ORIGINAL RESEARCH ARTICLE

Psychiatric Morbidity Among Dermatological Patients Attending a Tertiary Care Hospital in Central India

Divyani Aharwal[1], Richa Changulani[2], Akshat Pathak[3], Durgesh Shukla[4*]

[1-4]G.R. Medical College Gwalior, India

DOI: 10.55489/njcm.140720232918

ABSTRACT

Background: Aim of the study was to estimate prevalence of depression, anxiety and stress among a large sample of out patients, affected with wider variety of skin problems and also to investigate its association with socio demographic and clinical characteristics so as to recommend for interventions to improve quality of care, in patients attending dermatology OPD.

Material and Methods: Present hospital based cross-sectional study was conducted among 300 patients attending the dermatology OPD. Frequency, Percentage, Odds ratio (OR) were calculated. Chi square test and Logistic regression was applied. P value < 0.05 was considered as statistically significant.

Results: Average age of the participants was 35.5±9.4 years. In the present study 29.67% patients were having at least one of the psychiatric morbidities. Among all the patients 28.7% were having the anxiety; 17.33% were having depression; 9.7% were having the stress. In multivariate analysis Females were observed to have higher risk for anxiety; depression and stress i.e. [OR: 7.54; 95% CI: 3.22-17.63]; [OR: 3.05; 95% CI: 1.75-5.34]; [OR: 14.61; 95% CI: 3.35-63.65] respectively.

Conclusion: Female's gender; itching problem and dermatitis need a special concern to reduce the psychiatric morbidity. The high prevalence indicates the need for the psycho-social care of the dermatology patients.

Key Words: Anxiety; DASS-21 Scale; Dermatitis; Depression; Itching; Stress

ARTICLE INFO

Financial Support: None declared
Conflict of Interest: None declared
Received: 15-03-2023, **Accepted**: 08-06-2023, **Published**: 01-07-2023
***Correspondence:** Dr. Durgesh Shukla (Email: durgeshstatsgrmc2019@gmail.com)

How to cite this article: Aharwal D, Changulani R, Pathak A, Shukla D. Psychiatric Morbidity Among Dermatological Patients Attending a Tertiary Care Hospital in Central India. Natl J Community Med 2023;14(7):440-445. DOI: 10.55489/njcm.140720232918

www.njcmindia.com | pISSN09763325 | eISSN22296816 | Published by Medsci Publications

INTRODUCTION

The skin is the body's largest organ and serves as a protective covering that protects the body from injury, infection and modulates the environmental influences.[1,2] It has long been recognized as organ of expression. The relationship of brain and skin are not just because of their common ectodermal origin but are affected by same hormones and neuro system skin connection and reciprocal relation among these three areas. Skin disorders, especially those having onset in early childhood or adolescence negatively affects bodily perception and interaction with others.[3] Chronic dermatological diseases especially cosmetic disfiguring or potentially perceived social stigmatizing can cause feeling of shame or humiliation, a self-erosion, and influences self-esteem. Dermatological diseases have a negative effect on quality of life, self-confidence and self-respect other perceived psychosocial impact as embarrassment sense of body image withdrawal from perceived social interaction i.e., sexual and relationship issues; manifests in the form of anxiety, depression and other psychiatric illnesses.[4, 5]

All these have long been described in literature even though there is not much research in this regard and awareness among doctors is low that chronic dermatological patients especially females and their families need psychological support in the form of counselling and assessment as they are potentials candidates to fall prey to depression, anxiety and stress. The present study was conducted with the objectives to find the prevalence of depression, anxiety and stress among the dermatological patients; to assess the association of socio-demographic determinants with depression, anxiety and stress among the dermatological patients; to find the association of chief complaints, duration of disease, and diagnosis with depression, anxiety and stress in the dermatological patients; and to find the strength of association of determinants with depression, anxiety and stress in the dermatological patients.

