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PREVALENCE OF DEPRESSION AND ANXIETY AMONG PATIENTS WITH CHRONIC PRURITUS

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ABSTRACT

Objectives: Various studies have shown high prevalence of psychiatric disorders among dermatology outpatients and inpatients. As pruritus is the most common complaint in dermatology, we investigated the status of mental health in outpatient with chronic pruritus as a chief complaint. The objective of this study is to find out the prevalence of depression and anxiety and its severity among patients with chronic pruritus.

Materials and Methods: This cross sectional study was conducted for a period of
11 months among out patients of dermatology in Rajah Muthiah Medical College and Hospital. A total of 100 patients, randomly divided into one groups with 100 patients.

Results: In this study psychiatric morbidity was found to be abnormal in 83% of the patients. Using ICD-10 criteria for clinical psychiatric diagnoses indicated that 83% of dermatology patients had an associated psychiatric morbidity most commonly depression (62%) and anxiety (46%).

Conclusion: In this study, psychiatric co-morbidity in the patients with chronic pruritus, psychiatric and psychological interventions should be considered in these patients to improve their quality of life and mental health.

INTRODUCTION

The skin and the brain are polar terminal differentiations from the same embryonic neuroectoderm and **Itch** (Latin: **pruritus**) is a symptom, the complex yet intricate link between these two organs is the most common symptom of dermatologic disease. The skin and psyche are intimately related with various skin diseases caused by or resulting in psychiatric disturbances. Pruritus is a commonly reported symptom in psychiatric patients, and likewise psychiatric co-morbidities, including anxiety and depression, are frequently seen in chronic pruritus patients.

Pruritus is defined as an unpleasant sensation of the skin leading to the desire to scratch. It can be distinguished as acute or chronic, with the latter defined as pruritus lasting 6 or more weeks, according to a recent recommendation by the International Forum for the Study of Itch (IFSI).[1] Depression is the most common psychiatric disorder in general practice and about one in ten patients seen in the primary care settings suffer from some form of depression. In a study conducted by the World Health Organization (WHO)[2] in fourteen primary care settings worldwide, the most common disability was depression. Anxiety and depressive disorders are common in all regions of the world. They constitute a substantial proportion of the global burden of disease, and are projected to form the second most common cause of disability by 2020.Depression is estimated to affect 340 million people globally.

Depression is more common in women than men. [3] Depression and anxiety disorders negatively impact one's perceived quality of life. According to Woodruff *et al* in

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an article in General hospital psychiatry 1997, states that there is a recognized psychiatric morbidity among those who attend dermatology clinics. Depressive illness accounted for 44% and anxiety disorders 35% and presented with ongoing psychosocial difficulties rather than following discrete precipitants. The impact of the skin disorders upon the quality of life is a stronger predictor of psychiatry morbidity than the clinical severity of the disorder.

The prevalence of psychiatric disorders is reported to differ between countries, within countries and across various ethnicities. The prevalence of depression in a population based study conducted in urban Pakistan was 45.9%, while in rural Bangladesh, it was reported to be 29% and in a peri-urban clinic in Uganda it was reported to be 6.1%.[4] Earlier Indian studies have reported prevalence rates of depression that vary from 21–83% in general population. [5,6]

National Mental Health Survey of India, 2015-16, supported by Ministry of Health and Family Welfare, Government of India and Implemented by National Institute of Mental Health and Neuro Sciences (NIMHANS**),** [7] states that as per global burden of disease report, mental disorders accounts for 13% of total DALYs lost for Years Lived with Disability (YLD) with depression being the leading cause. Ever growing awareness in society, improved recognition, variations in disease patterns, changing lifestyles and biological vulnerabilities and consequently, depression, anxiety, alcohol use, suicidal behaviours, drug use, sleep disorders and several others are on the increase .Common mental disorders (CMDs), including depression, anxiety disorders and substance use disorders are a huge burden affecting nearly 10.0% of the population. This group of disorders are also closely linked to both causation and consequences of several non- communicable disorders (NCD), thereby contributing to a significantly increased health burden. The weighted prevalence of depression for both current and life time was 2.7% and 5.2%, respectively, indicating that nearly 1 in 40 and 1 in 20 suffer from past and current depression, respectively. Depression was reported to be higher in females, in the age-group of 40-49 years and among those residing in urban metros. Equally high rates were reported among the elderly (3.5%).

