ASSESSMENT OF PSYCHIATRIC COMORBIDITY IN PARTICIPANTS FROM DERMATOLOGY DEPARTMENTS IN INDIAN HEALTH CARE

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ABSTRACT

Background: The intricate link between mental comorbidities and dermatological diseases has given rise to widespread understanding of the interaction between the two fields. Despite this increased awareness, thorough data on clinical features, prevalence, and treatment results in dermatological patients with mental comorbidities are limited.

Aim: The current study aims to investigate mental comorbidity in participants from the dermatology department in India.

Methods: The current study evaluated 832 patients with dermatological problems who came to the Institute within the study period. Sociodemographic data were collected from all included participants, as well as a full dermatological evaluation. The individuals were then assessed for stress, anxiety, and depression using the DASS-21 scale.

Result: The study found that there was a considerable incidence of mental illnesses in dermatological participants, with nearly one-fourth exhibiting symptoms of depression and almost one-third expressing signs of anxiety. Stress was also prevalent in a large proportion of participants. Family type, socioeconomic position, and gender were found to be substantial predictors of mental symptoms.

Conclusion: The current study concludes that the biopsychosocial approach to treating dermatological disorders, which focuses on the critical role of routine screening in psychiatric comorbidities and the need for integrated care models involving the interrelationship of mental health professionals and dermatologists, is underappreciated.

Keywords: anxiety, dermatology, depression, psychiatric comorbidities, mental health.

INTRODUCTION

In recent years, the association between psychiatric and dermatology has received a lot of attention in the medical sector. Dermatological diseases generally go beyond the physical symptoms and involve psychological and behavioral issues, posing unique problems for both doctors and individuals.1

In the past, dermatological disorders received a lot of societal criticism, which led to stigmatization among individuals and others, which had a negative impact on their mental health. Subjects with mental illnesses such as catatonia, schizophrenia, and depression typically find it difficult to sustain self-care due to a lack of touch with reality, loss of interest, and decreased energy.

Furthermore, these people may acquire various dermatological problems. Furthermore, psychotropic medicines can cause dermatological side effects such as acne and, in certain circumstances, metabolic side effects, exposing people to a variety of dermatological problems.2

Co-occurrence of diverse mental and dermatological illnesses can appear in a variety of ways, ranging from worsening of psychiatric symptoms caused by skin disorders to the formation of skin manifestations as a result of psychiatric conditions or treatment of psychiatric disorders. Furthermore, the psychological impact of dermatological disorders such as eczema, psoriasis, and acne typically extends beyond physical symptoms, resulting in decreased quality of life, social stigma, and mental misery.3

Despite the increased recognition of this critical dermatologic-psychiatric interaction, there is a scarcity of data for comprehensive investigations analyzing the clinical picture, prevalence, and treatment results of patients with mental comorbidities. Understanding the complicated interrelationships between dermatological and mental illnesses is critical for delivering appropriate therapy and improving management results.4 The current study aims to examine psychiatric comorbidity in dermatological patients in India.

MATERIALS AND METHODS

The current prospective cross-sectional observational study sought to measure mental comorbidity in individuals from a dermatology department in India. The research participants were from both the Institute's Dermatology and Psychiatry departments. All individuals provided verbal and written informed consent before to participation.

The study comprised patients who were diagnosed with any dermatological problem, aged 18 to 60 years old, had disease for at least 4 weeks, and were willing to participate in the study.

Participants suffering from pemphigus, toxic epidermal necrolysis, or erythroderma-like debilitating and deadly conditions were excluded from the study. 14 individuals were eliminated solely because they satisfied the exclusion criteria.

The present study included 846 patients with various dermatological disorders. Following inclusion, each subject's complete history was documented, including sociodemographic information. Following a thorough review, individuals were referred to the Outpatient Department of Psychiatry for stress, anxiety, and depression screening using the DASS-21.5

Statistical analysis of the collected data was performed using SPSS (Statistical Package for the Social Sciences) software version 24.0 (IBM Corp., Armonk, NY, USA) for descriptive measures, Student t-test, ANOVA (analysis of variance), and Chi-square test. The data were presented in the form of mean and standard deviation, as well as frequency and percentage. A p-value of <0.05 was considered.

RESULTS

The current prospective cross-sectional observational study sought to measure mental comorbidity in individuals from a dermatology department in India. The current study evaluated 846 patients with dermatological problems who came to the Institute within the study period.

Sociodemographic data were collected from all included participants, as well as a full dermatological evaluation. The average age of research participants was 52.0±24.24 years. The bulk of research volunteers (38%, n=316) were between the ages of 18 and 30, followed by 31 and 40, with 31.7% (n=264), 15.4% (n=128) in 41-50, and 14.9% (n=124) in 51-60. The study included 57.7% men (n=480) and 42.3% women (n=352). The bulk of individuals, 63.9% (n=532), lived in rural areas, followed by 11.1% (n=92) in semi-urban areas and 25% (n=208) in urban settings.

