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Original Article

Assessment of Psychological Burden and Suicidal Ideation in Dermatological Inpatients

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Abstract

Background Psychological distress is increasingly recognized among patients with dermatological diseases because of the chronic, recurrent, and visibly disfiguring nature of many skin disorders. Anxiety, depression, and suicidal ideation may significantly affect quality of life and treatment outcomes, particularly among hospitalized patients with severe disease.

Objective To estimate the prevalence of anxiety and depression among dermatological inpatients and determine the correlation between clinical disease severity and psychological morbidity.

Methods This cross-sectional study was conducted on 151 patients admitted to the dermatology ward, Services Hospital Lahore over a period of one year. Demographic data and disease characteristics were recorded. The Hospital Anxiety and Depression Scale (HADS) was utilized to quantify psychological distress. Statistical analysis was performed to identify significant correlations (P<.05).

Results Of the 151 patients, 59.6% were male. Anxiety (HADS-A ≥8) and depression (HADS-D ≥8) were present in 59.6% and 65.6% of patients, respectively. Clinical disease severity was highly correlated with HADS-A (P<.001) and HADS-D (P<.001). Gender was a significant factor for anxiety (P=.002), with females showing higher scores. Alarmingly, 9.9% of patients reported suicidal ideation, which was significantly correlated with depression severity.

Conclusion Hospitalized dermatology patients in Lahore carry a substantial psychological burden. Routine screening and a multidisciplinary approach involving psychiatrists are necessary to improve patient outcomes and safety.

Keywords Psychodermatology; Anxiety; Depression; Severity of Illness Index; Inpatients.

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Introduction

The skin is the largest organ of the human body and serves as the primary interface between an individual's internal biological state and the external social environment.[1] Beyond its fundamental roles in thermoregulation and protection against pathogens, the skin is an organ of immense psychological and social significance. It is a key determinant of self-image, social identity, and interpersonal communication. Consequently, when the skin's appearance or function is compromised by disease, the impact is rarely confined to the physical realm; it frequently extends into the psychological and emotional domains.[1,2]

The profound connection between the integumentary and central nervous systems is rooted in their shared embryological origin- the ectoderm. This common

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ancestry forms the basis of the "brain-skin axis," a complex bidirectional communication network where psychological stress can trigger or exacerbate skin diseases through the release of neuroendocrine mediators, and conversely, the presence of skin lesions can induce significant psychological distress.[3,4] Current literature suggests that approximately 30% to 40% of patients seeking treatment for skin conditions have an underlying psychiatric comorbidity, most commonly anxiety or depression.[5,6]

In the context of Pakistan, dermatological conditions carry a heavy sociocultural burden.[7] Physical appearance is deeply tied to social standing, marriageability, and professional opportunities. Visible skin diseases such as vitiligo, psoriasis, or chronic eczema are often met with social stigmatization, leading to feelings of "shame" and "social contamination".[7,8] Previous local studies have indicated that Pakistani patients often experience higher levels of distress compared to Western cohorts, potentially due to the intense social pressures and a lack of public awareness regarding the non-contagious nature of many skin conditions.[9,10]

While much research has focused on the psychological impact of skin disease in outpatient settings, the inpatient population remains under-studied.[2,3,6,7,9,10] Hospitalization typically indicates a state of high disease severity, acute flares, or systemic involvement that requires intensive management.[11] The act of being admitted to a hospital-characterized by a loss of autonomy, separation from family, and financial uncertainty-can serve as an independent stressor that compounds the patient's existing psychological burden.[12]

Furthermore, the clinical severity of the disease is a critical variable. Chronic, severe conditions such as pemphigus vulgaris, Stevens-Johnson syndrome, or erythrodermic psoriasis not only cause physical pain and disability but also force patients to confront the reality of long-term illness.[13,14] The Hospital Anxiety and Depression Scale (HADS) has emerged as a gold-standard screening tool in such medical settings because it excludes physical symptoms (like fatigue or insomnia) that might be caused by the skin disease itself, thereby providing a more accurate assessment of psychological state.[15]

Despite the high prevalence of these issues, psychological screening is not yet a routine part of dermatological inpatient care in many tertiary care hospitals in Pakistan. This oversight can lead to poor treatment adherence, prolonged hospital stays, and a decreased overall quality of life.[16,17] There is an urgent need to quantify this burden specifically among inpatients to justify the integration of psychodermatological services into standard clinical practice.

