impact was gathered using a pre-tested, structured questionnaire.

The DLQI, a straightforward and practical questionnaire designed for routine clinical use, was employed in the study. DLQI [7,8] containing 10 questions was used for the study with appropriate licensing (License ID: CUQoL1955). Each question was scored from 0 to 3 (0=not relevant, 0=not at all, 1=a little, 2=a lot, 3=very much).

A score of more than 10 in the DLQI Questionnaire implies a severely affected QoL. The higher the score is, the lower the QoL [9].

This questionnaire delved into the impact of psoriasis on various aspects of participants' daily lives, encompassing symptoms, emotional well-being, daily activities, and interpersonal relationships. Responses were meticulously scored to yield a quantitative measure of QoL.

The chosen individuals were interviewed face-to-face in order to collect data. Data was entered in Microsoft Excel and analyzed using SPSS v16 software. Associations were seen using Chi-square tests and Fisher's exact tests. Here, $p < 0.05$ has been considered to be significant.

The operational definition of delayed diagnosis

The delayed diagnosis here is operationally defined as a time interval exceeding one month between a patient's initial presentation of symptoms and the formal confirmation of the medical condition by a qualified healthcare provider through clinical assessment, diagnostic tests, or medical examinations.

RESULTS

During the study period, 140 patients with psoriasis met the inclusion criteria. The general characteristics of the respondents are illustrated in Table 1. Of these participants, 48.6% were male and 51.4% were female, with a mean \pm SD age of 47.06 ± 12.84 years. 47.9% were literate. For the site of the lesion, 28.6% of people had lesions all over the body, whereas the remaining 71.4% of subjects had isolated lesions over the trunk, scalp or upper and lower limbs.

Table 2 highlights the self-reported social and psychological impacts of psoriasis felt by the study participants.

About 81.4% of study participants felt embarrassed due to their skin lesions. Marital life was affected by 36.4%. Suicidal thoughts and alcohol addiction (for coping up), respectively, were found to be prevalent among 12.9% (18) of the subjects.

About 97% of the patients in the study were satisfied with the treatment, with 3% complaining of no benefit from it. Allopathy was accepted by the majority (86%) of the patients as their first choice of treatment, with the remaining having opted for other modes of Indian medicine (AYUSH) and later on moving to allopathy, as mentioned in Table 3.

About 46% of the patients had delayed diagnosis, which aggravated the condition. Most of the patients (78.6%) claimed that family support

Table 1: Baseline sociodemographic characteristics of the study participants (n=140)

Sociodemographic Factors	Variables	Frequency (%)
Sex	Male	68 (48.6)
	Female	72 (51.4)
Age category (years)	<30	15 (10.7)
	31-50	75 (53.6)
	51-70	46 (32.9)
	71-90	4 (2.9)
Educational status	Illiterate	73 (52.1)
	Literate	67 (47.9)
Marital status	Married	127 (90.7)
	Unmarried	11 (7.9)
	Widowed	2 (1.4)
Occupation	Professional	19 (13.6)
	Skilled	59 (42.1)
	Unskilled	62 (44.3)

Table 2: Social and psychological impact of psoriasis among the study participants (self-reported)

S. No	Psychosocial Characteristics	Frequency (%)	95% CI
1.	Embarrassed	114 (81.4)	74.23%, 88.57%
2.	Feeling Discriminated	69 (49.3)	40.61%, 58.99%
3.	Avoid Social Gatherings	92 (65.7)	56.80%, 74.60%
4.	Workplace Isolation	20 (14.3)	8.80%, 19.80%
5.	Marital life affected	51 (36.4)	28.24%, 44.56%
6.	Suicidal Thoughts	18 (12.9)	7.34%, 18.46%
7.	Resorting to addiction (as coping mechanisms)	18 (12.9)	7.34%, 18.46%

Table 3: Psoriasis and treatment-related factors among the study participants

Treatment-related factors	Variables	Frequency (%)
Family support	Yes	110 (79)
	No	30 (21)
Site of lesion	Isolated	100 (71)
	Whole body	40 (29)
Mode of treatment	Allopathy	120 (86)
	AYUSH and allopathy	20 (14)
Delayed diagnosis	Yes	65 (46)
	No	75 (54)
Aware that disease is not contagious	Yes	98 (70)
	No	42 (30)
Treatment satisfaction	Yes, very much	108 (77.1)
	Yes, to some extent	28 (20)
	No	4 (2.9)

played a significant role in helping them to cope-up with the disease, and 42 (30%) of the patients did not know that psoriasis was not a contagious disease and feared that the disease would spread to other members by touching them (Table 3).

The DLQI score was used to evaluate the impact of psoriasis on the patient's QoL. Our study shows a mean \pm SD DLQI score of 8.84 ± 4.59 .

Out of 140 patients, 94 (67.1%) had a DLQI score of ≤ 10 and 46 (32.9%) had a DLQI score of > 10 (Fig. 1).

