

Distribution of Depression, Anxiety and Quality of Life among Psoriasis Patients: A Cross-Sectional Study

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Abstract: ***Background:** Psoriasis is a chronic inflammatory skin disorder known to significantly impair physical appearance and psychosocial well-being. Psychological disorders such as depression and anxiety frequently accompany psoriasis, compounding its impact on quality of life. **Methods:** This was a two-year cross-sectional study (July 2022–April 2024) conducted at Sree Balaji Medical College and Hospital, Chennai. A total of 152 adult psoriasis patients were assessed using GHQ-12, HAM-D, HAM-A, and DLQI. PASI scores were provided by dermatologists. **Results:** The mean age of participants was 39.3 years, with males representing 74%. 46.7% had mild psoriasis, 11.8% moderate, and 41.4% severe. Depression and anxiety symptoms were significantly associated with higher PASI scores and poorer DLQI outcomes ($p < 0.05$). **Conclusion:** Psychological distress is prevalent among psoriasis patients and strongly correlated with disease severity. Integrated care involving both dermatological and psychiatric evaluation is crucial to improve overall patient outcomes.*

Keywords: Psoriasis, Depression, Anxiety, Quality of Life, GHQ-12, DLQI

1. Introduction

Psoriasis is a chronic, immune-mediated skin condition affecting 0.2% to 4.8% of the global population. It manifests as erythematous plaques with silvery scales, often affecting visible body parts, and has peak incidences between ages 15–20 and 55–60. Beyond its dermatological impact, psoriasis significantly affects psychosocial health. Psychiatric conditions, especially depression and anxiety, are frequently observed and are believed to be linked through inflammatory mechanisms such as the hypothalamic-pituitary-adrenal (HPA) axis and pro-inflammatory cytokines.

Despite international research, Indian data on the psychosocial burden of psoriasis remains sparse. This study aims to address this gap by evaluating psychological distress and quality of life among psoriasis patients referred for psychiatric evaluation.

Psoriasis is not merely a dermatological condition but a systemic disorder with significant psychosocial implications. Patients often experience social rejection, embarrassment, and reduced self-esteem due to visible lesions. These experiences can lead to social withdrawal and may trigger or exacerbate mental health issues. Studies have shown that the inflammatory processes underlying psoriasis overlap with those involved in depression and anxiety, providing a biological basis for the high comorbidity between them.

Moreover, chronic stress is known to worsen psoriasis, creating a vicious cycle that further impacts quality of life. Despite growing awareness, the integration of mental health evaluation in dermatologic settings remains suboptimal in many parts of India, which underlines the need for this study.

2. Materials and Methods

This prospective, cross-sectional study was carried out in the psychiatry department of Sree Balaji Medical College and Hospital, Chennai, over a two-year period (July 2022 to April 2024). Ethical approval was obtained from the Institutional Ethics Committee.

Study population: 152 adult patients (age ≥ 18) diagnosed with psoriasis

Inclusion criteria:

- Age ≥ 18 years
- Both genders
- Willingness to provide informed consent
- Any type and severity of psoriasis

Exclusion criteria:

- Other chronic dermatological conditions
- Neurological disorders or intellectual disability
- Substance use disorders
- Unwillingness to participate

Assessment tools:

- GHQ-12 for general mental health screening
- HAM-D for depression
- HAM-A for anxiety
- DLQI to assess quality of life
- PASI for psoriasis severity (provided by dermatology department)

Statistical analysis

Data were entered in Microsoft Excel and analyzed using SPSS version 25. Associations between PASI scores and psychological scales were tested using Chi-square and regression analysis where applicable.

Sample Size Calculation:

The sample size was based on the incidence of patients visiting the psychiatry department for psychological illness or depressive problems with confirmed psoriasis. The total population estimated for the current investigation involved a sample size of 152. The study employed a purposive

sampling method, considering patients referred by dermatologists for psychological evaluation during the two-year study period from July 2022 to April 2024.