METHODOLOGY

The present cross-sectional study was planned in Department of Community Medicine and carried out in the Department of Dermatology at OPD in J.A. Group of hospitals, Gajra Raja Medical College Gwalior (M.P.). The present study was carried out over a period of 18 months from 1st January 2021 to 30th June 2022. The sample size was calculated by considering prevalence of each anxiety, depression and stress reported in other studies and since, the maximum sample size of 265 is obtained for anxiety therefore, sample size for study is calculated by taking prevalence for anxiety assuming; Prevalence of Anxiety among the patients (p) =22.1 [(6)]; q= 77.9; level of significance (α)=5%; Absolute error(d)=5%; calculated sample size was 265 and considering 10% increment i.e., 27 added to 265 (265+27 =292) and rounded off to 300.

Those patients were Included in the study, who were having age between 18-60 years; Patients having duration of illness more than 4 weeks; and who gave informed consent. while Patients who were not willing to give consent/Participate in the study and Patients less than 18 and more than 60 years of age; Seriously ill/debilitated patients were excluded from the present study.

Ethical endorsement was taken from Institutional Ethical Committee (IEC) of Gajra Raja Medical College, Gwalior (M.P.) before starting the data collection (IEC approval letter number: D. No: 849/IEC-GRMC/2021 Gwalior Dated 02.05.2021). Written consent was obtained from the subjects after explaining the purpose, nature, and procedure of the study. They were assured that confidentiality would be strictly maintained. Two days out of six working days were selected randomly by using bowl method (Monday and Friday) for the data collection till the required minimum sample size of 300 was achieved. Examinations of patients were not conducted or included in our study. Proforma for the present study contains questions regarding socio-demographic profile (age, gender, marital status, education level, employment status, income). Depression, anxiety and stress were self-assessed by participants using a 21-item Depression, Anxiety Stress Scale (DASS-21).

Table 1: Socio-demographic Distribution of the patients (n=300)

Socio-Demographic Distribution	Patients (%)
Age group	
18-30	102 (34)
31-40	120 (40)
41-50	56 (18.7)
51-60	22 (7.3)
Gender	
Male	138 (46)
Female	162 (54)
Residency	
Urban	210 (70)
Rural	90 (30)
Caste	
General	117 (39)
OBC	73 (24.3)
SC	80 (26.7)
ST	30 (10)
Religion	
Hindu	272 (90.7)
Muslim	26 (8.7)
Other	2 (0.7)
Marital status	
Married	224 (74.7)
Unmarried	76 (25.3)
Type of family	
Nuclear family	155 (51.7)
Joint Family	145 (48.3)
Socio-economic class	
Upper Class	108 (36)
Upper Middle Class	119 (39.7)
Lower Middle class	41 (13.7)
Upper Lower	19 (6.3)

Each item had four possible responses (never, sometimes, often and almost always) represented by scores of 0, 1, 2 and 3, respectively. DASS-21 is validated tool used for the evaluation of negative emotional phases of depression, anxiety, and stress. As DASS-21 was the short version of the of the 42-item questionnaire so the total score of each component was multiplied by two.[7] Pre-validated Hindi version [8] of DASS-21 was used to conduct interview in local language. There were seven questions evaluating depression. Score of 0–9, 10–13, 14–20, and 21–27 and >27 was considered as normal, mild, moderate, severe and extremely severe respectively. So, cut-off decided for depression present was above 9. There were seven questions evaluating anxiety. Score of 0–7, 8–9, 10–14, 15–19 and >19 was considered as normal, mild, moderate, severe, and extremely severe respectively. The score above 7 was decided as cut-off for presence of anxiety. There were seven questions evaluating stress, and the score of 0–14, 15–18, 19–25, 26–33 and above 34 was considered as normal, mild, moderate, severe and extremely severe respectively. So, cut-off decided for Stress present was above 14.[7,8]

Participants were considered to have a negative emotional state if they suffered from at least one symptom of depression, anxiety or stress according to their questionnaire responses. Care was taken to make the subjects aware regarding the purpose of the study and to impress upon them that the information revealed by them in the process would be kept strictly confidential. This interview was carried out in local language i.e., Hindi and properly explained. Confidentiality was kept throughout the study duration.