MATERIALS AND METHODS

This is a cross sectional study in subjects diagnosed with chronic pruritus conducted for a period of 11 months from November to September 2017. Patients screening and recruitment was carried out at the out patient Department of Dermatology and Mental Health in Rajah Muthiah Medical College and Hospital. The study was initiated after obtaining approval from the Rajah Muthiah Medical College Institutional Human Ethics Committee.

A total of 100 patients were enrolled in the study. Written informed consent was obtained from the consenting patients diagnosed with chronic pruritus before participation into the study who were selected consecutively.

Inclusion Criteria: 1. Age above 13 and 65 years, 2. All patients who have chronic pruritus with dermatological disorders and undergoing treatment utilizing the services of dermatology outpatient clinics. 3. All consenting patients.

Exclusion Criteria: 1. Patients with other systemic skin diseases, 2. Cognitively impaired patients, 3. Severe medical disability and 4. Those were not willing and uncooperative for the study.

Statistical Analysis

The statistical analysis was carried out with SPSS VER. 16.0 Software. All the data was presented as mean, standard deviation, and percentage of efficacies. Chi-square and paired 't' test is used to evaluate the statistical significance between two drugs. In this study, ($P < 0.05$) is considered as significant.

RESULTS

Table 1 Distribution of Chronic Pruritus Patient among Age Groups

(n = 100)

Age (in Years)	Frequency	Percentage
13-19	12	12.0%
19 – 25	17	17.0%
26 – 40	35	35.0%
41 – 60	30	30.0%
>60	6	6.0%

Legend-1

Table 1 shows the various age groups among patients with chronic pruritus results shows majority belong to 26-40 years (35%), 30% belong to age group of 41-60 years, 17% belong to 19-25 years, 12% belong to adolescents (13-19 years) and 6% belong to old age (60+).

Table 2 Psychiatric Morbidity among Patients with Chronic Pruritus

(n = 100)

Psychiatric Diagnosis	Frequency	Percentage
Mild	7	7.0
Moderate	16	16.0
Severe	20	20.0
GAD	8	8.0
PAD	8	8.0
SAD	6	6.0
Mixed A & D	18	18.0
Nil Psychiatry	17	17%

Legend-2

The severity of depression assessed using HAM-D and Psychiatric morbidity were severe depression 20%, mixed anxiety and depression 18% followed by moderate depression of 16%. Anxiety was assessed using HAM-A scales and GAD, PAD and SAD were found in the frequency of 8%, and 6% respectively.

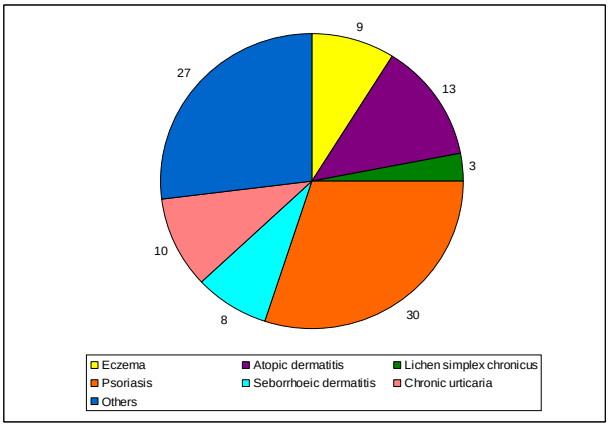
Table 3 Distribution of Chronic Pruritus among patients with Dermatological Diagnosis

(n = 100)

Dermatology Diagnosis	Frequency	Percentage
Eczema	9	9.0%
Atopic dermatitis	13	13.0%
Lichen simplex chronicus	3	3.0%
Psoriasis	30	30.0%
Seborrhoeic dermatitis	8	8.0%
Chronic urticaria	10	10.0%
Others	27	27.0%

Legend – 3

Among patients with chronic pruritus, psoriasis as a dermatological diagnosis was observed in 30%. 13% with atopic dermatitis, 10% with chronic uticaria 9% with eczema, 8% with seborrhoeic dermatitis and lichen simplex chronicus seen in 3% of patients.



DISCUSSION

This is a cross sectional observation study conducted among patients with chronic pruritus associated with certain dermatological conditions within the study frame and to estimate the prevalence of psychiatric morbidities with reference to depression and anxiety. The results as such may not be generalized to the population at large.

