

The Personality Characteristics and Quality of Life in Psoriasis Patients

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Abstract: ***Aim:** To analyse the personality characteristics and quality of life in psoriasis patients. **Settings and Design:** Progressive analytical case control study. **Methods and Material:** 50 psoriasis patients who had attended Dermatology OPD were compared with 50 matched normal healthy controls. **Statistical analysis used:** Comparison between two groups was performed using unpaired student t-test. Categorical data was compared using Chi square test. Correlation between different parameters was performed using Pearson's rank correlation coefficient. Statistical analysis was performed with the aid of the statistical package for the social sciences (SPSS) computer program. P value <0.05 was considered significant. **Results:** 64 % of psoriasis patients scored high on neuroticism and 30% scored high on extroversion and 16% scored high on psychoticism as compared to 44 %, 52% and 4% of controls respectively. Score of subjective well being inventory suggested that 52% of psoriasis patients had poor quality of life i.e. negative sense of well being as compare to 18 % of control group. **Conclusions:** Significant number of psoriasis patients belong to neuroticism, a type of personality trait along with negative sense of well being which leads to disturbed mental health equilibrium.*

Keywords: psoriasis, sense of well being, neuroticism, personality traits, mental health

Key Message: What's known: Hostile personality characteristics, dysthymic states and neurotic symptoms have been frequently found in psoriasis and quality of life may be severely affected. Identification of psychiatric symptoms in patients early in the course of treatment and incorporation of specific psychosocial interventions in their overall management could improve the outcome of the disease

1. Introduction

Psoriasis is relatively common, chronic, inflammatory and hyperproliferative skin disease that affects 1.4 % to 2.0 % of the population.¹ There are extensive and disfiguring lesions, with the course being punctuated by remissions and relapses. Such patients often present with physical disability, social discomfort and psychological disorders. The embarrassment, stigma and social anxiety caused by the illness often lead to relationship conflicts, emotional distancing, isolation and depression affecting the quality of life. The impact of psoriasis on occupational, social and other areas of functioning is substantial and needs attention.² Lack of control is one of the most bothersome aspects in psoriasis patients.³

Skin is the most visible organ which determines to a great extent our appearance and plays a major function in social communication and sexual attractiveness. Thus, skin diseases may have a considerable impact on the patients well being.⁴

Quality of life may be severely affected by the chronicity and visibility of psoriasis as well as by the need for lifelong treatment. Five dimensions of the stigma associated with psoriasis have been identified: 1. anticipation of rejection, 2. feeling of being flawed, 3. sensitivity to the attitudes of society, 4. guilt and shame and 5. secretiveness.⁵

Hostile personality characteristics, dysthymic states, and neurotic symptoms have been frequently observed in common skin conditions like psoriasis, urticaria, and alopecia.⁶

Discussing their skin condition, covering their lesions, and avoiding contact with people are significantly associated with negative impact on life.^{7,8,9}

1.1 Subjects and Methods

Our study was conducted in the Dermatology OPD. Before starting the study approval of the ethical committee was taken.

1.2 Sample

50 psoriasis patients attending skin OPD who fulfilled inclusion criteria were taken for the study & interviewed in detail (study group). They were compared with 50 matched normal healthy controls (control group). Patients were assured that the information revealed by them will be kept confidential and will be used for research purpose only.

Inclusion Criteria

- Patients between age group 12-65, as 1st peak of psoriasis occurs in age group of 12-35 years and second peak in 60-69 years.
- Both male and female sexes were taken for the study.

Exclusion Criteria

- A*. Any chronic debilitating disease like cancer, liver, renal, cardiac disease, hypertension diabetes, HIV, mental illness
- B. Patient unwilling to cooperate with the study.
- C. Patient having any concomitant skin disease.
- D**. Patient above 65 years.

*Here by it would be possible to exclude patients having double handicap.

**Here by it would be possible to exclude the effect of senility, if any, so that confounding by senility is excluded.

Tools

1. Subjective Well Being Inventory by Helmet And Nagpal¹⁰ to measure psychological well being.

It is designed to measure feelings of well-being as experienced by an individual or a group of individuals in various day-to-day life concerns. As stated above, it consists of 40 items. The inventory measures 11 factorial dimensions.