The Services Institute of Medical Sciences (SIMS), Lahore, serves a diverse population across the Punjab region. By analyzing the HADS scores of patients in our indoor ward, we aim to establish a clear correlation between disease severity and psychological morbidity. This study seeks to provide the empirical evidence necessary to advocate for a multidisciplinary approach combining dermatological treatment with psychiatric support-to improve the holistic care of our patients.[18-19]

Methods

This cross-sectional study was conducted in the Department of Dermatology at the Services Institute of Medical Sciences (SIMS), Lahore. The study duration spanned from November 2022 to October 2023 following ethical approval from the Institutional Review Board (No. IRB/2022/998/SIMS dated 04.08.2022).

The sample size for this cross-sectional study was calculated using the single population proportion formula:

$$n = \frac{Z^2 P(1-P)}{d^2}$$

Where n=required sample size, Z= standard normal variate at 95% confidence interval (1.96), P= anticipated prevalence of psychological burden among dermatology patients based on previous literature (taken as 35% i.e., 0.35 based on prior local data), and d= margin of error set at 5%. A 95% confidence level was used, and the formula inherently ensures adequate precision; 80% study power was applied as an additional consideration for the calculated sample size.[21] The calculated minimum sample size was 141. This was increased to 151 to compensate for possible incomplete responses and improve study reliability. Consequently, a total of 151 dermatology inpatients admitted to the tertiary care centre during the study period were enrolled through consecutive sampling.

Patients were selected according to the following criteria:

Inclusion Criteria: Patients aged 16 years and above, admitted for more than 48 hours for any dermatological condition.

Exclusion Criteria: Patients with known pre-existing primary psychiatric disorders (unrelated to skin disease), those on psychotropic medication prior to admission, and those unable to communicate effectively. Patients with comorbidities such as diabetes, obesity, hypertension, and heart disease alongside their skin conditions, which may affect psychological well-being were also excluded.

Data collection tools included demographic questionnaire: Information regarding age, gender, marital status, employment, education, and duration of disease was collected. Socioeconomic status was operationally defined based on monthly household income: low socioeconomic status was defined as a monthly income below PKR 30,000 and middle as PKR 30,000 or above. Education level was categorized according to the Pakistan Standard Classification of Education (PSCO): Uneducated (no formal schooling), Primary (Grades 1–5), Lower Secondary (Grades 6–8), Upper Secondary (Grades 9-10), Post-Secondary (Grades 11-12), Tertiary (undergraduate diploma/certificate), and Bachelor's degree or above.

Clinical assessment: Disease severity was categorized by a senior dermatologist into Mild, Moderate, or Severe based on standard clinical parameters for each specific condition (e.g., PASI for psoriasis, BSA for bullous diseases).

HADS (Hospital Anxiety and Depression Scale): A validated Urdu version of the HADS was used. This 14-item scale consists of two subscales: Anxiety (HADS-A) and Depression (HADS-D). Scores for each subscale range from 0 to 21.[22]

Data management and statistical computations were performed using IBM SPSS Statistics (Version 26.0; IBM Corp, Armonk, NY, USA). Categorical demographic variables (gender, age groups, marital status, employment, and socioeconomic status) and clinical characteristics (disease duration, disease severity, and site of involvement) were expressed as absolute frequencies (n) and percentages (%). The HADS scores were categorized into four morbidity levels: Normal (0-7), Mild (8-10), Moderate (11-14), and Severe (15-21), following the original validation criteria by Zigmond and Snaith.

Descriptive Statistics: Categorical demographic variables (gender, age groups, marital status, employment, and socioeconomic status) and clinical characteristics (disease duration, disease severity, and site of involvement) were expressed as absolute frequencies (n) and percentages (%).

