



## Dermatology

## ASSESSMENT OF PSYCHIATRIC CO MORBIDITY IN PATIENTS WITH CHRONIC DERMATOSES, IN A TERTIARY CARE CENTRE IN COASTAL KARNATAKA

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**ABSTRACT**

**Introduction:** Chronic skin conditions often lead to low self esteem, low self confidence and stigma, thus negatively affecting quality of life. Psychiatric disorders are reported in 25 -52% of dermatological patients, among these anxiety and depressive disorders are common. Studies of psychiatric disorders in patients with chronic dermatological diseases are mostly based on the use of questionnaires or self report scales administered to outpatients or inpatients.

**Objectives:** The aim of the study was to estimate the prevalence of psychiatric co-morbidity in patients with chronic dermatoses and to assess its effect on quality of living.

**Materials and methods:** This cross sectional study, conducted over a period of six months included a total of 217 consecutive patients aged above 18 years presenting to dermatology OPD with chronic skin conditions. Patients were assessed for dermatological diagnosis and, quality of life was assessed using DQLI questionnaire. Subsequently patients were assessed for psychiatric co-morbidity by clinical interview using ICD 10 criteria and severity of depression and anxiety symptoms were assessed using HAM-D and HAM-A rating scales.

**Results:** The maximum numbers of patients were in the age group of 30-60 years (60%) with a male preponderance and majority of the study population were literate. Prevalence of psychiatric disorders was 31.8%, the commonly diagnosed psychiatric disorders were anxiety disorders (41.1%), followed by depressive disorders (32.3%) and substance abuse (23.5%). There was statistically significant association between psychiatric co morbidity and DQLI, duration of skin disease, being housewife and being aged above 60 years.

**KEYWORDS :****INTRODUCTION**

The skin being the largest organ of the body plays a vital role in physical as well as mental health. The association between skin and mind is a complex one, but well recognized now<sup>1,2</sup>. The fact that both skin and brain have a common ectodermal origin, and that a healthy skin is necessary for social, sexual and emotional health, is indicative of the psychological impact of skin disorders. Chronic skin conditions often lead to low self esteem, low self confidence and stigma, thus negatively affecting quality of life<sup>3</sup>. Psychiatric disorders are reported in 25 -52%<sup>3,4</sup> of dermatological patients, among these anxiety and depressive disorders are common. Studies of psychiatric disorders in patients with chronic dermatological diseases are mostly based on the use of questionnaires or self report scales administered to outpatients or inpatients<sup>5,6,7</sup>. There is lesser data on the actual prevalence of various psychiatric disorders, particularly when the diagnosis is based on psychiatric interview. In general, patients prefer the treatment of their dermatological diseases rather than psychiatric disorders and seek dermatologic consultation. Consequently, dermatologists often see patients who also have psychiatric conditions. The most efficient treatment of dermatological diseases is achieved with combined evaluation and management of dermatological and psychiatric morbidity.

Skin disorders are often chronic but not life-threatening, itching and pain interfere with periods of rest and sleeping, thus affecting quality of life. However this may not be considered significant by health professionals, policy makers, and the general public. Literature is deficit on impact of psychiatric morbidity on quality of life in patients with chronic dermatoses. Hence the present study was done with objective to assess psychiatric disorders in patients with chronic dermatologic diseases and its impact on patient's quality of life.

**METHODOLOGY**

This is a cross sectional study, conducted in out-patient setting of Dermatology department in liaison with Psychiatry department, Karwar Institute of Medical Sciences, Karwar. The study was conducted over six months from January 2019 to June 2019, after obtaining approval from Institutional ethics committee. A total of 217 consecutive patients aged above 18 years presenting to dermatology OPD with chronic skin conditions (symptom duration > 6 weeks) were included in the study after obtaining written informed consent. Patients with co morbid medical or surgical illness, those with history of corticosteroid intake within past 6 months and those patients who were taking psychiatric treatment prior to study were excluded. Study participants were assessed for dermatological diagnosis by the consultant dermatologist. Socio-demographic details were obtained using a semi structured profoma and quality of life was assessed using

Dermatological life quality index questionnaire (DLQI)<sup>8</sup>. Subsequently subjects were evaluated by consultant psychiatrist for presence of psychiatric morbidity, using ICD-10<sup>9</sup> diagnostic criteria. Severity of anxiety and depressive symptoms were assessed using Hamilton Depression Rating Scale (HAM-D)<sup>10</sup> and Hamilton Anxiety Rating Scale (HAM-A)<sup>11</sup>.