The information thus collected was processed and analyzed with the help of SPSS package, Microsoft-2010 excel and wherever necessary through manual calculation for analysis. Descriptive statistics on the sample characteristics and questionnaire items were computed. After the collection, data was compiled, analyzed and interpreted and various statistical tests like Chi square test and Logistic regression was applied to explore out the risk factors for depression, anxiety and stress. Strength of risk was assessed using the Odds ratio (OR) with their respective 95% confidence interval. P value < 0.05 considered as statistically significant.

RESULTS

In the present study average age of the participants was 35.5±9.4 years. Most of the participants were of age group 31-40 years (40%). More than half of the participants i.e., 54% were females, about 3/4th of the participants was from the urban area and most of the participants were of Hindu religion.

Table 2: Association of socio-demographic variables with depression, anxiety and stress

Variables	Depression			Anxiety			Stress		
	n (%)	P value #	OR (CI)	n (%)	P value #	OR (CI)	n (%)	P value #	OR (CI)
Age group									
18-30	17(16.7)	0.63	2.0(0.43-9.37)	31(30.4)	0.88	1.48(0.50-4.38)	10(9.8)	0.56	1.09(0.22-5.34)
31-40	21(17.5)		2.12 (0.46-9.78)	33(27.5)		1.29(0.44-3.78)	9(7.5)		0.81 (0.16-4.03)
41-50	12(21.4)		2.73 (0.56-13.34)	17(30.4)		1.48 (0.47-4.67)	8(14.3)		1.67 (0.32-8.55)
51-60	02(9.1)		1 (ref)	5(22.7)		1 (ref)	2(9.1)		1 (ref)
Gender									
Male	7(5.1)	0.001	0.14 (0.06-0.32)	24(17.4)	0.001	0.34 (0.20-0.58)	2(1.4)	0.001	0.07 (0.02-0.31)
Female	45(27.8)		1 (ref)	62(38.3)		1 (ref)	27(16.7)		1 (ref)
Area of Residence									
Urban	36(17.1)	0.89	0.96 (0.50-1.83)	61(29)	0.82	1.06 (0.61-1.84)	18(8.6)	0.32	0.67 (0.30-1.49)
Rural	16(17.8)		1 (ref)	25(27.8)		1 (ref)	11(12.2)		1 (ref)
Caste									
General	21(17.9)	0.93	1 (ref)	36(30.8)	0.86	1 (ref)	15(12.8)	0.2	1 (ref)
OBC	11(15.1)		0.81 (0.37-1.80)	21(28.8)		0.91 (0.48-1.72)	7(9.6)		0.72 (0.27-1.86)
SC	14(17.5)		0.97 (0.46-2.04)	22(27.5)		0.85 (0.45-1.60)	7(8.8)		0.65 (0.25-1.68)
ST	6(20)		1.14 (0.42-3.14)	7(23.3)		0.68 (0.27-1.74)	0(0.0)		0(0-0)
Religion									
Hindu	49(18)	0.57	1 (ref)	79(29.0)	0.65	1 (ref)	28(10.3)	0.51	1 (ref)
Muslim	3(11.5)		0.59 (0.17-2.06)	7(26.9)		0.90 (0.36-2.22)	1(3.8)		0.35 (0.04-2.67)
Other	0(0.0)		0(0.0)	0(0.0)		0(0.0)	0(0.0)		0(0.0)
Marital status									
Married	38(17.0)	0.77	0.90 (0.46-1.78)	64(28.6)	0.95	0.98 (0.55-1.74)	23(10.3)	0.54	1.33 (0.52-3.41)
Unmarried	14(18.4)		1 (ref)	22(28.9)		1 (ref)	6(7.9)		1 (ref)
Type of family									
Nuclear	33(21.3)	0.06	1.79 (0.97-3.32)	49(31.6)	0.24	1.35(0.82-2.23)	19(12.3)	0.11	1.89 (0.85-4.20)
Joint	19(13.1)		1 (ref)	37(25.5)		1 (ref)	10(6.9)		1 (ref)
Socio-economic class									
Upper Class	17(15.7)	0.88	0.62(0.15-2.50)	28(25.9)	0.65	0.41 (0.13-1.32)	10(9.3)	0.83	1.22 (0.14-10.4)
UM Class	20(16.8)		0.67 (0.17-2.67)	35(29.4)		0.49 (0.15-1.55)	10(8.4)		1.10 (0.13-9.36)
Middle class	9(22)		0.94(0.21-4.15)	12(29.3)		0.48(0.13-1.74)	6(14.6)		2.06 (0.22-18.9)
LM class	3(15.8)		0.62(0.10-3.72)	5(26.3)		0.42 (0.09-1.86)	2(10.5)		1.41 (0.11-17.4)
Lower class	3 (23.1)		1 (ref)	6(46.2)		1 (ref)	1(7.7)		1 (ref)

