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Psychosomatic Aspects of Rehabilitation of Leprosy Patients[1]

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One important factor which makes the rehabilitation of a leprosy patient difficult is his common development of emotional aberrations. In the minds of the people, leprosy is so much associated with sin, punishment, physical disfigurement and social isolation that it is a very traumatic experience for the patient to accept the diagnosis. It is no wonder that leprosy patients often develop complexes, neurotic symptoms and even psychotic reactions. These are usually easy to identify and to treat; but sometimes these emotional reactions can be more subtle. The anxiety associated with the fact of having leprosy is repressed and complexes of guilt, fear and punishment are produced. These in turn, manifest themselves as subtle and vague behavioral disturbances which are difficult to understand. For example, a patient who has unconscious guilt feelings, may decide to continue as a leprosy patient as a vicarious suffering and may not cooperate with any treatment program. He may exhibit the mechanism of negation and this can produce an unwillingness on his part to take treatment. He may exhibit the mechanism of over-compensation and can become an aggressive and difficult patient. He may also show a gross degree of projection and become paranoid. Successful treatment will depend on understanding these mechanisms and helping the patient to overcome them. It is a common experience that in spite of the fact that much time and money is spent on curative and rehabilitative methods, many leprosy patients do not make use of these facilities. Instead of rejecting these patients as 'difficult' patients, time must be taken to understand why they behave as they do.

Another important aspect in the psychology of a leprosy patient is the development of institutional neuroses. This occurs in patients who are institutionalized for a long period of time. Such a neurosis is produced by secondary gains and may hamper any attempt at rehabilitation into the community.

The success of any therapeutic program in leprosy depends on effective management of these emotional aberrations of the leprosy patient.

Weigand and Dawson ([7]) gave the perceptual reaction test to 85 patients with leprosy. When compared with a control group of normal population, the patients were comparatively much more depressed and neurotic and had paranoid ideas with reality orientation. Henderson ([4]) made a psychiatric assessment of 11 chronic leprosy patients in a leprosy sanatorium and reported that they showed signs of institutional neuroses. They were passive, depressed and apathetic. Flynn and Harry ([3]) reported that leprosy patients tended to handle emotional problems in either a classically neurotic manner or by means of somatization.

The purpose of this paper is to describe the findings of a psychosomatic study of leprosy patients who were admitted to the S.L.R. Sanatorium, Karigiri, and to discuss the relevance of these findings to the treatment and rehabilitation of leprosy patients.

MATERIAL AND METHOD

Twenty male inpatients of S.L.R. Sanatorium, who knew English reasonably well (those who had college education) and whose physical condition allowed them to

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fill in two personality questionnaires, were selected for this study. Those under 20 years and over 55 years were not included. When two or three patients who satisfied the above criteria were available, the psychiatric team of one or two psychiatrists and one psychologist would go to the S.L.R. Sanatorium to make a psychiatric assessment of these patients. Usually this was about once in a month and this study was conducted during the years 1968 and 1969.

The psychiatric assessment consisted of a psychiatric interview with the help of an item sheet. The patients were encouraged to talk about various aspects of their lives. This would last for about 30 minutes. They were then requested to fill in two personality questionnaires—the Eysenck Personality Inventory and Cattel's 16 Personality Factor Inventory. The Eysenck Personality Inventory (E.P.I.) is a commonly used personality questionnaire, developed by Eysenck and Eysenck (2). This measures two dimensions of personality—neuroticism and extraversion. Cattell's 16 Personality Factor Inventory is developed by Cattell (1) and measures 16 personality traits. The completion of these two personality questionnaires took about one hour.

A similar psychiatric assessment was made on 15 patients who were admitted in C.M.C. Hospital for chronic diseases such as diabetes, dermatitis, asthma, rheumatoid arthritis, etc. The criteria of selection were the same. Fifteen neurotic patients of the Department of Psychiatry and 15 normal persons (staff and students) were also included in this study.

The four groups were compared in the important personality factors. Within the group of leprosy patients, comparisons in personality factors were made between the following groups: those who were ill for less than ten years and those who were ill for more than ten years; those who had gross physical deformities and those who had only minor or no physical deformities; and those who had frequent lepra reactions while on antileprosy drugs and those who did not have them.

RESULTS

The mean age figures of the four groups are given in Table 1. Those of the normal, neurotic and leprosy groups were similar; but that of the general diseases group was higher.

All the patients were very cooperative. The majority of them expressed the fear that they might not be accepted back into their community and also that they felt lonely in the hospital. They wanted to have more opportunity to talk to someone who was interested in them.

The results of the personality assessment are shown in Table 2. According to the E.P.I. both the leprosy group and other diseases groups scored high on neuroticism, and were similar to the neurotic group. The scores on Cattell's 16 Personality Factor Inventory showed a greater tendency on the part of the leprosy group to have scores similar to those of the neurotic group. They were more glum, more timid, more dependent, more uncontrolled and more tense than the normal group.