**RESULTS**

In the present study, demographic data shows that the maximum number of patients were in the age group of 30-60 years (60%) with a male preponderance (n=118). We had almost equal proportion of working and dependent patients. Majority of the study population were literate and educated (n=206). In binary regression analysis, age above 60 years, being housewife and being an unskilled worker were significantly associated with psychiatric co-morbidity.

Of the various dermatological disorders diagnosed during the study, maximum numbers of patients had psoriasis (25%) followed by eczema (20%), prurigo (12%), alopecia areata, vitiligo and lichen planus each 8%.

**Table 1. Sociodemographic characteristics of the study subjects**

Characteristic		No. of patients (217)	Percent
<b>Gender</b>	Female	99	45.62
	Male	118	54.38
<b>Age (Yrs)</b>	18 – 30	40	18.43
	30 – 45	64	29.49
	45 – 60	67	30.88
	60 – 75	44	20.28
	> 75	2	0.92
<b>Profession</b>	Skilled workers	30	13.82
	Semi-skilled workers	39	17.97
	Unskilled workers	38	17.51
	Retired/ Dependent	12	5.53
	Unemployed	20	9.22
	House wife	78	35.94
<b>Education</b>	Illiterate	11	5.07
	primary school	73	33.64
	High school	53	24.42
	PUC, Diploma	26	11.98
	Graduate	49	22.58
	Post-graduate	5	2.30

Mean Age was 44.93yrs with SD=14.

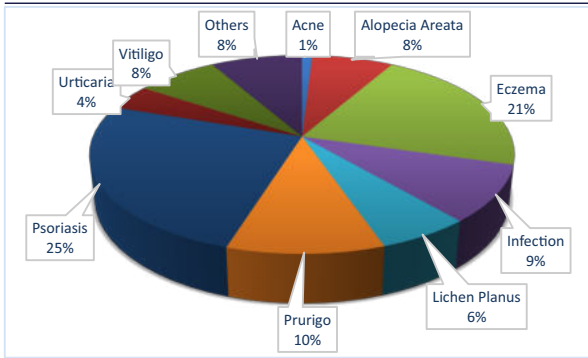


Figure 1. Distribution of study subjects according to their Dermatological conditions

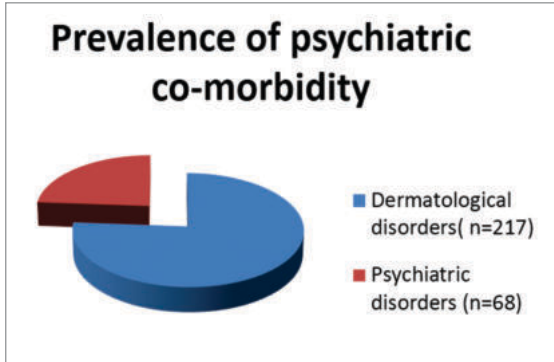


Figure 2. Prevalence of psychiatric co-morbidity

Table 2. Distribution of psychiatric disorders

Psychiatric disorders	No. of patients (%)
Mood disorders	
Mild depressive episode	5(7.3)
Moderate depressive episode	10(14.7)
Dysthymia	7(10.2)
Bipolar disorder	2(2.9)
Anxiety disorders	
Anxiety disorder –unspecified	11(16.1)
Adjustment disorder	6(8.8)
Generalized anxiety disorder	5(7.3)
Obsessive compulsive disorder	3(4.4)
Social phobia	2(2.9)
Panic disorder	1(1.4)
Substance use disorders	
Alcohol dependence syndrome	11(16.1)
Nicotine dependence syndrome	5(7.3)

Prevalence of psychiatric disorders was 31.8 % (n=68), among patients with chronic dermatological conditions. The most commonly diagnosed psychiatric disorders were anxiety disorders (n=28), followed by depressive disorders (n=22) and substance abuse (n= 16).

