

A study to find depression in patients attending dermatological OPD in a teaching hospital

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ABSTRACT

Introduction: The relationship between skin and the brain exists because the brain, as the center of psychological functions, and the skin have the same ectodermal origin and are affected by the same hormones and neurotransmitters. Skin disorder can be a potential source of emotional distress and psychiatric illness leading to impaired psychosocial adjustments. **Aims and Objectives:** The aim and objective of this study was to find psychiatric depression in patients attending dermatology outpatient department (OPD). **Materials and Methods:** The study was conducted in the department of psychiatry. A total of 200 patients of both gender were consecutively taken who referred to psychiatry OPD from skin OPD after meeting inclusion and exclusion criteria. **Results:** A total of 33.3% patients scored high on GHQ-12 Scale (General Health Questionnaire-12) and also clinically found that they were suffering from depression. **Conclusion:** Co-morbid Depression found in patients suffering from skin disorders. Proper screening and appropriate referral required for better prognosis.

Keywords: Depression, hormones, neurotransmitters, skin disorders

Introduction

The relationship between skin and the brain exists because the brain, as the center of psychological functions, and the skin have the same ectodermal origin and are affected by the same hormones and neurotransmitters. Skin disorder can be a potential source of emotional distress and psychiatric illness leading to impaired psychosocial adjustments. Emotional and psychosocial distress, in turn, may lead to psycho-somatic skin disorders. Dermatological diseases have a negative effect on the daily life, self-confidence, and self-respect. In fact, they may lead to questions on self-image, thus creating a problem of identity. Dermatologists have observed their patients to be relatively more concerned and worried about the diseases that are related to their physical appearance, as a result of which dermatology patients may be affected by disorders such as anxiety, depression, and other psychosocial problems. The

skin has long been recognized as the “organ of expression”^[1] and serves as the boundary between ourselves and the outside world. Psychological factors have long been known to be associated with dermatological conditions.^[2,3] At present, there is some literature on an association between adult skin disorders and psychosocial problems.^[4,5]

Aims and objectives

The aim and objective of this study was to find out depression in patients attending dermatology outpatient department (OPD).

Materials and Methods

The study was conducted in the department of psychiatry. A total of 200 patients of both gender were consecutively taken who referred to psychiatry OPD from skin OPD after meeting inclusion and exclusion criteria. The study was conducted over a period of 6 months from February 2015 to July 2015.

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Inclusion criteria

The inclusion criteria were as follows:

- Patients >16 years of age
- Patients attending dermatology OPD
- Patients who have given written and informed consent.

Exclusion criteria

The exclusion criteria were as follows:

- Patients <16 years of age
- Patients having any other medical illness
- Patients who have not given written and informed consent.

This was a cross-sectional study. All consecutive patients attending the dermatology OPD, fulfilling the inclusion criteria, were included in the study. The study was carried out in two phases. In the first phase, screening for psychiatric morbidity of all patients was done using the 12-item General Health Questionnaire (GHQ-12). Written informed consent was taken. In the second phase, patients who scored 3 or more on GHQ-12 were further evaluated for depression using Beck Depression Inventory (BDI-II) scale and also patients were examined clinically and diagnosed according to the International Classification of Diseases-10 (ICD-10) criteria.

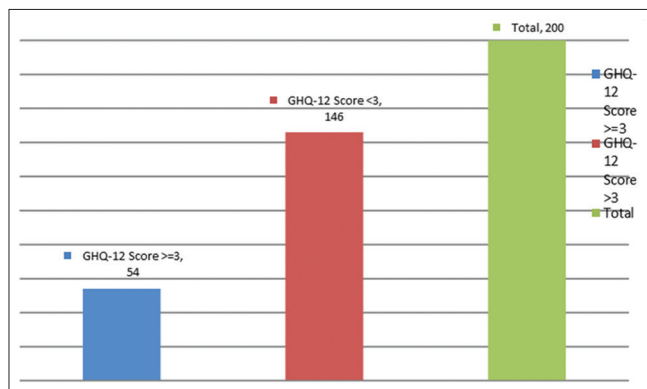
Results and Discussion

A total of 200 patients attending dermatological OPD who gave informed consent and fulfilled the inclusion and exclusion criteria were included in this study. The study was carried out in two phases. In the first phase, screening for psychiatric morbidity of all patients was done using GHQ-12. In the second phase, patients scoring 3 or more on GHQ-12 were further evaluated for depression using BDI-II. A total of 54 patients out of 200 patients scored ≥ 3 on GHQ-12 and qualified for second phase [Table 1].

