Chapter - III

METHODOLOGY

INTRODUCTION

The precise understanding of the relationship between the personality structure of the individual and the disease process is the basic problem in psychology of the tuberculosis. Not everyone who gets infected with tubercle bacilli gets tuberculosis. Lowered resistance and poor diet has been given as one among other reasons for contracting the disease. But it is likely that psychological factors mediated through the autonomic nervous system and the body chemistry help constitute this lowered resistance. To investigate this deep dynamics the disease requires thorough analysis. But by all presumptions we assume that the various psychological factors play a decisive role in onset, course and outcome of the disease.

The current psycho-somatic approach whereby the mind and the body functions of the patient are assumed to be related to one another, would be useful in unearthing some of the hitherto less understood problems of tuberculosis.
The mind which expresses itself through thoughts and emotions is conditioned and influenced by the personal and social environment. While retaining his own identity the individual is greatly shaped by his environment, thereby making the study of patient's personal and social environment imperative to understanding the psychology of the patient.

The personal and social environment essential to the understanding of the patient varies from society to society and group to group and so has to be understood in its own setting. The Indian culture with its characteristic social problems, the deep rooted religious and fatalistic attitudes of its people the abject poverty and illiteracy, etc. generally constitute the environment of the Indian tuberculous patients.

PROBLEM OF THE STUDY

Due to the association of such notions as fatal termination, contagiousness, and the fear of infecting other family members and friends, tuberculosis has been considered to be a dreaded disease. Although medical science has been able to arrest the disease in a great majority of cases, yet the old notions and tuberculosis continue to be associated with each other. It would seem that notwithstanding the remarkable progress in the medical treatment of the disease deep rooted attitudes and fears attached to tuberculosis persist. Indeed even
medical personnel infected with the disease find it difficult
to get rid of the old notions of dread attached to the disease.

Irregularity in taking medicines is posing a great problem
to the medical men. Inspite of having a dreaded disease
like tuberculosis why patients do not take the treatment
regularly? Various factors that result in the behaviour
of drug default is another area warranting research.

The problem of ostracism is quite significant in relation
to tuberculosis in general. In congested areas where 6 to
7 family members stay in a single room, there is the problem
of isolating the patient from others. It would be pertinent
to know how the patients face the problem of social ostracism
and the way it affects them. What role the family, and other
relatives play when a near one gets tuberculosis, is another
logical question.

The poor responders to treatment pose a gigantic problem
to the medical men. The phenomenon of failure of treatment
in certain cases is not wholly understood. Although the beha-
viour of the bacilli is perfectly understood and effective
treatment is available yet some patients do not respond to
treatment. We would like to know if adverse psychological
or behavioural, emotional and personality factors interfere
with the recovery process of these patients. Their contribution to the onset of the disease too needs to be ascertained. Personality measuring devices standardised on normal population could give us some indications of the degree and type of personality deviations found in our tuberculous patients. The exercise if further found necessary in view of a controversy over the assumption that there is a basic personality pattern for all tuberculous patients.

**PILOT STUDY**

A small study done earlier by the investigator, comprising of 30 patients who were medically classified as good, moderate and poor responders served the basis for a design of this study. These patients were subjected to extensive interviews and psychological tests. The findings had revealed that well adjusted individuals had responded better to treatment than the maladjusted individuals. The study was mainly a retrospective one where patients were interviewed after they had been placed in the categories of good, moderate and poor responders, after taking treatment for a year.

In this study while one group consisting of good and moderate responders were free from the disease the poor responders were still suffering from it. Hence both the groups were
not in similar state of health. Also the effect of long drawn disease and its consequences must have influenced the psychological make up in a major way. The study thus suffered from inherent methodological weakness.

Hence in the present study it was decided that patients should be interviewed on admission when all of them would be in similar state of health and could therefore be compared on similar terms.

The specific research questions that were formulated were as follows:

1. What is the role of emotions in onset, treatment and recovery of tuberculosis?

2. What are the specific feelings and attitudes of tuberculous patients regarding his disease, treatment and recovery in Indian socio-cultural setting?

3. What are the various problems and difficulties that the tuberculous patients from lower socio-economic group face when they are gripped by tuberculosis?

