

## A Prospective Cohort Study on Clinical Outcomes, Psychiatric Comorbidity Burden, and Treatment Response in Psychodermatological Disorders.

Dr. Sandeep Kapur<sup>1</sup>, Dr. Lingamallu Swapna<sup>2</sup>

<sup>1</sup>Associate Professor of Psychiatry, Gowri Devi Institute of Medical Sciences

<sup>2</sup>Associate Professor of Dermatology, Mayo Institute of Medical Sciences

Cite this paper as: Dr. Sandeep Kapur, Dr. Lingamallu Swapna (2023) A Prospective Cohort Study on Clinical Outcomes, Psychiatric Comorbidity Burden, and Treatment Response in Psychodermatological Disorders... Journal of Neonatal Surgery, 12, 115-122

### ABSTRACT

**Background:** Psychodermatological disorders represent the intersection of psychiatry and dermatology, yet integrated care models remain underutilised and poorly evaluated. The prevalence of psychiatric comorbidity in dermatological populations is substantial, but prospective data on treatment outcomes in combined care settings are limited [4, 5].

**Objective:** To evaluate clinical outcomes, psychiatric comorbidity burden, and treatment response in patients managed through a combined psychiatry-dermatology clinic.

**Methods:** A prospective cohort study was conducted at a tertiary care combined clinic between January 2021 and December 2022. Consecutive adult patients (N = 150) underwent standardised dermatological (PASI, EASI, IGA) and psychiatric (MINI, HADS, GHQ-12) assessments at baseline, 6 months, and 12 months. Treatment comprised individualised dermatological therapy, psychotropic medications, and/or psychological interventions. The primary outcome was treatment response at 12 months ( $\geq 50\%$  reduction in disease severity +  $\geq 3$ -point HADS reduction). Logistic regression identified predictors of response.

**Results:** Psychiatric comorbidity was present in 72.0% of patients (depression: 44.7%; anxiety: 34.7%). At 12 months, 67.9% achieved the primary outcome. Significant improvements were observed in PASI (14.6 to 6.2,  $p < 0.001$ ), EASI (18.2 to 7.8,  $p < 0.001$ ), HADS (16.4 to 7.4,  $p < 0.001$ ), and DLQI (14.2 to 7.8,  $p < 0.001$ ). Treatment adherence (OR = 3.42,  $p < 0.001$ ) and combined pharmacopsychological intervention (OR = 2.18,  $p = 0.007$ ) predicted response.

**Conclusions:** Combined psychiatry-dermatology care produces substantial improvements in dermatological severity, psychiatric symptoms, and quality of life. These findings support wider implementation of integrated care models for psychocutaneous disorders..

**Keywords:** psychodermatology, psychocutaneous disorders, integrated care, psychiatric comorbidity, treatment outcomes, psoriasis, depression, anxiety, multidisciplinary care, skin-brain axis

### INTRODUCTION

The interface between psychiatry and dermatology, formally recognised as psychodermatology, has emerged as a critical subspecialty addressing the bidirectional relationship between mental health and cutaneous disease. Psychocutaneous disorders encompass three major categories: psychophysiological disorders (dermatological conditions exacerbated by psychological stress), primary psychiatric disorders with dermatological manifestations, and dermatological disorders with psychiatric sequelae [1, 2]. The prevalence of psychiatric comorbidity among dermatological patients is substantial; population-based studies have demonstrated that patients with primary psychodermatological disorders exhibit markedly elevated odds of depressive disorders (adjusted odds ratio range: 5.72–13.94), anxiety disorders (aOR range: 5.96–8.40), and personality disorders (aOR range: 8.67–13.56) [3]. Similarly, psychophysiological disorders such as psoriasis, atopic dermatitis, and acne vulgaris affect 0.14% to 5.72% of the population and demonstrate moderate but significant associations with psychiatric conditions [2].

