CHAPTER 3
METHODOLOGY:

I. INTRODUCTION:

This chapter deals with the general plan of the work done. It includes research design, selection of sample, selection of the tools, mode of data collection and the statistical treatment of the data obtained. The detailed information given in this chapter may be helpful in conducting similar studies in other parts of the country, rural as well as urban.

Here the control group consists of normal and experimental group consists of two types of clinical groups - Schizophrenia and Neurosis.

The present investigator through her personal observation and experience feels that the Rorschach responses are influenced by the socio-economic status of the subjects. As a result the normal subjects from high socio-economic and low socio-economic status are selected and it is one of the major independent variables. Another variables i.e. sex variables have also been selected in this study as the sex role of the male and female is different in the family and society.

Review of Indian and Western literature also reveals the depth of the research in these areas.

It is therefore, decided to find out whether the socio-economic status and sex role have any effect on the productivity and other indices of Rorschach Inkblot test.
It was planned to find out its diagnostic implication among neurotic and schizophrenic groups to find out whether their responses differ significantly from the normal group. So normal group has been selected in this connection as control group.

The reliability and validity of psychiatrists diagnosis have been found to be low (Cameron, 1944; Rapaport, 1945; Mysenek, 1952; Cattel, 1957). There is need to have other independent objective criteria in this regard. These groups should be given some independent criteria with which Rorschach responses can be compared.

I.S.B. Test was undertaken for the comparing the validity of Rorschach responses. So an overall attempt has been made here to compare with the Rorschach responses of the Normal, Schizophrenia, and Neurosis groups.

If Sample Distribution:

a) Sample:
The sample consisted of 231 subjects drawn from 3 groups – Normal, Schizophrenia and Neurosis. The total number of subjects in each group were 101, 75, 75 respectively.

The normal subjects were selected from the following sources in the year 1983 August to 1984 September.

For HSES Subjects:
- Medical Students,
- Postgraduate Students,
- Aganwadi Supervisors,
- Other Professionals.
For LSES Subjects:
- Peons of the City Hospital.
- Aganwadi Workers.
- Low Skilled Person.
- Ward boys of the same Hospital.

The patient groups were selected from the following sources:

- The patients were attending the outdoor department of Psychiatry of one of the leading Municipality Hospital of the City.
- The patients admitted in the Psychiatry ward of the same hospital.
- The patients who were attending and receiving treatment privately from senior psychiatrists in the city.
- The patients who were attending in private nursing homes.

b) Age:
Age range between 20 - 40 Years.
Most of the psychological variables attain stability around 20 years of the chronological age and there after maintain a plateau for another 20 - 30 years of life. Therefore, only those cases were selected who were in the age range of 20 - 40 years.

c) Education:
- From Primary Schooling to Ph.D. and M.D.
This level was sub-divided into 4 major categories which shown in Table - 3:2. No illiterate subject was included in this study because I.S.C. test needs some capacity to comprehend the printed word. Another reason for not including illiterate subjects was the clinical observation of the investigator. It has been observed illiterate subjects find difficulty to understand and respond on the Rorschach. This has been empirically established also (Somasundaram, 1964; referred by Dubey P.23).

d) Number:

The total 101 subjects were considered in Normal Group- among them 50 and 51 for HSES and LSES, 44 and 57 for male and female subjects respectively.

The total number of schizophrenic subjects were 75, among them 35, 40 for HSES and LSES, 55, 20 for male and female respectively.

The total number of neurotic subjects were 75, among them 31, 44 for HSES and LSES and 34, 41 for male and female were considered respectively.