Within the leprosy group, there were no significant differences in personality traits between those who were ill for more than ten years and those who were ill for

TABLE 1. *Mean ages of patient groups.*

Group	No.	Mean age	S.D.	Significant difference
Normal	15	28.9	6.4.	
Other diseases	15	40.2	8.7	Normal, Leprosy, Neurotic Vs. Other diseases ($P < 0.05$)
Leprosy	20	32.4	11.2	
Neurotic	15	29.2	5.6	

TABLE 2. *Personality traits in the four groups.*

Personality traits Low score→High score	Normal (15)	Other diseases (15)	Leprosy (20)	Neurotic (15)	Significant difference
Stable→Neurotic (E.P.I. N)	6.7 ± 3.4	12.8 ± 4.3	12.1 ± 3.9	14.5 ± 4.3	Normal Vs. Other Groups ($P < 0.01$)
Introvert→Extrovert (E.P.I. E)	12.8 ± 4.6	12.4 ± 2.9	10.7 ± 2.5	9.5 ± 4.0	Neurotic vs. Normal and other diseases ($P < 0.05$)
Glum→Enthusiastic (16 P.F. F)	5.5 ± 2.6	4.9 ± 1.3	4.8 ± 1.5	3.9 ± 1.6	
Timid→Adventurous (16 P.F. H)	4.5 ± 1.8	4.7 ± 1.9	3.9 ± 1.1	3.7 ± 1.4	
Trustful→Paranoid (16 P.F. L)	6.9 ± 2.6	7.1 ± 2.3	6.6 ± 1.8	6.9 ± 2.2	
Dependent→Self-sufficient (16 P.F. Q2)	5.1 ± 2.2	6.5 ± 2.3	3.8 ± 2.0	4.3 ± 2.2	
Uncontrolled→Self-controlled (16 P.F. Q3)	5.7 ± 2.1	5.1 ± 2.1	4.7 ± 1.8	3.9 ± 2.0	
Relaxed→Tense (16 P.F. Q4)	4.1 ± 1.8	6.4 ± 1.5	6.1 ± 1.7	6.6 ± 2.9	

TABLE 3. *Personality traits in relation to duration of leprosy.*

Personality traits Low score→High score	Duration >10 years (12)	Duration <10 years (8)
Stable→Neurotic (E.P.I. N)	11.8 ± 4.2	12.6 ± 3.6
Introvert→Extrovert (E.P.I. E)	10.6 ± 2.8	10.9 ± 1.9
Glum→Enthusiastic (16 PF. F)	4.9 ± 1.9	4.4 ± 1.3
Timid→Adventurous (16 PF. H)	3.6 ± 1.1	4.3 ± 1.5
Trustful→Paranoid (16 PF. L)	6.6 ± 2.1	6.6 ± 1.0
Dependent→Self-sufficient (16 PF. Q2)	4.3 ± 2.2	2.7 ± 1.3
Uncontrolled→Self-controlled (16 PF. Q3)	5.0 ± 2.2	4.0 ± 1.0
Relaxed→Tense (16 PF. Q4)	5.8 ± 1.9	6.6 ± 1.3

TABLE 4. *Personality traits in relation to drug reactions in leprosy.*

Personality traits Low score→High score	Drug reactions common (9)	Drug reactions absent or rare (11)
Stable→Neurotic (E.P.I. N)	11.2 ± 3.3	12.7 ± 4.6
Introvert→Extrovert (E.P.I. E)	10.9 ± 2.2	10.5 ± 2.8
Glum→Enthusiastic (16 PF. F)	4.8 ± 0.9	4.6 ± 2.1
Timid→Adventurous (16 PF. H)	4.1 ± 1.2	3.6 ± 1.4
Trustful→Paranoid (16 PF. L)	6.3 ± 2.1	6.9 ± 1.4
Dependent→Self-sufficient (16 PF. Q2)	3.1 ± 1.7	4.3 ± 2.2
Uncontrolled→Self-controlled (16 PF. Q3)	4.9 ± 2.2	4.5 ± 1.6
Relaxed→Tense (16 PF. Q4)	5.2 ± 1.5	7.0 ± 1.3

less than ten years (Table 3) and between those who commonly developed reactions and those who did not (Table 4). But those who had gross physicial deformities were more 'paranoid' and more 'adventurous' than those who did not have gross physicial deformities (Table 5).

DISCUSSION

The findings of this investigation are: (1) the leprosy group had high neuroticism score, and showed a tendency to have several neurotic traits; (2) the duration of disease did not have much influence on these personality traits; (3) the phenom-

TABLE 5. *Personality traits in relation to physical deformities in leprosy.*

Personality traits Low score→High score	Physical deformities gross (14)	Physical deformities mild or absent (6)	Significant differences
Stable→Neurotic (E.P.I. N)	12.1 ± 4.4	11.8 ± 3.7	
Introvert→Extrovert (E.P.I. E)	10.6 ± 2.8	10.8 ± 2.4	
Glum→Enthusiastic (16 PF. F)	4.7 ± 1.6	4.8 ± 1.9	
Timid→Adventurous (16 PF. H)	4.4 ± 0.8	2.7 ± 0.8	($P < 0.01$)
Trustful→Paranoid (16 PF. L)	7.4 ± 1.4	4.7 ± 1.3	($P < 0.01$)
Dependent→Self-sufficient (16 PF. Q2)	3.9 ± 2.2	3.5 ± 1.5	
Uncontrolled→Self-controlled (16 PF. Q3)	4.4 ± 2.2	5.2 ± 1.1	
Relaxed→Tense (16 PF. Q4)	5.9 ± 1.8	6.5 ± 1.6	

enon of lepra reactions had no relation to personality traits, and (4) those patients who had gross physicial deformities were more 'paranoid' and 'adventurous' than those who did not.