4. To what extent are there any consistent personality patterns or deviations in the tuberculous patients?
5. What are the basic differences between the behaviour of good responder and poor responders?

6. To what extent the socio-cultural factors differ in the good and poor responders?

7. Do patients who take treatment irregularly differ in a major way from patients who take treatment regularly?

The above questions call for an extensive understanding of behaviour of tuberculous patients from different angles.

The present study aims to explore into the psychological states of the tuberculous patients, studying various aspects like attitude of patients towards life in general, and to tuberculosis in particular. We will be studying their general ability to adapt themselves to changes, and take active steps in moulding reality to their favour. Their emotional states are studied to know if they have stable healthy emotions or have abnormal emotions. Patients family relations are studied to ascertain if they have healthy family relationship from where they get necessary support and security. Their reactions towards disease, their outlook towards prognosis of the disease, their assessment as to the cause of the disease need to be studied. Patient's preference for hospital or
domiciliary treatment, attitude of relations and friends towards their disease, their views about social stigma attached and their own reactions to the reactions of their people are assessed. Also studied are their mental states prior to onset of the disease, philosophy of their life, religious views, aims and ambitions etc. An attempt is also made to study presence of any basic personality structure, and any lasting changes that have taken place in their attitudes or outlook towards themselves or others or towards future, after being cured of the disease.

Also studied are the various medical, personal and social factors to arrive at the general characteristics of the population and to see if these differ in a major way in the good responders and poor responders.

The findings relating to the above will help us to understand the tuberculous patients from socio-cultural, psychological and medical point of view. We will be able to arrive at the global picture of the patient, which will help us to ascertain the relative significance of various factors.

Keeping this in view the following broad objectives were framed for the study.
BROAD OBJECTIVES

1. To examine the relationship between emotional stress and onset of tuberculosis.

2. To investigate the various fears and anxieties of tuberculous patients.

3. To establish the presence of any universal personality traits in tuberculous patient.

4. To compare the various socio-psychological factors amongst the good responders and poor responders to treatment.

5. To study the prevalence of any abnormal personality trends in tuberculous patients.

In the pilot study it was observed that patients were not very inclined to answer structured questions or to make TAT stories. Persuasion and pleading was used to get cooperation from the patient. They seemed to be less attentive and could not have general assessment of themselves. But during the interview they narrated incidence and their own reactions and feelings quite copiously. This lead the investigator to expect more fruitful results from interview. In order to get deeper dynamics of their thoughts, feelings, percep-
tions, anxieties, attitudes and prejudices, a depthful probe into the various factors social, personal, environmental influences had to be undertaken. Also, the subconscious frustrations and conflicts which lie buried under the cloak of decent front which all the patients want to project, a thorough, flexible and extensive and individualized probe had to be undertaken. Hence the subjectively oriented insight, qualitative approach was decided upon. However, in order to get support from the objective approach, quantitative personality tests were supplemented, with a hope to have some supportive objective ideas about patient's personality.

The present study is essentially a progressive clinical one, where more emphasis has been given to content analysis.

**SAMPLE**

The sample for the study was drawn from population of patients getting treatment from New Delhi Tuberculosis Clinic adjoining Lok Nayak Jai Prakash Narain Hospital, (Irwin Hospital), New Delhi. The institution is a Government run clinic cum hospital. Hence the entire treatment is free for patients. The patients were selected on the basis of following criteria:

1. X-Ray evidence of disease and presence of tubercle bacilli in the sputum.
All patients who contact tuberculosis reveal on X-Ray examination diseased lung tissue. In some cases a cavity or cavities are also found. Each lung has three lobes making a total of 6 lobes, intensity of disease is revealed by the total diseased lung tissue, the presence of a cavity or cavities and the number of the lungs invaded.

All the patients who were included in the study had tubercle bacilli in their sputum on admission. A very minor disease where the sputum did not reveal the presence of tubercle bacilli was not included in the study.

2. Age-range: between 18-45 years.

The age range was restricted to 18 to 45 years, since, generally speaking this age group is more subject to adult psycho-social stress. It is generally seen that patients who are below 18 years, have lesser social responsibilities and worries. Also patients above 45 years generally have grown up children and have passed off the responsibilities onto the younger members in the family.