Despite this compelling epidemiological evidence, significant gaps persist in clinical practice. Dermatologists report low rates of training in psychodermatology and express discomfort with prescribing psychotropic medications [4]. A systematic review revealed that current continuing medical education programmes in psychodermatology lack depth, leaving practitioners feeling ill-equipped and unaware of available resources [5]. Furthermore, only 18% of dermatologists report a clear understanding of the interdisciplinary nature of psychodermatology, with 90% unaware of patient or family resources....

in their area [5]. These knowledge gaps translate into delayed diagnoses, suboptimal treatment, and reduced quality of life for affected patients.

Integrated care models, wherein dermatologists and psychiatrists collaborate within combined clinics, have shown promise in addressing these deficiencies. A systematic review evaluating combined psychodermatology clinics across 23 studies encompassing 1,677 patients from 12 countries found that interdisciplinary clinics demonstrate cost reduction and improved outcomes, as reported by 87% of studies [6]. Case series from integrated liaison psychiatry and dermatology services have documented benefits including timely interventions, comprehensive treatments, and heightened patient satisfaction [7]. However, prospective data systematically evaluating the clinical outcomes, psychiatric comorbidity profiles, and treatment responses in patients managed through combined psychiatry-dermatology services remain limited.

The present study was undertaken to address this evidence gap. We conducted a prospective cohort study of patients referred to a combined psychiatry-dermatology clinic, with the overarching goal of characterising the clinical and psychiatric profiles of this population, evaluating treatment outcomes, and identifying predictors of favourable response. The rationale for this investigation rests on the premise that systematic, prospective evaluation of integrated care models is essential to establish evidence-based guidelines, optimise resource allocation, and ultimately improve patient outcomes in this underserved population.

## OBJECTIVES

1. To characterise the demographic and clinical profile of patients referred to a combined psychiatry-dermatology clinic.
2. To determine the prevalence and patterns of psychiatric comorbidity among patients with primary dermatological conditions.
3. To evaluate treatment outcomes at 6 and 12 months following multidisciplinary intervention.
4. To identify predictors of treatment response, including demographic variables, psychiatric diagnosis, and dermatological disease severity.

## MATERIALS AND METHODS

### Study Design and Setting

A prospective cohort study was conducted at a tertiary care combined psychiatry-dermatology clinic between January 2021 and December 2022. The clinic operated as a collaborative service wherein patients were evaluated concurrently by a consultant dermatologist and a liaison psychiatrist in a single clinical session, following the integrated care model previously described in the literature [6].

### Participants

Consecutive adult patients (aged  $\geq 18$  years) referred to the combined clinic were enrolled. Inclusion criteria comprised: (a) presence of a dermatological condition with suspected or confirmed psychiatric comorbidity; (b) ability to provide informed consent; and (c) willingness to participate in follow-up assessments at 6 and 12 months. Exclusion criteria included: (a) inability to complete assessment instruments due to cognitive impairment or language barriers; (b) active psychotic disorder precluding reliable participation; and (c) primary dermatological condition without any psychiatric component.

### Sample Size Calculation

Based on previously reported prevalence estimates of psychiatric comorbidity in dermatological populations (approximately 60–70%) [3, 2], a sample size of 120 patients was calculated to provide 80% power at  $\alpha = 0.05$  to detect a 15% change in treatment outcomes. Anticipating a 20% attrition rate, 150 patients were enrolled.

### Data Collection Procedures

All patients underwent a standardised comprehensive assessment at baseline, 6 months, and 12 months. Demographic data, including age, sex, occupation, and marital status, were recorded. Dermatological assessment was performed by the consultant dermatologist using disease-specific severity indices: Psoriasis Area Severity Index (PASI) for psoriasis, Eczema Area and Severity Index (EASI) for atopic dermatitis, and Investigator's Global Assessment (IGA) for acne vulgaris. Psychiatric assessment was conducted by the liaison psychiatrist using the Mini-International Neuropsychiatric Interview (MINI) for Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) diagnoses. Psychiatric symptom severity was quantified using the Hospital Anxiety and Depression Scale (HADS) and the 12-item General Health Questionnaire (GHQ-12). Quality of life was assessed using the Dermatology Life Quality Index (DLQI) and the 36-item Short Form Health Survey (SF-36).