Based on Hamilton depression rating scale, 56(25.81%) patients had depressive symptoms. However only 24 were diagnosed with mood disorders. Similarly 47 patients had anxiety symptoms according to Hamilton anxiety rating scale, whereas 28 patients were diagnosed with anxiety disorders. Thus many patients had subclinical depressive and anxiety symptoms.

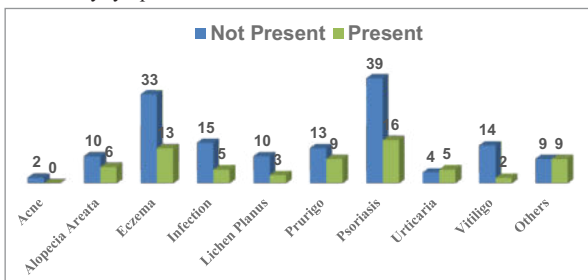
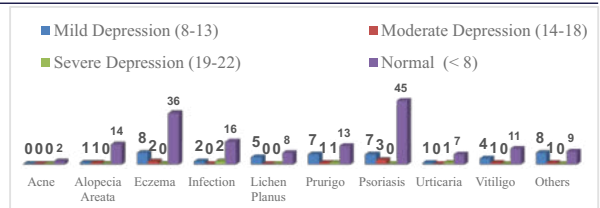
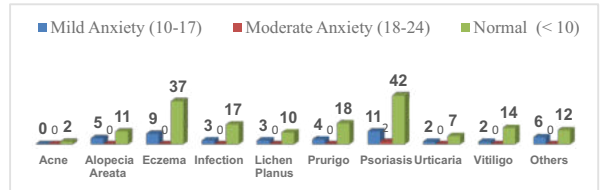


Figure 3. Distribution of study subjects according to their psychiatric co-morbidity status



$\chi^2 = 37.31, p=0.168$  [No significant association], Mean Ham-D score was 5.66 with SD=3.95

Figure 4. Distribution of Severity of depression in various dermatological conditions based on Hamilton-D scale



$\chi^2 = 11.25$  with  $p=0.94$ , Mean Ham-A score was 6.85 with SD=3.56

Figure 5. Distribution of Severity of anxiety in various dermatological conditions based on Hamilton-A scale

We assessed DQLI in all our patients and mean DQLI score was 9. There was statistically significant association between DQLI and psychiatric co morbidity. Patients with dermatological illness having smaller effect on quality of living had 0.017 times (OR=0.017 with  $p=0.01$ ) lesser chance of Psychiatric Co-Morbidity as compared those with extremely large effect on quality of living. Forty six percent of patients had moderate effect, 27% of patients had very large effect, 23% had small effect and 2% had extremely large effect on quality of living.

Table 3. Association of Psychiatric illness with various variables

		Psychiatric Co-morbidity		Total (%) 217	$\chi^2$	p value
		Not Present	Present 68 (31.80 %)			
Duration of Dermatological condition	< 6mon	78	18	96 (44.24)	20.68	<0.001*
	6mon - 1yr	27	8	35 (16.13)		
	1yr - 2yrs	27	24	51 (23.50)		
	2 - 5yrs	12	13	25 (11.52)		
	> 5yrs	5	5	10 (4.61)		
DQLI_Score	Moderate effect (6 - 10)	82	19	101 (46.54)	69.99	<0.001*
	Small effect (2 - 5)	48	3	51 (23.50)		
	Very large effect (11-20)	17	43	60 (27.65)		
	Extremely large effect (21-30)	2	3	5 (2.30)		
Dermatological Diagnosis	Acne	2	0	2 (0.92)	11.26	0.259
	Alopecia Areata	10	6	16 (7.37)		
	Eczema	33	13	46 (21.2)		
	Infection	15	5	20(9.22)		
	Lichen Planus	10	3	13 (5.99)		
	Prurigo	13	9	22(10.14)		
	Psoriasis	39	16	55(25.35)		
	Urticaria	4	5	9 (4.15)		
	Vitiligo	14	2	16(7.37)		
	Others	9	9	18(8.29)		

There was significant association between psychiatric co-morbidity and duration of dermatological condition. Patients with dermatological illness for 2–5 years had 5.388 times (**OR=5.388 with p=0.031**) more chances of having Psychiatric Co-Morbidity as compared to patient with dermatological illness of less than 6 months duration.

