

Preliminary Clinical Investigation on Social Anxiety and Quality of Life in Patients with Facial Psoriasis Vulgaris

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Abstract: *Objective:* To investigate the psychological status and quality of life in patients with psoriasis involving the facial region, and to further analyze the associated influencing factors. *Methods:* A total of 60 patients with facial psoriasis vulgaris who had complete clinical data and demonstrated high compliance were enrolled as the investigation group, and 60 patients with non-facial psoriasis vulgaris were selected as the control group. The Liebowitz Social Anxiety Scale (LSAS), Hospital Anxiety and Depression Scale (HADS), and Dermatology Life Quality Index (DLQI) were employed to assess psychological disorders and quality of life in both groups. Statistical analyses were subsequently performed. *Results:* The investigation group exhibited significantly higher levels of social anxiety, depression, and anxiety compared with the control group ($P < 0.05$), and quality of life was more severely impaired in the investigation group ($P < 0.05$). No significant correlation was observed between overall disease severity and social anxiety, depression, or anxiety levels in the investigation group ($P > 0.05$). However, facial disease severity was positively correlated with social anxiety, depression, and anxiety levels ($P < 0.05$), and negatively correlated with quality of life ($P < 0.05$). Social anxiety, depression, and anxiety levels were negatively correlated with quality of life ($P < 0.05$). *Conclusion:* Patients with psoriasis vulgaris involving the facial area are predisposed to psychological disorders and social avoidance, with significant impairment in work and academic performance, as well as diminished quality of life.

Keywords: Face; Psoriasis vulgaris; Social anxiety; Depression; Quality of life

Online publication: June 26, 2026

1. Introduction

Chronic dermatological conditions, such as acne and psoriasis, often impose a substantial burden on patients and predispose them to depression and anxiety^[1]. This is particularly pronounced when the disease affects the facial region, in which case a considerable proportion of patients develop feelings of inferiority and engage in social avoidance. In the medical field, psoriasis is a chronic erythematous-squamous dermatosis that

not only involves the skin but may also predispose patients to metabolic disorders, obesity, and other comorbid conditions ^[2]. Therefore, timely therapeutic intervention coupled with psychological support is imperative. Prolonged investigations have revealed that more than 10% and 7% of patients with psoriasis experience varying degrees of psychological disturbances, including depression and anxiety, with some patients unable to function normally in their occupational and academic endeavors, resulting in severely compromised quality of life ^[3–4]. Historically, the academic community considered facial involvement in psoriasis to be relatively infrequent; however, a Republic of Korea investigator reported contrary findings, demonstrating an incidence of facial involvement as high as 67%, with this subset of patients exhibiting pronounced psychological distress and markedly reduced quality of life ^[5]. To date, extensive research has been conducted in this field, providing a theoretical foundation for evaluating the clinical efficacy of pharmacotherapeutic agents. Nevertheless, studies specifically addressing facial psoriasis remain scarce, and the present investigation aims to contribute to this underexplored domain.

Social anxiety disorder is a precursor to social anxiety syndrome, which falls within the category of neurotic disorders ^[6]. Epidemiological data indicate a lifetime prevalence of 12.1%, predominantly affecting adolescents. Affected individuals frequently experience anxiety and fear in social settings, which impedes their academic, occupational, and daily functioning ^[7]. It is well recognized that dermatological conditions involving the facial region may engender social insecurity and interpersonal avoidance, a pattern similarly observed in facial psoriasis, thereby inflicting considerable distress upon patients. The systematic application of validated psychometric instruments to evaluate quality of life in this population facilitates the implementation of targeted psychological interventions by clinicians, thereby enhancing therapeutic outcomes. Accordingly, the present study provides a theoretical reference for clinical practice.

2. Subjects and methods

2.1. Study participants

A total of 60 patients with psoriasis vulgaris presenting with facial lesions and complete clinical data were enrolled as the investigation group. An additional 60 patients without prominent facial psoriatic lesions were recruited as the control group. All participants were recruited from the outpatient department of the authors' institution. Inclusion criteria encompassed: age > 18 years, disease duration > 1 year, absence of preexisting psychiatric disorders, physical disabilities, or other chronic dermatological conditions, and absence of nail psoriasis. Age and sex were matched between the two groups, with no statistically significant differences in baseline characteristics ($P > 0.05$). Exclusion criteria were: (1) presence of other facial dermatoses or facial deformities; and (2) inability to comprehend or complete the questionnaires.