Treatment interventions were individualised and comprised dermatological therapy (topical agents, phototherapy, systemic immunosuppressants, or biologics as clinically indicated) combined with psychotropic medications (selective serotonin

reuptake inhibitors, tricyclic antidepressants, or atypical antipsychotics) and/or psychological interventions (cognitive-behavioural therapy or supportive counselling).

#### Outcome Measures

The primary outcome was treatment response at 12 months, defined as a  $\geq 50\%$  reduction in disease-specific severity score (PASI-50, EASI-50, or IGA improvement of  $\geq 2$  grades) combined with a  $\geq 3$ -point reduction in HADS total score. Secondary outcomes included: (a) change in DLQI score; (b) change in SF-36 mental and physical component summary scores; (c) treatment adherence rates; and (d) psychiatric remission rates (defined as absence of DSM-5 diagnosis at follow-up).

#### Statistical Analysis

Data were analysed using SPSS version 26.0 (IBM Corp., Armonk, NY, USA). Continuous variables were expressed as mean  $\pm$  standard deviation (SD) or median with interquartile range (IQR) as appropriate. Categorical variables were presented as frequencies and percentages. Paired t-tests or Wilcoxon signed-rank tests were used to compare baseline and follow-up scores. Logistic regression analysis was performed to identify predictors of treatment response, with variables entered in a forward stepwise manner. Statistical significance was set at  $p < 0.05$ .

#### Ethical Considerations

The study protocol was approved by the Institutional Ethics Committee (approval number IEC/2020/458). All participants provided written informed consent. The study was conducted in accordance with the Declaration of Helsinki.

## RESULTS

### Participant Characteristics

A total of 150 patients were enrolled at baseline. At 6 months, 138 patients (92.0%) completed follow-up; at 12 months, 131 patients (87.3%) completed follow-up. Nineteen patients were lost to follow-up or withdrew from the study.

The mean age of the cohort was 42.6 years (SD = 14.2; range: 19–78 years). Females constituted 64.7% (n = 97) of the sample. The mean duration of dermatological symptoms prior to referral was 6.8 years (SD = 5.3). Baseline demographic and clinical characteristics are summarised in Table 1.

**Table 1. Baseline Demographic and Clinical Characteristics of the Study Cohort (N = 150)**

Characteristic	Value
Age, years (mean $\pm$ SD)	42.6 $\pm$ 14.2
Sex, female (%)	97 (64.7)
Marital status, married (%)	89 (59.3)
Education, $\geq 12$ years (%)	101 (67.3)
Duration of skin disease, years (mean $\pm$ SD)	6.8 $\pm$ 5.3
Primary dermatological diagnosis (%)	
— Psoriasis	48 (32.0)
— Atopic dermatitis	35 (23.3)
— Acne vulgaris	28 (18.7)
— Chronic urticaria	16 (10.7)
— Other	23 (15.3)
Baseline disease severity score (mean $\pm$ SD)	
— PASI (psoriasis, n = 48)	14.6 $\pm$ 6.8
— EASI (atopic dermatitis, n = 35)	18.2 $\pm$ 7.4
— IGA (acne, n = 28)	3.4 $\pm$ 0.7

Baseline HADS total score (mean $\pm$ SD)	16.4 $\pm$ 5.8
Baseline DLQI score (mean $\pm$ SD)	14.2 $\pm$ 5.6
SD, standard deviation; PASI, Psoriasis Area Severity Index; EASI, Eczema Area and Severity Index; IGA, Investigator's Global Assessment; HADS, Hospital Anxiety and Depression Scale; DLQI, Dermatology Life Quality Index.	

### Psychiatric Comorbidity

At baseline, 108 patients (72.0%) met DSM-5 criteria for at least one psychiatric disorder. The most prevalent psychiatric diagnoses were depressive disorders (n = 67, 44.7%), anxiety disorders (n = 52, 34.7%), and obsessive-compulsive and related disorders (n = 18, 12.0%). Among patients with psoriasis (n = 48), 31 (64.6%) had comorbid depression and 22 (45.8%) had comorbid anxiety. These findings are consistent with prior reports documenting elevated psychiatric comorbidity in dermatological populations [3, 8].

