



IJCRR

Section: Healthcare

ISI Impact Factor
(2019-20): 1.628

IC Value (2019): 90.81

SJIF (2020) = 7.893



Copyright@IJCRR

Assessment of Psychiatric Illness Among Patients with Dermatological Disorders Attending a Tertiary Care Hospital of Rajnandgaon District (C.G), India

Pooja Pandey, Sharad M Manore, Prabhat Pandey, Neeraj Dokania

¹Associate Professor, Department of Dermatology, Venereology and Leprosy, BRLSABVMC, Rajnandgaon, C.G., India; ²Associate Professor, Department of Psychiatry, BRLSABVMC, Rajnandgaon, C.G., India; ³Associate Professor, Department of Medicine, Shri Shankaracharya Institute of Medical Sciences, Durg, C.G., India; ⁴Consultant Laparoscopic Surgeon, Shri Vishwanath Nursing Home, Giridih, Jharkhand, India.

ABSTRACT

Introduction: Skin plays a major role in social and sexual communication. Healthy normal skin is essential for a person's physical and mental well-being and sense of self-confidence.

Material and Method: The cross-sectional study with consecutive sampling was conducted at a tertiary care hospital at BRLSABVM Medical College and hospital, Rajnandgaon (C G), India. A total of 170 patients participated in the study. Patients suffering from dermatologic diseases who accepted to participate in the study were included in the study population regardless of their sex, age, education level and marital status. Patients were asked to complete five other areas questionnaires: DLQI, PHQ-9, PHQ-15, HAM-D and GAD-7.

Results: The mean age of the participants was 27.25. Out of 170 patients, Acne with scar is the common diagnosis i.e., 61 (35.9%) followed by fungal infection 45 (26.5%) and Pigmentary disorder 25 (14.7%). There was a significant relationship between dermatological disorders with DLQI score, PHQ-9, HAM-D and PHQ-15. However, no significant relationship was observed between the GAD-7 with the dermatological disorder.

Conclusion: There is a need for a thorough assessment of psychiatric illness in patients with dermatological conditions and regarding improving the patient management and overall quality of life.

Key Words: Anxiety, Depression, Acne, Fungal infection, Dermatological disorder, Psychological problem

INTRODUCTION

Skin plays a major role in social and sexual communication. Healthy normal skin is essential for a person's physical and mental well-being and sense of self-confidence.¹The relation between psychiatry and skin diseases can be evaluated from two aspects: On one hand, psychiatric co-morbidity influences the development and course of dermatologic diseases via the effects of stress, depression, and anxiety.² On the other hand, cosmetically disfiguring dermatologic diseases may cause significant psychosocial distress for patients.³ Co-morbid mental illness play a substantial role in course, severity, response to therapy and therefore the psychosocial well-being of the dermatologic patients. It seems that co-morbid mental illness and its consequences on patients' quality of life have been underappreciated. Therefore, understanding the prevalence of psychiatric co-morbidity and its potential effects on patients' lives may

lead to changes in management approaches and ultimately improve the patients' outcomes.

As per available previous studies, a strong association is found between dermatological conditions and psychological problems.⁴ Approximately 30% and 40% incidence of psychiatric disorders among dermatological patients was observed.⁵

When assessing dermatological patients, it is best to adopt a multidimensional, biopsychosocial approach, which allows for relative contributions of biological, psychiatric and psychosocial factors, because it may not be possible clearly to determine whether a psychiatric syndrome is primary or entirely secondary to the dermatological condition.⁶ Acne, tineacorporis, vitiligo, scabies, melasma, STIs etc are some commonly occurring disorders and can be psychologically devastating to patients with darker skin types. It can lead to cosmetic disfigurement and affect psychosocial and psychosexual identity.

Corresponding Author:

Dr. Manore SM, Associate Professor, Department of Psychiatry, BRLSABVMC, Rajnandgaon, C.G., India.

Email: drsharadmanore@gmail.com

ISSN: 2231-2196 (Print)

ISSN: 0975-5241 (Online)

Received: 06.02.2021

Revised: 02.04.2021

Accepted: 03.05.2021

Published: 30.08.2021

Researches have shown that the resolution of all these disorders can improve the quality of life. Improvements have been seen in the areas of feeling self-conscious about the skin or being scrutinized by others, feeling unattractive, using cosmetics to cover up the disease and limiting social or leisure activities because of the appearance of the skin.⁷As per available previous research, visible dermatologic skin conditions were significantly affecting the quality of life and psychosocial functioning.⁸⁻¹¹

In the present study, the aim is to find out the magnitude of anxiety and depression in common dermatological patients and its association with dermatological diagnosis.