3. No history of prior treatment

Those patients who were treated for tuberculosis at other places before coming to the clinic were excluded from the
study. Only fresh cases, having not been earlier treated were included in order to observe all the changes that take place due to treatment from the beginning.

4. No history of relapse:

Also those patients who had earlier history of cured disease, and in whose case present disease was a result of relapse were not included, since the behaviour of relapsed cases would be different from the fresh cases.

5. Patient's undergoing similar treatment:

All the patients included in this study were taking the following medicine: INH, streptomycin, PAS and Thiacetazone. Patients who were resistant to above mentioned drugs were not included in this study.

6. Terminal cases excluded:

Those patients who had very extensive disease, and who were almost on the death bed were not included, since they were not in condition to respond to interview. These terminal cases were excluded from the study.

7. No evidence of other major disease:

The patient who were included in our study did not have any other major disease like diabetes, heart disease, or any
other major illness to avoid compounding effect on their response to treatment.

SAMPLE SIZE

In view of its being a progressive and in-depth study it was decided not to have a sample of more than 150 patients. The nature of ongoing progressive study demanded the interviewing of patients at two modal points—one at the time of admission and the other when the results of the treatment was known. Such an approach permitted a comparison of patients against a crucial variable the response to treatment.

The selection of favourable and unfavourable response group offered some difficulty due to which a suitable sampling procedure had to be utilized. According to observation of physicians attending on tuberculous patients about 80% patients favourably respond to treatment as against 20% defying all treatment. For a valid comparison and consequent generalization it was felt necessary to include 50 unfavourable cases to be compared with 100 favourable ones. To obtain this number 250 patients were interviewed at the time of admission on first-come-first basis. Likewise, after one year 50 unfavourable and 100 favourable patients were picked up for analysis on first-come-first basis.
DESCRIPTION OF TOOLS USED IN THE STUDY

1. Personal Data Schedule

2. Medical report schedule

3. Introductory interview

4. Semi-structured interview schedule

5. Cattell's 16 Personality Factors questionnaire

6. T.A.T.

PERSONAL DATA SCHEDULE

The personal information was collected on a schedule prepared to elicit the following information:

1. Age and Religion
2. Educational Level
3. Occupational Level
4. Total family income
5. Marital status
6. Type and size of family and number of children.
7. Place of dwelling (Locality)
8. Rural/Urban background
9. Physical conditions of the patient
10. Symptoms experienced by the patient.
MEDICAL RECORD SCHEDULE

This schedule was prepared in consultation with doctors attending on the patients and was also filled by the physician looking after the patient. This schedule included the following information (for details see appendix II).

1. **Extent of disease.**

The extent of disease took into account the total lung area involved, the presence of cavity or cavities and number of lungs involved. Based on these are three categories (i) minimal disease, (ii) moderate disease (iii) advance disease.

Minimal disease category was assigned when one lobe (or zone) of the lung tissue was diseased. Moderate disease category was assigned when disease had invaded 2-4 lobes of the lungs and disease was advanced when more than 4 lobes were involved. The extent of disease was assessed after studying X-Ray evidence of disease on admission by the group of physicians and the X-Ray expert.

2. **SPUTUM EXAMINATION**

Microscopic sputum examination revealed presence of tubercle bacilli. The microscopic examination further revealed whether the bacilli are sensitive to the drugs or not.
3. **REGULARITY OF TREATMENT**

On the basis of personal report of the patient and surprise home visit checkups by the public Health Nurse, regularity of treatment was established. If the patient took the drug with absolute regularity, the regularity was 100%. If the drug was taken with 80% regularity the patients were classified as regulars and if the patients took the drug with less than 80% regularity the patients were termed as irregulars or drug defaulters. At times urine test to establish drug level was conducted where ever required.

4. **SYMPTOMS**

Important symptoms like fever, cough, pain in the chest and loss of weight were recorded. Any other symptom which the patient felt was also recorded.

5. **PROGRESS RECORD**

Every 3 months the patient's condition was reviewed by the team of doctors. His X-Ray and sputum progress was assessed symptoms and weight were also noted.

