

## A Study of Psychiatric Morbidity and Stressful Life Events in Psoriasis

Balasubramani. N<sup>1</sup>, Gurumoorthy. V<sup>2\*</sup>

### ABSTRACT

**Background:** A relationship between dermatological conditions and psychological factors has long been observed. Prevalence of psychiatric morbidity is high in psoriasis. Stressful life events may exacerbate psoriasis, acne, eczema, and urticaria. Among the above-mentioned diseases, only psoriasis has shown a consistent association with stress. **Objective:** The aim of the study is to know the prevalence of psychiatric morbidity and stressful life events in psoriasis, to correlate with socio-demographic variables and to know their clinical relevance. **Methodology:** This is a cross-sectional study conducted from May 2010 to August 2010 in the Department of Dermatology, Raja Mirasudhar Hospital, Thanjavur Medical College, Thanjavur. **Results:** A total of 45 patients suffering from Psoriasis were evaluated for the study out of which 35 were male (77.8%) and 10 were female (22.2%). About 30 patients (66.7%) had a psychiatric illness. 11 patients (24.4%) were suffering from depressive disorder, 13 patients (28.9%) were alcohol harmful user, 3 patients (6.7%) had both alcohol harmful use and depressive disorder. **Conclusion:** Psoriasis is more common in males than females. Most of the patients with psoriasis belong to lower socio-economic status. Depression and Substance use disorders are prevalent in Psoriasis patients. Number of life events and score in the past one year do not differ significantly in psoriatic patients with or without psychiatric morbidity. The results support the view that psychological stress plays a role in triggering or exacerbating psoriasis.

**Keywords:** psoriasis, psychosomatic illness, stressful life events, depression.

Psychosomatic medicine emphasizes the unity of mind and body and the interaction between them. A relationship between dermatological conditions and psychological factors has long been observed. Psoriasis Incidence may range from 0.1-2.8% (Ginsburg, 1989). Although

<sup>1</sup> Assistant Professor, Department of Psychiatry, Government Mohan Kumaramangalam Medical College & Hospital, Salem, Tamilnadu, India

<sup>2</sup> Assistant professor, Department of Psychiatry, Coimbatore Medical College & Hospital, Coimbatore, Tamilnadu, India

\*Responding Author

Received: June 19, 2018; Revision Received: July 14, 2018; Accepted: August 5, 2018

## A Study of Psychiatric Morbidity and Stressful Life Events in Psoriasis

many skin diseases produce psychological morbidity, only psoriasis is chosen because prevalence of psychiatric morbidity is high in psoriasis and only a few Indian studies are available. (Mattoo, Sharma 2001). Stressful life events may exacerbate psoriasis, acne, eczema, and urticaria. Among the above-mentioned discussions, only psoriasis has shown consistent association with stress. Although there is no single universally accepted classification system of psycho cutaneous disorders, the one most widely accepted was devised by John Koo and Chai Sue Lee. It includes five different groupings, which also includes the text revised fourth edition of Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR) classification of psychocutaneous disorders. In DSM-IV-TR classification Psoriasis comes under Psychophysiological disorders. The patient's experience of psychosocial distress is variable and depends on, the characteristics of skin disorder itself, the individual characteristics of patients and his or her life situations, Cultural attitudes related to skin disease (often expressed as stigma).

### *Objective*

The aim of the study is to know the prevalence of psychiatric morbidity and stressful life events in psoriasis, to correlate with socio-demographic variables and to know their clinical relevance.

## **METHODOLOGY**

This is a cross-sectional study conducted from May 2010 to August 2010 in the Department of Dermatology, Raja Mirasudhar Hospital, Thanjavur Medical College, Thanjavur. This tertiary care hospital caters to the rural population of nearly seven districts. The Department of Dermatology runs an outpatient clinic for psoriasis every Tuesday and Friday with an attendance of 200 patients per week. All the cases were screened and diagnosed by a consultant dermatologist. Semi-structured questionnaire was used to assess the socio-demographic data, ICD-10 (International classification of mental and behavioral disorders-clinical descriptions and diagnostic guidelines, 10th revision, 1992) to assess psychiatric disorders, Hamilton Depression Rating Scale (HAM-D), Presumptive Stressful Life Events Scale (Gurmeet Singh et al 1984), Modified Kuppaswamy scale for Socio Economic Status (SES). Forty-five consecutive cases were selected from the Psoriasis clinic and dermatology ward. Initial screening was done to rule out systemic diseases and any history of drug treatment with systemic steroids. A consultant dermatologist has screened the patients for psoriasis and the diagnosis was confirmed by him.

