

# EFFECT OF REHABILITATION ON THE PREVALENCE OF PSYCHIATRIC MORBIDITY AMONG LEPROSY PATIENTS

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*A hundred patients with leprosy were studied; forty six patients were rehabilitated and staying in an ashram while the remaining fifty four were not rehabilitated and staying in slum areas. All the patients were administered Goldberg's General Health Questionnaire (GHQ) and those who scored more than 12 on the GHQ were administered Indian Psychiatric Interview Schedule (IPIS). The diagnosis of psychiatric illness was made according to ICD-9. Psychiatric morbidity was present in 76% of patients, with a statistically significant difference between the non rehabilitated group (85%) and rehabilitated groups (68%). It was noted that even rehabilitated patients expressed very high psychiatric symptomatology. Neurotic depression was present in about 67% of non rehabilitated and 41% of rehabilitated patients. Anxiety neurosis was reported in approximately 18% of non rehabilitated and 24% of rehabilitated patients. No other psychiatric illness was found.*

*Key words: leprosy, rehabilitation, psychiatric morbidity, vocational.*

## INTRODUCTION

Leprosy is a major health problem in India. There are nearly four million registered leprosy patients of whom about 35% suffer from various disabilities (Park, 1989). Leprosy relentlessly deforms and disfigures the sufferer physically, disorganizes him psychologically, disables him vocationally, and disturbs his social harmony.

The stress on a person due to leprosy is often too much to be resolved because of being alone and being rejected by society (Sabesan, 1987). In a patient suffering from leprosy, the agony is not over even after cure because relatives and family members refuse to accept him, as a result of which many of them ultimately resort to begging (Bhowmick, 1987). This rejection by family and society leads to emotional and economic problems. The loss of employment is of importance to not only the patient but also for the economic and emotional stability of the family (Sankalia, 1968). It is therefore necessary that rehabilitation in leprosy should be comprehensive encompassing physical, vocational, social and psychological aspects.

The psychological aspects of rehabilitation have not been paid adequate attention in most programs, which usually emphasize the physical, social and vocational aspects. The present study was conducted in the Department of Psychiatry at SMS Medical College, Jaipur to compare the presence of psychiatric morbidity among rehabilitated and non rehabilitated leprosy patients.

## MATERIAL AND METHODS

One hundred patients with confirmed leprosy were included in the study. Of them, forty six were staying in "Manav Kusth Ashram", a rehabilitation center, which provided them with a permanent housing arrangement, occupational rehabilitation and medical and financial help. The other fifty four were selected from the slum areas near the district leprosy hospital. They often had no fixed place to stay and were not gainfully employed. Their socio-economic and hygienic conditions were poor and often had to resort to begging to sustain livelihood.

All the patients were administered the Hindi version of Goldberg's General Health Questionnaire (Goldberg, 1970; Gautam, 1987). Patients who scored more than 12 on GHQ were given Indian Psychiatric Interview Schedule (Kapoor, 1974). Psychiatric assessment was done clinically as well as per IPIS and the diagnosis was made using ICD-9.

## RESULTS

All the patients had migrated from different parts of the country. Leprosy as a cause for marital disruption was evident as the group of singles comprised not only those patients who could not marry but also those who had separated on account of the disease. Among married patients, only 3 (5.57%) in the slum group and 6 (13.01%) in the ashram group were staying with their disease free spouses. The rest were married to other leprosy patients either for the first time or following separation from their first spouse.

Significant differences in sex, occupation marital status, family type and family income emerged between the two groups (Table 1). No significant difference between duration of leprosy and the presence of obvious physical deformities was noticed between the two groups; however, a trend towards more physical deformities was reported in the slum group patients (Table 2).

When the relationship between psychiatric morbidity and physical deformities was analyzed, it was found that psychiatric morbidity was significantly higher among those patients with physical deformities in both the groups in comparison to patients without physical deformities (Table 3).

**Table 1**  
Sociodemographic data of leprosy patients

	Ashram group	Slum group	X <sup>2</sup>	p
<b>Age</b>				
20-29	10	7		
30-39	13	12		
40-49	11	12	5.822	NS
50-60	9	11		
> 60	3	12		
<b>Sex</b>				
Male	29	49	11.21	<.001
Female	17	5		
<b>Marital status</b>				
Married	36	10	36.689	<.001
Single	10	44		
<b>Education</b>				
Illiterate	28	24		
Primary	14	21	3.909	NS
Middle	4	7		
Sec/High.Sec	0	2		
<b>Occupation</b>				
Laborers	43	26	23.857	<.001
Unemployed	3	28		
<b>Type of family</b>				
Unimember	9	44	38.222	<.001
Nuclear	37	10		
<b>Family Income</b>				
Rs. per month				
1-100	1	33		
101-300	13	12	42.82	<.001
301-700	30	8		
>700	2	1		

