Original Article:

Assessment of dermatological quality of life & prevalence of anxiety & depression among patients with psoriasis

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Abstract

Background: Psoriasis, a chronic skin condition with significant physical and psychological impacts, is influenced by stress and emotional disturbances that exacerbate disease progression and burden. **Objective:** This study aimed to evaluate the quality of life, prevalence of anxiety and depression among psoriatic patients, and their correlation with disease severity to inform early psychological intervention. **Methods:** A six-month cross-sectional study was conducted at the Department of Dermatology & Venereology, Dhaka Medical College Hospital, involving 100 psoriasis patients. Ethical approval was secured, and informed consent obtained. Patients were clinically evaluated, and relevant data were collected using standardized scales including the Psoriasis Area and Severity Index (PASI), Dermatology Life Quality Index (DLQI), and Hospital Anxiety and Depression Scale (HADS). Data analysis was performed using SPSS 20. **Results:** The mean age was 39.88±15.73 years, with a male predominance (60%) and 63% from rural areas. PASI scores showed 42% moderate, 30% severe, and 28% mild involvement. DLQI scores indicated moderate impact on 35%, extremely large impact on 33%, and small impact on 16%, while 10% and 6% experienced very large and no effects, respectively. HADS revealed 59% with definite anxiety/depression, 34% borderline cases, and 7% normal. Statistical analysis showed significant associations between PASI and DLQI scores ($r=0.58$, $p<0.05$) and between PASI and HADS scores ($r=0.52$, $p<0.05$), demonstrating that disease severity correlates with worsening quality of life and mental health. **Conclusion:** Psoriasis severity adversely affects quality of life and mental health. Early psychological intervention and comprehensive care are recommended.

Keywords: Psoriasis, Quality of Life, Anxiety, Depression, Disease Severity

Introduction

Psoriasis is a chronic inflammatory skin disease which affects approximately 2% of the world's population, with men and women being equally affected. It is characterized by hyperproliferation of the epidermis with thick, red and scaly lesions that may appear anywhere on the body. Beyond the physical dimensions of disease, psoriasis has an extensive psychosocial effect on patients' life; it can result in stigmatization, poor self-esteem, and increased stress, affecting social functioning and interpersonal relationships.[1-3] In Bangladesh psoriasis is a challenging entity considering its variable and atypical presentation though the exact prevalence of psoriasis is not known.[4] The chronic and relapsing course of psoriasis, its resistance to therapy, the discomfort of therapy and the presence of skin lesions in exposed areas resulting in significant quality of life (QOL) impairment. The impact of psoriasis on QOL is reported to be comparable to that of systemic life-threatening diseases such as arthritis, cancer, diabetes and cardiovascular disorders.[5] A large European study showed that in the moderate or severe

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psoriasis cases: 56% have difficulties regarding clothing choice, 45% experience need for more baths, 40% wash/change clothes more often, 38% has difficulties in sport activities, in 34% psoriasis affected sleep, in 27% it inhibits work/school activities and in 26% psoriasis affects social relations.[7]

Patients with psoriasis generally have low self-esteem as they experience social discrimination and humiliation.[8] Thus 81% have reported feeling embarrassment and shame, whereas 75% reported feeling physically unattractive or sexually undesirable.[9] Psychological stress also results in unwillingness to undergo regular treatment of psoriasis.[10] Then psoriasis also possesses a high risk of depression and anxiety. Detecting and treating anxiety is an integral part of dermatological management, leading to better QOL and less use of resources. Management should include effective communication, reassurance and behavioral therapy before prescribing drugs.[8,11] Psoriasis, particularly if affects important body image areas as the face and hand, may produce a severe reactive depression. Gupta et al. have found that 9.7% of psoriasis patients thought about death, and 5.5% of such patients considered suicide.[12,13]

In absence of the complete cure, the aim of treatment of psoriasis is to minimize the extent and severity of disease and to reduce its impact on patients' quality of life. Evaluation of quality of life and Prevalence of anxiety & depression in psoriatic patients will help health professionals to provide early intervention which will reduce the morbidity and mortality of psoriasis.[8,1]

Material and Methods

This cross-sectional study was conducted over a six-month period at the Department of Dermatology and Venereology, Dhaka Medical College Hospital. A total of 100 patients clinically diagnosed with psoriasis were enrolled using a purposive sampling technique. Ethical approval was obtained from the institutional review board, and all participants provided written informed consent prior to inclusion.