Statistical analysis was done by using SPSS version 12.0. Descriptive statistics were computed. The chi-square test was used to compare categorical variables. Comparison of continuous variables was analyzed with independent sample test. A "p-value" of less than 0.05 was considered clinically significant.

## **RESULTS**

A total of 45 patients suffering from Psoriasis were evaluated for the study. Age of the patients ranged from 29 to 67 years with the Mean age of 50.1 years and the Median age of

## A Study of Psychiatric Morbidity and Stressful Life Events in Psoriasis

50 years. Among 45 patients, 35 were male (77.8%) and 10 were female (22.2%). The Majority (97.8%) belong to Hindu religion and 2.2% belong to Islam. 13.3% of the patients educated up to high school / post high school, 35.6% up to middle school, 46.7% up to primary school and 4.4% were illiterate. 13.3% were skilled workers, 40% were agricultural/ clerical and the majority (46.6%) was semi-skilled/Unskilled workers. Majority of them (60%) belong to upper lower Socio economic-status and the remaining 40% lower middle. Majorities (97.8%) were married and only one patient (2.2%) was separated. Majority (80%) was living in a nuclear family, 11.1% were living in a joint family and 8.9% belong to a broken family. Among the study population, 15.6% of the patients had a family history of Psoriasis. Majority of them were males (85.7%). Among 45 patients, about 40 patients (88.9%) gave a history of pruritus and only 5 patients (11.1%) did not have pruritus. Among patients who had pruritus, 34 patients (75.6%) reported that pruritus was aggravated by stress.

**Figure-1** Figure showing prevalence of the Psychiatric morbidity in patients with Psoriasis

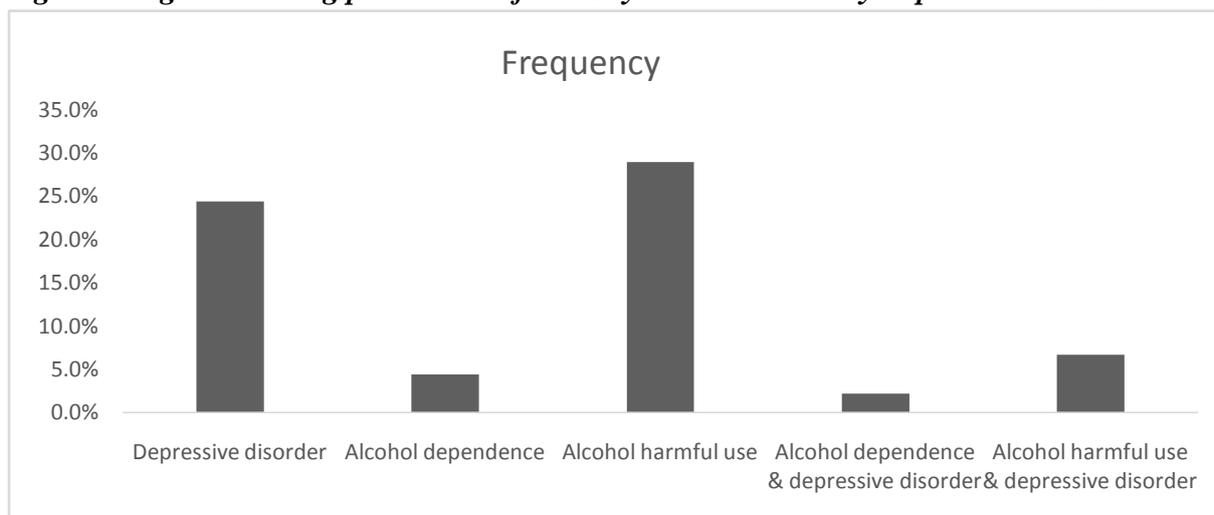


Figure 1 shows about 30 patients (66.7%) had psychiatric illness. 11 patients (24.4%) were suffering from depressive disorder, 13 patients (28.9%) were alcohol harmful user, 3 patients (6.7%) had both alcohol harmful use and depressive disorder, 2 patients (4.4%) had alcohol dependence and 1 patient (2.2%) had both alcohol dependence and depressive disorder.