As reported in Table 4, there was no significant association between sex, age, educational status, marital status, occupation, and QoL.

It was found that patients with DLQI scores of 10 or more tend to cling to alcohol as a coping mechanism, and this association is statistically significant in our study.

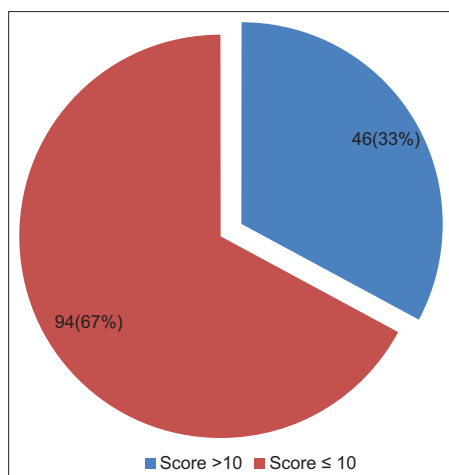


Fig. 1: Dermatology life quality index Scores of the study participants

Table 4: Association between DLQI scores with sociodemographic factors and psychosocial factors

Sociodemographic factors	DLQI scores		p
	≤10	>10	
Sex			
Female	49 (68.1)	23 (31.9)	0.813
Male	45 (66.2)	23 (33.8)	
Age			
<50	49 (61.3)	31 (38.8)	0.087
>50	45 (75.0)	15 (25.0)	
Education			
Illiterate	53 (72.6)	20 (27.4)	0.159
Literate	41 (61.2)	26 (61.2)	
Unmarried	5 (45.5)	6 (54.5)	
Widowed	2 (100.0)	0	
Occupation			
Professional	10 (52.6)	9 (47.4)	0.256
Skilled	43 (72.9)	16 (27.1)	
Unskilled	41 (66.1)	21 (33.9)	
Marital status			
Married	87 (68.5)	40 (31.5)	0.180
Unmarried	5 (45.5)	6 (54.5)	
Widowed	2 (100.0)	0	
Developed suicidal thoughts			
Yes	12 (66.7)	6 (33.3)	0.963
No	82 (67.2)	40 (32.8)	
Resorting to addiction (a coping mechanism)			
Yes	6 (33.3)	12 (66.7)	0.01
No	88 (72.1)	34 (27.9)	
Self-perception of social isolation			
Yes	11 (55)	9 (45)	0.369
No	82 (68.9)	37 (31.1)	

DLQI: Dermatology Life Quality Index

The number of people who developed a sense of social isolation and suicidal thoughts did not have any significant association with DLQI scores.

On sub-analyses between self-reported psycho-social factors and psoriasis treatment-related factors, it was found that there is a significant association between the site of the lesion and marital life getting affected due to Psoriasis (χ^2 , $p=0.042$).

DISCUSSION

The mean score of DLQI in our study is 8.84, with a standard deviation of 4.59. A few other Indian studies by Vettuparambil *et al.* [10] and Barot *et al.* [11] have also reported similar mean DLQI scores.

Among the study participants, 51 (36.4%) reported that psoriasis affected their sexual lives. Another study by Gupta *et al.* had similar results, which documented that 40.8% of the study participants had reported having their sexual lives impacted by psoriasis. [12] Kędra *et al.* also reported that approximately 80% had an affected sexual life due to the skin lesions, and more than 50% at least sometimes avoided sexual contact [13].

Though the present study did not elicit in detail the specificity of the impact of psoriasis on their sexual lives, the finding emphasizes the need to specifically and sensitively implore the sexual challenges and concerns among married people with widespread psoriasis and thereby venture to offer probable ways to address the same. This could go a long way in enhancing the psychosocial outlook and QoL among married patients by allowing them to voice out their felt and unmet sexual needs.

About 81% of the participants in our study reported that they were embarrassed due to their skin lesions, leading to depression and anxiety. On a similar account, Armstrong, April W., *et al.* stated that 87% of their study participants felt embarrassed, and 83% of them concealed the physical manifestations of the disease [14].

Our data shows no correlation between sex, age, educational status, marital status, occupation, and QoL in psoriatic patients.

Our study shows a significant association between the site of the lesion and its effect on marital life. Patients having lesions spread all over the body reported increased disturbances in sexual life compared to patients with lesions confined to the scalp or limbs, which would be due to the impact on their sexual life.

The site of the lesion in psoriasis is a major determinant factor of QoL in several studies. Even though our study shows a significant association between affected sexual life, restricted outdoor activity, and the site of the lesion, there was no direct association between the site of the lesion and DLQI scores. The findings of this review suggest that all psoriatic involvement may lower a patient's QoL, with no particular area having a discernible greater impact than another when the overall QoL is taken into consideration. Our findings are consistent with those reported by Nabeiva *et al.* [15].