Chi Square test was applied; CI: 95% Confidence Interval; UM - Upper Middle; LM- Lower Middle

About 3/4th of participants was married (74.7%), About half of the participants living in the nuclear families and about 3/4th of the participants was from upper middle and upper class. (Table1)

In the present study, the association between socio-demographic factors with depression, anxiety, stress looked into, and it was found that significant association exists for female gender as compared with the males. While age, area of residence, Caste, Religion, Marital Status, Type of family and Socio-economic class were not found to be associated with depression, anxiety, stress. (Table 2)

In the present study, 21.7 % of the participants with the complaint of itching had depression though that was not significant whereas 40% participants having anxiety (P value=0.001) and 13.9% having stress (p value=0.05), rest of the symptoms had no significant association with depression, anxiety and stress. The duration of disease had no significant association. When association of diagnosis was studied, participants with acne had anxiety (p value= 0.04) whereas participants having dermatitis had significant depression (p value =0.033), anxiety (p value=0.004), stress (p value=0.009). Participants having psoriasis had insignificant association with anxiety (p value=0.06) and stress (p value=0.05). (Table 3)

Both in univariate and multivariate analysis Female gender was found to have about 7 times risk for the depression.

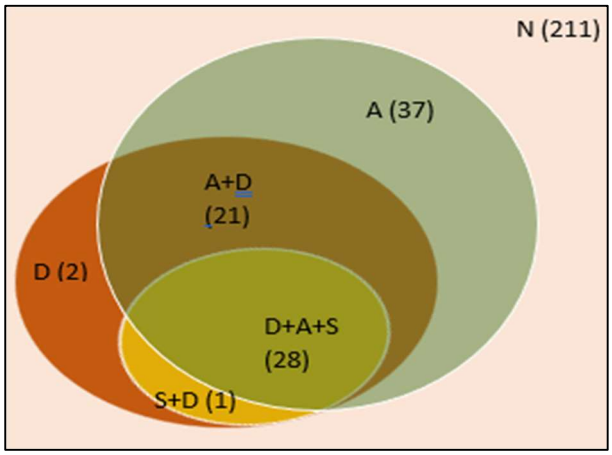
Table 3: The association of chief complaints, duration, diagnosis with depression, anxiety and stress