MATERIAL AND METHODS

This cross-sectional study with consecutive sampling was conducted at BRLSABVM Medical College and hospital, Rajnandgaon (C G), India. A total of 170 patients participated in the study during the period July 2020 to December 2020.

Patients suffering from dermatologic diseases who gave informed consent to participate in the study were included in the study population regardless of their age, sex, education level and marital status. Subjects were evaluated on a brief semi-structured Performa for collecting demographic and clinical information. Performa was converted in the local language for their convenience. Ethical consideration was made through the institutional ethical committee (No./13/GMC/I.E.C./2017. Rajnandgaon)

The questionnaire consists of two parts. In the first part, the demographic characteristics and their related information were collected; and in the second part, five other areas questionnaires were used: DLQI, PHQ-9, HAM-D and GAD-7, PHQ-15.¹²⁻¹⁶

Inclusion criteria- Patients suffering from dermatological problems attended OPD.

Exclusion criteria

- Patients having chronic diseases other than a dermatological problems.
- History of psychological illness.
- Apparent life stress other than skin disease.
- Those who were younger than 15 years of age and who did not give informed consent.

Data was recorded in MS Excel and checked for its completeness and correctness then it was analysed by using suitable statistical software and p-value < 0.05 was considered as statistically significant.

RESULTS

The majority of the patients 60% belongs to the age group of 16 to 25 years. Out of the total 170 study subjects, 47.1%

were males and 52.9% were females. 34.1% of the study subjects were married and 65.9% were single. Most of the study patients were Hindu by religion and out of 170 patients 90 were from urban and 80 were from rural backgrounds. 65.9% of the study subjects were unemployed and 34.1% were employed. The majority of the study subjects 43.5% studied up to higher secondary and only 6.5% were post-graduate (**Table 1**).

Out of 170 patients, Acne with scar is the common diagnosis i.e., 61 (35.9%) followed by fungal infection 45 (26.5%) and Pigmentary disorder 25 (14.7%) (**Table 2**).

Among the patients with Acne, the quality of life of most of the patients was severely affected, indicating poor quality of life. Most of them with Bacterial infection also scored high in the DLQI score and were mild, moderately and severely affected. The majority with Papulo-squamous disease was mild, moderately and severely affected. There was a significant association between quality of life and Dermatological Disorder (**Table 3**).

On assessing the severity of depression using PHQ-9, Only 2 patients had severe depression due to STD/VD and Psychiatric disorder and the majority of the subjects had mild and moderate depression due to Acne with the scar. Diagnosed depression and grade severity of symptoms in general medical and mental health was found statistically significantly associated with Dermatological Disorder (**Table 4**).

Thirty patients with acne had clinical depression followed by 34 patients with mild, moderate and severe depression due to bacterial infection and Papulo-squamous disease. Dermatological Disorders were found to be associated to depression (**Table 5**).

Out of the total of 170 subjects, the Majority of them had mild, moderate and severe anxiety due to Acne with the scar. There was no significant association found between Dermatological Disorder and anxiety (**Table 6**).

On assessing the somatic symptom subscale using PHQ-9, 13 patients had mild and 4 patients had moderate somatic disorder due to Acne. Only 4 patients had severe somatic disorder Papulo-squamous disease. The somatic disorder was found statistically significantly associated with Dermatological Disorder (**Table 7**).

DISCUSSION

Dermatological problems vary from region to region all over the world and also vary depending on different socio-demographic, socio-economic and climatic factors. In the present study, relatively more females (n = 90) attended the OPD than males (n = 80). A similar pattern female to male proportion was found in the study by Kosaraju S.K et al.

and Kuruville et al. in South India. A more male patient proportion was found in the study conducted by Kar et al. in a Tertiary Care Centre.¹⁷⁻¹⁹ Most of the patients were from below <45 years age group and females were more. A similar type of finding was also known by Emmanouil K.S et al. in their study and Baur D.B et al.^{20,21} In our study Hindu patients were more whereas this was contrary to a study done by Baur D.B et al. The study by Florence Dalgard et al. showed that there were ethnic and gender differences in the reporting of skin complaints.²²