The selected subjects in the present study in each group their sex and socio-economic status have been presented in the Table No. 3:1, 3:2 and 3:3.
### TABLE - 311
**SAMPLE DISTRIBUTION**

<table>
<thead>
<tr>
<th></th>
<th>Normal</th>
<th></th>
<th>Schizophrenia</th>
<th></th>
<th>Neurosis</th>
<th></th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HSES</td>
<td>LSES Male &amp;</td>
<td>HSES</td>
<td>LSES Male &amp;</td>
<td>HSES</td>
<td>LSES Male &amp;</td>
<td>Total</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>Female</td>
<td>Total</td>
<td>Female</td>
<td>Total</td>
<td>Female</td>
<td>Total</td>
</tr>
<tr>
<td>Male</td>
<td>20</td>
<td>24 (44%)</td>
<td>21</td>
<td>34 (55%)</td>
<td>16</td>
<td>18 (34%)</td>
<td>133</td>
</tr>
<tr>
<td>Female</td>
<td>50</td>
<td>27 (57%)</td>
<td>14</td>
<td>6 (20%)</td>
<td>15</td>
<td>26 (41%)</td>
<td>118</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>51</td>
<td>35</td>
<td>40</td>
<td>31</td>
<td>44</td>
<td>251</td>
</tr>
</tbody>
</table>

### TABLE - 312
**EDUCATIONAL LEVEL DISTRIBUTION OF THE TOTAL SAMPLE**

<table>
<thead>
<tr>
<th>Educational Level</th>
<th>Normal</th>
<th>Schizophrenia</th>
<th>Neurosis</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRIMARY LEVEL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UPTO IV STD.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>6</td>
<td>12</td>
<td>6</td>
<td>24</td>
</tr>
<tr>
<td>Female</td>
<td>4</td>
<td>3</td>
<td>13</td>
<td>20</td>
</tr>
<tr>
<td>PRIMARY LEVEL OWMAROS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UPTO SSC.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>16</td>
<td>21</td>
<td>9</td>
<td>46</td>
</tr>
<tr>
<td>Female</td>
<td>24</td>
<td>9</td>
<td>17</td>
<td>50</td>
</tr>
<tr>
<td>UPTO GRADUATION</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>16</td>
<td>19</td>
<td>15</td>
<td>50</td>
</tr>
<tr>
<td>Female</td>
<td>18</td>
<td>5</td>
<td>8</td>
<td>31</td>
</tr>
<tr>
<td>POSTGRADUATE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>6</td>
<td>3</td>
<td>4</td>
<td>13</td>
</tr>
<tr>
<td>Female</td>
<td>11</td>
<td>3</td>
<td>3</td>
<td>17</td>
</tr>
<tr>
<td>TOTAL...</td>
<td>101</td>
<td>75</td>
<td>75</td>
<td>251</td>
</tr>
</tbody>
</table>
TABLE - 313

DISTRIBUTION OF THE SAMPLE ON THE BASIS OF THE KUPPUSWAMY'S SES SCALE:

<table>
<thead>
<tr>
<th>Class SES</th>
<th>Normal</th>
<th>Schizophrenia</th>
<th>Neurosis</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>19</td>
<td>10</td>
<td>8</td>
<td>37</td>
</tr>
<tr>
<td>II</td>
<td>31</td>
<td>25</td>
<td>25</td>
<td>81</td>
</tr>
<tr>
<td>III</td>
<td>27</td>
<td>16</td>
<td>15</td>
<td>58</td>
</tr>
<tr>
<td>IV</td>
<td>24</td>
<td>24</td>
<td>29</td>
<td>77</td>
</tr>
<tr>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>102</td>
<td>75</td>
<td>75</td>
<td>251</td>
</tr>
</tbody>
</table>

III RESEARCH DESIGN:

Comparisons were among the subgroups mentioned below in each major headings:

For Horachack Results Only:

(a) Total Number
   \( N = 251 \)
   \[
   \begin{align*}
   &\text{Normal} \\
   &\text{Schizophrenia} \\
   &\text{Neurosis} \\
   &\text{Total} \\
   &\text{(N-101)} \\
   &\text{(N-75)} \\
   &\text{(N-75)} \\
   \end{align*}
   \]
For I.S.P. Test Only :-

(b) Total Number

<table>
<thead>
<tr>
<th>Normal</th>
<th>Vs</th>
<th>Schizophrenia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>Vs</td>
<td>Neurosis</td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>Vs</td>
<td>Neurosis</td>
</tr>
</tbody>
</table>

For Rorschach Results Only :-

(c) Total Male Group

(N=153)