Variables (n)	Depression			Anxiety			Stress		
	n (%)	P value #	OR (CI)	n (%)	P value #	OR (CI)	n (%)	P value #	OR (CI)
Chief Complaints									
Itching									
Present (115)	25(21.7)	0.11	1.62(0.89-2.97)	46(40)	0.001	2.41(1.44-4.03)	16(13.9)	0.05	2.13(0.99-4.63)
Absent (185)	27(14.6)		1 (ref)	40(21.6)		1 (ref)	13(7.0)		1 (ref)
Bumps On Face									
Present (70)	9(12.9)	0.26	0.64(0.30-1.39)	14(20)	0.06	0.55(0.29-1.05)	4(5.7)	0.2	0.50(0.17-1.48)
Absent (230)	43(18.7)		1 (ref)	72(31.3)		1 (ref)	25(10.9)		1 (ref)
Discoloration									
Present (32)	4(12.5)	0.44	0.65(0.22-1.95)	9(28.1)	0.94	0.97(0.43-2.19)	4(12.5)	0.57	1.39(0.45-4.28)
Absent (268)	48(17.9)		1 (ref)	77(28.7)		1 (ref)	25(9.3)		1 (ref)
Loss of Hair									
Present (28)	7(25)	0.26	1.68(0.67-4.19)	7(25.0)	0.65	0.81(0.33-1.99)	3(10.7)	0.84	1.13(0.32-4.02)
Absent (272)	45(16.5)		1 (ref)	79(29.0)		1 (ref)	26(9.6)		1 (ref)
Rashes									
Present (55)	7(12.7)	0.32	0.65(0.27-1.53)	10(18.2)	0.06	0.49(0.24-1.03)	2 (3.6)	0.09	0.30(0.07-1.32)
Absent (245)	45(18.4)		1 (ref)	76(31.0)		1 (ref)	27(11.0)		1 (ref)
Duration									
>4 wk- 6m (21)	6(28.6)	0.11	1 (ref)	6(28.6)	0.96	1 (ref)	4(19.0)	0.22	1 (ref)
6m-12m (113)	13(11.5)		0.32(0.11-0.98)	31(27.4)		0.94(0.34-2.65)	9(8.0)		0.37(0.10-1.33)
12m-5y (150)	31(20.7)		0.65(0.23-1.82)	45(30.0)		1.07(0.39-2.94)	16(10.7)		0.51(0.15-1.69)
>5y (16)	2(12.5)		0.36(0.06-2.07)	4(25.0)		0.83(0.19-3.64)	0 (0.0)		0 (0-0)
Diagnosis									
Acne									
Present (72)	9(12.5)	0.21	0.61(0.28-1.33)	14(19.4)	0.04	0.52(0.27-0.99)	4(5.6)	0.18	0.48(0.16-1.42)
Absent (228)	43(18.9)		1 (ref)	72(31.6)		1 (ref)	25(11.0)		1 (ref)
Alopecia									
Present (27)	7(25.9)	0.22	1.77(0.71-4.44)	7(25.9)	0.74	0.86(0.35-2.11)	3(11.1)	0.79	1.19(0.33-4.21)
Absent (273)	45(16.5)		1 (ref)	79(28.9)		1 (ref)	26(9.5)		1 (ref)
Dermatitis									
Present (37)	11(29.7)	0.033	2.29(1.05-4.99)	18(48.6)	0.004	2.72(1.35-5.48)	8(21.6)	0.009	3.17(1.29-7.82)
Absent (263)	41(15.6)		1 (ref)	68(25.9)		1 (ref)	21(8.0)		1 (ref)
Fungal									
Present (31)	6(19.4)	0.75	1.16(0.45-2.99)	13(41.9)	0.08	1.94(0.90-4.16)	3(9.7)	0.99	1.00(0.28-3.52)
Absent (269)	46(17.1)		1 (ref)	73(27.1)		1 (ref)	26(9.7)		1 (ref)
Psoriasis									
Present (63)	8(12.7)	0.27	0.64(0.28-1.43)	12(19.0)	0.06	0.52(0.26-1.03)	2(3.6)	0.05	0.25(0.06-1.10)
Absent (237)	44(18.6)		1 (ref)	74(31.2)		1 (ref)	27(11.4)		1 (ref)
Scabies									
Present (20)	3(15)	0.77	0.83(0.23-2.95)	4(20)	0.37	0.60(0.19-1.86)	1(5.0)	0.46	0.47(0.06-3.67)
Absent (280)	49(17.5)		1 (ref)	82(29.3)		1 (ref)	28(10.0)		1 (ref)
Urticaria									
Present (25)	5(20)	0.71	1.21(0.43-3.39)	11(44)	0.07	2.09(0.91-4.82)	4(16)	0.26	1.90(0.61-5.99)
Absent (275)	47(17.1)		1 (ref)	75(27.3)		1 (ref)	25(9.1)		1 (ref)
Vitiligo									
Present (35)	4(11.4)	0.33	0.58(0.20-1.73)	9(25.7)	0.68	0.84(0.38-1.89)	4(11.4)	0.7	1.24(0.40-3.79)
Absent (265)	48(18.1)		1 (ref)	77(29.1)		1 (ref)	25(9.4)		1 (ref)

