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DERMATOLOGICAL DISORDERS;
PSYCHIATRIC CO-MORBIDITY

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ABSTRACT... Objectives: The study aimed to determine the prevalence and risk factors of Depression and Anxiety in indoor Patients of Dermatology Department. **Types of study:** cross sectional study. **Place and Duration of study:** The study was conducted at in door Department of Dermatology, D.H.Q Hospital Faisalabad from August 2006 to October 2006. **Patients & Methods:** A total of 77 diagnosed dermatological patients, (21males and 56 females) were selected by using non-probability convenient sampling. Hospital Anxiety and Depression Scale and DSM –IV-TR criteria for depression and anxiety were used to evaluate the patients. QOL-BREF was administered. Results were also correlated with patient's demographics. **Result:** Out of 77 Patients who were enrolled in a study, 52 % of subjects reported psychiatric co-morbidity regarding anxiety and depression according to DSM-IV-TR, HADS, anxiety and depression score was 12.75 (±4.33) and 11.18 (±4.51) respectively. A strong co-relation of HADS anxiety and HADS depression was found with the DSM-IV- TR diagnosis respectively. The strong negative association was found with the education, monthly income and socio-economic status respectively. **Conclusion:** The study shows high Prevalence of Depression and Anxiety in Patients having dermatological disorder. The findings also highlight the importance of recognizing dermatological disease related psychiatric problems. Through training, dermatologists can identify psychiatry morbidity and play their role in early detection, management and referrals of complicated cases of these co- morbid conditions. In this way better quality of care can be assured.

Key words: Dermatology, Depression and Anxiety.

INTRODUCTION

Psychiatric morbidity is one of the major public health problems. According to different survey of general population in Pakistan, 13-28%people are suffering from moderate to severe form of mental disorder[1].

The prevalence of psychiatric illness in other medical patients is higher than that in the general population, both in developed and developing countries.

In dermatological disorders this very important aspect of psychiatric co-morbidity is usually being neglected. It is difficult to say that either skin diseases cause the psychiatric co morbidity or vice versa. The role of stressful events in psoriasis, alopecia areata, atopic dermatitis and urticaria was apparently clearer which has been long postulated[2].

A large number of skin diseases, including atopic dermatitis and psoriasis appear to be precipitated or exacerbated by psychological stress. Nevertheless, the

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specific pathogenic role of psychological stress remains unknown[3]. A significant prevalence of depressive disorder is reported among dermatological patients in general and with specific dermatological conditions in particular[4].

Dermatological patients may recognize psychological symptoms as part of their illness, but these are overshadowed by intense physical complaints that allow those reluctant to accept the stigma of mental illness still to occupy the sick role[5].

Acne has been implicated in psychiatric and psychological processes more than most other dermatological conditions. Acne patients report greater levels of anxiety and depression than other medical populations, including cancer patients and other dermatology patients. Studies have found significant impairment in self-image and self-esteem, impairment in psychological well being, dissatisfaction with appearance and inhibition of social interactions in acne patients[6,7,8,9].

In Pakistan few studies have been carried out to assess this issue of morbidity, it has been seen that dermatology out patients have significant psychiatric morbidity. The patients were screened for psychiatric complaints and the result shows that patients with chronic disfiguring lesions like Acne, Eczema, Psoriasis and Vitiligo have more chances to develop depression and anxiety[10].

Another study was done to find out the intensity of psychiatric morbidity and to see the patterns of psychiatric ailments in dermatological patients. General Health Questionnaire-12 (GHQ) was used for screening and Psychiatric Assessment Schedule (PAS) was administered to those who were found to be positive for psychiatric case-ness. Results reveals that the patterns of psychiatric ailment detected by PAS was major depressive illness, generalized anxiety disorder, mixed anxiety & depression states and dysthemia[11].

In an other study which was carried out to determine the frequency and pattern of psychiatric disorder amongst patients with vitiligo, concluded that major depressive illness was most frequent psychiatric illness followed by generalized anxiety, mixed anxiety and depression, social phobia, agoraphobia and sexual dysfunction[12].