Our study showed that Acne with a scar was the commonest form of dermatological presentation, followed by Bacterial infection. Whereas in a study done by Baur D.B et al. Scabies was the commonest form of dermatological presentation, followed by Tinea infection.²¹ In the study done by Emmanouil KS found Allergic dermatitis and Urticaria (35.7%) were most commonly found in cutaneous disorder followed by infectious diseases (26.1%).²⁰ The study in Dermatology O.P.D of Gauhati Medical college in India by Das KK observed that Eczema, Pyoderma, Fungal infections and Psoriasis were the major dermatological problems whereas Devi T in their study found that Eczema, Fungal, Pyoderma and Scabies were the major skin diseases.^{23,24} Skin diseases with a high prevalence of psychiatric disorders in our study included acne with scar Bacterial infection, Pigmentary disorder and Papulo-squamous disease. A higher anxiety level in patients with acne was expected because of the widely recognized psychological impact of the disease. Many studies have reported elevated anxiety, marked impairment in emotional well being, death wishes and suicidal tendencies in patients with acne.²⁵

The proportion of depression in dermatological patients varies according to the location, diagnosis of the patients and the tool used to assess depression.^{26,27} Acne has a demonstrable association with depression and anxiety and psychiatric co-morbidity of acne vulgaris includes body image disorder, depression, anxiety, obsessive-compulsive disorder (OCD), delusional disorders, personality disorders and social phobias.^{28,29} It has been reported that young men with severe scarring acne are at particular risk of depression and suicide.³⁰ In the current study, the proportion of depression and anxiety in dermatological patients was 51.76 % and 42.5% respectively. Kim et al. in their study also found that nearly 62.5% of the patients with skin diseases had clinical depression.³¹

CONCLUSION

The present study confirmed an association between the dermatological condition and psychiatric illness. Female patients suffered from more anxiety and depression than males. It can be concluded that there is a need for a thorough assess-

ment of psychiatric illness in patients with long-term dermatological conditions, this will help in improving the patient management and overall quality of life. Dermatologists should be aware of the psychiatric illness and appropriate referral should be made.

Conflict of Interests

The authors declare that they have no conflict of interest.

Financial Support: None

ACKNOWLEDGMENTS

Authors acknowledge the immense help received from the scholars whose articles are cited and included in references of this manuscript. The authors are also grateful to authors/editors/publishers of all those articles, journals and books from where the literature for this article has been reviewed and discussed.

REFERENCES

1. Aktan S, Ozmen E, Sanli B. Psychiatric disorders in patients attending a dermatology outpatient clinic. *Dermatol* 1998; 197: 230-4.
2. Schultz HY. Society for Investigative Dermatology Skin Disease Comorbidities Project Launch Conference Proceedings. *J Invest Dermatol* 2009; 129: 525-528.
3. Gupta MA. Psychiatric comorbidity in dermatologic disorders. In: Walker C, Papadoulos L, eds. *Psychodermatology*. Cambridge: Cambridge University Press; 2005.
4. Sheno S, Prabhu S, Nirmal B, Petrolwala S. Our experience in a psycho-dermatology liaison clinic at Manipal, India. *Indian J Dermatol*. 2013;58:53-5.
5. Ghosh S, Behere RV, Sharma P, Sreejayan K. Psychiatric evaluation in dermatology: An overview. *Indian J Dermatol*. 2013;58:39-43.
6. Gupta MA, Gupta AK, Ellis CN, Koblenzer CS. *J Cosmet Dermatol*. Psychiatric evaluation of the dermatology patient. 2008 Sep;7(3):164-8.
7. Taylor A, Pawaskar M, Taylor SL, Balkrishnan R, Feldman SR. Prevalence of pigmentary disorders and their impact on quality of life: a prospective cohort study.
8. Langley RG et al. Ustekinumab significantly improves symptoms of anxiety, depression, and skin-related quality of life in patients with moderate-to-severe psoriasis: results from a randomized, double-blind, placebo-controlled phase III trial. *J Am Acad Dermatol*. 2010;63:457-65.
9. Yazici K et al. Disease-specific quality of life is associated with anxiety and depression in patients with acne. *J Eur Acad Dermatol Venereol*. 2004;18:435-9.
10. Linnert J, Jemec GB. An assessment of anxiety and dermatology life quality in patients with atopic dermatitis. *Br J Dermatol*. 1999;140:268-72.
11. Kurd SK, Troxel AB, Crits-Christoph P, Gelfand JM. The risk of depression, anxiety and suicidality in patients with psoriasis: a population-based cohort study. *Arch Dermatol*. 2010;146:891-5.
12. Aghaei S, Sodaifi M, Jafari P, Mazharinia N, Finlay AY. DLQI scores in vitiligo: reliability and validity of the Persian version. *BMC Dermatol*. 2004; 4 : 8.