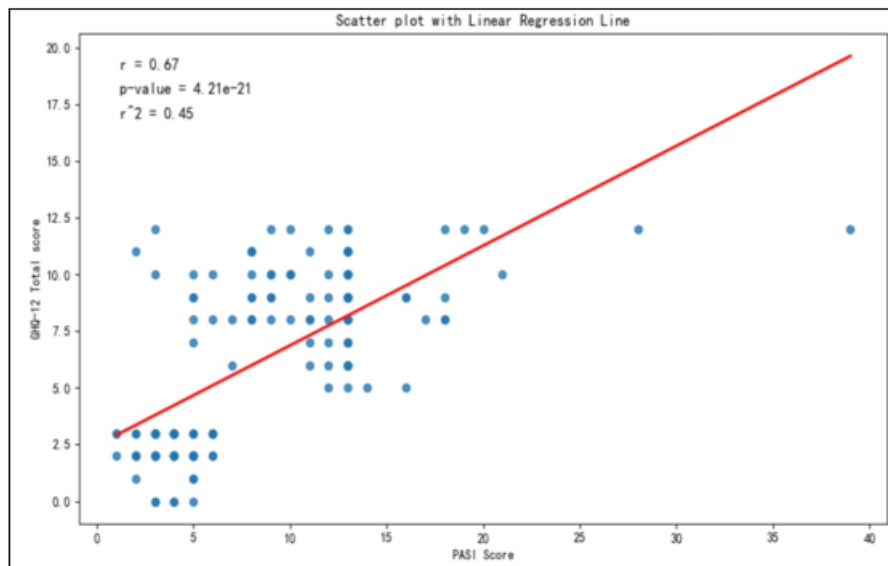
3. Results

Figure 1: Linear Regression Scatter Plot between PASI Score and GHQ - 12

Among the 152 psoriasis patients assessed using GHQ - 12, 59.9% (91 patients) screened positive for psychological distress. This indicates a substantial burden of mental health concerns in this population. The proportion of patients with positive GHQ - 12 scores was significantly higher among those with moderate to severe PASI scores ($p < 0.001$), suggesting a strong link between disease severity and psychiatric morbidity.

- Mean age: 39.3 years
- Gender: 74% male, 26% female
- PASI Severity: 46.7% mild, 11.8% moderate, 41.4% severe
- Psychological distress (GHQ - 12 positive): 59.9%
- Higher PASI scores correlated with higher GHQ - 12, HAM - D, and DLQI scores ($p < 0.0001$)
- Strong correlation ($r^2 = 0.67$) found between PASI severity and GHQ - 12 scores

A subgroup analysis revealed that among patients with severe psoriasis, 68% exhibited moderate to severe depressive symptoms. Additionally, female patients reported higher DLQI scores, indicating a more substantial perceived impact on quality of life. Employment status and lower socioeconomic status were also found to be associated with increased psychiatric morbidity. Regression analysis showed that PASI scores significantly predicted GHQ - 12 scores ($\beta = 0.56$, $p < 0.001$), suggesting that disease severity is a strong independent predictor of psychological distress.

4. Discussion

Our findings demonstrate a strong association between psoriasis severity and psychiatric symptoms. Patients with moderate to severe PASI scores were significantly more likely to report depression and anxiety. This aligns with global data suggesting a shared inflammatory pathway

involving cytokines and HPA axis dysregulation. Similar Indian studies have emphasized this trend but remain limited in number.

These results underline the urgent need for integrated care, including routine mental health screening in dermatology clinics. Interventions such as cognitive - behavioral therapy and pharmacological support may be critical in improving patient outcomes.

These findings are in agreement with international literature. For example, research conducted by Zhang et al. in China and Wojciechowska et al. in Europe both emphasize the high burden of psychiatric distress in psoriasis populations. The Indian context, however, presents unique challenges due to limited awareness, stigma surrounding mental illness, and underutilization of psychiatric services in dermatology clinics.

Routine mental health screening tools such as GHQ - 12 and DLQI are simple to administer and may be integrated into outpatient settings with minimal resource allocation. These tools provide a structured approach to identify individuals needing psychiatric referral and support, particularly those at higher risk due to disease severity or psychosocial vulnerability.

5. Conclusion

There is a high burden of psychiatric morbidity among psoriasis patients. Depression and anxiety are closely linked with disease severity and significantly affect quality of life. Integrating psychiatric evaluation into dermatological care is essential for holistic management.

Incorporating multidisciplinary teams comprising

dermatologists, psychiatrists, and clinical psychologists into routine outpatient care can facilitate early detection and intervention. Additionally, patient education programs that address the psychological effects of psoriasis can improve treatment adherence and empower patients to seek support proactively. Future research should focus on longitudinal studies that assess the impact of integrated care models on long - term disease outcomes and mental well - being.

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