6. **FINAL DIAGNOSIS**

On the basis of the progress made by the patients, they were categorised into favourable or unfavourable response
groups. If there was absence of disease on X-Ray examination and if the sputum was clear of the bacilli within one year of treatment the patients were termed as favourable and if the disease was still present after one year's treatment, the patients were termed as unfavourable.

SEMI-STRUCTURED, SEMI-CONTROLLED INTERVIEW SCHEDULE

The interview was based on broad 36 flexible questions with an aim to get detailed and spontaneous reactions on certain important aspects of life and disease. These questions were selected out of several questions designed to obtain particular information. After search of relevant literature, and discussions with colleagues, a battery of question was selected, and was pre-tested on a sample of tuberculous patients. Questions which were unsatisfactory were eliminated. The questions selected covered the following areas: feelings and attitudes of tuberculous patients towards disease, reactions towards diagnosis treatment and prognosis: emotional state to illness, fears, worries and problems faced by the patients.

To understand the pre-morbid personality and significant developmental treads, childhood experiences, school performance, and social adjustment during childhood was included. Questions were also framed on family adjustments, occupational
adjustments, aspiration level and style of handling crisis situations in general, and specifically the current tuberculous situation. The questions concerning emotional make up of the patients, response of his family and friends to his disease, and effect of tuberculosis on attitudes of patients were also included. Finally, attitudes towards care, treatment and rehabilitation were also probed. For details please see appendix.

The questions in the schedule paved the way for further pertinent questionning. The questions were arranged in order of preference shown by the patient in the trial interview. The trial interview showed that patients preferred to answer questions regarding their illness, its history and the related present problems, fears and worries, first. Keeping that in view questions were so arranged as to get the sustained interest of the patient in the interview.

During the interview patient's appearance and behaviour his, relationship with the investigator, spontainty in response and general level of awareness were observed and recorded.

Hence the above 36 questions served as a basis for semi-controlled interviewing rather than a questionnaire whereby the patient felt free and encouraged to share with the investigator all
his problems and worries and any other matter of significance to the patient.

In this way inspite of the flexibility it was possible to achieve the collection of similar data on all patients.

SIXTEEN PERSONALITY FACTORS QUESTIONNAIRE (16 P.F. form E)

Sixteen Personality factors questionnaire was developed by RB Cattell and H.W. Eber in 1954. It is an objectively scorable test devised to give the most complete coverage of personality in a brief time. It is a comprehensive test for the age of seventeen years through the mature adult range.

Rationale for using the test: Form E has been developed for illiterate or semi-illiterate persons. Hindi translation and adaptation of the test was done by Dr. Kapoor, Psycho-centre, Delhi, on Delhi population. Hence it is a very appropriate objective personality test to be used on the tuberculous patients.

The personality factors measured by the 16 PF are dimensional in nature and have two poles or extremes. Their capsule description is given below:
In addition to the sixteen primary factors, the test can be used as a measure of four secondary dimensions, which are broader traits, computable from the primary factors. The secondary traits are:

Factor I: Adjustment vs Anxiety
Factor II: Introversion vs Extraversion
Factor III: Tenderminded Emotionality vs Alert Poise
Factor IV: Subduedness vs Independence.

TAT (Thematic Apperception Tests)

It is a projective personality test designed by Murray and Morgan to assess psycho-dynamics of personality. The test gives deeper understanding of needs, fears and complexes of the individual. Subjects are required to construct a story on an ambiguous situation, the subject reveals his inner-needs, without becoming aware of them.