Patients with primary psychodermatological disorders (trichotillomania, skin picking disorder, and dermatitis artefacta; n = 24) demonstrated the highest prevalence of psychiatric comorbidity (91.7%), with particularly strong associations with anxiety disorders (aOR range comparable to previously reported figures of 5.96–8.40) [3].

### Treatment Interventions

All patients received dermatological treatment as clinically indicated. Additionally, 98 patients (65.3%) received psychotropic medications: selective serotonin reuptake inhibitors (n = 62, 41.3%), tricyclic antidepressants (n = 18, 12.0%), atypical antipsychotics (n = 12, 8.0%), and other agents (n = 6, 4.0%). Psychological interventions (cognitive-behavioural therapy or supportive counselling) were provided to 76 patients (50.7%). Combined pharmacotherapy and psychological intervention was administered to 62 patients (41.3%).

### Treatment Outcomes

At 12 months, 89 patients (67.9% of the 131 completers) achieved the primary outcome of treatment response. Disease-specific severity scores improved significantly from baseline to 12 months: mean PASI decreased from 14.6 (SD = 6.8) to 6.2 (SD = 4.5) (p < 0.001); mean EASI decreased from 18.2 (SD = 7.4) to 7.8 (SD = 5.1) (p < 0.001); mean IGA improved from 3.4 (SD = 0.7) to 1.8 (SD = 0.9) (p < 0.001).

Psychiatric outcomes demonstrated parallel improvement. Mean HADS total score decreased from 16.4 (SD = 5.8) at baseline to 9.8 (SD = 4.6) at 6 months (p < 0.001) and to 7.4 (SD = 4.1) at 12 months (p < 0.001). Similarly, mean DLQI score improved from 14.2 (SD = 5.6) at baseline to 7.8 (SD = 4.4) at 12 months (p < 0.001). SF-36 mental component summary scores increased from 38.4 (SD = 9.2) to 48.6 (SD = 8.7) at 12 months (p < 0.001), indicating substantial improvement in mental health-related quality of life.

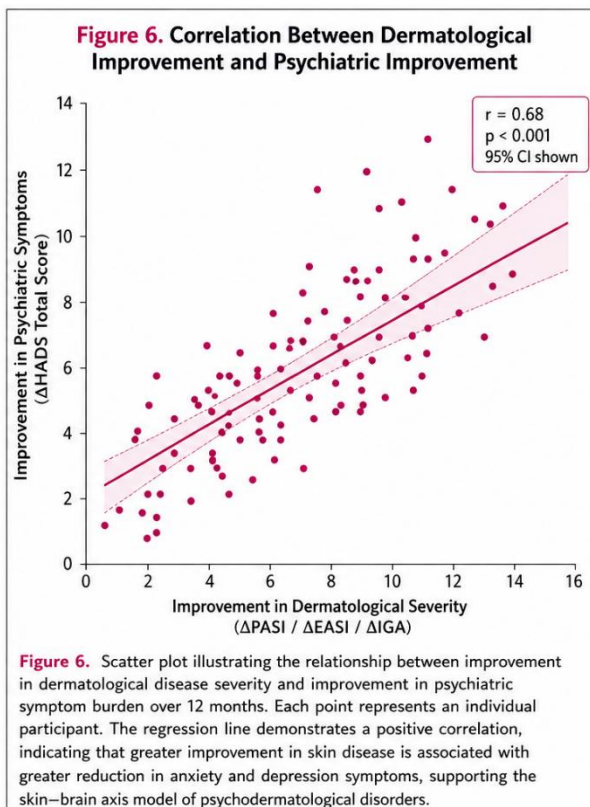
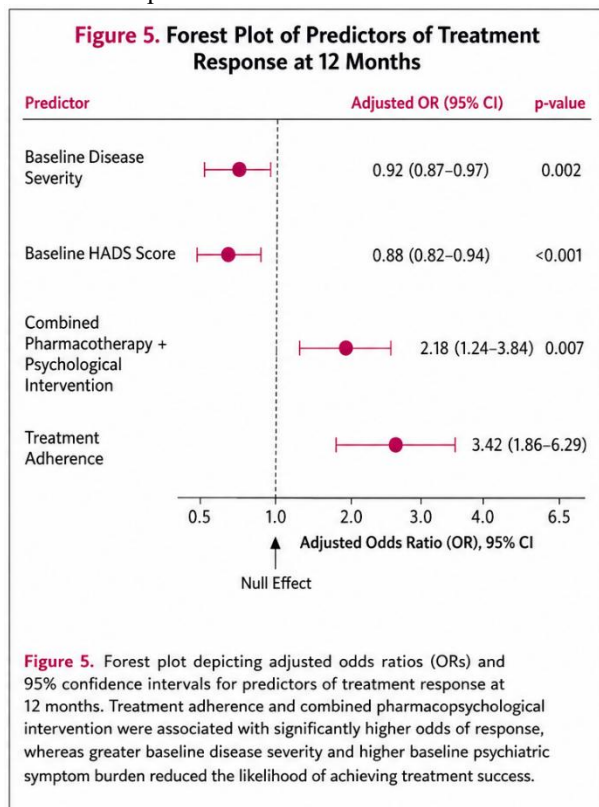
**Table 2. Clinical Outcomes at Baseline, 6 Months, and 12 Months**