Eligible participants were adults aged 18 to 60 years, willing to cooperate and free from known psychiatric illnesses or other serious medical conditions that could influence mental health independently. Pregnant women and patients with malignancy or systemic disorders such as hepatic or renal dysfunction were excluded to reduce confounding variables.

Data were collected through face-to-face interviews using a semi-structured questionnaire and validated scales. These included the Psoriasis Area and Severity Index (PASI) for grading disease severity, the Dermatology Life Quality Index (DLQI) to evaluate the dermatological impact on quality of life, and the Hospital Anxiety and Depression Scale (HADS) to assess mental health status. Each participant underwent clinical examination, history taking, and scoring using these tools.

Statistical analysis was performed using IBM SPSS version.[22] Descriptive statistics summarized demographic and clinical variables, while inferential statistics were used to evaluate associations. Chi-square tests and correlation coefficients assessed relationships among PASI, DLQI, and HADS scores. A p-value of less than 0.05 was considered statistically significant.

Result

The demographic profile of the study population showed that the largest proportion of patients (31%) were between 26 and 35 years of age, with a mean age of 39.9 ± 15.7 years, indicating that psoriasis predominantly affects individuals in their most productive years. Males accounted for 60% of the respondents, suggesting a male predominance in healthcare-seeking behavior or disease burden. A significant majority (63%) of patients were from rural areas, highlighting possible geographic and healthcare access disparities in the management of chronic dermatological conditions. Assessment of body mass index (BMI) revealed that 67% of patients had a normal BMI, whereas 20% were overweight, 7% obese, and 6% underweight, reflecting a diverse nutritional and metabolic profile among the study participants.

The table shows the number of patients according to psoriasis area & severity index (PASI). Among the respondents 42% had moderate involvement of PASI followed by 30% had severe involvement PASI & 28% had mild involvement of PASI.

Table 1: Psoriasis area and severity index (PASI) findings among the patients with Psoriasis (n=100)

PASI	Frequency (n)	Percentage (%)
0-10: mild	28	28%
11-20: moderate	42	42%
>20: severe	30	30%

The table is showing the number of patients according to Dermatology Life Quality Index (DLQI). Among the respondents 35% had moderate effect on patient's life decreased order followed by 33% had extremely large effect on patient's life, 16% had small effect on patient's life, 10% very large effect on patient's life and 6% had no effect on patient's life.

Table 2: Dermatology Life Quality Index (DLQI) findings among the patients with Psoriasis (n=100)

DLQI	Frequency (n)	Percentage (%)
0-1: No effect at all on patient's life	6	6%
2-5: Small effect on patient's life	16	16%
6-10: Moderate effect on patient's life	35	35%
11-20: Very Large effect on patient's life	10	10%
21-30: Extremely Large effect on patient's life	33	33%

The table is showing the number of patients according to Hospital Anxiety and Depression scale (HADS). Among the respondents 59% was abnormal according to HADS decreased order followed by 34% had borderline abnormality according to HADS and 7% was normal according to HADS.

Table 3: Hospital Anxiety and Depression scale (HADS) findings among the patients with Psoriasis (n=100)

HADS	Frequency (n)	Percentage (%)
0-7: Normal	7	7%
8-10: Borderline Abnormal	34	34%
11-21: Abnormal	59	59%

The table showing relation of Psoriasis area and severity index (PASI) with Dermatology Life Quality Index (DLQI) among the patients with Psoriasis. Association between Psoriasis area and severity index (PASI) and Dermatology Life Quality Index (DLQI)had been found significant($p<0.05$). According to the study, Dermatology Life Quality Index (DLQI) was more affected when the Psoriasis area and severity index (PASI) increased.