<table>
<thead>
<tr>
<th>Normal</th>
<th>Schizophrenia</th>
<th>Neurosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>(N=44)</td>
<td>(N=55)</td>
<td>(N=54)</td>
</tr>
</tbody>
</table>

For I.S.P. & Rorschach Results :-

(d) Male Group

<table>
<thead>
<tr>
<th>Normal</th>
<th>Vs</th>
<th>Schizophrenia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>Vs</td>
<td>Neurosis</td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>Vs</td>
<td>Neurosis</td>
</tr>
</tbody>
</table>

For Rorschach Results only :-

(e) Total Female Group

(N=118)

<table>
<thead>
<tr>
<th>Normal</th>
<th>Schizophrenia</th>
<th>Neurosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>(N=57)</td>
<td>(N=20)</td>
<td>(N=41)</td>
</tr>
</tbody>
</table>

......
For I.S.B. & Rorschach Results:

(f) Female Group

Normal VS Schizophrenia
Normal VS Neurosis
Schizophrenia VS Neurosis

For Rorschach Results only:

(g) Total RSES Group (N=116)

Normal (N=50) VS Schizophrenia (N=35) VS Neurosis (N=31)

For I.S.B. and Rorschach Results:

(h) RSES Group

Normal VS Schizophrenia
Normal VS Neurosis
Schizophrenia VS Neurosis
For Horbach Results only :-

(1)

Total LSES Group

(N-135)

<table>
<thead>
<tr>
<th>Normal</th>
<th>Schizophrenia</th>
<th>Neurosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>(N-51)</td>
<td>(N-40)</td>
<td>(N-44)</td>
</tr>
</tbody>
</table>

For L.S.B. and Horbach Results :-

(j)

LSES Group

<table>
<thead>
<tr>
<th>Normal</th>
<th>Schizophrenia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>vs</td>
</tr>
<tr>
<td></td>
<td>vs Neurosis</td>
</tr>
</tbody>
</table>

IV INSTRUMENTS :

In the Present study mainly two instruments have been used for actual study of the main problem. Kuppuswamy's scale was used only for differentiating the high and low socio-economic status.

a) L.S.B. :-

The instrument selected for the study of conflict level, the severity of the disturbance was the Incomplete Blank Test. This test was adopted to study the adjustment level of the Gujarati speaking population (Bhat, 1972).
The incomplete sentence blank test is a verbal semi-projective technique consisting of 40 incomplete sentence which the subject is required to complete in his own word.

The responses of the subjects are to be classified into seven categories ranging from most positive to most negative.

The instruction and procedure are followed according to the manual (Mafferty and Rotter, 1950).

1) Data Collection:

Each subject of both the groups normal and atypical was taken individually and given the following instruction.

"Here before you is a small task of completing the incomplete sentence. Before starting the task please read the instruction thoroughly and read the sentence one by one and tell me the first idea comes to your mind against each sentence. I will write for you. These are not the questions. So there is no right and wrong answer. This is simply an attempt to study some aspects of your personality. So please relax and answer without hesitation. The information remain fully confidential."

With this instruction the actual work started. If the subject had any difficulty in understanding the instruction it was clarified at the beginning.

The same method was used for all the groups to bring out the uniformity in the method of data collection.
ii) **Time Taken:**

Generally it took 30 - 45 minutes to complete the task. There was no noticeable difference of time factors between normal and atypical groups.

The scoring procedure followed according to the manual (Rafferty and Rotter, 1950). These responses were interpreted with the help of the subjects.

iii) **Requirements:**

Following requirements are needed for this test.

- Subject has to complete the sentence with the very first idea that comes to his mind after reading the incomplete sentence.
- The subject is to be told that there nothing like good completion or bad completion. He simply has to give the idea of his mind.
- The test is verbal in nature. Therefore, subject is told to be attentive from the very beginning and try to respond as early as possible.
- The subject is also allowed to leave sentence incomplete if he cannot get any idea but later on the sentence is to be completed. So sequence should not be followed rigidly.
- Each sentence is to be completed with one idea only.
- The total test is to be completed generally in 30 - 45 minutes in the normal subjects.
iv) **Limitation of the Test:**

This test requires the certain amount of introspection, awareness about the role as an individual and some level of comprehensive capacity.