There were 68.2% (n=568) married, 27.4% (n=228) single, and 4.3% (n=36) widowed persons. There were 31.2% (n=260) combined subjects and 68.8% (n=576) nuclear family members. There were

15.86% (n=132), 25.96% (n=216), 56.73% (n=472), and 1.4% (n=12) participants from higher, lower, middle, and upper classes, respectively (Table 1).

According to the clinical profile of the research patients, the length of disease was 4 weeks and 6 months in 69.2% (n=576), 6 months in 20.2% (n=168) individuals, 1-5 years in 5.8% (n=48), and >5 years in 4.8% (n=40) subjects.

Itching was the most common presenting complaint in 60.09% (n=500) subjects, followed by discoloration in 28.84% (n=240), rashes in 21.15% (n=176), scales in 9.13% (n=76), wheals and nodules in 8.17% (n=68), hair loss and pustules in 6.73% (n=56), erosions in 5.76% (n=48), comedons in 4.8% (n=40), papules in 4.32% (n=36), and fluid-filled lesions in 3.36% (n=28) study subjects, respectively (Table 2).

The study found that 13.95% of respondents (n=116) had stress, with a mean stress score of 6.7±6.6. Anxiety and sadness were also present. Mild, moderate, and severe stress were reported in 31.03% (n=36), 51.72% (n=60), and 17.24% (n=20) of the participants, respectively. Anxiety was seen in 30.76% (n=256) participants, with an average anxiety score of 6.15±6.6. Mild, moderate, severe, and great anxiety were reported by 26.56% (n=68), 34.37% (n=88), 12.5% (n=32), and 26.56% (n=68) of the participants, respectively. Depression was seen in 23.5% of individuals (n=196), with a mean depression score of 5.72±6.5. Mild, moderate, severe, and extremely severe depression were reported by 42.8% (n=84), 34.69% (n=68), 20.4% (n=40), and 2.04% (n=4) of the participants, respectively (Table 3).

The link of sociodemographic variables with stress, anxiety, and depression in study subjects was shown to be statistically significant in family type to anxiety and depression (p=0.03 and 0.02, respectively). A significant connection was also found between socioeconomic level and depression (p=0.04). Gender also had a significant connection with stress and anxiety (p=0.01 and 0.04, respectively), as well as illness duration and depression (0.007) (Table 4).

DISCUSSION

The current study evaluated 846 patients with dermatological problems who came to the Institute within the study period.

Sociodemographic data were collected from all included participants, as well as a full dermatological evaluation. The average age of research participants was 52.0±24.24 years. The bulk of research volunteers (38%, n=316) were between the ages of 18 and 30, followed by 31 and 40, with 31.7% (n=264), 15.4% (n=128) in 41-50, and 14.9% (n=124) in 51-60. The study included 57.7% men (n=480) and 42.3% women (n=352). The bulk of individuals, 63.9% (n=532), lived in rural areas, followed by 11.1% (n=92) in semi-urban areas and 25% (n=208) in urban settings. There were 68.2% (n=568) married, 27.4% (n=228) single, and 4.3% (n=36) widowed persons.

There were 31.2% (n=260) combined subjects and 68.8% (n=576) nuclear family members. There were 15.86% (n=132), 25.96% (n=216), 56.73% (n=472), and 1.4% (n=12) participants from the higher, lower, middle, and upper classes, respectively. These findings were consistent with earlier investigations by Halvorsen JA et al6 in 2014 and Dalgard FJ et al7 in 2015, in which authors investigated participants with dermatological and mental illnesses, as well as the current study.

In terms of the research patients' clinical profiles, the length of disease was 4 weeks and 6 months in 69.2% (n=576), 6 months in 20.2% (n=168), 1-5 years in 5.8% (n=48), and >5 years in 4.8% (n=40), respectively.

Itching was the most common presenting complaint in 60.09% (n=500) subjects, followed by discoloration in 28.84% (n=240), rashes in 21.15% (n=176), scales in 9.13% (n=76), wheals and nodules in 8.17% (n=68), hair loss and pustules in 6.73% (n=56), erosions in 5.76% (n=48), comedons in 4.8% (n=40), papules in 4.32% (n=36), and fluid-filled lesions in 3.36% (n=28) study subjects, respectively. These findings were compatible with the findings of Carniciu S et al8 in 2023 and Shenoi SD et al9 in 2020, in which the authors reported a clinical profile of dermatological and mental problem individuals equivalent to the current study.

The prevalence of stress, anxiety, and depression among study subjects using DASS-21 was found to be 13.95% (n=116), with a mean stress score of 6.7±6.6. Mild, moderate, and severe stress were reported in 31.03% (n=36), 51.72% (n=60), and 17.24% (n=20) of the participants, respectively. Anxiety was seen in 30.76% (n=256) participants, with an average anxiety score of 6.15±6.6. Mild, moderate, severe, and great anxiety were reported by 26.56% (n=68), 34.37% (n=88), 12.5% (n=32), and 26.56% (n=68) of the participants, respectively. Depression was seen in 23.5% of individuals (n=196), with a mean depression score of 5.72±6.5.

