Chapter - VIII

CONCLUSION

The genesis of the present study lay in the widespread observation and acknowledgement of the fact, that, not withstanding the near perfect knowledge of the tubercule bacilli, and the discovery of very effective antitubercular drugs, the successful treatment of tuberculosis is far from complete. Those concerned with the management of tuberculosis have acknowledged that the tubercule bacilli which can be successfully attacked in lab conditions fails to be controlled in human lung tissues not necessarily in all cases of tubercular infection. Indeed, according to Selye, Pasteur, who was an ardent advocate of the concept of specificity had observed, (on his death-bed) that microbe is nothing it is the soil which is everything. In other words, even a giant like Pasteur had recognized the limitations of the effectiveness of drugs.

In tuberculosis, more than in any other disease, the study of human factors is imperative, for, the disease depends heavily upon individual's defensive forces, on anti-body formation, on inflammation and encapsulation. These body defensive forces are known to be largely determined by mental states of the individual.
Considering, then, that the successful control of tuberculosis is far from complete inspite of potent antibiotics, it was felt that a study that would focus attention upon the role of the various psycho-social factors in this disease had a justification in itself. Thus, the present study has been an attempt to study the total patient afflicted by tuberculosis.

The above theoretical justification for embarking upon this study was supported by Dr. Pamra, Advisor to Government of India on tuberculosis, at the time when the fieldwork for this study was in progress. He stressed the urgent need for taking up a psycho-social study of tuberculous patients for better understanding, and for control of failure response.

Besides, there was a practical reason for undertaking the present study. In India, control of tuberculosis poses an immense problem to the wider society in general and the concerned authorities in particular. In this country, even to day tuberculosis is consuming many lives, making many others invalid and posing threat to multitude of others. All this is a drain upon national resources.

In brief, then the present study has been concerned with the "terrain" factors involved in tuberculosis. This psychosomatic approach of understanding the whole patient...
in all aspects: psychological, social and medical, has been the thrust of the present study.

The study has sought to understand the various psycho-social and somatic factors in tuberculosis in relation to response to its treatment. Primarily, it has attempted to explore and analyse the relevant psychological and social factors and establish the role of these factors in the failure response to treatment therapy. Further, we assume that failure to respond favourably depends, among other factors, upon the problem of drug default (a great block in treatment therapy). On closer scrutiny one would discover that genesis of drug default is also in the psychological make-up of patients. An attempt has therefore been made to make suitable recommendations emerging from the present study, whose implementation it has been felt, would be in the interest of the recovery of tuberculous patients.

With the above introductory remarks, it is now proposed to present the major findings of the study and the practical implications of these findings. We begin by reiterating below the main objectives which were in view of the study.

The main objectives of the study were three fold: (a) to construct a general profile of the mental workings
of the tuberculous patients under study; (b) to examine the role of emotions in the genesis of tuberculosis and the course of disease; and, (c) to examine the role of various psycho-social and medical factors in the favourable and unfavourable response to treatment. Implicit in the last of these objectives was the theoretical assumption that, with other things remaining constant, if some patients responded favourably to treatment and some did not, then the explanation in the differential response lay in social psychological factors.

**METHODOLOGY**

A sample of 150 patients who were attending the T.B. Clinic Adjoining J.P.N. Hospital, New Delhi were extensively interviewed. In addition, objective psychological tests like TAT and Cattell's 16PF Personality Inventory were also administered. However, during the course of data collection it was discovered that patients' full cooperation was achieved only during the interview sessions which the subjects appeared to enjoy and during which they felt the need for sharing their problems. But their whole hearted cooperation was not forthcoming for the objective tests, where they had to construct themes on TAT cards or where they had to listen with attention to standardized
statements and answers in the form of "yes" or "no". These were considered useless and a waste of time by them. However, as regards the general effect of interview it was observed that the feeling of care and cathartic effect of interview restored the confidence and patients felt happy and were cheerful after the interview. In retrospect there appears to be good reasons for this behaviour of the subjects. When patients are unwell and greatly disturbed by their own problems, non-cooperation or partial cooperation is an expected behaviour. The responses to the interview were copious and full of depth, which were occasionally double checked from the relatives accompanying the patients or the health visitor who visits their homes.

The data obtained were presented generally in terms of "favourable" and "unfavourable" response categories. Patients who recovered within one year of taking the prescribed treatment, were included in the favourable response category, and those who did not so recover were included in the unfavourable response category. (These response categories incidentally are used by the doctors attending on tuberculous patients).