To determine associations between demographic or clinical factors and the presence of anxiety and depression, the Pearson Chi-square test was employed; Fisher's Exact Test was applied when expected cell counts were less than 5. For all analyses, a two-tailed *P*-value of <.05 was considered statistically significant; highly significant associations were noted at *P*<.001.

Table 1 Demographic details of Dermatology Inpatients assessed for Anxiety and Depression.

Characteristics	*Variables*	*n*	*%age*
Gender	Male	90	59.6
	Female	61	40.4
Age	16-30	45	29.8
	31-45	55	36.4
	46-60	37	24.5
	>60	14	9.3
Age at onset	Children (0-14)	13	8.6
	Youth (15-24)	24	15.9
	Adult (25-64)	111	73.5
	Senior (>65)	3	2.0
Employment Status	Unemployed	82	54.3
	Employed	69	45.7
Marital Status	Unmarried	25	16.6
	Married	124	82.1
	Divorcee	1	0.7
	Widowed	1	0.7
Socioeconomic Status	Low	74	49.0
	Middle	77	51.0
Level of Education	Uneducated	14	9.3
	Primary	27	17.9
	Lower Secondary	25	16.6
	Upper Secondary	28	18.5
	Post Secondary	39	25.8
	Tertiary	13	8.6
	Bachelor's	5	3.3
Number of Admissions	First	88	58.3
	>1	63	41.7
Areas of Body Involved	Exposed	22	14.6
	Unexposed	12	7.9
	Both	117	77.5
Severity of Disease	Mild	8	5.3
	Moderate	84	55.6
	Severe	59	39.1
Disease Duration	Acute	18	11.9
	Chronic	133	88.1
Family History of Psychiatric Illness	Yes	4	2.5
	No	147	97.4

Result

The study population was characterized by a male predominance (59.6% vs. 40.4%). The most represented age group was 31-45 years (36.4%), followed by 16-30 years (29.8%). A significant majority (88.1%) suffered from chronic skin conditions lasting more than 6 months. Socioeconomically, the distribution was nearly equal between low (49.0%) and middle (51.0%) classes as given in **Table 1**.

Prevalence of Anxiety (HADS-A)

Based on HADS-A scores:

- Normal (0-7): 40.4%
- Mild (8-10): 26.5%
- Moderate (11-14): 25.8%
- Severe (15-21): 7.3%

Statistical analysis revealed that gender (*P*=.002) and age (*P*=.001) were significantly associated with anxiety levels. Females and younger patients reported higher anxiety scores. Details are given in **Table 2**.

Prevalence of Depression (HADS-D)

Based on HADS-D scores:

- Normal (0-7): 34.4%
- Mild (8-10): 33.1%
- Moderate (11-14): 25.2%
- Severe (15-21): 7.3%

Employment status was a notable predictor of depression (*P*=.032), with unemployed individuals showing significantly higher rates of depressive symptoms. Other significant factors were moderate to severe disease and first admission. There was a linear and highly significant correlation between clinical disease severity and both psychological subscales (*P*<.001). Remarkably, 9.9% of the inpatients admitted to thinking about self-harm or suicide. This ideation was strictly correlated with higher HADS-D scores (*P*<.001) (**Table 3**).

Discussion

The findings of this study reveal a high psychological burden, with 59.6% of inpatients experiencing anxiety and 65.6% experiencing depression (HADS ≥8). Locally, our prevalence rates are notably higher than those reported in outpatient settings in Pakistan. For instance, a study by Aslam *et al*.[10] at Jinnah Hospital, Lahore, found that only 28% of outpatients had anxiety and 20% had depression. Similarly, Hisam *et al*.[9] reported a depression rate of 25% among dermatology patients.

Table 2 Prevalence of Anxiety (HADS-A) and its correlation to Demographics.