Nearly half of the subjects (46%) had a delayed diagnosis. This reiterates the need for zero delay in diagnosis and prompt initiation of treatment among psoriasis patients for better outcomes. Although it was less associated with DLQI scores, efforts were needed to narrow the delay in diagnosis.

Alcohol is frequently employed as a coping mechanism by numerous patients grappling with psychosocial distress related to their medical condition, a finding consistent with the results published by Brittany Blackstone *et al.* [16]. Derek *et al.* commented on the misuse of alcohol in about 30.6% of patients with psoriasis [17]. Alcohol use is a maladaptive coping strategy, rather an escapism with hazards surpassing the transient benefits with a potential threat towards hyperkeratifeia [18], and these patients should be re-oriented towards helpful coping strategies.

In a study published by Cvitanović *et al.*, many patients employ adaptive coping mechanisms such as seeking emotional support and positive reframing, which can have a positive impact on their well-being. It is also noteworthy that favorable strategies like religious coping are less commonly used, suggesting potential areas for further research or tailored interventions for this patient group [19].

Psoriasis exerts a significant psychosocial impact, and in some cases, individuals grappling with this burden may find themselves contending with thoughts of suicide. Especially vulnerable are those who encounter difficulties in developing effective coping strategies,

notably when lacking support from society and family. About 1 in 18 (12.9%) participants of our study confessed to having suicidal ideation, which is reported by other studies such as Gupta *et al.*, where 5.5% had suicidal ideation and 9.7% wished they were dead [20]. It is important on the part of primary care physicians to identify these sets of patients and refer them to appropriate psychiatric therapy. Research documents indicate that suicidality should be regarded as a distinct psychiatric diagnosis with its symptoms and underlying pathological processes [21].

The faulty perceptions contributing to negative coping factors like alcoholism and suicidal ideations need to be rectified since perceptions act as a significant impact modifier [22].

Recommendations and limitations

This being a cross-sectional study, no causal interactions could be assessed between psoriasis and the outcomes of interest. Further, the psychosocial parameters were self-reported by the patient, which could be subjective. However, an objective DLQI score was also done for all patients. Another limitation of this study is the absence of the psoriasis area and severity index, a tool for assessing psoriasis severity that was not utilized to measure disease severity in our research.

This further reiterates the need on the part of a physician offering follow-up care for diseases like psoriasis to adopt a holistic strategy specifically addressing their psycho-emotional felt needs [23]. Healthcare providers need to be trained to address both the physical symptoms and the emotional well-being of patients in tandem. Apart from therapeutic treatments such as cognitive-behavioral therapy and mindfulness-based therapy, it's important to consider individualized, one-on-one behavior change counseling aimed at altering maladaptive coping strategies, such as potential reliance on addictive behaviors.

Further establishing open and empathetic communication with patients creates a safe space for them to vent out their suicidal ideations, if any. So that proper referral of those patients to psychological counseling and support could be envisaged.

Lastly, addressing sexual and relationship concerns is crucial. Initiating these discussions with patients and offering guidance or referrals to specialized healthcare professionals or therapists, when necessary, ensures comprehensive care that considers all aspects of their well-being.

CONCLUSION

In conclusion, this study sheds light on the intricate web of challenges faced by patients with psoriasis. Psoriasis, as a chronic and relapsing skin condition, not only manifests physically but profoundly affects the psychosocial well-being and QoL of those it afflicts.

The findings underscore the profound psychosocial impact of psoriasis, with patients reporting feelings of embarrassment, social discrimination, isolation, and even contemplating suicide. Notably, a significant proportion of patients experienced disruptions in their marital and sexual lives, emphasizing the need for sensitive exploration of these concerns within clinical practice.

This study emphasizes the value of a comprehensive approach to patient treatment in view of the multifaceted problems faced by psoriasis. Healthcare professionals, particularly dermatologists, play a crucial role in providing support, education, and tailored counseling to tackle both the physical and emotional dimensions of this issue.

AUTHOR'S CONTRIBUTIONS

Aadam Ahmed Khan and Aathi Raja T were involved in the conceptualization of protocols, data collection, and analysis. Research was reviewed and edited by Dr. P. Seenivasan. The protocol and

manuscript were finalized, edited, and submitted for publication by Dr. T. Suseela.

CONFLICT OF INTEREST

The authors affirm no conflicts of interest.

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None.

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ANNEXURE

A free licence was granted with the following information:

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Type of use: Medical: Not funded by a with-profit company/organisation

Institution/Organisation: Government Stanley Medical College

Address: Government Stanley Medical College, Old Jail Road, Washermenpet, Chennai - 600 001, Tamil Nadu, India

Study Number:

Study Title/Description: Impact of Psoriasis in the social life of patients above 18 years of age

Number of participants: 140

Start date: 23/03/2023

Expected End date: 30/04/2023

Questionnaire Type: Dermatology Life Quality Index – DLQI