Annals of R.S.C.B., ISSN:1583-6258, Vol. 25, Issue 1, 2021, Pages. 3929- 3936
Received 15 December 2020; Accepted 05 January 2021.

Psychiatric Comorbidities in Dermatological Patients: A Cross-Sectional Study

[1]Dr. AdityaMahindru, [2]Dr. PradeepPatil

[1]Junior Resident Doctor, Dept. Of Psychiatry, Jawaharlal Nehru Medical College, Datta Meghe Institute of Medical Sciences, Sawangi (Meghe), Wardha
[2]Professor &HOD,Dept of Psychiatry, Jawaharlal Nehru Medical College, Datta Meghe Institute of Medical Sciences, Sawangi (Meghe), Wardha

Email-[1]aditya.mahindru@gmail.com, [2]dr.p.s.patil2012@gmail.com

Corresponding author's name and address-
Dr. AdityaMahindru, Junior Resident, Department of Psychiatry, Jawaharlal Nehru Medical College, Datta Meghe Institute of Medical Sciences University, Sawangi (Meghe), Wardha
Corresponding author's email id: aditya.mahindru@gmail.com
Contact number of the corresponding author:9970776327
Type of Article- **Research Protocol**
Conflict of Interest-**None**
Funding- None

Abstract:
Background: Psychiatric co morbidities are found to be common among dermatological conditions. It not only effects the course of dermatological conditions but also aggravates it. It also effects the quality of life of the patients. However, there is a paucity of Indian studies and there is a need to study theshort-term prevalence of psychiatric disorders in these conditions.
Aim and Objectives: We aim to find the prevalence of psychiatric morbidities and quality of life in the patients with dermatological conditions. The study also aims to assess the coping mechanisms in dermatology conditions with the co morbidity of psychiatric conditions.

Methodology:100 patients who are clinically diagnosed to have dermatological disorder by the dermatologist presenting to either Outpatient Unit or Inpatient Unit of Dermatology Department of the AVBRH hospital will be selected via purposive sampling. Psychiatric co morbidities will be assessed using General Health Questionnaire (GHQ-12) and Hospital Anxiety Depression Scale(HADS). Quality of life and coping mechanisms will be assessed using Dermatology Index Scale(DLQI) and Coping Orientation to Problems experienced(COPE) respectively. Later associations will be made using appropriate statistical methods

Results: The Outcome of this study will help in establishing the prevalence of psychiatric co morbidities in dermatological conditions. The association between presence of psychiatric co morbidities, quality of life and coping mechanisms will be established.

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Conclusion: With this study we will be able to assess the prevalence of psychiatric conditions in patients with dermatology conditions. It will answer whether prevalence of psychiatric conditions have any effect on quality of life and the kind of coping mechanisms used by them.
Keywords: Psychiatric conditions, dermatological conditions, quality of life (QOL)

INTRODUCTION

Psychodermatology signifies the crossroads and linkbetween mental illnesses and dermatological issues. It is vital to figure out thepsychological basis of dermatological conditionsfor their effective intervention. Psycho-dermatological disorders can be divided into three categories: psychophysiological disorders, primary psychiatric disorders, and secondary psychiatric disorders.

A marring skin condition can cause stigma, humiliation, frustration, low self-esteem, depression, and anxiety. According to many research and epidemiological studies, prevalence rate of psychiatric disorders ranges from 21% to 43%. Depressive and anxiety disorder are most common mental disorders seen in patients with dermatological conditions[1]. Patients with dermatological disorder are found to vulnerable to suicidal ideations and even account for completed suicides.Dermatological conditions impact the quality of life and has an upshot on body image of the patient resulting into psychiatric morbidity [1]. Studies have shown a strong association between psychological stress, personality traits and psychiatric disorders.Some dermatological patientsare also found to have correlation withinterpersonal sensitivity, hysterical, depressive, and suspicious personality traits.

There are several hypothetical mechanisms which might account for a connection between disorders of the mind and the skin:

1. Psychosomatic mechanisms may precipitate skin disease in predisposed subjects
2. Psychiatrically disturbed patients may present to the dermatologist on account of hypochondriasis, delusions or hallucinations related to the skin, or self-mutilation.
3. Disfigurement, social stigma, or imbalance of lifestyle due to the skin disease mayprecipitate psychiatric symptoms.
4. Drugs used to treat skin disease, for instance steroids, may cause psychiatric disturbance, and

drugs used in psychiatry, for example chlorpromazine and lithium, may affect the skin.

5. Systemic diseases, systemic lupus erythematosus or porphyria, for example, may produce both skin lesions and psychiatric disturbances [2].