		HADS- Anxiety				*Total(n/ %)*	*P-value*
		Normal (n/%)	*Mild (n/%)*	*Moderate (n/%)*	*Severe (n/%)*		
Gender	Male	47 (52.2%)	19 (21.1%)	20 (22.2%)	4 (4.4%)	90 (59.6%)	.002
	Female	14 (23%)	21 (34.4%)	19 (31.1%)	7 (11.5%)	61 (40.4%)	
Age of patients (years)	16-30 years	16 (35.6%)	16 (35.6%)	10 (22.2%)	3 (6.7%)	45 (29.8%)	.001
	31-45 years	21 (38.2%)	5 (9.1%)	23 (41.8%)	6 (10.9%)	55 (36.4%)	
	46-60 years	18 (48.6%)	15 (40.5%)	3 (8.1%)	1 (2.7%)	37 (24.5%)	
	> 60 years	6 (42.9%)	4 (28.6%)	3 (21.4%)	1 (7.1%)	14 (9.3%)	
Duration of disease	≤6 months	7 (11.5%)	5 (12.5%)	5 (12.8%)	1 (9.1%)	18 (11.9%)	1.000
	>6 months	54 (88.5%)	35 (87.5%)	34 (87.2%)	10 (90.9%)	133 (88.1%)	
Number of admissions	Single	39 (63.9%)	26 (65%)	19 (48.7%)	4 (36.4%)	88 (58.3%)	.164
	Multiple	22 (36.1%)	14 (35%)	20 (51.3%)	7 (63.6%)	63 (41.7%)	
Severity of Disease	Mild	5 (8.2%)	1 (2.5%)	2 (5.1%)	0 (0%)	8 (5.3%)	<.001
	Moderate	45 (73.8)	26 (65%)	12 (30.8)	1 (9.1%)	84 (55.6%)	
	Severe	11 (18%)	13 (32.5%)	25 (64.1%)	10 (90.9%)	59 (39.1%)	
Parts of Body involved	Exposed	9 (14.8%)	7 (17.5%)	6 (15.4%)	0 (0.0%)	22 (14.6%)	.411
	Covered	8 (13.1%)	2 (5.0%)	1 (2.6%)	1 (9.1%)	12 (7.9%)	
	Both	44 (72.1%)	31 (77.5%)	32 (82.1%)	10 (90.9%)	117 (77.5%)	
Family history of Psychiatric illness	Yes	0 (0.0%)	2 (5%)	2 (5.1%)	0 (0.0%)	4 (2.6%)	.261
	No	61 (100.0%)	38 (95%)	37 (94.9%)	11 (100%)	147 (97.4%)	
Suicidal Ideation	Yes	2 (3.3%)	2 (5.0%)	9 (23.1%)	2 (18.2%)	15 (9.9%)	.005
	No	59 (96.7%)	38 (95.0%)	30 (76.9%)	9 (81.8%)	136 (90.1%)	
Employment status	Unemployed	20 (32.8%)	29 (72.5%)	24 (61.5%)	9 (81.8%)	82 (54.3%)	<.001
	employed	41 (67.2%)	11 (27.5%)	15 (38.5%)	2 (18.2%)	69 (45.7%)	
Marital status	unmarried	12 (19.7%)	8 (20.0%)	4 (10.3%)	1 (9.1%)	25 (16.6%)	.518
	married	49 (80.3%)	31 (77.5%)	34 (87.2%)	10 (90.9%)	124 (82.1%)	
	divorcee	0 (0.0%)	1 (2.5%)	0 (0.0%)	0 (0.0%)	1 (0.7%)	
	widowed	0 (0.0%)	0 (0.0%)	1 (2.6%)	0 (0.0%)	1 (0.7%)	
Socioeconomic status	low	27 (44.3%)	22 (55.0%)	18 (46.2%)	7 (63.6%)	74 (49.0%)	.550
	middle	34 (55.7%)	18 (45.0%)	21 (53.8%)	4 (36.4%)	77 (51.0%)	
Education Level	Uneducated	8 (13.1%)	3 (7.5%)	2 (5.1%)	1 (9.1%)	14 (9.3%)	.759
	Primary	11 (18.0%)	8 (20.0%)	6 (15.4%)	2 (18.2%)	27 (17.9%)	
	Lower secondary	9 (14.8%)	9 (22.5%)	6 (15.4%)	1 (9.1%)	25 (16.6%)	
	Upper secondary	8 (13.1%)	8 (20.0%)	9 (23.1%)	3 (27.3%)	28 (18.5%)	
	Post secondary	14 (23.0%)	9 (22.5%)	14 (35.9%)	2 (18.2%)	39 (25.8%)	
	Tertiary	9 (14.8%)	2 (5.0%)	1 (2.6%)	1 (9.1%)	13 (8.6%)	
	Bachelor's	2 (3.3%)	1 (2.5%)	1 (2.6%)	1 (9.1%)	5 (3.3%)	
Age at Onset of Disease	Childhood (0-14years)	6 (9.8%)	4 (10.0%)	3 (7.7%)	0 (0.0%)	13 (8.6%)	.398
	Youth (15 to 24years)	8 (13.1%)	10 (25.0%)	6 (15.4%)	0 (0.0%)	24 (15.9%)	
	Adulthood (25 to 64 years)	46 (75.4%)	24 (60.0%)	30 (76.9%)	11 (100.0%)	111 (73.5%)	
	Senior hood (>65 years)	1 (1.6%)	2 (5.0%)	0 (0.0%)	0 (0.0%)	3 (2.0%)	
	Total	61 (40.4%)	40 (26.5%)	39 (25.8%)	11 (7.3%)	151 (100%)	
Number of Admissions	Single	39 (63.9%)	26 (65.0%)	19 (48.7%)	4 (36.4%)	88 (58.3%)	.164
	Multiple	22 (36.1%)	14 (35.0%)	20 (51.3%)	7 (63.6%)	63 (41.7%)	
Total (n/ % of total)		61 (40.4%)	40 (26.5%)	39 (25.8%)	11 (7.3%)	151 (100%)	