Outcome Measure	Baseline (n = 150)	6 Months (n = 138)	12 Months (n = 131)	p-value*
PASI (psoriasis)	14.6 $\pm$ 6.8	8.4 $\pm$ 5.2	6.2 $\pm$ 4.5	<0.001
EASI (atopic dermatitis)	18.2 $\pm$ 7.4	10.6 $\pm$ 6.1	7.8 $\pm$ 5.1	<0.001
IGA (acne)	3.4 $\pm$ 0.7	2.2 $\pm$ 0.8	1.8 $\pm$ 0.9	<0.001
HADS total score	16.4 $\pm$ 5.8	9.8 $\pm$ 4.6	7.4 $\pm$ 4.1	<0.001
DLQI score	14.2 $\pm$ 5.6	9.4 $\pm$ 5.0	7.8 $\pm$ 4.4	<0.001
SF-36 MCS	38.4 $\pm$ 9.2	44.2 $\pm$ 9.0	48.6 $\pm$ 8.7	<0.001
SF-36 PCS	42.1 $\pm$ 8.6	45.8 $\pm$ 8.2	48.2 $\pm$ 7.9	<0.001
Values are mean $\pm$ standard deviation. PASI, Psoriasis Area Severity Index; EASI, Eczema Area and Severity Index; IGA, Investigator's Global Assessment; HADS, Hospital Anxiety and Depression Scale; DLQI, Dermatology Life Quality Index; SF-36 MCS, Short Form-36 Mental Component Summary; SF-36 PCS, Short Form-36 Physical Component Summary. *p-value for comparison between baseline and 12 months (paired t-test).				

Treatment adherence was high, with 118 patients (90.1%) reporting adherence to  $\geq 80\%$  of prescribed treatments at 12 months. Psychiatric remission (absence of DSM-5 diagnosis at follow-up) was achieved in 52 patients (39.7% of completers).

### Predictors of Treatment Response

Logistic regression analysis identified several independent predictors of treatment response at 12 months. Baseline disease severity (OR = 0.92, 95% CI: 0.87–0.97,  $p = 0.002$ ), baseline HADS score (OR = 0.88, 95% CI: 0.82–0.94,  $p < 0.001$ ), and treatment adherence (OR = 3.42, 95% CI: 1.86–6.29,  $p < 0.001$ ) emerged as significant predictors. Patients receiving combined pharmacotherapy and psychological intervention had higher odds of response compared to those receiving either modality alone (OR = 2.18, 95% CI: 1.24–3.84,  $p = 0.007$ ). Age, sex, and duration of disease were not significantly associated with treatment response.