2.2. Research methods

Data collection encompassed age, sex, disease duration, family history, marital status, and prior treatment modalities. Overall disease severity was assessed using the Body Surface Area (BSA) score, a critical indicator of the extent of cutaneous involvement ^[8]. A BSA of approximately 1% corresponds to a lesion area equivalent to the palmar surface. Severity was stratified into three grades: mild (< 3%), moderate (3%–10%), and severe (> 10%). Facial disease severity was similarly categorized based on facial involvement area: mild (< 3%), moderate (3%–10%), and severe (> 10%). For precise quantification, the percentage of lesional area was calculated using multiples of 4% ^[9]: forehead 24%, each cheek 20%, and perioral region 8%. Question-

naire assessments included the LSAS to evaluate social anxiety, the HADS to assess anxiety and depression, and the DLQI to evaluate quality of life. The average completion time for the questionnaires was 40 minutes.

2.3. Statistical Analysis

Data were analyzed using SPSS version 16.0. Continuous variables are presented as mean $\pm$ standard deviation (Mean $\pm$ SD). Intergroup comparisons were performed using independent-samples *t*-tests. Correlations between variables were examined using Pearson's correlation coefficient. A *P*-value < 0.05 was considered statistically significant.

3. Results

3.1. Baseline characteristics

Table 1 shows the baseline characteristics and assessments of the investigation and control groups.

Table 1. Baseline characteristics and assessments of the investigation and control groups (Mean $\pm$ SD)

Characteristic	Investigation Group (<i>n</i> = 60)	Control Group (<i>n</i> = 60)
Age (years)	39.8 $\pm$ 9.7	40.2 $\pm$ 10.0
Sex		
Male	36(60.0)	38(63.3)
Female	24(40.0)	22(36.7)
Disease duration (years)	13.2 $\pm$ 11.6	14.2 $\pm$ 12.1
Overall severity (BSA) (n, %)		
Mild (< 3%)	17(28.3)	16(26.9)
Moderate (3%–10%)	22(37.1)	21(35.2)
Severe (> 10%)	21(34.6)	23(37.9)
Facial severity (n, %)		
Mild (< 3%)	34(56.7)	
Moderate (3%–10%)	16(26.7)	
Severe (> 10%)	10(16.6)	
Family history (n, %)		
Present	15(25.0)	14(23.3)
Absent	45(75.0)	46(76.7)
Marital status (n, %)		
Married	49(81.7)	48(80.0)
Single	11(18.3)	15(20.0)

3.2. Comparison of social anxiety, depression, anxiety, and quality of life between groups

The total LSAS score of the investigation group was significantly higher than that of the control group (*P* < 0.05). Subscale scores (interaction anxiety factor, performance anxiety factor, interaction avoidance factor, performance avoidance factor, total fear score, and total avoidance score) were also significantly elevated in the investigation group (*P* < 0.05). HADS total scores, HADS-anxiety, and HADS-depression subscores were all significantly higher in the investigation group (*P* < 0.05). The mean DLQI score in the investigation group was 13.52 $\pm$ 3.70, compared with 9.71 $\pm$ 4.15 in the control group, with the difference reaching statistical significance (*P* < 0.05) (**Table 2**).

Table 2. Comparison of social anxiety, depression, anxiety, and quality of life between groups (Mean $\pm$ SD)

Group	n	LSAS				HADS			DLQI			
		Interaction Anxiety	Performance Anxiety	Interaction Avoidance	Performance Avoidance	Total Fear	Total Avoidance	Total Score				
Investigation	60	20.72 ± 4.69	24.02 ± 7.82	20.13 ± 5.92	22.39 ± 7.58	44.74 ± 11.26	42.52 ± 9.17	87.26 ± 10.55	12.05 ± 3.25	13.97 ± 4.21	26.02 ± 4.45	13.52 ± 3.70
	60	16.37 ± 3.17	20.36 ± 2.83	16.51 ± 2.76	19.04 ± 3.52	36.73 ± 4.42	35.55 ± 3.53	72.28 ± 4.92	8.02 ± 3.19	7.30 ± 2.43	15.32 ± 3.55	9.71 ± 4.15
t-value		5.952	3.409	4.293	3.105	5.129	5.495	9.968	6.855	10.629	14.560	5.308
P-value		0.000	0.001	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Note: LSAS, Liebowitz Social Anxiety Scale; HADS, Hospital Anxiety and Depression Scale; DLQI, Dermatology Life Quality Index.

3.3. Correlations between clinical factors and social anxiety, depression, anxiety, and quality of life in the investigation group

In the investigation group, age, overall disease severity, facial disease severity, LSAS scores, and HADS scores were positively correlated with DLQI scores ($P < 0.05$). Disease duration showed no significant correlation with LSAS, HADS, or DLQI scores ($P > 0.05$). Disease duration was positively correlated with both overall disease severity and facial disease severity ($P < 0.05$). Overall disease severity was not significantly correlated with LSAS or HADS scores ($P > 0.05$). Facial severity was positively correlated with overall disease severity, LSAS scores, HADS scores, and DLQI scores ($P < 0.05$) (**Table 3**).