The marked increase in our study (65.6% vs. 25%) likely reflects the heightened psychological distress associated with inpatient status, where patients often present with severe, debilitating, or treatment-refractory conditions requiring hospitalization.[3]

The results in our results surpass the findings of a large-scale multi-centre European study involving 13 countries, which reported clinical anxiety in 17.2% and depression in 10.1% of dermatology patients.[5] The significantly higher rates in our cohort may be attributed to different sociocultural pressures in Pakistan, such as the intense social stigma attached to skin diseases and the financial strain of

Table 3 Prevalence of Depression (HADS-D) and its correlation to Demographics.

Factors		*HADS – Depression*				*Total n(%)*	*p- value*
		Normal n(%)	*Mild n(%)*	*Moderate n(%)*	*Severe n(%)*		
Gender	Male	47 (52.2%)	19 (21.1%)	20 (22.2%)	4 (4.4%)	90 (59.6%)	.095
	Female	14 (23%)	21 (34.4%)	19 (31.1%)	7 (11.5%)	61 (40.4%)	
Age of patients (years)	16-30 years	15 (28.8%)	16 (32.0%)	11 (28.9%)	3 (27.3%)	45 (29.8%)	.790
	31-45 years	17 (32.7%)	17 (34.0%)	14 (36.8%)	7 (63.6%)	55 (36.4%)	
	46-60 years	16 (30.8%)	12 (24.0%)	8 (21.1%)	1 (9.1%)	37 (24.5%)	
	> 60 years	4 (7.7%)	5 (10.0%)	5 (13.2%)	0 (0.0%)	14 (9.3%)	
Duration of disease	≤6 months	7 (11.5%)	5 (12.5%)	5 (12.8%)	1 (9.1%)	18 (11.9%)	.943
	>6 months	45 (86.5%)	45 (90.0%)	33 (86.8%)	10 (90.9%)	133 (88.1%)	
Number of admissions	Single	39 (63.9%)	27 (54.0%)	16 (42.1%)	6 (54.5%)	88 (58.3%)	.013
	Multiple	13 (25.0%)	23 (46.0%)	22 (57.9%)	5 (45.5%)	63 (41.7%)	
Severity of Disease	Mild	6 (11.5%)	2 (4.0%)	0 (0.0%)	0 (0.0%)	8 (5.3%)	<.001
	Moderate	41 (78.8%)	26 (52.0%)	15 (39.5%)	2 (18.2%)	84 (55.6%)	
	Severe	5 (9.6%)	22 (44.0%)	23 (60.5%)	9 (81.8%)	59 (39.1%)	
Parts of Body involved	Exposed	10 (19.2%)	7 (14.0%)	4 (10.5%)	1 (9.1%)	22 (14.6%)	.748
	Covered	6 (11.5%)	4 (8.0%)	2 (5.3%)	0 (0.0%)	12 (7.9%)	
	Both	36 (69.2%)	39 (78.0%)	32 (84.2%)	10 (90.9%)	117 (77.5%)	
Family history of Psychiatric illness	Yes	1 (1.9%)	1 (2.0%)	1 (2.6%)	1 (9.1%)	4 (2.6%)	.544
	No	51 (98.1%)	49 (98.0%)	37 (97.4%)	10 (90.9%)	147 (97.4%)	
Suicidal Ideation	Yes	1 (1.9%)	4 (8.0%)	4 (10.5%)	6 (54.5%)	15 (9.9%)	<.001