Chi Square test was applied; CI: 95% Confidence Interval; wk – weeks; m – months; y - years

Table 4: Strength of Risk factor associated with DAS

Variables	OR (95% CI)	AOR (95% CI)
Depression		
Females Gender	7.20 (3.12-16.58)	7.56(3.25-17.62)
Itching	1.62(0.89-2.97)	1.17(0.56-2.45)
Dermatitis	2.29(1.05-4.99)	2.44(0.91-6.55)
Anxiety		
Females Gender	2.94(1.71-5.06)	3.06(1.75-5.34)
Itching	2.41(1.44-4.03)	1.97(1.08-3.58)
Dermatitis	2.72(1.35-5.48)	1.92(0.84-4.39)
Stress		
Females Gender	13.6(3.17-58.32)	14.71(3.38-64.04)
Itching	2.13(0.99-4.63)	1.38(0.53-3.56)
Dermatitis	3.17(1.29-7.82)	3.14(0.97-9.93)



N: Normal; A: Anxiety; D: Depression; S: Stress
A+D: Anxiety+Depression; S+D: Stress+Depression
D+A+S: Depression+ Anxiety+ Stress

Figure 1: Distribution of patients for Depression, Anxiety, and stress

Patients having dermatitis were found to have 2-fold risk (2.29, 95% CI (1.05-4.99) of depression in the univariate analysis while in multivariate analysis dermatitis has not emerged as significant risk factor for depression (2.44, 95% CI= (0.91-6.55)). For Anxiety in the univariate analysis female gender (OR= 2.94, 95% CI=1.71-5.06), Presence of Itching (OR=2.41; 95% CI: 1.44-4.03), Presence of Dermatitis (2.72; 95% CI: 1.35-5.48) were found to have risk of anxiety while in the multivariate analysis only female gender and itching were found to have significant risk for anxiety. For Stress, in univariate analysis female gender 13.6 (3.17-58.32) and dermatitis 3.17(1.29-7.82) were observed to have significant high risk for stress while in multivariate only females were more prone to stress.

Fig 1 showing that 89 (29.67%) patients were having at least one of the depressions, anxiety or stress. Among all the patients; 28.7% patients were having the anxiety; 17.33% were having depression; 9.7% were having the stress. Among the 89; 37 patients were having only anxiety; 2 patients having only depression; 21 patients with anxiety and depression both; 1 patient had stress and depression both; 28 patients had depression, anxiety and stress.

Discussion

The present study of 300 patients confirms the finding of previous studies that the high rate of psychological problems in dermatological patients are consequences of primary skin diseases; in reaction to persistence of symptoms or disfigurement, perceived social stigma and undesirable changes in life style resulting from skin diseases or course of treatment The present study found the commonest age group 31-40 years constituting about 40% of cases. Overall mean age with standard deviation of study subjects was 35.5 ± 9.4 years. A study conducted by Alam et al. (2017) found that 43.8% of patients were in the age group of 15 to 29 years[9] while Seyhan et al. (2006) reported mean age of the patients as 37.8 years.[10]

In the present study, 29.67 % of the patients had psychiatric morbidity, which is not unique to our setup. Studies from other parts of the world also have reported the same. According to Wessely et al., (1989)[11], 40.2% patients, whereas Gupta et al., (2005) reported one third of dermatological patients had significant psychiatric morbidity. [12] The findings of the present study were in concordance with earlier study findings such as Aktan et al. (2000), Matoo et al (2001), Gupta et al (2003) and Singh P et al. (2020) as they observed prevalence of 33.4%, 33.3%,30% and 33% respectively [13-16] whereas Picardi et al. and Muamer et al reported a lower prevalence of 20% and 15% respectively. [17, 18] The reasons playing a role in this stress experience could be a deep rooted cultural, societal and other social influences, based on common misconceptions, for example, that skin diseases are contagious or a consequence of poor hygiene.