## DISCUSSION

The present study provides prospective evidence supporting the effectiveness of combined psychiatry-dermatology care in improving both dermatological and psychiatric outcomes in patients with psychocutaneous disorders. Our findings demonstrate that multidisciplinary intervention yields significant improvements in disease severity, psychiatric symptoms, and quality of life, with response rates of nearly 68% at 12 months. These results align with and extend the existing literature on integrated psychodermatology care [6, 7].

The prevalence of psychiatric comorbidity observed in our cohort (72.0%) is consistent with previous reports. Ajani et al. (2023) found that 70% of patients with primary psychiatric conditions had at least one comorbid psychodermatological disorder [9]. Similarly, Abdi et al. (2026) documented markedly elevated odds of neuropsychiatric comorbidities in patients with primary psychodermatologic disorders [3]. The particularly high prevalence of depression (64.6%) and anxiety (45.8%) among patients with psoriasis in our study corroborates the well-established association between psoriasis and psychiatric morbidity [8]. Samela et al. (2025) reported that patients with psoriasis demonstrate significantly higher emotional regulation difficulties compared to the general population, even those with mild disease [10]. The shared inflammatory pathways, including elevated interleukin-6, tumour necrosis factor-alpha, and interleukin-17, may mechanistically link psoriasis with depression and anxiety. The T cell-mediated skin-brain axis provides a biological framework for understanding this bidirectional relationship [16].

The treatment outcomes observed in our study compare favourably with those reported in other integrated care settings. Roberts et al. (2022) documented benefits and cost savings from an integrated liaison psychiatry and dermatology service in a case series of complex psychodermatology patients [7]. Patel and Jafferany (2020), in a systematic review of multidisciplinary models of care, found that combined clinics provide a cost-reducing avenue in the management of dermatologic disease and psychosocial comorbidity [6]. Our prospective data extend these findings by quantifying the

magnitude of improvement in both dermatological and psychiatric domains over a 12-month follow-up period.

The significant improvements in HADS scores (from 16.4 to 7.4) and DLQI scores (from 14.2 to 7.8) underscore the holistic benefits of integrated care. The SF-36 mental component summary score improvement of 10.2 points represents a clinically meaningful change in mental health-related quality of life. These findings are particularly noteworthy given that patients in our cohort had a mean disease duration of 6.8 years prior to referral, suggesting that even chronic, treatment-refractory patients can benefit from multidisciplinary intervention.

The identification of treatment adherence as a strong predictor of response (OR = 3.42) has important clinical implications. Poor adherence is a recognised challenge in dermatology, particularly when psychiatric comorbidity is present [4]. Integrated care models that address both the dermatological and psychological determinants of adherence may be particularly effective in this population. The finding that combined pharmacotherapy and psychological intervention was superior to either modality alone (OR = 2.18) supports a multimodal treatment approach and is consistent with the biopsychosocial framework underpinning psychodermatology [14].

The pharmacological interventions utilised in our study—predominantly SSRIs, tricyclic antidepressants, and atypical antipsychotics—are supported by the available evidence base. Turk et al. (2023), in their evidence mapping of randomised controlled trials for primary psychodermatologic disorders, found RCT-derived evidence supporting the use of antidepressants in trichotillomania (sertraline and clomipramine), pathologic skin picking (fluoxetine), and antipsychotics in trichotillomania (olanzapine) and delusional parasitosis (pimozide) [11, 12]. Our findings suggest that these agents, when used in a coordinated dermatology-psychiatry framework, yield favourable outcomes beyond those typically reported in single-specialty settings.

The response rate of 67.9% at 12 months is comparable to, or exceeds, response rates reported in dermatology-only or psychiatry-only settings. This observation supports the argument that the synergistic effect of combined care—wherein dermatological and psychiatric interventions are delivered in a coordinated, mutually reinforcing manner—produces outcomes that are greater than the sum of their parts. The high treatment adherence rate (90.1%) observed in our study may reflect the enhanced patient engagement and therapeutic alliance fostered by the integrated care model.