2. **Pen Inventory:** Eysenck and Eysenck¹¹ developed the PEN inventory which measures three orthogonally independent dimensions of temperament viz. Extroversion-Introversion, Neuroticism-Stability, and Psychoticism.

2. Procedure

Subjects in both the groups were thoroughly evaluated on the especially designed proforma, which included identification data (name, age, sex etc.) of the subjects, sociodemographic details (education, occupation, marital status etc.) & historical data (past history, family history, etc.). For subjects of group A i.e. psoriasis patients, provocative factors & treatment history, were studied. Diagnosis & severity of psoriasis was confirmed by a consultant Dermatologist (M.D. skin & VD). Subjective Well Being Inventory was given to measure feelings of well-being as experienced by an individual or a group of individuals in various day-to-day life concerns. Personality factors were studied in subjects of both groups by administering PEN inventory, cut-off score for extroversion was taken to be 13+, for neuroticism 10+ & for psychoticism 7+. Information so gained and data so collected were subjected to suitable statistical analysis and conclusions were drawn.

3. Results

Results were expressed as mean \pm standard deviation (SD) or number (%). Comparison between two groups was performed using unpaired student t-test. Categorical data was compared using Chisquare test. Correlation between different parameters was performed using Pearson's rank correlation coefficient. Statistical analysis was performed with the aid of the statistical package for the social sciences (SPSS) computer program. P value <0.05 was considered significant. The personality dimensions of both the groups were evaluated through Eysenck personality inventory.

The results were tabulated and following deductions were made. 52% of the control group scored high on extroversion, while in psoriasis patients the figure was 30%. Hence psoriasis patients scored low on extroversion as compared to normal controls and the difference between both groups was statistically significant ($p=0.0253$). [Table 1]

Distribution of both groups according to scores on neuroticism were done. It was evident that 64% of psoriasis patients scored high on neuroticism, while in control group only 44% scored high. [Table 2]. Also distribution of both groups according to psychoticism scores showed that 16% of psoriasis patients and 4% of controls scored high on psychoticism. [Table 3]. Distribution of both groups on lie score showed that 14% of psoriasis patients and 18% of normal controls scored high on lie score.

Table 5 shows distribution according to the score of Subjective Well Being Inventory (SUBI). 12 % of psoriasis study group scored in between 40-60 as compared to the normal subject (4%). 61-80 scores were found in 40% of psoriasis study group while only 14 % in normal subject control group. 82 % of control group scored in between 81-120 as compared to psoriasis study group (48 %). There was extreme significant difference between the two groups as $p < 0.0001$. 12 % psoriasis patients had very poor sense of well being as they scored poorly in 9 factors out of 11. 4 % control group had very poor sense of well being as they scored low in 9 factors out of 11. [Table 6]

40 % of psoriasis patients had negative or poor sense of well being as they score low in 8 factors out of 11 and 14 % control group had poor sense of well being as they score low in 8 factors out of 11. [Table 7]

48 % patients had positive sense of well being as they scored high in 8 factors out of 11 factors whereas 82% control group had good sense of well being as they scored high in 10 out of 11 factors [Table 8]. This reflected that psoriasis patients had lower value for General Well being positive effect and General well-being-negative effect which stands for factor 1 and factor 11 respectively.

4. Discussion

Our findings of the personality dimensions are consistent with the findings of Seinsbury et al 1960,¹² who reported higher introversion in psoriasis patients. The patients from experimental group were found to be less dominant, more intropunitive, more extrapunitive and more neurotic than the control group.¹³

The EPQ-A test revealed a behavioural pattern of worry, anxiety and psychosomatic disorders in 43% of the dermatologic patients, but only in 19% of the control group.¹⁴

The results of Neuroticism are consistent with the findings of Seinsbury et al 1960,¹⁵ Buthune H.C. et al 1961,¹⁶ Shrivastava . et al 1975,¹⁷ who had found high neuroticism in psoriasis/dermatological patients. Buthune et al 1961¹⁶ had found that morbid self perception on the part of the patient in respect to his skin lesion was a product of neuroticism.