Present study observed 17.33% depression; 28.67% anxiety and 9.67% stress similar results were observed by another study conducted by Ahmed et al. who observed that depression 14.2%, anxiety 23.9% and stress 7.8% for the adult age group.[19] Aslam R et al. also found that 20% cases of depression and 28% cases of anxiety were found in the total sample. [20] The high prevalence of psychiatric morbidity in patients of skin diseases may be due to physical, psychological and socioeconomic burdens of discomfort, disfiguration, feelings of stigmatization, and inconvenient and uncomfortable skin therapies. These burdens may lead to negative affect (in particular sadness, loneliness, and anger), may strongly influence body image, and may eventually result in negative mental health outcomes.

Association between socio-demographic factors with depression, anxiety, stress found significant association between gender in all studied psychiatric variables. The study of Alam et al. (2017)[9] found about half (45.6%) of the patients were females and found to had higher proportion of depression as 27.8%, anxiety as 16.70% and stress as 16.70% while for males' depression observed among 5.1%, anxiety as 17.40% and stress as 1.40% respectively. Wessley et.

al., 1989[11] reported the similar findings. In our study 29.67 % patients were having at least one of the psychiatric disorders (depression, anxiety or stress). Study done by Woodruff et al, (1997), Picardi A et al., (2000), Korabel H et al. (2008), and reported that overall prevalence of psychiatric disorders in dermatological disorders is 30-60%. [21-23] Ahmed Anwar E et al found that prevalence rates of depression, anxiety and stress were 12.6%, 22.1% and 7.5%, respectively. [19] The prevalence of at least one of these negative emotional states was 24.4%. Ahmed Anwar E et al found female gender is more prone (2.9 times) for at least one of depression, anxiety and stress. [19] In the present study also, females were observed to have at higher risk, a possible reason underlying the high prevalence of psychiatric morbidity in female patients could be that women have stronger beliefs and over emphasis on physical appearance on their personal or social worth , and significantly greater levels of motivational investment in their appearance, Moreover, women are more frequently valued and assessed by their appearance than are men, this trigger disease-related burdens. An overemphasis on appearance in the evaluation of self-worth, predispose them to body image dissatisfaction, which may exacerbate psychological distress, and consequently increase risk of depression.

From the study of Alam, Husain and Quarashi, (2017) it was revealed that 16.2% of patients had total burden of miscellaneous Dermatoses, Eczema (27.7%) And Fungal Infections (11.2%).[9] In the study of Ahmed et al majority of the subjects had acne vulgaris (29.5%), followed by atopic dermatitis (22.3%), vitiligo (20.7%) and psoriasis (6.4%); the remainder had other diseases such as alopecia areata, lichen planus or warts. Reported a prevalence of depression of 18% in 50 Alopecia patients and a prevalence of anxiety of 4%.[19]

Conclusion

This study throws light on the impact of dermatological conditions on the patient's life, that skin disorders may negatively affect patients' overall perceptual behaviour towards the outside world. Patients with dermatological problems had psychiatric morbidity. They are more anxious and hopeless. The study highlights the importance of psychiatric assessment of female patients, their counselling and if needed treatment.