The study was done in the native population who were attending dermatology outpatient department at Rajah Muthiah Medical college hospital, Chidambaram. A homogenous population of one hundred patients seen consecutively were chosen on the basis of inclusion criteria. Our study showed female preponderance over males (females 67% vs males 33%) which is almost similar to the finding of Zahra Beigom Moosavi *et al*. (75% females).In our study, highest incidence is noted in the age group of 26-60 years.

Madhulika and Aditya[8] in their study on psychiatric and psychological co-morbidity in patients with dermatologic disorders: epidemiology and management, proposed that psychiatric and psychological factors play an important role in at least 30% of dermatologic disorders. In many cases the impact of the skin disorder upon the quality of life is a stronger predictor of psychiatric morbidity than the clinical severity of the disorder as per physician ratings.

In our study, the results obtained resonates the high psychiatric morbidity in patients with chronic pruritus associated with dermatological disorders. Psychiatric morbidity is found to be high in chronic pruritus patients with psoriasis followed by atopic dermatitis and chronic urticaria. Levels of depression was found to be more than levels of anxiety, as such indicative of a dysfunctional illness, in which proneness for chronicity, coping behaviours and helplessness can result in worse disease outcomes. The elderly population (60+) was only 6% and social isolation, loss of bonding relationships and feelings of emptiness which are possible virtues of old age could have been a stronger predictor in determining psychiatric morbidity and dermatological conditions.

Schneider *et al*.[9] investigated mental health in outpatients with chronic itching referred to dermatology clinics. They found many psychiatric comorbidities in patients with chronic pruritus with prurigo nodularis and atopic dermatitis to be the most common diseases causing itch in over 70% of the patients (40.5%, 25.7% and 13.8%, respectively). They used global assessment Foundation (GAF) scale and psychiatric diagnoses were based on investigators interview. They found depressive disorders in 10.1%, adjustment disorders in 22.9% and psychological factors associated with other disorders in 46.8% of all the patients.

In our study, the highest psychiatric morbidity is 30%due to psoriasis (30 out of the total 100 patients). Our findings are lower than that observed for psoriasis as in 53.3% the studies by Neelu Sharma *et al*,[10] in a comparative study of psychiatric morbidity in dermatological patients, 2003. The study under the umbrella of chronic pruritus could capture such a comparatively low figure might be explained by sample size and psychosocial determinants. Though the distributive pattern of psoriasis was 30% as per (Table 13), Psoariatic patients have been diagnosed with moderate depression 23.7% and severe depression 20%, mixed anxiety and depression to the extent of 16.7% appears significant upon categorization (Table 12). However our findings are higher than that seen in a study done by the same another who observed 23.3% of patients had depression and 3.3% had anxiety.

In a study by Zahra Beigom Moosavi *et al*., [11] noted abnormal global severity index (GSI) in 55.4% of the patients. The frequency of depression among patients with lichen simplex chronicus (42.1% of females and 54.5% of males) and anxiety among psoriasis (40.9% in females and 63.6% in males) were the psychological entities. In our study, it was found that 62 % of the study population were diagnosed with depression (Table 5) and the pruritogenic dermatological conditions namely with psoriasis (30%) topping the list followed by atopic dermatitis 13 % and chronic urticarial 10% (Table 13). Anxiety features were found to be of a mild severity only.

Yeni Symposium (2015) [12], psychiatric disorders were identified in 28.6% of the patients. Among depressive disorders, major depressive disorder was the most common (25.3%); among anxiety disorders, generalized anxiety disorder (10.3%) and obsessive compulsive disorder (7.9%) were identified as common. However, prior psychiatric application was only 16.7%. In our study,

depressive disorders and anxiety disorders, except for somatoform itching, were the most common psychiatric disorders among chronic pruritus patients. 72% of patients with anxiety have a duration of more than a year and 59 % depressive patients have a duration of more than one year.(Table 6) In a study by Kılınç *et al*.,[24] the duration of pruritus symptoms ranged from 15 days to 30 years. Thus, the duration of pruritus has a long range. In our study, psychiatric disorders were identified in the patients with both the short- and longterm itching with a span of 1 to 6 years.