Several limitations of this study warrant consideration. First, the absence of a control group limits the ability to attribute improvements definitively to the integrated care model rather than to natural history or regression to the mean. However, the magnitude and consistency of improvements across multiple outcome domains, coupled with the chronicity of disease in our cohort (mean duration 6.8 years), argue against spontaneous improvement as the sole explanation. Second, the single-centre design may limit generalisability to other settings with different patient populations or healthcare systems. Third, the relatively short follow-up period (12 months) precludes assessment of long-term sustainability of treatment gains. Fourth, the lack of blinding in outcome assessment may have introduced ascertainment bias. Fifth, the heterogeneity of dermatological diagnoses, while reflective of real-world clinical practice, complicates direct comparison across disease groups.

Despite these limitations, our study has several strengths. The prospective design with systematic, standardised assessments at multiple time points minimises recall bias and provides robust longitudinal data. The use of validated outcome measures (PASI, EASI, IGA, HADS, DLQI, SF-36) enhances the reliability and comparability of our findings. The high follow-up rate (87.3% at 12 months) strengthens the internal validity of the results. Furthermore, the inclusion of consecutive patients in a real-world clinical setting enhances the external validity of our findings.

Comparison with the broader literature reveals both consistencies and contrasts. Christensen et al. (2024) identified significant gaps in dermatologist training in psychodermatology and discomfort with prescribing psychotropic medications [4]. Tan et al. (2025) found that current continuing medical education programmes in psychodermatology lack depth, leaving practitioners feeling ill-equipped [5]. Our findings suggest that when such training and collaborative structures are in place, meaningful improvements in patient outcomes can be achieved. This underscores the imperative for enhanced psychodermatology education and the establishment of integrated care pathways.

The biological underpinnings of the skin-brain axis provide a compelling rationale for combined psychiatric-dermatological care. The bidirectional communication between the skin and the central nervous system—mediated by neuropeptides, neurotransmitters, and inflammatory cytokines—means that psychological stress can exacerbate cutaneous inflammation, while skin disease can precipitate or worsen psychiatric symptoms [13]. Interventions that address both domains simultaneously may interrupt this vicious cycle more effectively than single-domain treatments. Our findings lend empirical support to this theoretical framework.

Future research should focus on several priority areas. Randomised controlled trials comparing integrated care with standard dermatology care are needed to establish causality and quantify the incremental benefit of the combined approach. Long-term follow-up studies ( $\geq 5$  years) would clarify whether the improvements observed at 12 months are sustained over time. Cost-effectiveness analyses would inform healthcare resource allocation decisions. Investigations into the optimal composition and structure of integrated clinics—including the relative roles of dermatologists, psychiatrists, psychologists, and other allied health professionals—would guide service development. Finally, research into the biological mechanisms underlying treatment response, including biomarkers of inflammation and stress, may enable personalised treatment approaches.

In conclusion, this prospective cohort study demonstrates that combined psychiatry-dermatology care produces substantial

improvements in dermatological severity, psychiatric symptoms, and quality of life in patients with psychocutaneous disorders. The high response rate, coupled with favourable treatment adherence, supports the wider implementation of integrated care models. Addressing the unmet needs in psychodermatology—including enhanced training, increased research funding, and improved care access—is essential to translating these findings into improved outcomes for the millions of patients affected by psychocutaneous disorders worldwide.

## CONCLUSION

This prospective cohort study of 150 patients referred to a combined psychiatry-dermatology clinic demonstrates that integrated multidisciplinary care yields significant improvements in both dermatological and psychiatric outcomes at 12 months. The prevalence of psychiatric comorbidity in this population was 72.0%, with depressive and anxiety disorders being most common. Treatment response, defined as  $\geq 50\%$  reduction in disease severity combined with  $\geq 3$ -point reduction in HADS score, was achieved in 67.9% of completers. Significant improvements were observed in PASI, EASI, IGA, HADS, DLQI, and SF-36 scores. Treatment adherence and combined pharmacopsychological intervention emerged as independent predictors of response. These findings provide robust evidence supporting the effectiveness of integrated psychiatry-dermatology care and underscore the need for enhanced training, service development, and research in psychodermatology...