Table 1: Distribution of total patients according to the General Health Questionnaire-12 score

	GHQ-12 score ≥ 3 (%)	GHQ-12 score <3 (%)	Total
Number of patients	54 (27)	146 (73)	200

GHQ-12: General Health Questionnaire-12



In our study, 33.3% of the patients scored high on scale (GHQ-12) and also clinically found that they were suffering from depression. The prevalence of depression was more in younger age group, i.e., 26–45 years.

Distribution of psychiatric morbidity according to age

When compared with the distribution of age, the study found no significant difference between the age groups in terms of increased psychiatric morbidity (GHQ score ≥ 3). However, higher percentage of GHQ score ≥ 3 (59.2%) was found in the age group of 26–45 years as compared to 25.9% in the age group of <25 years and 14.8% in the age group of >45 years [Table 2].

Distribution of psychiatric morbidity according to sex/gender

When compared with the distribution of sex/gender, the study found no significant difference in psychiatric morbidity between the gender groups. However, higher percentage was found among men [Table 3]. Earlier study, conducted by Attah Johnson *et al.*,^[6] also found no significant difference among genders in total psychiatric morbidity. However, they found comorbid depressive disorder more in female as compared to male patients and comorbid anxiety disorder more in male as compared to female patients.

Depression among dermatological patients

From the 54 patients who scored high on GHQ-12 scale, 18 (33.33%) patients were diagnosed having depressive disorder according to the BDI-II [Table 4]. This finding was supported by Gupta *et al.*^[7] They suggested that the degree of depressive psychopathology directly correlated with the severity of pruritus. They found that there is a direct correlation ($P < 0.0001$) between the Carroll Rating Scale for Depression and severity of pruritus. They concluded that the depressed clinical state may reduce the threshold for pruritus. In a similar study, Gupta *et al.*^[8] also observed that the degree of depressive psychopathology correlates positively with the

Table 2: Distribution of gender according to the General Health Questionnaire-12 score

Gender	GHQ-12 score ≥ 3 (%)	GHQ-12 score <3 (%)	Total (%)
Female	20 (37.03)	73 (50)	93 (46.5)
Male	34 (62.96)	73 (50)	107 (53.5)
Total	54	146	200

GHQ-12: General Health Questionnaire-12

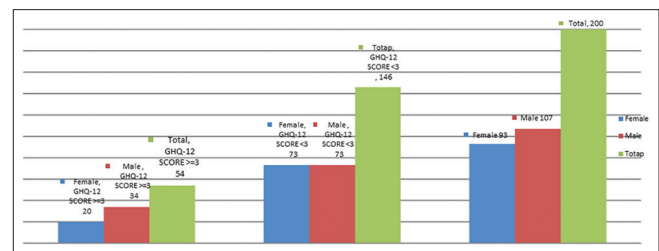
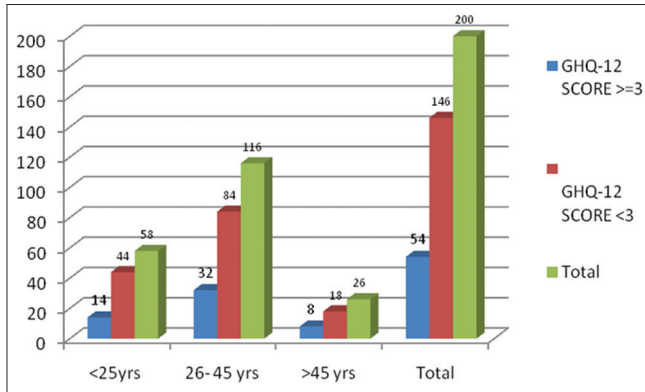