The difficulty in administration of eliciting responses was found specially with the subjects of belonging to LSES Female group. The research worker tried her best to explain the procedure and method in which they should respond. However, some subjects in that group still could not respond as per the requirement of the test. Therefore that particular group I.S.B. is not recommended and results are not to be generalized.

(B) **ROSCHAICH TEST**

i) **Data Collection:**

After completing the I.S.B. Test the Rorschach Test was administered following the standard procedure of (Klopfer, 1954).

The Rorschach cards were presented to the subject one at a time in prescribed sequence and following instruction was given.

"I am going to show you ten cards one at a time. There is no picture as such. This is just inkblot. You see the cards carefully. Since they are only inkblots, they do not look exactly like things but they remind people of things. People see all sorts of things in these inkblot pictures; now tell me what you see, what it might be for you, what it makes you think of" as devised by Klopfer and Kelley (1942).

The scoring procedure was followed as mentioned in -

ii) Time Taken:–
Thick time between the presentation of card and first response for each card was noted.

iii) Requirement:
Following requirements are needed for this test:
- Subject has to be persuaded to complete the test.
  If it is necessary, testing the limit should be applied specially when the subject is reticent to perceive any response.
- Subject is to be told that there is no right or wrong answers and it does not require any educational background. Simply he has to give the responses whatever he perceives.
- The subject can give as many responses as he perceives and should not feel shy or hesitate to express his/her responses.
- The total test needs to be completed generally in 25 - 30 minutes.

iv) Limitation of the Test:–
Due to the ambiguous nature of the test one may find difficulty to grasp the thing. Difficulty of administration of getting responses was found specially with low educational background from rural community.
The research worker tried her best to explain the procedure and method in which they should give the responses. Moreover, the research worker had explained it very clearly that education has nothing to do with the test. Besides, the subjects were given assurance as they required.

(c) **Kuppuswamy Scale**:  
Socio-economic status was determined by using the SES scale of Kuppuswamy (1962).

In this scale I and II grades were considered as USES and III, IV grades were considered as LSES Group. All total 116 and 135 subjects were belong to USES and LSES groups respectively.

Grade V was omitted as none of the cases fell under this grade.

(V) **Data Collection**:  
The subjects of both the groups normal and atypical selected were interviewed individually in a separate room and brief case history was taken. So rapport was established before administering the tests. In the control group special emphasis was given on their sound mental and physical health.

For the control group several professions and students have been taken which had already mentioned. For Aganwadi workers and supervisors, the director of the Institute was -
initially contacted on phone and appointment was taken. All the participants were initially met and appointments were fixed. During the meetings they were explained the purpose of the study, nature of the tests and the type of sample required. They were also explained that the information gathered from them would be used for the research purpose only and everything, including their identity would be kept highly confidential. Those who got convinced about the whole thing and volunteered to participate were welcome.

The relatives of the patients were not taken because of following reasons:
- They were reluctant to be subject as the test needed some time.
- They showed more anxiety and depression than the patients.
- They may have some genetic environmental loading of mental illness, hence strictly speaking not normal.

The patients were drawn from several sources which had already mentioned. Diagnosis was done by senior psychiatrist but it was not revealed to present investigator in order to control the basis. Chronic patients were not included in this study for avoiding their severe deterioration of mental status. Further subgroups of patients —
suffering in schizophrenia and neurosis were not considered. It is well known that the psychiatrist's diagnostic reliability goes down when one studies the subgroups of mental illness. Hence the board groups were taken.

After receiving the name of the patient from the psychiatrist for inclusion in this study, the investigator decided whether they are in position to take for the test.

a) **Method of Data Collection**

Due to proper interpretation individual administration and interview technique were adopted. The subject had to give his own interpretation.

Individual appointments were fixed at a place and time convenient to the subjects (Normal). Regarding the clinical groups the patient was brought to the investigator by ward boy after the diagnosis of consultant psychiatrist.