The finding that the leprosy group had high neuroticism scores and neurotic traits confirms the clinical impression that many leprosy patients show abnormalities of behavior. But the equally high score for neuroticism in the 'other diseases' group was not expected. (It is well documented that the neuroticism score can be increased, even higher than the leprosy group.) This may be because in the group of 'other diseases,' some possibly psychosomatic conditions such as asthma and rheumatoid arthritis were included.

The 16 PF traits showed a tendency on the part of the leprosy group to simulate the neurotic group. These changes were not statistically significant. The 16 personality factor traits are traits within the dimension of neuroticism and that may be why there were no significant changes in them while the change in neuroticism was quite marked. The changes in 16 personality factor traits, more specific as these traits are, may need more patients for study in order to be statistically significant. However, a trend to simulate neurotic patients in almost all these factors is quite suggestive.

The finding that those who were ill for more than ten years did not differ in these personality traits from those who were ill for less than ten years, calls for further investigation. One would have thought that the longer the disease duration, the greater the changes in the personality traits. But on the other hand, it is quite possible that these personality changes may be maximum during the initial period when the patient struggles through the emotional trauma of accepting the status of a leprosy patient. Homeostasis and adjustment are the hallmarks of mental health and they are inbuilt devices of personality. It may be worthwhile to assess the personality traits in the same patient at different times to find out whether there is any pattern of change in personality traits through the different stages of the disease process. It may also be useful to compare different groups of patients who were ill for varying periods of time.

Another interesting observation is that the personality traits did not influence the phenomenon of lepra reactions. Several patients had reactions to the drugs used in leprosy and this is usually a stumbling block in the treatment schedule. Our hypothesis was that it also may to some extent have a basis on emotional factors. But this is not proved by the findings of this study.

The observation that those patients with gross physical deformities were more 'adventurous' and 'paranoid' is a very important one. The most common hindrance in the rehabilitation of leprosy patients is the presence of physical deformities. The psychology of crippling is a very important part of the psychology of leprosy. This study shows that the changes in the personality traits to some extent are brought about by crippling. The physical deformities contribute to the patients becoming paranoid and adventurous. Paranoid reaction is the result of projection. Adventurism may be the result of over-compensation. Thus, prevention of physical deformities can help to prevent some of the personality changes associated with leprosy. A knowledge of these mental mechanisms will also help in the understanding of leprosy patients who behave in an abnormal way.

The most important finding of this study is that leprosy patients develop neurotic reactions and along with other medical treatments, their neurotic reactions also need treatment. Short term supportive psychotherapy is very essential in the management of these patients. Prolonged institutionalization may only perpetuate these neurotic reactions.

This study is only a pilot study. The population studied was select, consisting of inpatients of a hospital. It is worthwhile to incorporate a similar study in a community survey scheme. A personality assessment of leprosy patients in a randomly selected population should be very informative.

SUMMARY

A psychosomatic study of 20 leprosy patients who were inpatients of S.L.R. Sanatorium, Karigiri, is described. The leprosy

patients had high neuroticism scores and had a tendency to show several neurotic traits. The duration of disease did not have any influence on these changes in personality traits. The phenomenon of lepra reaction did not have any relationship to the personality changes. Those patients who had gross physical deformities were more paranoid and adventurous than those who did not have gross physical deformities. The implications of these are discussed.

RESUMEN

Se describe un estudio psicomático de 20 pacientes con lepra que estaban hospitalizados en el S.L.R. Sanatorium, Karigiri. Los pacientes con lepra mostraban altos índices de neurotismo y tenían tendencia a presentar varias características neuróticas. La duración de la enfermedad no tenía ninguna ináuencia sobre estos cambios de personalidad. Los fenómenos de reacción leprosa no tenían ninguna relación con los cambios de personalidad. Aquellos pacientes que tenían deformidades físicas importantes eran más paranoides y aventureros que aquellos que no tenían deformidades físicas importantes. Se discuten las implicaciones de estos hechos.

RÉSUMÉ

On décrit ici une étude psychosomatique réalisée chez 20 malades de la lèpre hospitalisés au Sanatorium S.L.R. de Karigiri. Ces malades atteints de lèpre présentaient des "scores" élevés pour le neurotisme et avaient tendance à témoigner de plusieurs traits neurotiques. La durée de la maladie n'avait aucune influence sur ces modifications dans les caractéristiques de la personnalité. Le phénomène de réaction lépreuse n'était en aucune façon en relation avec les modifications de la personnalité. Les malades atteints de difformités physiques prononcées se révélaient davantage paranoïdes et aventureux que ceux qui ne souffraient pas de telles difformités. On discute les implications de ces observations.

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