Psychiatric morbidity in dermatology patients: frequency and results by Muammer Seyhan, et.al., found that dermatological patients explicit psychiatric morbidity. Patients who were treated in the dermatology clinic of Inonu university medical faculty were evaluated retrospectively. The age, gender, marital status, habits, dermatological and systemic diseases, current therapy and psychiatric diagnosis of each patient were recorded.

In our study similar presentations of both psychiatric and dermatological morbidities were observed as per (Table 16 &17) titled prevalence of depression, anxiety and associated demographic factors in dermatological disorders and mean standard deviation of derm diagnosis with socio demographic factors. Dermatology diagnosis is equally distributed between age groups. There was a significant difference in gender. No difference appreciated in educational and socio-economic status. The dermatological diagnoses were Eczema (9%), atopic dermatitis (13%), Psoriasis (30%), Chronic urticarial (10%), and seborrheic dermatitis (8%).(Table 13) The psychiatric morbidities as described in (Figure 11) are mild depression (7%), moderate depression (16%), severe depression (20%), GAD (8%), PAD 8%, SAD (6%), and mixed anxiety & depression (18%)

In our study psychiatric morbidity associated with dermatological disorders, can be likened to two edged sword especially depression found in 62% and anxiety in about 46% as per (Table 5 & 7) is much higher than the prevalence of these conditions among the general population. Comorbidities and bidirectional symptomatology can be a challenge to both psychiatrists and dermatologists, leave alone primary care physicians. There needs a conundrum of a unified protocol and effective liaison to address these issues in the future and it is a way forward recommendation of our study too.

The Visual analogue scale which was used to assess the subjective pattern of pruritus were in lines with the duration of dermatological conditions rather than the intensity of pruritus which when compared was statistically insignificant in this study (Table 15). Mild pruritus was found in 54% and moderate pruritus in 44% does not explain the duration of illness of the dermatological conditions in this study. This can assumptions that occult factors such as psychosocial, environmental, occupational and genetic factors could also contribute to the chronic nature of these dual diagnostic morbidities.

Amir Muffadel *et al*.,[13] study was to compare the rates of psychiatric symptoms in patients with psoriasis, acne, vitiligo, and eczema versus patients who had other dermatological conditions; and to compare each dermatological group versus healthy control subjects in Khartoum. Hospital anxiety and depression scale was used to assess symptoms of anxiety and depression. Using ICD-10 criteria for clinical psychiatric diagnoses indicated that 52.3% of dermatology patients had an associated ICD-10 diagnosis; most commonly anxiety disorders (28.6%), and depression (21.9%). Anxiety disorders included: OCD (13.3%) generalized anxiety disorder (5.7%), panic disorder (4.8%), phobic anxiety disorder (3.8%) and post-traumatic stress disorder (0.95%).

In our study, psychiatric morbidity is found in 83% of cases which is higher when compared with the general population which is about 22%. Anxiety disorders (46%) and depression (62%) are observed along with GAD (8%), PAD (8%). Hamilton ratting scale for depression and anxiety was used (HAM - A & HAM-D) was the scale used to assess the levels of depression and anxiety. The visual analogue scale was administered to assess the intensity of pruritus and the pruritus scores were categorized as mild, moderate and severe based on its severity.

Current literature further supports the interplay of psychogenic and emotional factors in augmenting the perception of itch. Notably, depression and stress have been suggested in enhancing one's awareness of itch, with a study observing a direct correlation between itch severity and the extent of depressive symptoms. Not surprisingly, a greater incidence of psychiatric disturbances has been documented in dermatology patients: 25% - 60% reported psychiatric disturbances in the in-patient and out-patient dermatologic setting and Schneider *et al.* remarkably found 70% of sampled chronic pruritus patients suffering from psychiatric illnesses. The psychotherapeutic modalities with evidence for significant clinical improvement include cognitive behavioural therapy, hypnosis and guided imagery training. Scharloo *et al* (2000) showed that emotional expression, active coping and seeking social support were associated with improved mental and physical health one year later.

CONCLUSION

The result of our study explores a significant psychiatric comorbidity exists in dermatology in the early stages of onset of a dermatological condition. Among patients with chronic pruritus, depression was higher when compared with anxiety. Psoriasis has a high psychiatric morbidity among dermatological disorders. Biopsychosocial approach to patients with skin disease should be sought by liaison between psychiatrist and dermatologist.

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