Mild, moderate, severe, and extremely severe depression were reported in 42.8% (n=84), 34.69% (n=68), 20.4% (n=40), and 2.04% (n=4) of the participants, respectively. These findings were consistent with the findings of Raikhy S et al10 in 2017 and Bewley A et al11 in 2011, in which the authors found a similar prevalence of stress, anxiety, and depression in dermatologic individuals to the results of the current investigation.

The study's findings also revealed a statistically significant association between sociodemographic data and stress, anxiety, and depression in study participants, with family type predicting anxiety and depression (p=0.03 and 0.02 respectively).

A significant connection was also found between socioeconomic level and depression (p=0.04). Gender also had a significant connection with stress and anxiety (p=0.01 and 0.04, respectively), as well as illness duration and depression (0.007). These findings were consistent with the findings of Ray A et al12 in 2011 and Karia SB et al13 in 2015, in which the authors reported a correlation of sociodemographic data with stress, anxiety, and depression in subjects with dermatological diseases that was comparable to the current study.

CONCLUSIONS

The present study, considering its limitations, concludes that there is an underestimation of the necessity for the adoption of the biopsychosocial approach for the treatment of dermatological disorders which focuses on the vital role of routine screening in psychiatric comorbidities and the need for integrated care models that involve interrelationship of mental health professionals and dermatologists.

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S. No	Characteristics	Number (n)	Percentage (%)
1.	**Mean age (years)**	52.0±24.24	
2.	**Age range (years)**		
a)	18-30	316	38
b)	31-40	264	31.7
c)	41-50	128	15.4
d)	51-60	124	14.9
3.	**Gender**		
a)	Males	352	42.3
b)	Females	480	57.7
4.	**Residency**		
a)	Semi-urban	92	11.1
b)	Rural	532	63.9
c)	Urban	208	25
5.	**Marital status**		
a)	Widower	36	4.3
b)	Unmarried	228	27.4
c)	Married	568	68.2
6.	**Family type**		
a)	Joint	260	31.2
b)	Nuclear	576	68.8

7.	**Socioeconomic status**		
a)	Upper lower	132	15.86
b)	Lower middle	216	25.96
c)	Upper middle	472	56.73
d)	Upper	12	1.4

Table 1: Demographic data of study participants

S. No	Clinical data	Number (n)	Percentage (%)
1.	**Illness duration**		
a)	4 weeks - 6 months	576	69.2
b)	6 months-1 year	168	20.2
c)	1-5 years	48	5.8
d)	>5 years	40	4.8
2.	**Presenting complaints**		
a)	Fluid-filled lesions	28	3.36
b)	Wheals	68	8.17
c)	Nodules	68	8.17
d)	Pustules	56	6.73
e)	Erosions	48	5.76
f)	Papules	36	4.32
g)	Hair loss	56	6.73
h)	Rashes	176	21.15
i)	Scales	76	9.13
j)	Comedones	40	4.8
k)	Discoloration	240	28.84
l)	Itching	500	60.09

Table 2: Clinical profile of study participants

S. No	Variables	Number (n)	Percentage (%)
1.	**Stress**	116	13.95
	Mean stress scores	6.7±6.6	
	Stress severity		
a)	Mild	36	31.03
b)	Moderate	60	51.72
c)	Severe	20	17.24
2.	**Anxiety**	256	30.76
	Mean anxiety scores	6.15±6.6	
	Anxiety severity		
a)	Mild	68	26.56
b)	Moderate	88	34.37
c)	Severe	32	12.5
d)	Extreme anxiety	68	26.56
3.	**Depression**	196	23.5
	Mean depression scores	5.72±6.5	
	Depression severity		
a)	Mild	84	42.8
b)	Moderate	68	34.69
c)	Severe	40	20.4
d)	Extreme anxiety	4	2.04

Table 3: Prevalence of stress, anxiety, and depression in study subjects using DASS-21

Table 4: Correlation of sociodemographic data with stress, anxiety, and depression in study subjects

S. No	Parameter	Stress (p-value)	Anxiety (p-value)	Depression (p-value)
1.	**Family type**	0.15 (0.95)	0.337 (**0.03**)	0.32 (**0.02**)
2.	**Residency**	0.32 (0.74)	0.39 (0.07)	0.35 (0.34)
3.	**Socioeconomic status**	0.07 (0.194)	0.056 (0.219)	0.144 (**0.04**)
4.	**Marital status**	0.46 (0.32)	0.34 (0.87)	0.26 (0.97)
5.	**Gender**	0.371 (**0.01**)	0.327 (**0.04**)	0.315 (0.08)
6.	**Illness duration**	0.47 (0.21)	0.32 (0.93)	0.53 (**0.007**)
7.	**Age**	0.7 (0.19)	0.45 (0.47)	0.384 (0.82)