**Table-1** Table showing comparison of Socio demographic variable and Psychiatric morbidity among patients with Psoriasis

Socio demographic variables		Patients with comorbid psychiatric disorder		Patients without comorbid psychiatric disorder		Results
		N	%	n	%	
Age in years	18 – 44	9	30.0	7	46.7	df = 2 x <sup>2</sup> = 1.618 p = 0.445 p > 0.05 NS
	45 – 64	16	53.3	7	46.7	
	Above 65	5	16.7	1	6.7	

## A Study of Psychiatric Morbidity and Stressful Life Events in Psoriasis

Socio demographic variables		Patients with comorbid psychiatric disorder		Patients without comorbid psychiatric disorder		Results
		N	%	n	%	
Sex	Male	26	86.7	9	60.0	df = 1 x <sup>2</sup> = 4.114 p = 0.043 p < 0.05 Significant
	Female	4	13.3	6	40.0	
Religion	Hindu	30	100.0	14	93.3	df = 1 x <sup>2</sup> = 2.045 p = 0.153 p > 0.05 NS
	Muslim	0	0	1	6.7	
Socio Economic Status	Lower middle	12	40.0	6	40.0	df = 1 x <sup>2</sup> = 0.000 p = 1.000 p > 0.05 NS
	Upper lower	18	60.0	9	60.0	
Marital Status	Married	29	96.7	15	100.0	df = 1 x <sup>2</sup> = 0.511 p = 0.475 p > 0.05 NS
	Separated	1	3.3	0	0	
Marital life	Cordial	8	26.7	4	26.7	df = 3 x <sup>2</sup> = 2.019 p = 0.568 p > 0.05 NS
	Satisfactory	17	56.7	9	60.0	
	Unsatisfactory	2	6.7	2	13.3	
	Strained	3	10.0	0	0	
Type of family	Nuclear	22	73.3	14	93.3	df = 2 x <sup>2</sup> = 2.900 p = 0.235 p > 0.05 NS
	Joint	4	13.3	1	6.7	
	Broken	4	13.3	0	0	

Table-1 shows statistically significant relationship between sex and psychiatric morbidity among patients with Psoriasis. But, there is no statistical significance between age and psychiatric morbidity. The other Socio-demographic variables did not have any significance among Psoriasis with or without psychiatric morbidity. Patients between the age group of 45-64 yrs had high psychiatric morbidity (53.3%), compared to other age groups.

In this study, a total of 37 patients (82.2%) had stressful life events and there is no statistical significance found between Socio-demographic variable and the total number of stressful life events in the past 1 year among patients with Psoriasis. In the total sample, the number of stressful life events during their lifetime ranges from 2 to 10 with the Mean of 5.15 with SD of 1.74. In the past one year, it ranges from 0 to 4 with the Mean of 1.66 with SD of 1.06. In the same way, cumulative life events score during their lifetime ranges from 100 to 449 with the Mean stress score of 244.04, SD of 84.76. In the past one year, it ranges from 0 to 191 with the Mean of 87.55, SD of 54.19. In this study, patients in the age group 45 to 64 years had a higher risk of two or more number of stressful life events compared to other groups. Male patients had a higher risk for stressful life events compared to females. Patients

## A Study of Psychiatric Morbidity and Stressful Life Events in Psoriasis

belonging to upper lower Socio-Economic Status and nuclear families were at more risk of exposure to a high number of life events than others.

### DISCUSSION

This study showed male preponderance over females (males 77.8% Vs females 22.2% a male-female ratio of 3.5:1) which is almost similar to the finding of Kaur, 1997. This study does not have concurrence regarding sex distribution with Manolache L, 2010 (females 66%). In this study, the age of the patients ranged from 29-67 years with the mean age of 50 years and the median age of 50 years. This is similar to findings observed by Manolache L, 2010 (Median age 50 years). Indian studies report a lower familial incidence of the disease. In this study, about 7 patients (15.6%) gave a family history of psoriasis. This is comparable to the study done by Manolache L, 2010 (10.65%). In our study, about 40 (88.9%) out of total 45 patients gave a history of pruritus. This is consistent with the studies of Okhandiar et al 1963 (95%), Bedi TR 1977 (81%). In our study, the psychiatric morbidity is 66.7% (30 out of the total 45 patients). Our findings are slightly higher than that observed in the studies of Neelu Sharma, 2003 (53.3%). The most common psychiatric diagnoses in Psoriasis are adjustment disorder and depression. In our study, among psychiatric morbidity, depressive disorder constitutes 24.4%, alcohol harmful use 28.9%, alcohol dependence 4.4% and depression with comorbid substance abuse 8.9%. This is in agreement with the findings in the study of Mattoo, 2001. The total number of life events and its score for the preceding one year have been analyzed. It has been found that 21.6% of patients had more than two stressful life events during preceding one year, which is considered as significant (Gurmeet Singh, 1984). In our study, 75.7% of patients had cumulative life events score more than 69, which is significant. Stressful life events may affect the onset or exacerbation of some skin diseases. Estimates of the proportion of Psoriasis patients whose disease is affected by stressful events vary from 40% to 80% (Gupta MA, 1989) depending on how stress is defined (acute or chronic) and measured. Polenghi et al, 1989, found that 72% of men and 71% of women with Psoriasis reported stressful life events during the year preceding the onset of their illness (Psoriasis). In our study, it is found that 80% (28 out of 35) of men and 90% (9 out of 10) of women with Psoriasis reported stressful life events during the year preceding the exacerbation of Psoriasis. Mood disorders (depression) and alcohol harmful use/dependence are found to be the common psychiatric diagnoses. The number of life events and score in the past one year do not differ significantly in psoriatic patients with or without psychiatric morbidity.

