METHODOLOGY
CHAPTER-IV

METHODOLOGY

In the present study, the investigator proposes to survey the psycho-social problems of the mentally handicapped individuals and study the role played by the Self-Help groups to help them in overcoming these problems. The exact statement of the problem under investigation reads as follows:

STATEMENT OF THE PROBLEM

"Psycho-Social Problems of Mental Retardates and the Role of Self-Help Groups."

OPERATIONAL DEFINITIONS

Psycho-Social Problems: Mental handicap leads to several psychological problems such as behavioural, emotional, personality growth and social problems such as social maladjustment, prejudice, discrimination, segregation and stigmatisation. In the present study psycho-social problems include behavioural problems such as hyperactivity, emotional disturbance, withdrawal, irritability, aggression, personality development, obstinacy; and social problems such as social incompetence, poor skills in self-help, socialization, communication, self concept and achievement failure.

Mental Retardation: Mental retardation refers to a condition of intellectual functioning below average and marked impaired inability to adapt to the daily demands of social environment.
For the purpose of this study, the term mental retardation refers to subaverage intellectual functioning of an individual, meaning IQ below 70 on a standard intelligence test, occurring together with deficits in adaptive behaviour, manifested during developmental period between conception and completion of 18 years of age. Deficits in adaptive behaviour refers to expectations at different ages to meet the standards of personal independence and social responsibility. Deficits during infancy and pre-school are in the areas of sensory motor, communication, self-help and socialization skills. During school and adolescent years, it refers to academic skills, social skills, reasoning and judgement. During adolescence and adulthood, it refers to deficits in any of the skills cited for younger person, social responsibilities or vocational activities.

Self-Help Groups For the purpose of this study, self-help groups refer to an informal, small group of parents (about 10 to 15) of mentally handicapped individuals who attend daily and weekly self-help group meetings with the aim of mutual support, sharing of experiences, seeking guidance about education, management and care of their wards from other parents and professionals.

HYPOTHESES

The following hypotheses were formulated for the present study:

1. There would be significant differentials with
regard to psycho-social dimensions of mildly and moderately retarded individuals of institutionalised and noninstitutionalised groups.

2. There would be significant differentials in knowledge, orientation and attitude towards mental retardation and its management between parents of institutionalised and noninstitutionalised mentally retarded individuals.

3. Self-help group programme would have positive impact on mental maturity, social maturity and adaptive behaviour of mental retardates under study; and also would have positive impact on the orientation, knowledge and attitude towards mental retardation and its management, of parents of mental retardates under study.

4. Parents participating in self-help group programme would express their satisfaction with this intervention programme.

**Design of the Study**

The present study is divided into two phases. Phase I consists of surveying the psycho-social problems of institutionalised and noninstitutionalised mild as well as moderately retarded individuals.

Phase II of the study aims to assess the effectiveness of self-help group programme on a sample of mild and moderately retarded individuals who participate in self-help group programme and attend
all its meetings. They would form the experimental group. The parents of the children would be assessed to study the changes in attitudes towards the problem of mental retardation. Pre-test and three Post-tests would be administered on the individuals and their parents.

In a typical research design, it would be ideal to establish a control group who would not participate in the self-help group programme and compare them with the experimental group using tests of significance. But this is not possible as the investigator is not in a position to control all those factors which would influence the mentally retarded individuals and their parents, in the time frame between pre and post tests. Individuals undergoing treatment with medical and various other professionals, teaching by parents, influence of community on the individual and parents, are some of the factors beyond the control of the investigator. Therefore, it is necessary to adopt the quasi-experimental design, where experimental groups act as their own control. A great advantage of this methodology is that it makes replication easier and focuses the data for the readers who may assess the success or otherwise of the self-help group programme. Hence, time series quasi-experimental design has been used in the present study. Here the mentally retarded subjects act as their own controls. Campbell and Stanley (1963) state that "the essence of the time-series design is the presence of periodic measurements
process on some group or individual and the introduction of an experimental change into this time-series of measurements, the results of which are indicated by a discontinuity in the measurements recorded in time-series".

Such a design would give a clear evidence of the success of the self-help group programme and the line of achievement of the objectives of the study by showing improvement in the same individual from time to time.

Sample

Sample for phase I of the study constituted 150 cases of institutionalised and 150 noninstitutionalised mentally retarded individuals selected on the basis of IQ and chronological age; and the parents of these 300 selected subjects also formed part of the sample for phase I of this study. 164 institutionalised subjects were screened to select 150 cases. IQ tests were administered on 242 noninstitutionalised subjects to select final sample of 150.

For phase II of the study, 15 mentally retarded individuals within the sample of 150 noninstitutionalised cases living in and around Bangalore and attending the self-help group programme were chosen as the experimental group. The description of the sample is given in Chapter 5 of the study. Table 4.1 and Table 4.2 present the sample designed for this study.
Table 4.1
Sample - Phase I
Total Sample (N=300)

<table>
<thead>
<tr>
<th>Institutionalised (150)</th>
<th>Non-Institutionalised (150)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mildly Retarded</td>
<td>Mildly Retarded</td>
</tr>
<tr>
<td>Moderately Retarded</td>
<td>Moderately Retarded</td>
</tr>
<tr>
<td>Female Male Female Male</td>
<td>Female Male Female Male</td>
</tr>
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</table>

Table 4.2
Sample - Phase II
Experimental Group
Total Sample (N=15)

<table>
<thead>
<tr>
<th>Mildly Retarded</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Female Male</td>
<td>Female Male</td>
</tr>
</tbody>
</table>

Criteria of Eligibility of the Sample

Phase I
1. The IQ of the mentally retarded individuals should range between 35 and 70 and should belong to the mild and moderate groups of mental retardation (as per AAMD, 1983).