NS: not significant

**Table 2**  
Duration of leprosy and presence of physical deformities.

	Ashram group n=46	Slum group n=54	Total n=100	X <sup>2</sup>	p
<b>Duration of leprosy</b>					
up to 10 years	8	12	12		
11 to 20 yrs	19	18	37	1.576	NS
21 to 30 yrs	12	18	30		
More than 30 years	7	6	13		
<b>Obvious physical deformities</b>					
Present	27	41	68	3.389	NS
Absent	19	13	32		

**Table 3**  
Psychiatric morbidity and physical deformities

	Psychiatric morbidity Present	Absent	X <sup>2</sup>	p
<b>Ashram Group</b>				
With deformities n=27	22	5	8.184	<.01
Without deformities n=19	8	11		
<b>Slum group</b>				
With deformities n=41	39	2	13.389	<.001
Without deformities n=13	7	6		
<b>Total</b>				
With deformities n=68	61	7	25.356	<.001
Without deformities n=32	15	17		

**Table 4**  
Goldberg's Health Questionnaire

GHQ scores	Ashram group n=46	Slum group n=54	Total n=100
12 and below	12	5	17
More than 12	34	49	83

X<sup>2</sup> = 4.983, df=1, p < 0.05, significant

**Table 5**  
Presence of psychiatric comorbidity

Psychiatric Co-Morbidity	Ashram group n=46	Slum group n=54	Total n=100
Present	30	46	76
Absent	16	8	24

X<sup>2</sup> = 5.31, df=1, p < 0.05 significant

## LEPROSY AND PSYCHIATRIC MORBIDITY

**Table 6**  
**Type of psychiatric co-morbidity**

Type of psychiatric co-morbidity	Ashram group n=46	Slum group n=54	Total n=100
Neurotic depression	19 (41.3%)	36 (66.6%)	55
Anxiety neurosis	11 (23.9%)	10 (18.5%)	21
No psychiatric illness	16 (34.8%)	8 (14.8%)	24

$\chi^2 = 2.0053$ ,  $df=1$ , not significant

When GHQ scores were analyzed, statistically significant difference was seen between the two groups (Table 4). A total of 76 patients were suffering from psychiatric illnesses and the psychiatric co-morbidity was significantly higher among patients living in the slums (Table 5). Patients were diagnosed to be suffering from neurotic depression or anxiety neurosis. No significant difference between the two groups appeared on the basis of type of psychiatric diagnosis (Table 6).

### DISCUSSION

The results of this study show that the condition of the ashram patients was better than the slum patients. The ashram patients were employed according to their capabilities and choices but those in the slums often had to resort to begging. This is in agreement with Bhowmick's (1987) observation that patients discharged from hospital face the loneliness of an outcast and the poverty of begging, unless they are prepared for re-entry into society by being trained in crafts or trades according to their aptitude and capability.

Proper treatment and regular checkups may have reduced the chances of development of physical deformities in ashram patients compared to the slum group. A possible reason for chronicity in both groups could be that all patients were migrants from remote areas. Sankalia (1968) stressed on physical deformities which complicated the rehabilitation program. Bhowmick (1987) suggested that leprosy rehabilitation should actually begin as soon as the disease is diagnosed, because the surer and more economic method of rehabilitation is to prevent physical disability. Mehendale (1971) emphasized the fact that leprosy patients develop deformities if they were not treated in time; this is one of the causes of subsequent debilitation.

About 84% of patients scored more than 12 on GHQ, among them 34 (73.92%) patients were in the ashram group and 49 (90.74%) in the slum group. Chatterjee (1989) also reported a score of more than 12 on the GHQ in 82.5% of inpatients and 56% of outpatients. We found that 76% of patients were suffering from psychiatric illnesses; Ramnathan (1984) reported figures of 55% while Chatterjee (1989) reported that 64% of inpatients and 25% of outpatients suffered from psychiatric disease. The higher psychiatric morbidity in our study could be because all patients in our study were migrants from other parts of the country, having been rejected by their families and society.

Mehendale (1971) had also stressed on sending rehabilitated leprosy patients back to society as normal constituents and Gill (1968) stated that social, physical and psychological stability are pillars on which the temple of rehabilitation stands.

Psychiatric morbidity was lower in the ashram group but a majority (65%) did suffer from psychiatric problems. This suggests that though vocational rehabilitation reduces psychological pain to a certain extent, patients still need further psychological intervention. Economic self reliance has a very significant role to play in the process of rehabilitation, but even if it is achieved it cannot be considered to be a complete success without the framework of effective and proper education of the public in a scientific manner (Kanagarajan, 1972). Almost all leading leprologists and social workers have stressed on the complete, psychological, vocational and social rehabilitation of leprosy patients (Dharmendra, 1978; Ramu, 1975; Damle, 1972; Davey, 1972; Tara, 1970).

The results of this study show that vocational rehabilitation alone is not enough to control the psychiatric suffering of patients with leprosy. They need special attention; physicians dealing with leprosy patients have to be sensitive towards the psychological aspect of leprosy. Due to the enormous numbers of patients, some form of psychotherapeutic / psycho educational work involving groups would seem judicious. Modulation would have to be worked out in a given situation. However, these formulations cannot be generalized to all settings; for this a larger representative cohort of leprosy patients belonging to all socioeconomic strata needs to be studied.

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