



## THE PSYCHOLOGICAL EFFECTS OF PSORIASIS ON PATIENTS' BEHAVIORS: A CROSS SECTIONAL STUDY FROM CENTRAL INDIA

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### Abstract

**Background:** Psoriasis severely impairs the quality of life (QOL) of those who have it. The length, frequency, and severity of the illness can vary greatly. An overall clinical picture of psoriasis is the result of reciprocal interactions and influences between its physical and psychological aspects. People who are affected by their illness frequently experience feelings of helplessness, embarrassment, anger, and frustration.

**Aim and objectives:** to research how psoriasis affects a patient's psychosocial functioning.

**Material and Methods:** This is a cross-sectional, observational study that includes 100 instances of chronic plaque psoriasis, spanning both sexes and a minimum of three months of illness duration. Over the course of the two-year study period, data from two hospitals connected to a tertiary health care centre were gathered. The Psoriasis Disability Index was assessed using a verbally-asked, pre-tested, and developed questionnaire.

**Results:** 18 female and 82 male patients were present. Psoriasis onset occurred on average 33.12 years of age. The illness lasted an average of 7.6 years. We found a strong association between the PASI score and each PDI subdivision. People with psoriasis were shown to be more prone to feel upset or depressed by excessive skin shedding, according to the psycho-social indicators that were examined.

**Conclusions:** Efficient counselling of patients, friends, family, and co-workers can be highly helpful in encouraging patients to seek early treatment, which can help maintain good disease control.

**Key Words:** Psoriasis, Psycho-social, counselling

### Introduction

Psoriasis is a prevalent, long-lasting, deformative, inflammatory, and proliferative skin disorder in which genetic and environmental factors play crucial roles<sup>1</sup>. The most distinctive lesions are red, scaly, well defined, indurated plaques that are mostly found on the scalp and extensor surfaces. The length, frequency, and severity of the illness can vary greatly<sup>2-4</sup>. The overall population has 1% to 3% psoriasis, and estimates indicate that 0.4% to 2.3% of adults have psoriasis but do not receive a diagnosis. Even in moderate cases, psoriasis is linked to reductions in health-related quality of

life<sup>5</sup>. For patients with dermatological, psoriasis is also the most common reason for hospitalization<sup>6</sup>. It influences day-to-day activities, emotional perceptions, sexual interactions, child-bearing decisions, and job choices. Patients with psoriasis frequently endure pain, tension, and emotional disturbance in their day-to-day existence, interpersonal relationships, and self-perception. They frequently express feelings of stigma, have a tendency to be melancholy and apprehensive, and worry excessively<sup>7</sup>. An overall clinical picture of psoriasis is the result of reciprocal

interactions and influences between its physical and psychological aspects. The patient experiences feelings of being unattractive and excluded, as well as increased discomfort or anxiety around their physical appearance, in proportion to the severity of their psoriasis, as determined by themselves<sup>8</sup>. People who are affected by their illness frequently experience feelings of helplessness, embarrassment, anger, and frustration. Individuals who have psoriasis also have increased rates of body cystic issues and depression<sup>9</sup>. Six Stressful experiences appear to play a significant part in the onset and relapses of psoriasis. Patients with psoriasis have a depression prevalence that varies from 10% to 58%. Patients who believe they have severe psoriasis and those with high depression ratings are most likely to have suicidal thoughts.

#### **MATERIAL AND METHODS**

This study is cross-sectional and observational, with 100 cases of chronic plaque psoriasis spanning two years from enrolment in the Department of Dermatology, Venereology, and Leprology at a medical college in central India. The cases were of both sexes and had a minimum three-month disease duration. Patients with persistent plaque psoriasis were enrolled in the trial after providing informed permission.

**Inclusion Criteria:** between the ages of 18 and 60, Patients who only have psoriasis and no other serious medical diseases; Patients who have had the disease for at least three months; Patients who are willing to be enrolled in the

trial and are able to attend routine follow-up visits.

**Exclusion Criteria:** Ages under 18 and above 60, psoriasis in conjunction with any other serious illnesses, Patients hesitant for inclusion in the study and those who are not able to come for follow up, Pregnant ladies.

Data from psoriasis patients were collected using a predesigned and pretested questionnaire that was administered orally after the appropriate application of the inclusion and exclusion criteria. The proper statistical procedures were used to do the statistical analysis. **Psoriasis impairment Index (PDI):** This measure was developed by examining a sample of individuals with persistent plaque psoriasis and determining which particular items, as well as factor analysis, best linked with symptoms and impairment. During its creation, no additional validation was carried out. However, it has been in use for about 20 years already, as documented in 31 published articles. It is utilized in conjunction with four physical measurements of psoriasis, namely PASI (Psoriasis Area Severity Index) scores, and seven dermatology-specific and general health parameters.

The PDI was computed by adding up all 15 questions' scores on a 0-3. The worse one's quality of life, the higher the score. Another way to express the PDI is as a percentage of the 45-point maximum achievable score.