MAIN FINDINGS

The subjects' psychological reactions, their attitudes, feelings and fears upon becoming aware of their affliction
were examined first. The findings indicated that initially the patients were shocked about the diagnosis; but, in most cases, this was soon replaced by active involvement in fighting the disease. In general the patients had ample faith in the doctors treating them and generally cooperated in the treatment regime. This facilitated the control of the disease by the doctors.

Patients' pre-occupations with various worries were examined next. While accepting treatment, the subjects were, nevertheless, burdened with various worries. Among male patients, the chief worry was that of economic instability, while in case of female patients, children and home were the major worry.

The most pressing fear of majority of the patients of both sexes was fear of infecting other family members. Contrary to expectations very few patients reported fear about their own recovery, thereby revealing more concern for their family than their own sickness.

Another interesting finding was that social stigma and social ostracism which have so closely been associated with tuberculosis was hardly present in the group under study. This was possibly due to the social class background of the patients who mostly belonged to the underprivileged section of society. Members of this class exhibit strong
emotional ties with their family members and with other social groups. Leading a difficult existence seems to generate more interdependence and loyalty to one another in times of difficulty. Accordingly, we found that the majority of our patients did not encounter social ostracism. However, most of the unmarried female patients feared that they would not be able to get married due to the stigma attached to the disease, while hardly any of the unmarried male patients reported the above fear, thereby indicating that the problem of stigma affects more the females than their male counterparts.

The next step was to establish the role of emotional factors in tuberculosis. The function of emotional stress in the onset of the disease was examined first. The findings revealed that emotional stress was quite common (in 50% cases) in patients prior to onset of the disease. This finding supported, among others, Kissen's and Wittkower's observations on role of emotions in onset of the disease. The most common source of emotional stress was problems in interpersonal relationships. The findings on the role of emotional factors in the course of treatment pointed to the fact that a healthy emotional state was more conducive to favourable response and unhealthy emotions (like anxiety, depression and indifference) were more often related to unfavourable response to treatment. The findings further
showed that amongst the negative emotions, emotion of indifference was more frequently associated with unfavorably response to treatment.

The findings regarding residual effect of disease on emotions revealed that amongst the recovered patients, slightly less than half of the subjects were left with anxiety, depression and exaggerated concern about health. But in a majority of the patients no residual effect of disease was found. It appears that patients, with unhealthy emotional make-up felt the hangover of disease, while patients with healthy emotional make up were free of the effect of disease. These findings appear to support Muhul and Wolepor's contention that tuberculosis influences inherent tendencies and exposes dormant weaknesses in the patients.

It was difficult to determine precisely whether the emotional states in question were premorbid in origin or were acquired after contacting the disease. However, on the basis of various findings of the present study it may be maintained, with a fair degree of certainty, that the emotional disposition was premorbid in nature, and the disease might have provided the situational stimulus to the vulnerable patients. In any case, the findings strongly suggest the important role played by emotions in onset as well as in course of treatment and final response to treatment.
In general the findings support on the one hand, the theoretical position propounded by Selye and Lachman and on the other hand, findings of important researchers like Wittkower and Kissen who, along with others, have maintained that emotions play a significant role in the onset and course of disease.

The findings of the objective personality test 16 PF indicated the absence of any consistent personality traits in the tuberculous population; and suggest that the tuberculous population is comparable to normal population. However, the unfavourable response group scored higher on the trait of anxiety, was more apprehensive, self sufficient, and tense compared to the favourable response group.

An examination of the influence of social factors such as age, sex, rural/urban background, income, education and family showed, that these had a bearing on the response to the treatment. The factors that were found to be positively associated with favourable response to treatment were younger age, unmarried status, better economic condition and rural living. Healthy family atmosphere and social support were found to be associated with favourable response in a very significant way. Most crucial finding of the study, which was consistent with the theoretical formulation was that factors other than disease condition played important determining role in the final response to treatment. The result show that the vast majority of the patients with
unfavourable response did not have extensive disease, their disease was either moderate or minimal.