	No	51 (98.1%)	46 (92.0%)	34 (89.5%)	5 (45.5%)	136 (90.1%)	
Employment status	Unemployed	20 (38.5%)	32 (64.0%)	22 (57.9%)	8 (72.7%)	82 (54.3%)	.032
	employed	32 (61.5%)	18 (36.0%)	16 (42.1%)	3 (27.3%)	69 (45.7%)	
Marital status	unmarried	8 (15.4%)	7 (14.0%)	7 (18.4%)	3 (27.3%)	25 (16.6%)	.678
	married	44 (84.6%)	42 (84.0%)	30 (78.9%)	8 (72.7%)	124 (82.1%)	
	divorcee	0 (0.0%)	1 (2.0%)	0 (0.0%)	0 (0.0%)	1 (0.7%)	
	widowed	0 (0.0%)	0 (0.0%)	1 (2.6%)	0 (0.0%)	1 (0.7%)	
Socioeconomic status	low	21 (40.4%)	24 (48.0%)	21 (55.3%)	8 (72.7%)	74 (49.0%)	.208
	middle	31 (59.6%)	26 (52.0%)	17 (44.7%)	3 (27.3%)	77 (51.0%)	
Education Level	Uneducated	6 (11.5%)	4 (8.0%)	4 (10.5%)	0 (0.0%)	14 (9.3%)	0.071
	Primary	6 (11.5%)	10 (20.0%)	6 (15.8%)	5 (45.5%)	27 (17.9%)	
	Lower secondary	10 (19.2%)	7 (14.0%)	5 (13.2%)	3 (27.3%)	25 (16.6%)	
	Upper secondary	4 (7.7%)	12 (24.0%)	11 (28.9%)	1 (9.1%)	28 (18.5%)	
	Post secondary	15 (28.8%)	11 (22.0%)	11 (28.9%)	2 (18.2%)	39 (25.8%)	
	Tertiary	8 (15.4%)	4 (8.0%)	1 (2.6%)	0 (0.0%)	13 (8.6%)	
	Bachelor's	3 (5.8%)	2 (4.0%)	0 (0.0%)	0 (0.0%)	5 (3.3%)	
Age at Onset of Disease	Childhood (0-14 yrs.)	5 (9.6%)	4 (8.0%)	3 (7.9%)	1 (9.1%)	13 (8.6%)	.962
	Youth (15 to 24 yrs.)	8 (15.4%)	8 (16.0%)	6 (15.8%)	2 (18.2%)	24 (15.9%)	
	Adulthood (25 to 64 years)	39 (75.0%)	37 (74.0%)	27 (71.1%)	8 (72.7%)	111 (73.5%)	
	Senior hood (>65 yrs.)	0 (0.0%)	1 (2.0%)	2 (5.3%)	0 (0.0%)	3 (2.0%)	
Total n (% of total)		52 (34.4%)	50 (33.1%)	38 (25.2%)	11 (7.3%)	151 (100.0%)	

chronic illness in a developing economy.[7] A hallmark finding of our study was the highly significant correlation between clinical disease severity and HADS scores (*P*<.001). This mirrors international data from Poland, where HADS-D and HADS-A scores correlated positively with clinical severity scores (IHS4) in patients with Hidradenitis Suppurativa.[13] Similarly, a Jordanian study on rosacea patients demonstrated that disease severity was a strong predictor of poor psychological outcomes.[24] Locally, these findings are supported by research in Karachi, where severe psoriasis was significantly linked to a "very large effect" on quality of life and psychological well-being.[14]