Despite this literature on anxiety and depression in dermatological patients many important questions remain unanswered regarding Pakistan, the aim of the present study was to characterize the anxiety and depression reported by dermatological patients using standardized diagnostic criteria for generalized anxiety disorder and major depression; to estimate the prevalence; to compare screening tools such as Hospital Anxiety and Depression Scale in detecting these anxiety disorders and depression moreover to examine the demographic and psychosocial associations in dermatological patients. It was further aimed to study the relationship between a psychiatric morbidity and demographic variables in order to identify subgroups with increased risk.

PATIENTS AND METHODS

The study was conducted from Aug.2006 to Dec.2006. Seventy Seven (77) indoor patients suffering from various dermatological disorders were selected from the dermatology department of DHQ Hospital through non-probability convenient sampling with the help of liaison medical officers appointed by the head of dermatology department. The inclusion criteria was all in-door patients during study and those were excluded who refused to be the part of research sample.

Raters were trained in the administration of clinical interview based on DSM-IV-TR (diagnostic criteria for depression and anxiety). They approached the patients with the help of liaison medical officer.

During stage-1 after having obtained verbal consent from the patients they collected information regarding Demographic Questionnaire, which consisted of name, age, gender, education, marital status, occupation, income, family type etc.
Then Hospital Anxiety and Depression Scale (HADS) were administered to all selected individuals[13].

During stage-2 patients were interviewed by the Raters who were blind to the respective HADS Score and used DSM-IV[14] criteria (Major Depression and Generalized Anxiety) to assess depression and anxiety. Then QOL-BREF was administered[15].

All the data was analyzed by SPPS 13.0 and p<0.01 was considered to be statistically highly significant. The results are expressed as mean and standard deviations. Bivariate Pearson and Spearman correlation was used to find out the correlation of HADS anxiety and depression with other factor.

RESULTS

A total of 77 patients participated in the study. The mean age was 29.74 years, 27.3% were male and 72.7% were female.Forty six subjects (49.74%) reported HADS-A score over seven, twenty four (31.2%) fulfilled DSM-IV-TR criteria at clinical interview for generalized anxiety disorder and thirty seven (48.05%) reported HADS-D score over seven and fifteen (19.5%) fulfilled the DSM-IV-TR criteria for depression, one (1.3%) fulfilled DSM-IV-TR criteria at clinical interview for anxiety and depression both.

Out of 77 patients 51.97% (40 patients) were found to be suffering from psychiatric morbidity, with mean score of 12.75 ±4.33 and 11.18±4.52 HADS for Anxiety and Depression respectively as shown in Table-III. Mean age was found to be 31.67 years as shown in Table-III. Patients who had psychiatric morbidity 15% were male and 85% were female. Majority of the patients were illiterate and belonged nuclear family system, most of the females were housewives. Patients with dermatological disorder for less than one year were 65% and 35% patients were suffering from skin conditions for more than a year. Patient's who consulted a psychiatrist or were prior diagnosed with a psychiatric disorder were only 7.5%.

Out of 77 patients 40 patients were found to be suffering from psychiatric morbidity, with mean score of 12.75 ±4.33 and 11.18±4.52 HADS for Anxiety and Depression respectively as shown in Table-III. Mean age was found to be 31.67 years as shown in Table-III. Patients who had psychiatric morbidity 15% were male and 85% were female. Majority of the patients were illiterate and they were from nuclear family system, most of the females were housewives. Patients with dermatological disorder for less than one year were 65% and 35% patients were suffering from skin conditions for more than a year. Patient's who consulted a psychiatrist or were prior

Table-I. Descriptive Analyses

Variable	N=77	N(%)	n(Comorbid) n=40	Comorbid n(%)
Gender				
Male	21	27.3	06	15
Female	56	72.7	34	85
Education				
Illiterate	19	24.7	14	35
Primary	08	10.4	04	10
Middle	25	32.5	14	35
Intermediate	09	11.7	03	7.5
Graduate	10	13.0	03	7.5
Masters/ professionals	06	7.8	02	05
Residence				
Urban	54	70.1	22	55
Rural	23	29.9	18	45
Socio-economic state				
Lower	13	16.9	08	20
Lower-middle	20	26.0	14	35
Middle	44	57.1	18	45

Table-II. DSM-IV-TR Diagnosis				
Variable	**N=77**	**N(%)**	**n(Comorbid) n=40**	**Comorbid n(%)**
None	37	48.1	-	-
Anxiety	24	31.2	24	60
Depression	15	19.5	15	37.5
Depression+ Anxiety	01	1.3	01 dia	2.5

Table-III. The distribution of Scoring of HADS by Frequency Mean.			
	Frequency	**Mean**	**S.D.**
Age	40	31.67	13.5
HADS Anxiety Score	40	12.75	4.33
HADS Depression Score	40	11.18	4.52

gnosed with a psychiatric disorder were only 7.5%.