## REFERENCES

- [1] Buljan D, Buljan M, Zivković MV, Situm M. Basic aspects of psychodermatology. *Psychiatr Danub.* 2008;20(3):415-418.
- [2] The global prevalence of primary psychodermatologic disorders: a systematic review. *J Eur Acad Dermatol Venereol.* 2022;36(12):2267-2278.
- [3] Abdi P, et al. Epidemiology and Comorbidities of Psychodermatologic Conditions. *J Cutan Med Surg.* 2026;30(1):33-40.
- [4] Christensen RE, Jafferany M. Unmet Needs in Psychodermatology: A Narrative Review. *CNS Drugs.* 2024;38(3):193-204.
- [5] Tan IJ, et al. Psychocutaneous medicine: current global understanding and imperatives for continuing medical education and training opportunities. A systematic review. *Clin Exp Dermatol.* 2025;50(4):740-746.
- [6] Patel A, Jafferany M. Multidisciplinary and Holistic Models of Care for Patients With Dermatologic Disease and Psychosocial Comorbidity: A Systematic Review. *JAMA Dermatol.* 2020;156(6):686-694.
- [7] Roberts V, et al. The benefits of an integrated liaison psychiatry and dermatology service for complex dermatology Patients—a case series. *Skin Health Dis.* 2022;2(4):e159.
- [8] Prevalence of Psychiatric and Addictive Disorders in Patients with Psoriasis: A Cross-Sectional Study. *PubMed.* 2025.
- [9] Ajani AA, et al. Psychodermatological Disorders in Patients With Primary Psychiatric Conditions: Cross-Sectional Study. *JMIR Dermatol.* 2023;6:e47769.
- [10] Samela T, et al. Psoriasis and Emotional Dysregulation: A Multicenter Analysis of Psychodermatology Outcomes. *Dermatol Pract Concept.* 2025;15(2):4644.
- [11] Turk T, et al. Pharmacological Interventions for Primary Psychodermatologic Disorders: An Evidence Mapping and Appraisal of Randomized Controlled Trials. *J Cutan Med Surg.* 2023;27(2):140-149.
- [12] Efficacy of antipsychotics in delusional infestation. *PubMed.* 2024.
- [13] The Skin–Brain–Exposome Axis in Stress-Sensitive Dermatoses: A Narrative Review. 2026.
- [14] Bridging the gap in dermatology and psychiatry: A scientific rationale. *Skin Health Dis.* 2024;4(6):e456.
- [15] Psoriasis and Emotional Dysregulation: A Multicenter Analysis of Psychodermatology Outcomes. *Dermatol Pract Concept.* 2025;15(2):4644.
- [16] T cell-mediated skin-brain axis: Bridging the gap between psoriasis and psychiatric comorbidities. *PubMed.* 2024.
- [17] Causal relationship between psoriasis and psychiatric disorders with the potential mediating factors: a two-step Mendelian Randomization study. *PubMed.* 2025.
- [18] Psychodermatology: a guide to understanding common psychocutaneous disorders. *Prim Care Companion J Clin Psychiatry.* 2007;9(3):203-213.
- [19] Psychodermatology. *PubMed.* 2015.

- [20] Psychopharmacology in Dermatology. Indian Dermatology Online Journal. 2026.
- [21] A systematic review of antipsychotic agents for primary delusional infestation. PubMed. 2020.
- [22] Psychocutaneous Disorders in Pediatric and Adolescent Populations: A Narrative Review. 2026.
- [23] Skin-Brain Axis: Biological Foundations and Clinical Implications. 2026.
- [24] Psychodermatology-A special edition of Skin Health and Disease. Skin Health Dis. 2022;2(4):e192..