In the 'QOL-based definition' of severe psoriasis, as suggested by Krueger et al. 2000,¹⁸ one of the defining features was that the disease alters the patient's QOL.

Patients with psoriasis have a reduction in their quality of life similar to or worse than patients with other chronic diseases, such as ischaemic heart disease and diabetes.¹⁹

Fava *et al.* found that patients with psoriasis (80%) and chronic urticaria (90%) were exposed to stressful life situations before disease onset and suffered from psychological distress (anxiety, depression, inadequacy).

Psoriasis has a significant negative impact on patients' health related quality of life (HRQOL). In a survey by the National Psoriasis Foundation almost²⁰ 75% of patients believed that psoriasis had moderate to large negative impact on their quality of life (QOL), with alterations in their daily activities.²¹

Our study supports the hypothesis that psoriasis has a psychosomatic component because the exacerbation of psoriasis was associated with alexithymia, avoidance of emotional closeness and intimacy in attachment relationships, and poor perceived social support. Alexithymia is characterized by reduced symbolic thinking, a poor fantasy life, and a limited ability to identify and verbally express emotions. These characteristics are believed to be common among patients affected by diseases with a substantial psychosomatic component. In study by Taylor, the prevalence of alexithymia among psoriatic patients was more than twofold in relation to the comparison subjects.²²

There was extreme significant difference between the two groups as $p < 0.01$. Thus, psoriasis study group showed the poor sense of well being i.e. negative quality of life, than control group as per SUBI. The poor sense of well being arises out due to negative perception of life.²³

Results of PEN Inventory showed that 64% of psoriasis patients scored high on neuroticism while 30% on extroversion. These findings are in the concordance with the definition of neuroticism which is characterized by high level of negative effects such as depression and anxiety. Neurotic people has low activation threshold and unable to inhibit or control their emotions, reactions, experience negative effect (fight or flight) in the face of very minor stressors, they easily become nervous and upset²⁴. Thus we may say that persons with neuroticism traits are anxious, depressed, having the feeling of guilt, low self esteemed, tensed, moody, hypochondriac, poor autonomy and obsessive.

Results of Subjective Well Being Inventory (SUBI) suggests that 52% of the psoriasis patients showed the poor sense of well being i.e. negative quality of life in 9 out of 11 factors of SUBI which includes decrease in general wellbeing positive effect, expectations achievement incongruence, lack of confidence in coping, decrease spiritual qualities i.e. transcendence, poor social support, inadequate mental mastery i.e. inability to deal efficiently with certain aspects of everyday life that are capable of disturbing mental equilibrium, perceived ill health which means worries over health and physical fitness, deficiency of social contacts and lastly general well being which shows depressed outlook on life.

What's New: Our study supports the hypothesis that psoriasis has a psychosomatic component as the exacerbation of psoriasis was associated with alexithymia. Avoidance of emotional closeness and decrease in intimacy in attachment relationships. Psoriasis has also been associated with suicide and an increased prevalence of alcoholism. The disturbances in body image perception and the effect of psoriasis on interpersonal, social, and occupational functioning can further contribute to the overall morbidity. Stress and Anxiety are known to trigger skin diseases, therefore we must routinely apply psychiatric tests to detect levels of stress and anxiety in patients and treat them accordingly.

Tables

Table 1: Distribution according to Extroversion

Score on Extroversion	Study Group	Control Group
>13	15 (30%)	26 (52%)
<13	35 (70%)	24 (48%)
Total	50	50

($\chi^2=5.00, d/f=1, p=0.0253$, significant)

Table 2: Distribution according to Introversion

Score on Neuroticism	Study Group	Control Group
>10	32 (64%)	22 (44%)
<10	18 (36%)	28 (48%)
Total	50	50

($\chi^2=4.02, d/f=1, p=0.0450$, significant)

Table 3: Distribution according to Psychoticism

Score on Psychoticism	Study Group	Control Group
>7	08 (16%)	06 (12%)
<7	42 (84%)	44 (88%)
Total	50	50

($\chi^2=0.33, d/f=1, p=0.8479$, not significant)