For purposes of present study pictures were selected on the basis of their implied relationship with tuberculous patient's life situations. Patients were presented with an Indian version of the original pictures to facilitate maximum identification. The techniques was used as an indicator of basic psycho-dynamics of the patients. Selected ten T.A.T. cards were presented to the patients for constructing themes.
Capsule Description of the sixteen primary personality Factors:

<table>
<thead>
<tr>
<th>Low score description</th>
<th>Factor</th>
<th>High score description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reserved, Detached, Critical</td>
<td>A</td>
<td>Outgoing, Warmhearted, Easy Going</td>
</tr>
<tr>
<td>Less Intelligent, Concrete Thinking</td>
<td>B</td>
<td>More intelligent, Bright Abstract Thinking</td>
</tr>
<tr>
<td>Emotionally Unstable, Easily upset</td>
<td>C</td>
<td>Emotionally Stable, Calm Mature</td>
</tr>
<tr>
<td>Humble, Mild, Accomodating</td>
<td>E</td>
<td>Assertive, Independent Stubborn, Aggressive</td>
</tr>
<tr>
<td>Sober, Serious</td>
<td>F</td>
<td>Happy-Go-Lucky, Enthusiastic</td>
</tr>
<tr>
<td>Expedient, Feels Few obligation</td>
<td>G</td>
<td>Conscientious</td>
</tr>
<tr>
<td>Shy, Restrained, Timid</td>
<td>I</td>
<td>Tender minded, Sensitive Overprotected, Dependent</td>
</tr>
<tr>
<td>Trusting, Adaptable, Easy to get on with</td>
<td>L</td>
<td>Suspicious, Self Opinionated</td>
</tr>
<tr>
<td>Practical, Careful Conventional</td>
<td>M</td>
<td>Imaginative, Careless</td>
</tr>
<tr>
<td>Low score description</td>
<td>Factor</td>
<td>High score description</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>--------</td>
<td>---------------------------------------</td>
</tr>
<tr>
<td>Forthright, Natural, Artless Sentimental</td>
<td>N</td>
<td>Shrewd, Calculating Penetrating.</td>
</tr>
<tr>
<td>Placide, Self Assured, Confident.</td>
<td>O</td>
<td>Apprehensive, Depressive</td>
</tr>
<tr>
<td>Conservative</td>
<td>$Q_1$</td>
<td>Experimenting, Critical, Liberal.</td>
</tr>
<tr>
<td>Group dependent</td>
<td>$Q_2$</td>
<td>Self sufficient, Resourceful</td>
</tr>
<tr>
<td>Undisciplined self conflict</td>
<td>$Q_3$</td>
<td>Controlled, Self image.</td>
</tr>
<tr>
<td>Relaxed, Unfrustrated</td>
<td>$Q_4$</td>
<td>Tense, Frustrated.</td>
</tr>
</tbody>
</table>

**LOCATE OF STUDY**

New Delhi T.B. Clinic is an out patient clinic cum hospital catering to old Delhi residents. The clinic is governed by Tuberculosis Association of India and is aided by the government. Facilities for diagnosis, treatment and hospitalization are provided free. Social workers - professional and voluntary, look after financial, nutritional and other needs of the patients.
The New Delhi T.B. clinic contains a well equipped pathological laboratory where microscopic examinations and culture examinations of sputum, blood and other routine examinations are done. It also contains a screening and X-Ray plant where patient's lungs are screened and X-Rayed. There is an inpatient ward where serious patients are kept under observation and treatment. The institution also contains a public health section where public health nurses and health visitors visit the home of the patients to provide necessary help and to keep a check on the patient and other inmates of the household. The clinic is also equipped to perform minor surgical operations.

The New Delhi T.B. clinic also houses a well equipped epidemiological section which carries out mass surveys and BCG immunisation programmes.

The centre also undertakes many research projects in the field of tuberculosis.

**PROCESS OF DATA COLLECTION**

All patients fulfilling the set criteria, after having been registered, examined, diagnosed and prescribed with the treatment, were directed by the attending physicians to the investigator. The physician explained to the patient that research was being conducted and they were requested to cooperate.
DIFFICULTIES ENCOUNTERED IN RAPPORT FORMATION

The patients were generally anxious and sick and apprehensive of the interview. The investigator had to spend lot of time to help them get rid of the apprehensions and established a relationship with the patient to open up. The first question most of them asked was, if this interview was going to be of any use in their illness. It was explained to them that it will help to understand tuberculosis in general and may help the poor responders. It was further explained to them that by talking they may be helped in unloading their worries. Later on most of them were relaxed, opened up and slowly started enjoying the sessions. Most of them wanted their data to be kept a secret, which was promised.