### CONCLUSION

Psoriasis is more common in males than females. Psoriasis is more common in middle age and married than unmarried individuals. Most of the patients with psoriasis belong to lower socio-economic status. Psychiatric morbidity is common in patients with Psoriasis. Middle age, male sex, married status, lower socio-economic status and nuclear family have been important risk factors for psychiatric morbidity in psoriasis. The duration of psoriasis does not have any correlation with psychiatric morbidity. Depression is found to be the common psychiatric diagnosis in Psoriasis. Substance use disorders are prevalent in Psoriasis patients.

## A Study of Psychiatric Morbidity and Stressful Life Events in Psoriasis

The number of life events and score in the past one year do not differ significantly in psoriatic patients with or without psychiatric morbidity. Stressful life events are more in patients with psoriasis, especially events occurring within a year. Overall, these results support the view that psychological stress plays a role in triggering or exacerbating psoriasis.

### REFERENCE

- Bedi TR. (1977). Psoriasis in north India. Geographical variations. *Dermatologica*; 155:310-4.
- Ginsburg, I.H., B.G. (1989). Feelings of stigmatization in patients with psoriasis. *J Am Acad Dermatol*, 20, 53-63.
- Gupta MA, Gupta AK, Kirkby S, Schork NJ, Gorr SK, Ellis CN, Voorhees JJ, (1989) A psychocutaneous profile of psoriasis patients who are stress reactors. A study of 127 patients. *Gen Hosp Psychiatry*. 11(3):166-73.
- Hamilton M (1960). A rating scale for Depression. *J Neurol. Neurosurg. Psychiatry*, 23: P56-62.
- Kaplan & Sadock's (2005). Comprehensive Textbook of Psychiatry, 8th Edition. Editors: Sadock, Benjamin J.; Sadock, Virginia A. Volume II: Psychological Factors Affecting Medical Conditions; Psychocutaneous Disorders. Lippincott Williams & Wilkins.
- Kumar et al, (2007). Kuppuswamy's socio-economic status scale-updating for 2007. *Indian journal of paediatrics*, 74 (12).
- Kuppuswamy B. (1981). Manual of socioeconomic status (Urban), Manasayan, Delhi.
- Liana Manolache; Dana Petrescu-Seceleanu; Vasile Benea, (2010). life events involvement in psoriasis onset or recurrence, *Pagination*, 49(6).
- Mattoo, S.K., Hand, S., Kaur, I., et al (2001) Psychiatric morbidity in vitiligo and psoriasis: a comparative study, *Indian J Dermatol*, 28(8), 424-432.
- Neelu Sharma, Ravinder V Koranne, R K Singh (2003). A comparative study of psychiatric morbidity in dermatological patients. *Indian J Dermatol*, 48(3): 137-141.
- Okhandiar RP, Banerjee BN. (1963). Psoriasis in the tropics: An epidemiological survey. *J Indian Med Assoc*, 41:550-6.
- Polenghi, M.D., Gala, C., Citeria, A., et al (1989) Psychoneuro- Physiological implications in the pathogenesis and treatment of psoriasis. *Acta Derm Venereol (Suppl) (stockh)*, 146, 84-86.
- Singh G, Kaur D, Kaur H. (1981). Presumptive stressful events scale: A new life events scale for use in India. *Indian J Clin Psychol*, 8:173-6.

### Acknowledgements

The authors profoundly appreciate all the people who have successfully contributed in ensuring this paper is in place. Their contributions are acknowledged however their names cannot be able to be mentioned.

### Conflict of Interest

The authors colorfully declare this paper to bear not conflict of interests

**How to cite this article:** Balasubramani. N & Gurumoorthy. V (2018). A Study of Psychiatric Morbidity and Stressful Life Events in Psoriasis. *International Journal of Indian Psychology*, 6(3), 107-112. DIP:18.01.032/20180603, DOI:10.25215/0603.032