## DISCUSSION

Our study was conducted on 217 patients with chronic dermatological conditions in an out patient setting. The main aim of the study was to estimate the prevalence of psychiatric co-morbidity in patients with chronic dermatoses and to assess its effect on quality of living.

In our study 31% were found to have psychiatric comorbidity as clinically assessed by a psychiatrist. In the largest study so far conducted by Picardi et al.<sup>12</sup>, prevalence of psychiatric co-morbidity among dermatology patients was found to be 25.4%, where the patients were assessed using GHQ-12 and Skindex-29 questionnaire. In a recent study done by Goyal et al. prevalence of psychiatric illness was 52%. Though most of the studies have shown significant psychiatric co-morbidity among dermatology patients, the prevalence has shown variation between 25 to 52%. In a study done by Aktan et al.<sup>6</sup> the prevalence of psychiatric co-morbidity was found to be 33% and in a study done by Hughes et al.<sup>13</sup> it was 30%, which is in concordance with our study.

Our study has a male preponderance with 54% males, but the presence of psychiatric comorbidity did not show statistically significant difference between males and females. In a study done by Woodruff et al and Maan et al.<sup>14</sup> females had a higher prevalence of psychiatric comorbidity.

In our study there was a statistically significant relationship between elderly age 60 to 75 years with the presence of psychiatric illness and among the various working population psychiatric morbidity was more common in unskilled workers and house wives, which was not seen in other studies.

In present study, quality of life was assessed using DLQI which is in the form of questionnaire with 10 questions. There was statistically significant association DLQI scores and presence psychiatric comorbidity in our study with 46% of patients having DLQI scores between 6 to 10, 23% had small effect and 27 % had very large effect. In a similar study done by Goyal et al 24% had small effect 18% had moderate effect and 10 % had very large effect. In another study done by Arabi et al.<sup>15</sup>, higher quality of life was found in patients with higher educational status, unmarried patients, those who had milder disease and first episode of skin disease.

During the cross-sectional study period, dermatological diseases that were diagnosed included were psoriasis 25%, eczema 21%, prurigo 10%, infections 9%, vitiligo 7%, alopecia areata 7%, lichen planus 6% and other dermatological conditions 12%. The pattern of dermatological disorders was in concordance with other studies.

Psychiatric comorbidity was diagnosed in 68 patients. The common psychiatric disorders found in our study were anxiety disorders (28/68) and mood disorders (24/68). This is similar to the results of study conducted by Kumar et al.<sup>16</sup>, who found the prevalence of anxiety disorders to be 70% and depression 30%. Another study done by Goyal et al.<sup>3</sup> also found higher prevalence of anxiety disorders (38%) than depression (17%). However several other studies have found a higher prevalence of depression than anxiety disorders.<sup>17,18</sup> In our study, we also used HAM-A and HAM-D rating scales to assess the severity of anxiety and depression symptoms. It was found that 56 patients had symptoms of depression, though only 22 patients were diagnosed with depression. This indicates the presence of subclinical depression in several patients which also needs to be identified and addressed. Four patients had severe rating on HAM-D, 9 patients had moderate rating and 43 patients had mild rating. Severe symptoms were found in patients with prurigo and urticaria and moderate symptoms were found in patients with psoriasis and eczema.

As per HAM-A rating scale, 47 patients had anxiety symptoms, whereas 28 patients were diagnosed with anxiety disorders. This again indicates the presence of subclinical anxiety in several patients. Moderate anxiety was found in 2 patients both diagnosed with psoriasis, others had mild anxiety.