Table 4: Relation of Psoriasis area and severity index (PASI) with Dermatology Life Quality Index (DLQI) among the patients with Psoriasis (n=100)

Dermatology Life Quality Index (DLQI)						
Psoriasis area and severity index (PASI)	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	21-30: Extremely Large effect on patient's life	11-20: Very Large effect on patient's life	p value*
0-10 mild	6	9	11	2	0	
11-20 moderate	0	6	21	6	9	<0.001
>20 severe	0	1	3	2	24	

*p value was determined by chi square test

The table showing relation of Psoriasis area and severity index (PASI) with Hospital Anxiety and Depression scale (HADS) among the patients with Psoriasis. Association between Psoriasis area and severity index (PASI) and Hospital Anxiety and Depression scale (HADS)had been found significant($p<0.05$). According to the study, Hospital Anxiety and Depression scale (HADS) was increased abnormality when the Psoriasis area and severity index (PASI) increased.

Table 5: Relation of Psoriasis area and severity index (PASI) with Hospital Anxiety and Depression scale (HADS) among the patients with Psoriasis (n=100

Hospital Anxiety and Depression scale (HADS)				
Psoriasis area and severity index (PASI)	0-7: Normal	8-10: Borderline abnormal	11-21: Abnormal	p value*
0-10 : mild	6	8	14	
11-20: moderate	1	17	24	<0.009
>20: severe	0	9	21	

*p value was determined by chi square test

Discussion

Psoriasis is a chronic, immune-mediated condition that significantly affects patients' physical and psychological well-being. In this study, the mean age of participants was 39.88 years, and the majority were within the 26–35-year age group, consistent with findings by Liluashvili et al.[32]. The observed male predominance (60%) aligns with previous research suggesting either a higher disease burden or healthcare utilization among males [33]. A substantial number of participants were from rural areas (63%), supporting earlier findings that suggest geographic disparities in access to dermatological care [6].

Assessment of disease severity using PASI revealed that moderate psoriasis was most prevalent (42%), followed by severe (30%) and mild (28%) forms—findings that are in agreement with those reported by Sommer et al. [35]. The impact of psoriasis on quality of life was considerable, as measured by the DLQI, with 68% of patients reporting moderate to extremely large effects. Similar outcomes have been reported by Bhosle et al., highlighting the multidimensional burden of psoriasis on patients' daily functioning [31].

Psychological comorbidity was also prominent. According to HADS scores, 59% of patients had definite anxiety or depression, while 34% were borderline. These results correspond with findings from Tribó et al. and Akay et al., who also reported high rates of psychological distress among psoriasis patients [36, 37]. Furthermore, a statistically significant correlation between PASI and both DLQI and HADS underscores the relationship between disease severity and its psychosocial consequences.

Psoriasis often leads to reduced self-esteem, social withdrawal, and impaired work productivity. The stigma and visible nature of the disease contribute to a cycle of emotional distress, treatment noncompliance, and further deterioration in quality of life [15]. These findings emphasize the need for an integrated, multidisciplinary approach to management, incorporating routine mental

health screening alongside dermatological treatment.

Conclusion

In this study more than Two Third of patients had at least moderate effect of psoriasis on their Dermatological Quality of life which was found significantly associated with the extent and severity of the disease. More than half of the study population was definite cases of anxiety and depression according to Hospital Anxiety and Depression scale (HADS). However, further study with larger sample size is recommended.

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Informed Consent Statement

All patients provided written informed consent.

Ethical Considerations

The study adhered to ethical guidelines, including obtaining approval from the institutional ethics committee. Written informed consent was obtained from all participants after providing clear information about the study's purpose, procedures, and confidentiality measures. Participants were assured of their right to withdraw at any time without affecting their care. The study posed no harm to patients or the environment.

Conflict of interest

There are no conflicts of interest among authors.

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