Rationale: The patients with psoriasis , alopecia, urticaria, acne, pruritis and vitiligo were found to have great prevalence of comorbid mental disorders. Most of the research on psycho-dermatology is from Western countries. There are studies done in developing countries focusing mainly on conditions like vitiligo, leprosy and psoriasis. Considering that there is a dearth of literature on the prevalence of psychiatric morbidity in dermatological patients, this study aims to examine the association of mental illnesses likedepression and anxiety in patients having skin conditions.Patients with concurrent psychiatric disorders often go undetected. It is important to identify these patients as psychological distress causes more

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suffering, increases the burden of the disease and is associated with poor compliance, outcome and impairment of quality of life.

AIM

We aim to examine the prevalence of psychiatric morbidities and quality of life in the patients with dermatological conditions and study how do they cope with the same.

OBJECTIVES

1. To assess the prevalence of co morbidity of psychiatric conditions in dermatology conditions.
2. To assess the quality of life in dermatology conditions with the co morbidity of psychiatric conditions.
3. To assess the coping mechanisms in dermatology conditions with the co morbidity of psychiatric conditions.

METHOD

Study design: It is a cross sectional hospital-based study for a duration of about 2 years

Setting: The research setting is at theInpatient and outpatientdepartmentsof PsychiatryAnd Dermatology, AVBRH, Sawangi (Meghe) from November 2020 to August 2021

Participants:

Inclusion criteria

1. Age between 16 – 65 years
2. Patients diagnosed with dermatological conditions coming to OPD or admitted in IPD
3. Patients who know either English or Hindi (scales available in English or Hindi, clinician assistance will be provided)
4. At least five years of formal education (primary level)

Exclusion criteria

1. Patient not willing to give consent
2. Patient with previous history of psychiatric illness
3. Patients having advanced liver, kidney, cardiac or pulmonary diseases
4. Patient who are acutely ill or not able to cooperate with the study

Assessment tools

1. Socio-demographic and Clinical Data Sheet: It is a semi-structured proforma .It holds details about socio- demographic variables like sex, age, marital status, education, religion, domicile background, employment status and few other things. Variables like age of onset, duration of illness, precipitating factors, treatment history if available are also present in clinical data sheet.

2. General Health Questionnaire 12 (GHQ-12): The GHQ-12 is a self-governed questionnaire. It helps to measure psychological distresses and identify current psychological disorders through the 12-item questionnaire. It is rated on a 4-point Likert scale that ranges

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from a score of 0 to 12. A cut off of a score of 5 reflects the presence of psychiatric morbidity[3].

3. Hospital and Depression Scale (HADS): The Hospital Anxiety and Depression Scale (HADS) is a 14 item, 4 point Likert scale designed to assess anxiety and depression in a hospital setting. It comprises of 14 questions divided into two subscales containing 7 question each in order to access anxiety and depression through each. HADS measures symptoms over a past week and has negatively and positively constructed items. The odd number questions are used to measure anxiety while depression is measured through even number items. Each question response has a range from 0-4. Scores for each subscale of 7 questions ranges from 0-21, with higher scores suggesting severe symptoms[4]. A score of 0-7 in a subscale depicts no symptoms while score of 8-10 point to borderline abnormal cases. A score of 11-21 represents a severe case of anxiety or depression. A score above 8 in a subscale depicts an abnormal case. HADS shows test-retest reliability, sensitivity and specificity, good internal reliability and concurrent validity[5].

4. Dermatology Quality of Life Index (DLQI): DLQI or The Dermatology Quality of Life Index evaluates the impact of a skin condition over the duration of week. It is rated on a four- point Likert Scale and consists of 10 items[6]. The items in DLQI are related to daily activity, work/school, leisure activities, symptoms, treatment side effects and personal relationships.

5. Coping Orientation to Problems Experienced (COPE): The COPE Inventory helps to evaluate the various ways respond to stress. COPE contains of five scales and each scale has four items. It measures the different aspects of problem-focused coping which differ conceptually includingplanning, suppression of competing activities, active coping, restraint coping and seeking of instrumental social support. Different aspects of emotional focused coping are measured through these five scales including seeking of emotional support, acceptance, denial, positive reinterpretation 7]. Three scales (Mental and Behavioural disengagement and venting of emotions) measure coping responses of the person.

Ethics approval-Ethical clearancefrom the Institutional Ethical Committee will be taken before enrolling patient into the study.

Sample size:100

Formula used: $n = \frac{(2\alpha/2)^2 .P . (1-P)}{d^2}$

where,

$2\alpha/2$ is the level of significance at 5% i.e. 95% confidence

Interval =19

P = Prevalence of Depression

=14% = 0.14

D= desired error of margin

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=7% =0.07

n = $\frac{1.96^2 \text{ X } 0.14 \text{ X } (1 - 0.14)}{0.07^2}$ = 94.39 = 100 patients needed in the study

Statistical methods:

Statistical analysis will be carried by using SPSS 20. Descriptive statistical analysis will be used to calculate percentage, mean, median and mode. Spearman Correlation or Pearson correlation will be carried out to assess the association depending on the kind of sample.