This method was found to be advantageous in the following ways:

- This was the best control proved so far for the subjective bias of the research worker.
- There was a guarantee of cent percent response.
- Sitting and talking individually to each subject created a personal relationship where the subject felt free to talk of his problems and the researcher also got a better insight into it which helped in the final interpretation.

- The subjects were free to ask for any explanation if they found difficulty in understanding any statement.

- The researcher could also ask the subject to elaborate any point which was not clear to her.

b) Administration of Tools:

The two projective tests mentioned earlier were administered in a uniform manner to each individual. The mode of presentation of different tests and recording of data was done as follows:

i) I.S.B. Test:
    Priority was given to the I.S.B. Test because of easily establishing rapport and understanding. As this test is less ambiguous, subject did not find difficulty to grasp it.

ii) Rorschach Test:
    After completing the I.S.B. Test Rorschach test was administered. Both the tests were completed in the same session.
(VI) **STATISTICAL TREATMENT OF DATA**

This study was undertaken to compare:

1) **Total number of Normal, Schizophrenia and Neurosis**
   
a) Various indices of Rorschach Test

2) **Total Number of Normal vs. Schizophrenia**
   
a) Level of conflict

3) **Total Number of Normal vs Neurosis**
   
a) Level of conflict

4) **Total Number of Schizophrenia vs Neurosis**
   
a) Level of conflict

5) **Total Number of Normal, Schizophrenia and Neurosis in Male Group**
   
a) Various Rorschach indices

6) **Total Number of Normal vs Schizophrenia in Male Group**
   
a) Level of conflict
   
b) Various Rorschach Indices

7) **Total Number of Normal vs Neurosis in Male Group**
   
a) Level of Conflict
   
b) Various Rorschach Indices

8) **Total Number of Schizophrenia vs Neurosis in Male Group**
   
a) Level of conflict
   
b) Various Rorschach Indices
9) Total Number of Normal, Schizophrenia and Neurosis in Female Group for:
   a) Various Rorschach Indices.

10) Total Number of Normal Vs Schizophrenia in Female Group for:
    a) Level of Conflict
    b) Various Rorschach Indices

11) Total Number of Normal Vs Neurosis in Female Group for:
    a) Level of Conflict
    b) Various Rorschach Indices

12) Total Number of Schizophrenia Vs Neurosis in Female Group for:
    a) Level of Conflict
    b) Various Rorschach Indices

13) Total Number of Normal, Schizophrenia and Neurosis in NSSS group for:
    a) Various Rorschach Indices

14) Total Number of Normal Vs Schizophrenia in NSSS Group for:
    a) Various Rorschach Indices
    b) Level of Conflict

15) Total Number of Normal Vs Neurosis in NSSS Group for:
    a) Various Rorschach Indices
    b) Level of Conflict.
16) Total Number of Schizophrenia Vs Neurosis in LSES Group for :-
   a) Various Rorschach Indices
   b) Level of Conflict

17) Total Number of Normal, Schizophrenia and Neurosis in LSES Group for :
   a) Various Rorschach Indices

18) Total Number of Normal Vs Schizophrenia in LSES Group for :
   a) Level of Conflict
   b) Various Rorschach Indices

19) Total Number of Normal Vs Neurosis in LSES Group for :
   a) Level of Conflict
   b) Various Rorschach Indices

20) Total Number of Schizophrenia Vs Neurosis in LSES Group for :
   a) Level of Conflict
   b) Various Rorschach Indices.

For I.S.B. Test Mean and S.D. values were obtained and t-test was applied to see how the different groups differed from each other in their conflict level.

For Rorschach test the same group comparison was maintained but different statistics were done due to the characteristics of the test.
They are mentioned below:—

- \(x^2\) test was applied on each Rorschach Indices to see the effect of different indices on the Normal, Schizophrenia and Neurosis Groups.

- The Mean Values for the profiles of control, Schizophrenia and Neurosis were calculated for various Indices separately for mentioned groups to facilitate the comparison between the groups.

- A graphical presentation was made by covering all the indices into percentage to enhance the facilitation of comparison more in the three groups of the subjects.