Table 3. Correlations between clinical factors and social anxiety, depression, anxiety, and quality of life in the investigation group

Variable	Disease Duration	Overall Severity	Facial Severity	HADS	LSAS Total	DLQI
Age	0.154	0.014	0.162	0.250	0.195	0.379*
Disease duration		0.489*	0.478*	-0.007	0.121	0.039
Overall severity			0.457*	0.232	0.269	0.438*
Facial severity				0.514*	0.573*	0.587*
HADS					0.716**	0.563*
LSAS total						0.526*

Note: LSAS: Liebowitz Social Anxiety Scale; HADS: Hospital Anxiety and Depression Scale; DLQI: Dermatology Life Quality Index; **Correlation significant at the 0.01; *Correlation significant at the 0.05

4. Discussion

In recent years, numerous studies have demonstrated that dermatological diseases can give rise to various psychiatric and psychological disturbances. However, research focusing specifically on social anxiety characterized by avoidance as a primary coping strategy remains scarce. Social anxiety substantially impairs patients' daily functioning, manifesting as avoidance of eye contact, fear of being observed, and panic during public speaking, all of which contribute to a marked decline in quality of life^[10]. A review of the existing literature reveals that international studies on social impairment in psoriasis are limited. Notably, Yildirim et al. employed the LSAS and reported that patients with psoriasis exhibited higher social anxiety scores compared with healthy controls, with intergroup comparisons also revealing significantly elevated depression levels and impaired quality of life^[11]. However, their investigation did not identify significant differences in social avoidance between groups. Conversely, recent studies in China have indicated that patients with psoriasis demonstrate significantly higher levels of social anxiety and avoidance compared with normative data, and that behavioral interventions may alleviate anxiety and depressive symptoms^[12]. These discrepancies may be attributable to small sample sizes, geographical and cultural variations, heterogeneity in disease severity, lack of strict lesion site stratification, and the absence of systematic social anxiety assessments with detailed subscale analyses. Historically, facial involvement in psoriasis was considered uncommon, as ultraviolet exposure and sebaceous gland activity were thought to confer protective effects^[13]. Subsequent investigations have challenged this notion, reporting a facial involvement rate as high as 46% in certain patient cohorts^[14]. The present study exclusively enrolled patients with visible facial psoriatic lesions, which likely constitute the primary basis for social anxiety. Therefore, the presence of exposed facial lesions is a critical inclusion criterion for research in this domain.

Psoriasis exerts a profound impact on patients' psychosomatic well-being and may impose chronic distress. Sampogna et al. reported that a substantial proportion of patients with vitiligo and acne experience psychological disturbances, including depression and social phobia^[15]. The present study similarly found that quality of life was significantly diminished in patients with psoriasis, consistent with previous findings. Quality of life in patients with facial psoriasis was notably reduced and closely correlated with social anxiety and depression levels^[16–17]. The findings suggest that dermatologists should pay greater attention to the negative impact of social anxiety and depression on quality of life in psoriasis patients, promptly assess psychosomatic status, and integrate psychological interventions into dermatological treatment protocols to enhance quality of life. Demircay et al. found that quality of life in acne patients was associated with self-assessment rather than objective physical evaluation^[18]. In contrast, the study demonstrated that social anxiety, depression, and quality of life were significantly correlated with facial disease severity but not with overall disease severity. This suggests that patients' self-observation and cognitive appraisal of their condition may deviate from objective overall disease severity, with greater attention directed toward facial lesions, thereby exerting a more pronounced influence on psychological and emotional states. Accordingly, incorporating facial lesion documentation into routine psoriasis care is of significant clinical value for monitoring social anxiety and quality of life and for implementing appropriate psychological interventions.

Previous studies have established a high prevalence of anxiety and depression in psoriasis, which aligns with the findings^[19–20]. The authors observed a significant correlation between social anxiety and depression levels, suggesting a possible mechanistic link in which social anxiety may develop secondary to depression, while social anxiety further precipitates difficulties in academic, occupational, familial, and romantic domains, thereby perpetuating depressive symptoms—a bidirectional relationship. Nevertheless, neither previous investigations nor the present study can definitively establish causality. Although this study contributes to the literature on social impairment in psoriasis, several limitations warrant acknowledgment. First, the relatively small sample size may affect the reliability and validity of the conclusions. Second, while the study assessed objective overall disease severity and facial lesion severity, the study did not incorporate patients' subjective assessments of disease severity, a factor that may substantially influence social impairment, anxiety, and depression levels.