Regarding the role of behavioural factors (i.e. the way patient adjusts himself to the sick role) the findings indicated that patients who gave total attention to fighting the disease, including taking regular treatment, observing precautions and abiding by medical instructions, did significantly better than those who were careless or indifferent. This behavioural tendency of fighting the disease was found to be influenced by general ability to cope with stress, perception of the disease reality and presence of other stress, (particularly the economic stress when the patient is a male member) during the course of treatment. It was also found that lack of social support from family members, relatives and friends, did contribute to unfavourable response.

Amongst all the factors contributing to unfavourable response, drug default, that is, irregularity in taking treatment, was the most crucial one. Analysis of the nature of irregular patients revealed that, carelessness as a habit, poor perception of disease situation and general indifference contributed to irregular behaviour of patients. The findings fail to support Pathak's observation that factors like distance, office timings, economic problems or disability are the main factors responsible for behaviour of drug default.
Results obtained lead us to maintain that behavioural management of the disease situation or adjustment to the disease reality was the most crucial factor in determining response to treatment.

It was further found that healthy social and family environment providing essential social support, absence of economic stress, healthy emotional state of mind, general ability to cope with stress and correct perception of disease reality contributed finally to adaptive or maladaptive behaviour by which the patient handled the disease situation that in turn determined the success of treatment.

This finding supports Pauleen's view that the manifest behaviour of tuberculous patients both in voluntary aspects and in its involuntary aspects, appears to be to a significant extent, a function of personality factors.

Thus psychological factors, on the one hand, seem to generate healthy adaptive behaviour, and, on the other hand, provide optimum inner and psychological environment contributing to the healing process.

To conclude, then, it may be said that to develop tuberculosis a person does not simply need tubercle bacilli; additionally, certain crucial social and psychological factors, which for psychosomatic reasons lower the resistance
to the disease, are equally important.

To conclude, the present study has been a step forward in understanding the psycho-social and somatic aspects of the tuberculous patients. The empirical evidence and analysis have shown that both social and psychological factors do have a vital role to play in the onset as well as treatment of tuberculosis.

LIMITATIONS

Two major limitations have characterized the present study. Firstly, the study has been affected by the fact that the data has been collected from a government hospital, were the available patients were exclusively from the lower socio-economic strata. Thus strictly speaking the present study pertains to one social class only.

The other limitation has been the inability of the researcher to obtain substantive evidence from the objective personality tests due to patient's sickness, illiteracy and lack of willingness. Patients reported exhaustion after the lengthy interviews and did not want to devote time or attention to the objective tests. Nevertheless, the findings of the objective tests, though not rigorously authentic, do serve the purpose of supporting the findings of the interview.
IMPLICATIONS OF FINDINGS

The findings of the study have amply indicated that it is not enough to diagnose the disease and prescribe the treatment, and that it is equally essential to treat factors other than the disease. The present practice of treating the patient merely as a specimen having a pathological lung condition with drugs or with surgical interventions should be complemented with steps which ensure the treatment of the total patient, including therein the psychological, social and somatic dimensions. Such an approach, the present study has indicated, is essential for effective results and more efficacious treatment. More specifically and concretely, our findings have suggested that as a supplementary step, along with medical treatment, there is considerable need and scope for counselling and suitable family welfare (social and economic) interventions.

Counselling by a trained counsellor should be available to all tuberculous patients whereby the patient's inner conflicts, negative emotions and faulty behaviour patterns can be handled effectively. A detailed case history approach, including the various social psychological aspects of the patients should be introduced for better understanding of the patient as well as for cathartic effect.
The experience and the insights gained during the entire period of fieldwork suggest that a patient hearing should be given to all tubercular patients by medical professionals. Ignoring physical complaints, that might not be medically relevant can cause intense anxiety and the patient may feel insecure and unattended. For meeting above requirements, physicians should not be burdened with examining too many patients.

It is also suggested that social workers should help the patient and his family members in providing correct knowledge about the disease and helping them to get rid of misconceptions about the disease so that they can perceive the problem realistically. These workers can also deal with interpersonal problems and family tensions to help provide congenial, warm and supportive atmosphere for the patients.

The hospital/clinic can also help provide light occupation to the male patients and creches for female patient's children, so that the economic worries and household worries do not unduly, pressurize the patient. The meager financial and material help can be enhanced to be more effective.

Patients who indulge in drug default behaviour should be handled by trained counsellors or psychologists so that such patients can develop a matured outlook towards their disease.
Patient's with unfavourable response to treatment should be specially attended to by the psychologists, clinical psychologists or psychiatrist, so that the psychological factors that are obstructing favourable response are understood, analysed and eliminated.