Table 3: Distribution of age according to the General Health Questionnaire-12 score

Age (years)	GHQ-12 score ≥ 3 (%)	GHQ-12 score < 3 (%)	Total (%)
<25	14 (25.9)	44 (30.1)	58 (29)
26-45	32 (59.2)	84 (57.5)	116 (58)
>45	8 (14.8)	18 (12.3)	26 (13)
Total	54	146	200

GHQ-12: General Health Questionnaire-12

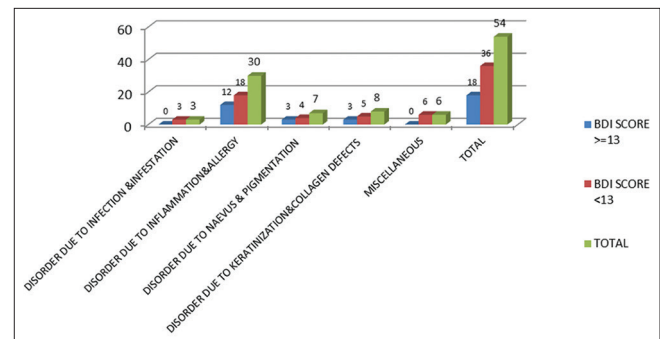


severity of pruritus pretherapy. Prospectively, over the course of treatment, the change in depression correlated positively with the change in pruritus pre- to post-treatment. Felix *et al.*^[6] also found the prevalence of depressive disorder (50.75%) in dermatological patients. Devrimci-Ozguven *et al.*^[9] determined that psoriasis patients reported significantly higher degree of depression and more body cathexis problems than controls. In addition, the risk for developing psoriasis increased significantly in patients with moderate and severe depression. They also found a relationship between symptoms severity and low affective expression and high BDI scores. The study suggests that the relationship between psoriasis and psychological problems can be reciprocal and requires further investigation. Barankin and DeKoven^[10] in their review article found that dermatologic problems could result in psychosocial effects that seriously affect patients' lives. Apart from cosmetic nuisance, skin disease could produce anxiety, depression, and other psychological problems that affect patients' lives in ways comparable to other illnesses causing disability. Fried *et al.*,^[11] Hashiro and Okumura,^[12] and Kellett and Gawkrödger^[13] also supported the opinion that skin diseases are strongly associated with depression. Gupta *et al.*^[14] emphasized that depressive disorder is one of the most frequently encountered psychiatric disorders in dermatology and it is associated with a high incidence of suicide. Ahmed *et al.*^[15] found that major depressive illness was the most frequent psychiatric illness followed by generalized anxiety, mixed anxiety and depression, social phobia, agoraphobia, and sexual dysfunction. They concluded that psychiatric caseness has a probable association with vitiligo, the frequency being influenced by variables of disease and life. Major depression and anxiety remain the most common psychiatric disorders in these patients.

Table 4: Distribution of the Beck Depression Inventory score as per dermatological diagnosis

Dermatological diagnosis	GHQ-12 score ≥ 3		Total (%)
	BDI score ≥ 13 among (%)	BDI score < 13 among (%)	
Disorder due to infection and infestation	0	3 (8.3)	3 (5.6)
Disorder due to inflammation and allergy	12 (66.6)	18 (50.0)	30 (60.2)
Disorder due to nevus and pigmentation	3 (16.6)	4 (11.1)	7 (12)
Disorder due to keratinization and collagen defects	3 (16.6)	5 (13.8)	8 (14.8)
Miscellaneous	0	6 (16.6)	6 (7.4)
Total	18	36	54

$P > 0.05$. BDI: Beck Depression Inventory; GHQ-12: General Health Questionnaire-12



Conclusion

- This study found comorbid depression in patients suffering from skin disorder. Other psychiatric illness were also present in these patients and it should be evaluated further on bigger population
- Dermatologists should be aware about the psychiatric illness, and appropriate referral should be made. This will help in making a proper diagnosis and better prognosis.

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Conflicts of interest

There are no conflicts of interest.

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