#### **RESULTS AND OBSERVATIONS**

**Table 1: Age and Gender wise distribution of patients**

<b>Gender</b>	<b>Mean age in years</b>
Males	43.8 ± 11.16
Females	32.8 ± 12.2

Of the 100 patients in the current study, 82% were men and 18% were women. Out of the 100 patients in the current study, 82% were married, 16% were single, and 2% were widows. Of the patients, 16% had an illness that started before marriage and 66% had a sickness that started after marriage. The patients were allocated approximately equally among classes II, III, and

IV based on the socioeconomic level scale developed by Kuppaswamy. Patients are distributed approximately evenly between rural areas (48%) and urban areas (52%). Of the 100 patients, 24 were smokers, 12 were drinkers, and 18 had a combination of drinking and smoking habits.

**Table 2: Mean values of Psoriasis Disability Index (PDI)**

Sex	Mean±SD
Male	16.12± 7.2
Female	14.2± 6.2

The mean PDI in this study was 15.49, or 35.5%. The average PDI for both genders was  $16.12 \pm 7.2$  and  $14.2 \pm 6.2$ , in that order. We found a strong association between the PASI score and each of the PDI subgroups in the current investigation.

Examination of the PDI questionnaire's response pattern

**Daily activities:** In the current study, 88% of patients reported wearing various types or colors of clothing as a result of their psoriasis, 72% had difficulty doing household or yard work, and 72% reported changing or washing their clothes. **Work or school:** Of the patients in this study, 94% missed work or school; however, the least affected area was their careers.

**Personal relationship:** Compared to sexual life, personal relationships with partners and friends were more significantly impacted in the current study.

**Recreation:** Of the patients in this study, 76% ceased going out socially, whereas sports participation was least affected (22%).

**Treatment:** According to the current study, 14% of patients' psoriasis treatments "very much" impacted their home, leaving it disorganized and messy. Psoriasis patients were found to be more likely to experience the following psycho-social measures in the current study: skin shedding, insensitive remarks or comments, feeling self-conscious around strangers, spending more time taking care of themselves, and feeling degraded by people who mistakenly associate their skin condition with AIDS, leprosy, or venereal disease. However, issues like avoiding the sun had no effect at all.

## DISCUSSION

The mean age (in years) of the male and female participants in this study was  $43.4 \pm 11.8$  and  $32.4 \pm 12.16$ , respectively. The mean age of males in the study by Rakhesh SV et al. was  $40.52 \pm 12.02$  years, while the mean age of females was  $34.02 \pm 12.20$  years. In contrast, the mean age of males and females in the Gupta S et

al study was  $47 \pm 15.3$  and  $49.1 \pm 16.5$  years, respectively. As a result, the mean age varies across studies. According to our data, 82% of the 100 patients were men and 18% were women. Males were more affected in the investigations of Gelfand et al., Manjula et al., Pakran et al., and Hariram et al. As a result, there is a variation in the distribution of sexes among the patients, which may be caused by differences in the patients' varying levels of disease knowledge and their level of desire to seek treatment. Regarding marital status, comparable findings were noted in the research by Finlay et al. and Zachariae et al., namely that there were more married people than single people. In contrast, there were the same number of married and single patients in the Manolache et al. trial. Based on Kuppuswamy's socioeconomic level scale, all of the patients in our study were nearly evenly divided throughout classes II, III, and IV. The percentage of patients from rural (48%) and urban (52%) areas is about equal<sup>10-15</sup>.

The mean PDI in this study was 15.49, or 35.5%. Similar findings were seen in the research by Rakhesh SV et al, although in the study by Pakran et al, it was lower than in our investigation. The mean PDI for males and females in the current study was  $16.6 \pm 7.16$  and  $14.12 \pm 6.12$ , respectively. The mean PDI for males in the study by Rakhesh SV et al. was  $15.56 \pm 7.00$ , while the mean PDI for females was high ( $20.25 \pm 9.30$ ). Both males and females with psoriasis have different PDIs. It might be related to the system of physical labor and outdoor employment in the current study, which favors men more than women.

We found a strong association between the PASI score and each of the PDI subgroups in the current investigation. Similar findings were noted in Rakhesh SV et al.'s study, with the exception of activities connected to therapy. As a result, prolonged clinical participation limits their way of life and results in physical handicap. Regarding the analysis of the PLSI questionnaire

answer pattern, a similar finding was observed in a study by Rakhesh SV et al. However, they removed the sunbathing question from their study because they believed it to be outdated. This might be the case due to the fact that psoriasis is a chronic illness that can lead to social stigma, cosmetic impairment, and sometimes even infectious treatment. This indicates that psoriasis sufferers share a same pattern of difficulties<sup>16,17</sup>.

### SUMMARY AND CONCLUSIONS

In the study group, men predominated, most likely as a result of their greater social exposure and earlier onset of treatment requests than females. The majority of patients who smoked and drank alcohol developed these habits after their sickness began, most often as a result of social stress and unhappiness with their chronic condition. The mean PASI score for men and women was nearly identical. Large-scale scale shedding appears to significantly increase stress levels, which may be brought on by social media remarks, the annoyance of the scales falling off, and societal misconceptions about the illness.

Ultimately, proper counselling of patients, friends, family, and coworkers can be very helpful in encouraging patients to seek early treatment, which can help maintain good disease control. The patient's psychological stress can be reduced or eliminated with the help of the aforementioned group of non-patients, which will undoubtedly enhance the patient's quality of life.

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