Centres providing medical treatment can help provide suitable occupations for recovered patients where ever desired, relieving them of the job anxiety.

Patients with arrested disease should be correctly informed about chances of relapse. Undue importance to health by being overcautious about rest, or by rushing to the physician on slightest cough or sneeze, should be taken care of. Arrested cases should be helped to feel and behave as normal people. Similarly patient's family should be warned against over protection to the recovered patients. Sick role should not be encouraged beyond sickness.

Finally, at the level of research, it is obviously essential that more similar studies need to be undertaken covering all socio-economic groups to further establish the findings. And, as indicated by the present study there appears to be a particular need to study recovered patients with an aim to determine the relationship between emotional stress and relapse.
APPENDIX - I

PERSONAL DATA

Inventory 1: Bio-data: Place of interview

Registered No. (TB Centre)

Case No. __________ First admitted on __________ interview date __________

Duration of illness: Years Months

Name __________ Age __________ Sex: Male/Female

Region: H/M/C/S _______ Caste _______ Marital status: M/M/W/S

Place of birth: Rural/Urban Normal living Rural/Urban

No. of children ______ Father Alive/Dead, Mother Alive/Dead

Main earning members ______ Total income ______

Level of Occupation: Professional/Semi-professional/Skilled/Clerical/Semi Skilled/Unskilled

Field of Occupation:

(1) Physically active

(2) Mechanical

(3) Intellectual
(4) Social
(5) Artistic
(6) Industrial.

Education: Illiterate/literate/Primary/Secondary/High School/ College/ Research.

Income Rs.p.m.: 100/-, 150/-, 200/-, 250/-, 300/-, 350/-, 400/-, 450/-, 500/-, 550/-
APPENDIX - II

MEDICAL REPORT FORM

Name _____________________________ Age _____________________________ Case No. _____________________________

Sex _____________________________

TB Centre Regd. No. _____________________________

Radiological Status

Initial status: Minimal/Moderately Advanced/Far Advanced Unilateral/Bilateral

Cavity: Multiple/Single, Nil

Status at 6 months: Almost clear/improved/no change/worse

Cavity: Closed/smaller/no change/worse None at start

Status at 12 months: Almost clear/improved/no change/worse

Cavity: Closed/smaller/no change/worse/none at start.

Sputum status: Initial: Positive Sensitive to all drugs

At 6 months: Positive/Negative/Sensitive to all/resistant to _____________________________ (Drugs)

At 12 months: Positive/Negative/Sensitive to all/resistant to _____________________________ (Drugs)
**Regularity of Treatment**

<table>
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<tr>
<th>0-6 months</th>
<th>7-12 months</th>
<th>0-12 months</th>
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**Adverse Factors Present:** Extensive Disease/Irregularity / Secondary drug resistance/

Sputum conversion attained after _______ Months/Not attained in spite of _______ months treatment.

Quiescence attained after _______ months/not attained in spite of _______ months treatment.

**Overall assessment of response:** Favourable/Unfavourable.

**Symptoms on Admission**

**Symptoms at 3rd months**

**Symptoms at 6th months**

**Symptoms after one year**
APPENDIX - III

Semi - Structured Interview Schedule

- What do you think caused you present illness?

- How were you feeling before becoming sick with tuberculosis?

- How did you feel when you were informed that you had tuberculosis?

- How long did you take to come to the hospital, and what did you do till then?

- How did your family members react when they came to know that you had tuberculosis?

- How did your other relatives and friends react to your disease?

- How has the disease affected your general routine of life?

- Would you have any problem in connection with taking the treatment?
- Do you prefer being treated in the hospital or you prefer to be treated at home?

- What notions did you have about tuberculosis?

- What do you think about religion and God?

- What is your most important desire?

- How do you rate your self?

- What is your aim in life?

- How do you spend your leisure time?

- How was your childhood?

- What is the most significant event of your childhood?

- Did you go to school? If so, how was your school life?

- Describe the atmosphere in your family during your childhood?
Who loved you most? Whom do you love most?

What type of family atmosphere you have at home?

How are you relations with your spouse?

How do you manage when confronted with difficulties in general?

What do you worry about most?

What difficulties do you encounter after having fallen sick?

Are you happy with your treatment?

Do you have any complaint about the hospital staff?

How long do you think you will take to get well?

What do you plan doing after you get well?

Has the disease brought about any change in your nature?