13. Kroenke K, Spitzer RL, Williams JB, Validity of a Brief Depression Severity Measure. *J GEN INTERN MED* 2001;16:606-613.
14. Iannuzzo RW, Jaeger J, Goldberg JF, Kafantaris V, Sublette ME. Development and reliability of the HAM-D/MADRS Interview: An integrated depression symptom rating scale. *Psychiatry Research* 145 (2006) 21–37.
15. Donker T, Straten A, Marks I, Cuijpers P. Quick and easy self-rating of Generalized Anxiety Disorder: Validity of the Dutch web-based GAD-7, GAD-2 and GAD-SI. *Psychiatry Research* 188 (2011) 58–64.
16. Kocalevent, RD., Hinz, A. & Brähler, E. Standardization of a screening instrument (PHQ-15) for somatization syndromes in the general population. *BMC Psychiatry*.2013; 13: 91.
17. Kosaraju SK et al. Psychological morbidity among dermatological patients in a rural setting. *Indian J Dermatol* 2015;60:635.
18. Kuruville M, Sridhar KS, Kumar P, Rao GS. The pattern of skin diseases in BantwalTaluq, Dakshina Kannada. *Indian J Derm Vener Leprol*. 2000;66:247-8.
19. Kar C, Das S, Roy AK. The pattern of skin diseases in a tertiary institution in Kolkata. *Indian J Dermatol*. 2014;59:209.
20. Symvoulakis E K, et al. Primary care and pattern of Skin diseases in a Mediterranean island. *B M C Family Practice*. 2006;7:6. accessed online <http://www.biomedcentral.com/1471-2296/7/6>.
21. Baur B, Sarkar J, Manna N, Bandyopadhyay L. The Pattern of Dermatological Disorders among Patients Attending the Skin O.P.D of A Tertiary Care Hospital in Kolkata, India. 2013; 3: 4 :04-09.
22. Dalgard F, Holm J, Svensson A, Kumar B, Sundby J. Self reported skin morbidity and ethnicity: a population-based study in a western community. *BMC Dermatology*, June 2007,7:4
23. Das KK. The pattern of dermatological diseases in Gauhati Medical College & Hospital, Guwahati. *IJDVL* 2003;69(1):16-18.
24. Devi T, Zamzachin G. Pattern of skin diseases in Imphal. *Indian J Dermatol* 2006;51:149-50.
25. Yazici K, Baz K, Yezici AE. Disease-specific quality of life is associated with anxiety and depression in patients with acne. *J Eur Acad Dermatol Venereol*. 2004; 18: 435-9.
26. Picardi A et al. Recognition of depressive and anxiety disorders in dermatological outpatients. *Acta Derm Venereol*. 2004;84:213-7.
27. Picardi A et al. Psychosomatic assessment of skin diseases in clinical practice. *Psychother Psychosom*. 2005;74:315-22.
28. Koo JY, Smith LL. Psychologic aspects of acne. *Pediatr Dermatol*. 1991;8:185–8.
29. Bach M, Bach D. Psychiatric and psychometric issues in acne excoriate. *PsychotherPsychosom*. 1993;60:207–10.
30. Gupta MA, Gupta AK, Schork NJ. Psychosomatic study of self-excoriated behaviour among male acne patients: Preliminary observations. *Int J Dermatol*. 1994;33:846-8.
31. Kim EK et al. Prevalence and risk factors of depression in geriatric patients with dermatological diseases. *Ann Dermatol* 2013;25:278-84.