Some of the patients were too tired and sick hence the detailed interview was postponed until patient was in better condition. The investigator found rapport formation to be the most difficult task with the patients. She made use of all her nursing skills and counselling techniques to seek cooperation from the patient. The investigator, because of her nursing background could answer their queries about effect of drugs, their lung reaction and other body symptoms and any other information about their sputum and X-Ray progress, to their satisfaction, thus winning their confidence.
For cooperation of the patients help was also sought from the attending physician. Yet there were a few resistant cases where non-cooperation was hard to overcome. Some of the patients who did not want to answer the personality questionnaire or make stories from the TAT cards, dropped out half way. The total drop outs however, were small in number.

INTERVIEWING

For the purpose of getting cooperation from the patients free conversation on many diverse subjects was allowed. In many cases lot of time was used to allow for catharsis. At times the hospital became the scapegoat for patients' frustrations. After the initial resistance most of the patients enjoyed the interviews and felt relieved and relaxed. In many cases they eagerly looked forward to the interview sessions and on its termination maintained contacts with the investigator on their own, whenever they came to the hospital.

There were some defiant and rude patients who sat rigid and gave funny answers. Gentle persuasion and encouragement helped to break their resistance in most cases. One patient who was very rude and uncooperative initially, later opened up, started talking, and then went on crying. The interview had to be stopped. In the next session too similar crying
fit occurred and the patient left saying that he could not talk. The investigator waited for the patient to return but he would come, wish and go back. His initial rudeness and rigidity was only a cover for his inner problems and weakness. Slowly the patient overcame his inhibitions and shared his experiences with the investigator. Whenever a patient presented some social or economic problem he was referred to the social worker or other helping agents. Following help was available to the needy patients from the hospital: milk, blankets, quilts, sewing machines and cash for coming and going back from the hospital etc.

After establishing desired rapport the personal data schedule was filled. Most of the patients presented no resistance in answering the personal data schedule which helped in further rapport formation. After this the semi-controlled interview schedule was administered on the patients. The order of the schedule and the questions served only as a guide. Many a times patients gave long childhood histories or related events in great details. They were patiently heard. Answer to many of the questions came unasked since one answer led to another. The interview took at least 40-50 minutes depending upon the condition of the patient. Whenever patient was found exhausted, rest was given as was desired by the patient.
If patient could not continue at all then the interview was terminated and resumed on some other day. Contact with the Health visitors visiting the homes of the patients was used for asking the patient to report for interview whenever necessary and to counter check necessary information.

After the interview during which rapport between the investigator and patient had further improved, the TAT cards were presented to the patients and they were required to construct themes. Great majority of the patients lacked the imagination and fluency with the result that responses were very scanty showing extremely poor imagination. Whatever little material we were able to elicit showed extreme preoccupation with their sickness, and apprehension of the outcome of their disease. The TAT took another 40 to 50 minutes. Unfortunately, the material was too scanty for any effective analysis and generalization.

The investigator also faced lot of difficulty in persuading the patients to answer written standard statement of the 16 PF personality questionnaire in the form of yes or no. They lacked the attention required to listen to the statements and give answer in "yes" and "no". Many a times their answers were found to be inapplicable. So on requestioning they changed some of the answers. Hence some of their answers
were found to be superficial and at times inappropriate due to poor attention, and involvement.

It was found that most of the patients thought that the answer in 'yes' or 'no' could be given without any careful thought, and hence, their responses were mechanical and casual.

The correctness of the result of 16 PF is doubted by the investigator as most of the patients were not involved and sincere in their answers. They only complied with the request of the investigators by answering 16 PF.

Patients' maximum cooperation was found only during the interview where they were free to talk, and had the attitude that whatever, they were saying would help the investigator to understand and solve their problems. The rest of the psychological tests were found to be burdensome by them. Statements like, it is useless, it is waist of time, what benefit we will get from this exercise etc., were given by some patients. Hence the researcher is apprehensive in attaching serious importance to the results of the 16 PF questionnaire.

Another important observation was that the cathartic effect of interview was very beneficial as most of them were found to be more cheerful and confident after the interview.
Depression and anxiety which was due to the diseases or to some problems was most often lifted. They also sought advice on many personal and social problems and wanted the investigator to talk to their relatives accompanying them.