References

1. Grice EA, Segre JA. The skin microbiome. Nat Rev Microbiol. 2011 Apr;9(4):244-53. doi: 10.1038/nrmicro2537. Erratum in: Nat Rev Microbiol. 2011 Aug;9(8):626.
2. Anatomy of the Skin. University of Rochester Medical Center. Health Encyclopedia. https://www.urmc.rochester.edu/encyclopedia/content.aspx?contenttypeid=85&contentid=p01336 (Assesed on Jun 1, 2022)
3. Vivar KL, Kruse L. The impact of pediatric skin disease on self-esteem. Int J Womens Dermatol. 2017 Dec 12;4(1):27-31
4. Costeris C, Petridou M, Ioannou Y. Psychological Impact of Skin Disorders on Patients'Self-esteem and Perceived Social Support. J Dermatol & Skin Sci. 2021;3(1):14-22
5. Yang CY, Kourosh AS. Inflammatory skin disorders and self-esteem. Int J Womens Dermatol. 2017 Oct 21;4(1):23-26.
6. Ahmed AE, Al-Dahmash AM, Al-Boqami QT, Al-Tebainawi YF. Depression, Anxiety and Stress among Saudi Arabian Dermatology Patients: Cross-sectional study. Sultan Qaboos Univ Med J. 2016 May;16(2):e217-23.
7. Lovibond SH, Lovibond PF. Manual for the Depression Anxiety Stress Scales. 2nd ed. Sydney: Psychology Foundation; 1995.
8. Kumar K, Kumar S, Mehrotra D, Tiwari SC, Kumar V, Dwivedi RC. Reliability and psychometric validity of Hindi version of Depression, Anxiety and Stress Scale-21 (DASS-21) for Hindi speaking Head Neck Cancer and Oral Potentially Malignant Disorders Patients. J Cancer Res Ther. 2019;15(3):653-658.
9. Alam, M. N., Husain, A., Quarashi, S. A., (2017). The pattern of skin and venereal disorders among patients attending in the OPD of dermatology and venereology department of a tertiary care private hospital, Dhaka, Bangladesh. Journal of Pakistan Association of Dermatologists. 27 (1), 10-14
10. 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.
11. Wessley , S., & Lewis, G. (1989). The Classification of Psychiatric Morbidity in Attenders at a Dermatology Clinic. British Journal of Psychiatry, 155(5), 686-691. doi:10.1192/bjp.155.5.686
12. Gupta, M.A., Gupta, A.K., Ellis, C.N and Koblenzer, C.S. (2005). Psychiatric evaluation of the dermatology patient. Dermatol Clinic; 23(4): 591-9.
13. Aktan S, Ozmen E, Sanli B. Psychiatric disorders in patients attending a dermatology outpatient clinic. Dermatology. 1998; 197:230–4.
14. Matoo SK, Handa S, Kaur, Malhotra R,Psychiatric morbidity in psoriasis and vitiligo- a comparative study from India, Indian Journal of dermatology 2001 ;28:424-32.
15. Gupta MA. Gupta AK. Psychiatric and psychological co-morbidity in patients with dermatologic disorders: epidemiology and management. Am J Clin Dermatol 2003; 4: 833-42.
16. Singh P; Mahmood N; Padhi D. A Study of Prevalence of Psychiatric Morbidities in Patients with Dermatological Disorders.IJCMR; 2020 7(12) L1: L5.
17. Picardi A, Abeni D, Renzi C, Braga M, Melchi CF, Pasquini P. Treatment outcome and incidence of psychiatric disorders in dermatological outpatients. J Eur Acad Dermatol Venereol. 2003;17:155–9
18. Muamer Seyhan, Psychiatric morbidity in out- patients of dermatology, Department of dermatology, Inonu university of medical faculty, Turkey, Indian journal of dermatology, 2007,40-44
19. Ahmed AE, Al-Dahmash AM, Al-Boqami QT, Al-Tebainawi YF. Depression, Anxiety and Stress among Saudi Arabian Dermatology Patients: Cross-sectional study. Sultan Qaboos Univ Med J. 2016 May;16(2):e217-23.
20. Aslam, R., Qadir, A., & Asad, F. (2007). Psychiatric morbidity in dermatological outpatients: an issue to be recognized. Journal of Pakistan Association of Dermatologists, *17*(4), 235-239.
21. Picardi A, Abeni D, Melchi CF, Puddu P, Pasquini P. Psychiatric morbidity in dermatological outpatients: an issue to be recognized. British Journal of dermatology. 2000;143(5):983-91.
22. Woodruff PWR, Higgins EM, Vivier AW. Psychiatric illness in patients referred to a dermatology-psychiatry clinic. Gen Hosp Psychiatry. 1997; 19(1):29-35
23. Korabel H, Dudek D, Jaworek A, Wojas-Pelc A. Psychodermatology: Psychological and psychiatrical aspects of aspects of dermatology. Przegl Lek. 2008;65:244–8