EXPECTED OUTCOMES/RESULTS

The outcome of this study will help in establishing the prevalence of psychiatriccomorbidities in dermatological conditions. The association between presence of psychiatriccomorbidities, quality of life and coping mechanisms will be established.

DISCUSSION

Rasouliani et al (2010) found a link between dermatological diseases and psychiatric disorders. The frequent psychiatric disorders in patients with dermatological issues were anxiety and depression, with prevalence rates of 17% and 20%, respectively. Using the MINI screening tool, a study was done which reported that 29 percent of dermatological patients reported depression. This is probably due to the strong adhesive link between a person's skin, their -esteem and their body image. A relationship has been hypothesized between psychological factors and dermatological conditions since long.The skin and the CNS have an embryological link. They also have several common neurotransmitters, hormones, and receptors. Skin is an important sensory organ in various socialization processes and is responsive to emotional stimuli. The appearance of skin is found to influence a person's body image and self-esteem [1].

Increasing levels of anxietyand depression were reported in dermatological patients in the study by Montgomery et al(2016). The study observed that people suffering from skin conditions that were on exposed or visible parts of the body and practiced mindfulness showed less of distress and had better life quality[8]. Higher levels of depressive disordersand anxiousness were observed and documented in dermatological patients, therefore stating the need for the use of counselling and psychiatric support.

In a study by Sampogna et al (2004),it was seen that there were many patients admitted in dermatology IPD that had psychiatric morbidities having poor quality of life when examined and kept under observation. This study depicted that people having skin problems also had psychiatric morbidities [9].

Picardi et al (2004) carried out a study in which there were 14 percent of dermatological outpatients showed anxiety and depressive disorders. A major association was observed in patients coming to dermatology OPD having poor quality of life and other psychiatric illnesses . This association was found to be consistent in various skin conditions, which could be graded on different levels of clinical severity . Later on, in this study Picardi et al (2004) tells about that the severity of skin conditions didn't affect the link between life quality and psychiatric conditions[10]. Patients with skin diseases and mental illnesses together were found to have inferior life quality in comparison to patients with no psychiatric conditions.

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Yazici et al (2004) found that patients with acne vulgaris had a higher risk for depression and got anxious easily. Anxiety disorders impacted them in a such a way that they resulted in having effect on their life quality and in having impairment in doing day to day activities[11].
Gupta and Gupta in their study regarding suicidal and depression ideation in patients of dermatology observed that patients with alopecia areata, psoriasis and atopic dermatitis affecting less than 30 percent of their total body surface showed much lower depression scores as compared to patients with mild to moderate acne which showed higher depression score[12].
Rubinow et al (1987) observed that the patients having dermatological problems scored significantly lower than psychiatric patients but higher than normal subjects on the factors of were obsessive–compulsive disorder, interpersonal sensitivity, anxiety ,somatization and depression on the Hopkins Symptom Checklist factors[13].
Kellett and Hawkrodger (1999) concurred that the levels of anxiousness and depressive symptoms on the HAD scale in patients with acne appears to be a combination between the mentally ill and those with other dermatological diseases and cancers[14]. Anxiety and depression were higher in patients who believed that acne had negative effect on their lives.
Klassen et al in the year 2000 observed that patients with higher clinical acne graders faced more issues with pain and discomfort associated with it rather than with anxiety or depression on the EuroQol scale. A number of methods are acceptable in order to assess change in acne severity, which include acne grading and lesion counting. Hypothesis was made that patients having facial acne resulted in having low self esteem, confidence was dropped and inclination to be seen in public .There was less of social interaction due to its high visibility factor of facial acne along with social negativity associated with it .[15]
Mazotti et al (2011) observed that 10 percent and 25 percent of dermatological patients scored positive for depression and anxiety respectively. A number of coping strategies were used to help the patients with positive attitude strategies working best to decrease the likelihood of depression or anxiety [16-17]. Many studies reflected on different aspects of psychiatric disorders [18-21]. Few of the related articles were reviewed [22-26].
This study is also expected to find results similar to these studies. However, It is a relatively small cross-sectional hospital-based study. A larger general population-based longitudinal study will help to know more about the prevalence of psychiatric co morbidities in dermatological conditions and their association with quality of life and their coping mechanisms.

CONCLUSION

With this study we will be able to assess the prevalence of psychiatric conditions in patients with dermatology conditions. It will answer whether prevalence of psychiatric conditions have any effect on quality of life and the kind of coping mechanisms used by them.

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