Table 4: Distribution according to Lie score

Score on Lie Score	Study Group	Control Group
>10	07 (14%)	09 (18%)
<10	43 (86%)	41 (82%)
Total	50	50

($\chi^2=0.29, d/f=1, p=0.8650$, not significance)

Table 5: Distribution according to Subjective Well Being (SUBI)

Scores of SUBI	Study Group	Control Group
40-60	06 (12%)	02 (4%)
61-80	20 (40%)	07 (14%)
81-120	24 (48%)	41 (82%)
Total	50	50

($\chi^2=538.77, d/f=2, p < 0.0001$, extremely significant)

Table 6: Factor wise distribution who had scored between 40-60 in SUBI

Factor	Middle Value	Study Group (12%)		Control Group (4%)	
		Score Value (Mean \pm S.D.)	Score Level	Score Value (Mean \pm S.D.)	Score Level
1.	6	3.00 \pm 0.89	L	3.50 \pm 0.71	L
2.	6	3.33 \pm 0.52	L	3.50 \pm 0.71	L
3.	6	4.67 \pm 0.52	L	5.00 \pm 0.00	L
4.	6	4.33 \pm 0.52	L	4.00 \pm 0.00	L
5.	6	6.33 \pm 0.52	H	6.50 \pm 0.00	H

6.	6	7.33 ± 1.03	H	8.00 ± 0.00	H
7.	6	2.00 ± 0.89	L	1.50 ± 0.71	L
8.	14	8.33 ± 0.52	L	8.00 ± 0.00	L
9.	12	11.00 ± 0.89	H	11.50 ± 0.71	L
10.	6	5.00 ± 0.89	L	5.50 ± 0.71	L
11.	6	3.67 ± 1.03	L	3.00 ± 0.00	L

(L= Low, H=High)

Table 7: Factor wise distribution who scored between 61-80 in SUBI

Factor	Middle value	Study group (40%)		Control group (14%)	
		Score Value (Mean ± S.D.)	Score Level	Score Value (Mean ± S.D.)	Score Level
1.	6	3.70 ± 1.01	L	3.86 ± 1.07	L
2.	6	4.20 ± 1.15	L	4.29 ± 1.22	L
3.	6	4.70 ± 1.10	L	4.86 ± 1.17	L
4.	6	4.85 ± 1.99	L	4.86 ± 2.14	L
5.	6	6.80 ± 2.18	H	6.86 ± 2.24	H
6.	6	4.20 ± 2.07	L	4.43 ± 1.96	L
7.	6	7.45 ± 3.59	H	7.29 ± 3.86	H
8.	14	12.35 ± 2.72	L	13.00 ± 2.70	L
9.	12	11.45 ± 2.74	L	11.57 ± 2.52	L
10.	6	7.45 ± 2.07	H	8.00 ± 1.95	H
11.	6	4.85 ± 3.29	L	5.14 ± 0.69	L

(L= Low, H=High)

Table 8: Factor wise distribution who scored between 81-120 in SUBI

Factor	Middle Value	Study Group (48%)		Control Group (82%)		t value
		Score Value (Mean ± S.D.)	Score Level	Score Value (Mean ± S.D.)	Score Level	
1.	6	4.50 ± 1.38	L	6.12 ± 1.14	H	5.102*
2.	6	5.33 ± 1.63	L	5.44 ± 1.42	L	0.274
3.	6	6.69 ± 1.23	H	7.46 ± 1.36	H	1.493
4.	6	6.17 ± 1.43	H	6.71 ± 1.38	H	1.500
5.	6	8.21 ± 1.14	H	7.88 ± 1.77	H	1.111
6.	6	7.75 ± 0.99	H	7.95 ± 1.24	H	0.676
7.	6	8.00 ± 1.14	H	8.05 ± 1.05	H	0.175
8.	14	14.71 ± 1.20	H	14.68 ± 1.06	H	0.089
9.	12	13.38 ± 2.60	H	13.12 ± 2.15	H	0.424
10.	6	7.58 ± 0.50	H	7.71 ± 0.60	H	0.849
11.	6	4.67 ± 2.22	L	6.27 ± 1.92	H	3.059*

(*significant at .01 level)

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