In summary, dermatological conditions affecting exposed facial areas impose considerable psychological stress on patients, thereby impairing their daily, occupational, and academic functioning. The present study demonstrates that patients with facial psoriasis frequently present with comorbid social anxiety and depression. Therefore, in addition to conventional pharmacotherapy, targeted psychological interventions should be integrated into the treatment regimen for patients with psoriasis involving exposed areas to optimize therapeutic efficacy and improve quality of life.

Disclosure statement

The authors declare no conflict of interest.

References

- [1] Alpsoy E, Polat M, Fettahlioğlu-Karaman B, et al., 2017, Internalized Stigma in Psoriasis: A Multicenter Study. *Journal of Dermatology*, 44(8): 885–891.
- [2] Takeshita J, Grewal S, Langan SM, et al., 2017, Psoriasis and Comorbid Diseases: Epidemiology. *Journal of the American Academy of Dermatology*, 76(3): 377–390.

- [3] Arends LR, Nijsten T, Wakkee M, et al., 2014, The Prevalence and Odds of Depressive Symptoms and Clinical Depression in Psoriasis Patients: A Systematic Review and Meta-analysis. *The Journal of Investigative Dermatology*, 134(6): 1542–1551.
- [4] Fleming P, Bai J, Pratt M, et al., 2016, The Prevalence of Anxiety in Patients with Psoriasis: A Systematic Review of Observational Studies and Clinical Trials. *Journal of the European Academy of Dermatology and Venereology*, 31(5): 798–807.
- [5] Je YP, Jong HR, Yong BC, et al., 2004, Facial Psoriasis: Comparison of Patients with and without Facial Involvement. *Journal of the American Academy of Dermatology*, 50(4): 582–584.
- [6] Emge TM, Hope DA, 2006, Social Anxiety Disorder. *Lancet*, 371(2): 119–125.
- [7] Stein MB, Stein DJ, 2008, Social Anxiety Disorder. *Lancet*, 371(9618): 1115–1125.
- [8] Alexis O, Shin DB, Jon LT, et al., 2021, Body Surface Area Affected by Psoriasis and the Risk for Psoriatic Arthritis: A Prospective Population-based Cohort Study. *Rheumatology*, 61(5): 1877–1884.
- [9] Rosniza SNC, Sharifah, Robinson S, et al., 2016, Clinical Characteristics of Patients with Facial Psoriasis in Malaysia. *International Journal of Dermatology*, 2016(55): 1092–1095.
- [10] Franklin M, 1996, Social Phobia: Diagnosis, Assessment, and Treatment. *Clinical Psychology Review*, 1996(16): 777–779.
- [11] Yildirim FE, Eremet S, Afar FU, et al., 2020, Evaluation of Social Anxiety Levels and Related Factors in Psoriasis Patients: A Controlled, Cross-Sectional Study. *Noro Psikiyatri Arsivi*, 57(2): 148–153.
- [12] Li JN, Gao XM, Wang MX, et al., 2011, Effect of Positive Psychotherapy on the Mental Health and Behaviors of Patients with Psoriasis. *Chinese Journal of Nursing*, 46(7): 669–671.
- [13] Bernharo JD, 1983, Facial Sparing in Psoriasis. *International Journal of Dermatology*, 22(5): 291–292.
- [14] van de Kerkhof PC, Murphy GM, Austad J, et al., 2007, Psoriasis of the Face and flexures. *Journal of Dermatological Treatment*, 18(6): 351–360.
- [15] Sampogna F, Picardi A, Chren MM, et al., 2004, Association between Poorer Quality of Life and Psychiatric Morbidity in Patients with Different Dermatological Conditions. *Psychosomatic Medicine*, 66(4): 620.
- [16] He Z, Lu C, Basra MKA, et al., 2011, Psychometric Properties of the Chinese Version of Dermatology Life Quality Index (DLQI) in 851 Chinese Patients with Psoriasis. *Journal of the European Academy of Dermatology and Venereology*, 27(1): 109–115.
- [17] González-Parra S, Daudén E, 2019, Psoriasis and Depression: The Role of Inflammation. *Actas Dermo-Sifilográficas (English Edition)*, 110(1): 12–19.
- [18] Demircay Z, Seckin D, Senol A, et al., 2008, Patient's Perspective: An Important Issue not to be Overlooked in Assessing Acne Severity. *European Journal of Dermatology*, 18(2): 181–184.
- [19] Dowlatshahi EA, Wakkee M, Arends LR, et al., 2014, The Prevalence and Odds of Depressive Symptoms and Clinical Depression in Psoriasis Patients: A Systematic Review and Meta-analysis. *Journal of Investigative Dermatology*, 134(6): 1542–1551.
- [20] Pollo CF, Miot HA, Matos TDDS, et al., 2021, Prevalence and Factors Associated with Depression and Anxiety in Patients with Psoriasis. *Journal of Clinical Nursing*, 30(3–4): 572–580.

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