The percentage of different dermatological disorders has bee shown in Table-IV. From the data obtained 60% patients were suffering from generalized anxiety disorder and 37.5% with major depression.

The co-relation analysis Table-V showed that the overall HADS anxiety and depression was highly significant (0.673**). Furthermore negative correlation have seen with education, monthly income and socio-economic status (-0.298**), (-0.393**) and (-0.271*). Whereas the strong positive correlation (0.562**, 0.732**) respectively with DSM –IV with HADS anxiety and HADS depression respectively was observed.
Bivariate correlations were performed to examine differences on the four quality of life domains as a function of psychiatric diagnosis. There was also Correlation was found with QOL and HADS Depression and HADS anxiety scores but highly significant correlation has been with QOL-BREF Domain 2.

Table-IV. Dermatological Diagnoses.				
Diagnosis	**N**	**%**	**N**	**%**
Infectious	23	29.9	14	35
Eczema	05	6.5	04	10.0
Pigmentary	08	10.4	03	7.5
Autoimmuno	09	11.7	03	7.5
Miscellaneous	32	41.6	16	40

DISCUSSION

The present study indicates that more than half of the in door Dermatological patients were found to be suffering from psychiatric morbidity, which indicate that the prevalence of psychiatric problems is high in Dermatological patients that can be correlate with a study by Woodruff[16] et al has reported a prevalence of 30-40% for the psychiatric problems among the dermatology patients who visits their clinics.

Table-V. Co-relation of variables with HADS anxiety and HADS Depression score.		
Variables	**HADS Anxiety**	**HADS Depression**
HADS Anxiety	01	0.673**
HADS Depression	0.673**	01
Education	-0.108	-0.321**
Monthly Income	-0.221	-0.393**
Socio-economic status	-0.1600	-0.256*
DSM-IV-TR Diagnosis	0.630**	0.730**
QOL-BREF Domain 1	-0.131	-0.146
QOL-BREF Domain 2	-0.254	-0.590**
QOL-BREF Domain 3	-0.287	-0.223
QOL-BREF Domain 4	-0.170	-0.312
***Co-relation is significant at the 0.01 level (2- tailed)* **Co relation is significant at the 0.05 level (2-tailed)*		

Table-VI. QOL-BREF statistics table.		
	Mean	Std. Deviation
QOL-BREF Domain 1	12.3858	2.23042
QOL-BREF Domain 2	12.3419	2.25234
QOL-BREF Domain 3	13.8772	3.56107
QOL-BREF Domain 4	13.1154	2.62694

Study conducted at CMH Hospital[10] which also reported psychiatric co morbidity in dermatological out door patients about less than 40%.

The current study also reveals that psychiatric co-morbidity was significantly high in married (60%) as compare to single (40%) these findings are similar with the study of Singh et al[17]. Another finding showed that the majority of females (85%) were suffering with psychiatric comorbidity as compare to male (15%), which indicates that females are more anxious about skin problem as compare to males.

A highly significant correlation between HADS anxiety scores and unemployment (0.234*) indicates that unemployed people suffered more that may be due to feelings of worthlessness and effect of financial constrains.

Moreover, the findings also indicate that there was a significant difference between the urban residence and rural residence. More people were suffered from HADS anxiety subscale (r = 0.333**) and relatively less significant on HADS depression subscale (r=0.275*). As the study sample is from industrial city of Pakistan that might cause the more skin problem and majority of the people scored on HADS anxiety that would be due to the social anxiety & the anxiety of evaluation. The other reason might be in the urban areas there is more awareness about the diseases and their impact on the personality, which also may cause the anxiety and depression.

The findings of our study also revealed that the patients of nuclear family system was more suffered 67.5% than the patients of joint family system 32.5%. This could be due to the less support of relatives that might induce anxiety and depression while joint family system support the individual to cope with the illnesses and boosting their morale and self-esteem.

Another finding the current stuy indicates lower level of education is associated with higher psychiatric co-morbidity, while another study in India shows that there were no differences associated with education level[18].