Our study identified female gender as a significant risk factor for anxiety (*P*=.002). This aligns with a cohort study in Lahore which found higher HADS-A

scores in females with acne vulgaris.[20] Socioeconomically, the association between unemployment and depression in our study (*P*=.032) is echoed by international research highlighting "financial toxicity" in chronic skin diseases, where the cost of long-term therapy exacerbates depressive symptoms.[6,24]

The prevalence of suicidal ideation in our cohort (9.9%) is alarmingly high but consistent with specific high-risk dermatological populations. International data suggests that approximately 12.7% of patients across various skin diagnoses report suicidal thoughts, with the highest risk found in patients with psoriasis and atopic dermatitis.[5,24] In the regional context, Iranian researchers found suicidal ideation in 11.7% of patients with vitiligo and alopecia areata, highlighting that disfiguring diseases often lead to significant hopelessness.[26]

Strengths and Limitations of the Study Unlike many international and local studies that aggregate outpatients and inpatients, this study specifically focuses on hospitalized patients. This provides a clear window into the psychological state of those with the most severe clinical presentations. The use of the Urdu-validated version of the Hospital Anxiety and Depression Scale (HADS) ensures that the psychological assessment is both linguistically appropriate for the Lahore population and medically reliable, as HADS specifically excludes somatic symptoms of illness that could confound results. The study does not just look at "presence" vs. "absence" of distress; it categorizes morbidity into mild, moderate, and severe levels. This allowed for the discovery of a highly significant linear correlation (*P*<.001) with clinical disease severity. A major strength is the inclusion of suicidal ideation screening. Identifying a 9.9% prevalence of self-harm thoughts provides significant clinical "weight" to the study, moving it beyond simple observation to an urgent call for intervention. Being conducted at SIMS, a premier tertiary care center, the study captures a wide demographic of patients from across Punjab, increasing the relevance of the findings to the broader regional healthcare system.

The study captures a "snapshot" in time. Consequently, we cannot definitively establish causality- i.e., whether the skin disease caused the depression or if pre-existing psychological distress exacerbated the skin condition (the "chicken or the egg" dilemma). While SIMS is a major hub, the findings may reflect the specific socioeconomic and clinical dynamics of a public sector hospital in Lahore and may not be fully generalizable to private healthcare settings or other provinces in Pakistan. While HADS is an excellent screening tool, it is not a diagnostic instrument. The "severe" cases identified would ideally require a follow-up structured clinical interview by a psychiatrist to confirm a formal diagnosis. The use of non-probability consecutive sampling may introduce selection bias, as patients with the most severe psychological distress might have been less willing to participate in a survey during their hospital stay. Addressing these limitations will pave the way for future multicentre trials and more focussed research work.

Conclusion and recommendations

Psychological morbidity is not a mere side effect of dermatological disease; it is a core component of the illness. We must move toward a biopsychosocial model of care.

1. *Mandatory Screening*: HADS should be integrated into the standard admission clerking for all dermatology inpatients.
2. *Psychiatric Consultation*: Formal links between the Dermatology and Psychiatry departments are essential.
3. *Counselling Services*: Inpatient wards should have access to clinical psychologists to manage acute distress and suicidal ideation.

Declaration of patient consent Authors certify that they have obtained all appropriate patient consent.

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Author's contribution

AQK,HT,AF: Substantial contribution to study design, acquisition of data and manuscript writing.

AUH,RM,FA: Substantial contribution to analysis and interpretation of data, critical review of the manuscript.

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