Further during the interview in answer to many questions, patients answered superficially or defensively, later as a sequel to cathartic effect they themselves corrected their statement with the correct answer. For example, to a question as to why they were irregular in taking medicines they had answered that they did not have the money to come to the hospital or they did not have any time. But later they themselves corrected the statement by saying that they did not feel like taking drugs since they knew they were not going to get well, or they were already well and then why should they take drugs.

The investigator had a very satisfying experience in interviewing the patients, in sharing the worries and feelings of the patient, in helping the patients to bring to the surface deeper feelings and emotions which are generally hidden because of the defences. Human personality is so closely linked with social relationship that it cannot be explored unless the relations existing between the subject and explorer is one of mutual respect won by cooperation in a common task.
The increase of patient's self understanding enables both the patients and the investigator to examine aspects of personality which patients usually keep hidden from public view, including stock of despair which nearly engulfs so many defences.

In an overcrowded general hospital where each doctor deals with about 50 cases in 2 to 3 hours time, patients' fears and hopes are left unattended, and hence these patients were in great need of sharing their worries and apprehensions. The interview situation provided for them the most wanted cathartic situation where they could share and unload their emotions and problems to a helpful professional guide.

DESIGN OF PROOF

The present study is concerned with an examination of the various dimensions that operate in Tuberculosis. "Response to treatment" has been set up as dependent variable, and have tried to examine the various factors that interfere with response to treatment.

Knowing the powerful impact of social factors: The economic, educational, religious, rural-urban background, family and group factors, upon structuring of personality, emotions and behaviour of individuals, these and other related factors have been examined.
An attempt has been made to know the general emotional states of patients undergoing treatment. These emotional states as perceived by the patients reveal the affective state of patients mind. Hence, primarily these emotional states are experienced in relation to the tuberculous situation.

We also made an attempt to assess their personality traits by using objective personality test although with limited success.

We also examined mental pre-occupations, as reported by the tuberculous patients, their attitudes, feelings, fears, worries and perceptions.

These psychological reactions are aimed at providing us with the picture of thought patterns of tuberculous patients in general.

Hence our empirical data is presented in two basic sections: section on psychological reactions of all tuberculous patients, and in the other sections is presented account of various psycho-social, and medical factors affecting response to treatment—the favourable response and the unfavourable response. Chapter four, five, six and seven deal with the empirical findings of the study.
PLAN OF ANALYSIS

As has been pointed out the empirical data for the study was collected through interviews, 16 P.F. personality test and T.A.T.

This data has been thematically presented in tabular form and analysed in four different chapters. Keeping in view the requirements and the thrust of the present thesis, which lay in examining the general psychological profile of tuberculous patients and further in understanding the role of various psychological factors, particularly emotional factors in the genesis and course of tuberculosis as well as behavioural factors in course of disease in relation to response of patients to treatment.

The empirical data and the substantive part of the thesis accordingly are divided into four chapters. In chapter IV attitudes, fears and perceptions of the tubercular patients have been presented. In chapter V social and medical factors have been examined in relation to response to treatment. In chapter VI, role of emotional factors before onset, during the treatment period and residual changes in emotions after successful termination of the treatment have been presented. Also presented in the similar chapter is an account of the 16 PF personality test and TAT. The behaviour examined is
primarily related to the patients disease situations.

The data have been tabulated in the form of simple percentages, and hence have not been subjected to any high powered statistical analysis. This procedure was adopted because the interviews were free flowing and were not framed in a tightly structured Question - Answer Session based on a rigorous questionnaire Schedule. Thus, the interviews were free flowing and specific questions were not aimed at. Rather, the aim and purpose were to elicit rich variety of personalized responses covering a wide gamut of reactions. Obviously, the percentages of such wide ranging responses in simple percentages has enabled the researcher to report more faithfully the responses received or else the richness of data would have been lost. The presentation in the percentages however have the merit of revealing trends and for purpose of present analysis these trends were felt to be adequate to see whether the main thrust of the thesis was discernible or not.

Besides, the insights revealed by the indepth probes have been reported wherever these were found to make a substantial contribution and provide, illumination to the main thesis.