Table 1: Demographic Characteristics of Study Subjects

Variable		Frequency	Percentage
Age (in years)	Mean + SD	27.25 + 11.14	
	Range	65 – 16	
Gender	Female	90	52.90%
	Male	80	47.10%
Marital status	Married	58	34.10%
	Single	112	65.90%
Residence	Rural	80	47.10%
	Urban	90	52.90%
Religion	Hindu	159	93.50%
	Muslim	11	6.50%
Occupation	Employed	58	34.10%
	Unemployed	112	65.90%
Education	Illiterate	3	1.80%
	Primary	18	10.60%
	Secondary	46	27.10%
	Higher secondary	74	43.50%
	Graduate	18	10.60%
	Post graduate	11	6.50%

Table 2: Dermatological Disorder Among Study Subjects

Dermatological Disorder	Gender		Total
	Male	Female	
Acne with scar	29 (36.20%)	32 (35.60%)	61 (35.90%)
Fungal/Bacterial infection	12 (15.0%)	33 (36.70%)	45 (26.50%)
Hair disorder	6 (7.50%)	3 (3.30%)	9 (5.30%)
Papulo-squamous disease	11 (13.80%)	10 (11.10%)	21 (12.40%)
Pigmentary disorder	22 (27.50%)	3 (3.30%)	25 (14.70%)
STD/VD and Psychiatic disorder	0 (0.0%)	8 (8.90%)	8 (4.70%)
Vericobulous disorder	0 (0.0%)	1 (1.10%)	1 (0.60%)
Total	80 (100%)	90 (100%)	170 (100%)

Table 3: Association of Dermatologic Life Quality Index with Dermatological Disorder

Dermatological Disorder	DLQI			
	Normal	Mild	Moderate	Severe
Acne with scar	8	24	21	8
Fungal/Bacterial infection	7	23	9	6
Hair disorder	1	5	2	1
Papulo-squamous disease	4	2	9	6
Pigmentary disorder	3	18	3	1
STD/VD and Psychiatric disorder	3	0	2	3
Vericobulous disorder	1	0	0	0
Total	27	72	46	25

Chi-square - 37.619, df - 18, p-value - 0.004, Significant

Table 4: Association of Patient Health Questionnaire- 9 with Dermatological Disorder

Dermatological Disorder	PHQ-9			
	Normal	Mild	Moderate	Severe
Acne with scar	24	17	20	0
Fungal/Bacterial infection	21	13	11	0
Hair disorder	3	3	3	0
Papulo-squamous disease	4	11	6	0
Pigmentary disorder	9	10	6	0
STD/VD and Psychiatric disorder	3	0	3	2
Vericobulous disorder	1	0	0	0
Total	65	54	49	2

Chi-square - 52.479, df - 18, p-value - < 0.01, Significant

Table 5: Association of Hamilton Depression Rating Scale with Dermatological Disorder

Dermatological Disorder	HAM-D			
	Normal	Mild	Moderate	Severe
Acne with scar	31	9	13	8
Fungal/Bacterial infection	28	6	8	3
Hair disorder	4	2	0	3
Papulo-squamous disease	4	7	10	0

Table 5: (Continued)

Dermatological Disorder	HAM-D			
	Normal	Mild	Moderate	Severe
Pigmentary disorder	11	6	3	5
STD/VD and Psychiatric disorder	3	0	1	4
Vericobulous disorder	1	0	0	0
Total	82	30	35	23

Chi-square - 39.092, df - 18, p-value - 0.003, Significant

Table 6: Association of Generalized Anxiety Disorder-7 with Dermatological Disorder

Dermatological Disorder	GAD-7			
	Normal	Mild	Moderate	Severe
Acne with scar	37	16	5	3
Fungal/Bacterial infection	28	10	5	2
Hair disorder	5	1	1	2
Papulo-squamous disease	12	5	4	0
Pigmentary disorder	12	8	5	0
STD/VD and Psychiatic disorder	3	1	4	0
Vericobulous disorder	1	0	0	0
Total	98	41	24	7

Chi-square - 23.497, df - 18, p-value - 0.172, Insignificant

Table 7: Association of Somatoform Disorder (PHQ-15) with Dermatological Disorder

Dermatological Disorder	PHQ-15			
	Normal	Mild	Moderate	Severe
Acne with scar	44	13	4	0
Fungal/Bacterial infection	32	8	5	0
Hair disorder	4	5	0	0
Papulo-squamous disease	14	2	1	4
Pigmentary disorder	13	9	3	0
STD/VD and Psychiatric disorder	8	0	0	0
Vericobulous disorder	1	0	0	0
Total	116	37	13	4

Chi-square - 45.435, d.f - 18, p-value - < 0.01, Significant