## CONCLUSION

There is a high prevalence of psychiatric disorders in patients with chronic dermatological conditions, common disorders being anxiety and depression. Several patients also have subclinical symptoms of anxiety and depression, which is often neglected. Thus it is important to screen patients with chronic dermatoses for psychiatric comorbidity which not only affects quality of life, but can also exacerbate dermatological conditions. Effective liaison between dermatology and psychiatry departments can help reduce the burden of illness and improve quality of living.

## REFERENCES

1. Šitum, M., Kolić, M., Buljan, M. (2016). Psychodermatology. *Acta Med Croatica*, 70 (1), 35-8.
2. Koo, J., Lebwohl, A. (2001). Psycho dermatology: the mind and skin connection. *Am Fam Physician*, 64(11), 1873-8.
3. Goyal, A., Deshmukh, A., Bhise, M., Marwale, A., Salve, G., Machhi, J. (2017). Psychiatric Comorbidities and Its Impact on Dermatologic Quality Of Life in Patients with Chronic Dermatological Disease. *International Journal of current Medical and Applied sciences*, 13(2), 82--86.
4. Jabeen, M.Z., Mina, S., Chander, R. (2019). Anxiety, depression, and suicidal ideations among patients with dermatological problems. *Int J Health Allied Sci*, 8, 168-73.
5. Windemuth, D., Stücker, M., Hoffmann, K., Altmeyer, P. (1999). Prevalence of Psychological Symptoms in Dermatologic Patients of an Acute Clinic. *Der Hautarzt*, 50, 338-343.
6. Aktan, S., Ozmen, E., Sanli, B. (1998). Psychiatric Disorders in Patients Attending a Dermatology Outpatient Clinic. *Dermatology*, 197, 230-234.
7. Aslam, R., Qadir, A., Asad, F. (2007). Psychiatric Morbidity in Dermatological Outpatients: An Issue to Be Recognized. *Journal of Pakistan Association of Dermatologists*, 17, 235-223.
8. Finlay, A.Y., Khan, G.K. (1994). Dermatology Life Quality Index (DLQI): a simple practical measure for routine clinical use. *ClinExp Dermatol*, 19, 210-216.
9. World Health Organization (WHO). (1993). The ICD-10 classification of mental and behavioural disorders. World Health Organization.
10. Hamilton, M. (1960). A rating scale for depression. *J Neurol Neurosurg Psychiatry*, 23, 56-62.
11. Hamilton, M. (1969). Diagnosis and rating of anxiety. *British Journal of Psychiatry*, 3, 76-79.
12. Picardi, A., Abeni, D., Melchi, C.F., Puddu, P., Pasquini, P. (2000). Psychiatric Morbidity in Dermatological Outpatients: An Issue to Be Recognized. *British Journal of Dermatology*, 143, 983-991.
13. Hughes, J.E., Barraclough, B.M., Hamblin, L.G., White, J.E. (1983). Psychiatric Symptoms in Dermatology Patients. *The British Journal of Psychiatry*, 143, 51-54.
14. Maan, M.A., Naureen, S., Saddiqua, A. (2010). Anxiety, depression and self-esteem among chronic skin patients. 2, 159-65.
15. Arbab, M., Zhand, N., Samadi, Z., Ghaninejad, H., Golestan, B. (2009). Psychiatric Comorbidity and Quality of Life in Patients with Dermatologic Diseases. *Iranian Journal of Psychiatry*, 4, 102-106.
16. Kumar, A., Singh, K., Khan, I. (2020). Psychiatric Co-morbidity in Chronic Skin Diseases. *JMSCR*, 08(05), 375-379.
17. Picardi, A., Amerio, P., Baliva, G., Barbieri, C., Teofoli, P., Bolli, S., Salvatori, V., Mazzotti, E., Pasquini, P., Abeni, D. (2004). Recognition of depressive and anxiety disorders in dermatological outpatients. *Acta Derm Venereol*, 84(3), 213-7.
18. Woodruff, P.W., Higgins, E.M., du Vivier, A.W., Wessely, S. (1997). Psychiatric illness in patients referred to a dermatology-psychiatry clinic. *Gen Hosp Psychiatry*, 19, 29-35.