Correlation was found with QOL and HADS Depression and HADS anxiety scores but highly significant correlation has seen with QOL-BREF Domain 2 only, this finding is in agreement with previous study[19].

Those areas of overlap between psychiatry and dermatology are important and a competent dermatologist should be able to pick up any emotional and psychological cues that may be advanced by the patient during consultation. This would be very helpful in treating the patients. The additional effect of brief, simple psychotherapy will also help these patients with high anxiety levels and depression to achieve normal remission.

REFERENCES

1. Mumford DB, Nazir M, Jilani FM, Baig IY. **Stress and sychiatric disorder in Hindukush: A community survey in Chitral,Pakistan.** Br J psychiatry1996:70:168-95.

2. Picardi A, Abeni D. **Stressful Life events and S kin Diseases:** Disentangling Evidence from Myth, Psychother Psychosomm. 2001:70:118-136.

3. Craig T, Boardman AP. **Somatization in primary care settings. In Bass CM, ed. Somatization: physical symptoms and Psychological illness.** Oxford: Blackwell Scientific Publications, 1990:40-72.

4. Bunker CB, Bridgett CK (1996). **Depression and the skin.** In Robertson M, Katona C (Eds) Depression and physical illness, Wiley, Chichestes, pp. 265-253.

5. Goldberg DP, Bridges K. **Somatic presentation of psychiatric illness in a primary case setting.** J. Psychosom Res. 88;137-144.

6. Kellet SC, Gawkrodger DJ. **The sychological and emotional impact of acne and the effect of treatment with isotertinoin.** Br. J. Dermatol 1999:140:273-282.

7. Shuster S, Fisher GH, Harris E, et al. **The effect of skin disease on self image.** Br J Dermatol 978:99 (Suppl 16):18-19.

8. Van Der Meeren H. L. M, Van Der Schaar W. W, Van Der Hurk C. M. A. M. **The psychological impact of severe acne.** Cutis 1985;36:84-89.

9. Krowchuk, D.P, Stancin, T, Keskinen, Retal. **The Psychosocial effects of acne in adolescents.** Ediatric dermatol 1991;8:332-338.

10. K Bashir, M.H. Rana. **The pattern of psychiatric morbidity in attendees of a dermatology clinic.** Pak Armed Forces Med J Sep 2006;56(3):250-6.

11. Hussain A.L, Khalid M, Shaeen J.A, Ahmad I. **Prevalence and pattern of psychiatric disorders among dermatological patients.** Journal of Pakistan Association of Dermatologists 2005;15;13-17.

12. I Ahmed, S Ahmed, S Nasreen. **Frequency and Pattern of Psychiatric disorders in patients with vitiligo.** J Ayub Med Coll Abbottabad 2007;19(3).

13. DB Mumford, IAK Tareen, MAZ Bajwa, MR Bhatti. **The translation and evaluation of an Urdu version of Hospital Anxiety and Depression scale, Acta Psych.** Scand 1991.83:81-85

14. **Diagnostic and Statistical mannual of Mental Disorders 4th ed.,** 2000; American psychiatric Association, Washington, DC.pp.356-456.

15. WHO QOL Group. **Measuring Quality of Life: The development of World Health Organisation Quality of Life Instrument (WHOQOL).** WHO:Geneva, 1993.

16. Woodruff PWR, Higgins EM, Vivier AW. **Psychiatric illness in patient's referred to a Dermatology-Psychiatry Clinic.** Gen Hosp Psychiatry. 1997;19(1):29-35.

17. Singh GP, Chavan BS, Kau P, Bhatia S. **Physical illnesses among psychiatric outpatients in a tertiary care health institution: A prospective study.** India J Psychiatry 2006;48:52-55.

18. Seyhan M, Aki T, Karincaoglu Y, Ozcan H. **Psychiatric morbidity in dermatology patients: Frequency and results of consultations.** Indian J Dermatol 2006:51:18-22.

19. Coghi Silvana, Bortoletto Maria Cecilia, Sampaio S.A.P, Andrade Junior Heitor Franco de, Aoki Valeria. **Quality of life is severely compromised in adult patients with atopic dermatitis in Brazil, especially due to mental components.** Clinics. 2007 ;62(3):235-242.

The eye sees only what the mind is prepared to comprehend.

Henri Bergson