2. The chronological age of the sample selected should range between 6 years to 18 years at the commencement of the programme.
Phase II

1. The criteria of eligibility will be the same as in phase I. In addition, mentally retarded individuals participating in self-help group programme will form the experimental group. These individuals would attend daily self-help group meetings five days a week.

2. The parents of mentally retarded individuals of the experimental group would participate in the self-help group programme and attend in turn, daily self-help group meetings upto three parents each day. All parents would attend the weekly self-help group meetings.

3. Daily self-help groups would meet five days a week and the parents of these individuals would meet every week at the weekly self-help group meeting.

Catchment Area. For phase I, institutionalised cases, data on 150 subjects and their parents was collected from Kamayani School for the Mentally Handicapped, Shivajinagar, Pune and its branch at Chinchwad, Pune, Maharashtra state. For the 150 non-institutionalised cases, data was collected from Jammu region of J & K state and Bangalore region, Karnataka state. For phase II the investigator formed part of the self-help group at Bangalore.

Tools

The tools employed in the present study are as follows:

1. Binet Kamath's Intelligence testing of Indian Children by Kamath,(1934).
3. Vineland Social Maturity Scale (VSM S), Nagpur Adaptation by Malin,(1965).
5. Parental Attitude Scale (PAS) by Bhatti,(1975).
9. Parental Opinionnaire (tool constructed by the investigator).
10. Interview with parents (audio recording by the investigator).

Short Description of Tools

KAMATH'S INTELLIGENCE TESTING (1934)

In 1934, Kamath undertook a proper revision of the Binet-Simon scale and the Stanford revision. A reappraisal of the scale was made thirty years later. Though the test is not flawless yet it is useful as it takes into consideration the environment of the subjects. It is converted for the use of Indian children and to some extent, the mentally backward children. In this case too, there is limitation as
those with severe motor defects lose the intellectual scoring on account of the motor disability. The test is not so rigid as it allows the examiner to begin the test for each child with the test items that are of interest to the child so as to win his confidence and elicit his co-operation. This system is helpful in the case of the emotionally disturbed children.

The objective of this method of testing is to find out if the observations made earlier can be scientifically measured and stated in reliable measures, in terms of Intelligence Quotient.

The manual for the test provides detailed guidelines for administering the test and for the conduct of the examiner. This includes details of the environment, room setting, spatial arrangements, conduct of the examiner and parents/others present if any.

The reliability of the test was established by administering the test on 1074 boys and girls of age group from 2 years to adults of all ages. Further, the test was translated into Kannada, Marathi and Gujarati and validity has been established. A sample of Binet-Kamath’s Intelligence Test, in English and Kannada is given at Appendix ‘A’.

**DEVELOPMENTAL SCREENING TEST (BHARATHRAJ, 1977)**

Simplicity, precision, objectivity, reliability, validity, economy are the cardinal features of a good psychological test. The Developmental Screening Test by Bharathraj (1977), meets these criteria satisfactorily. It is designed for the purpose of
measuring mental age. Larger number of items at early age level permits assessment of very young children. The test provides for a brief and fairly dependable assessment without requiring the use of performance tests. In its present form the Developmental Screening Test can be repeatedly used in assessments.

Originally, 124 items were derived from earlier schedules and studies. Out of these, finally 88 items were settled upon by the frequency or their appearance in the various sources consulted. The items included in the schedule stand for discrete and discernible characteristics representative of the respective age levels. At each level, items are drawn from behavioural fields like motor development, and personal-social development. The behavioural items have been selectively chosen from the earlier schedules incorporating also the results from the three Indian Studies (Hegde, 1971, NCERT, 1971 and Pathak, 1971).

Appraisal of the child is done as on other developmental schedules starting from a 'Basal Age' where all characteristics at a particular age are passed and gradually moving through upper age levels. Assessment is simply a matter of determining how well a child's behaviour fits one age level constellation rather than another by direct comparison. The schedule has a very few culturally laden items. Testing can be done in semi-structured interview with parent or person well acquainted with the child.
In order to ascertain the validity of the test, 35 children (19 boys and 16 girls) varying in age from 4 years to 11 years studying from nursery education to Vth class were tried on each of the tests, Developmental Screeing Test (DST), Seguin Form Board (SFB), and Columbia Mental Maturity Scale (CMMS).

DST correlated with Seguin Form Board to the extent of .85 and with CMMS to the extent of .75, both correlations being significant at .01 level. The Developmental Screening Test by Bharathraj is given at Appendix 'B'.

VINELAND SOCIAL MATURITY SCALE, NAGPUR ADAPTATION (MALIN, 1965)

The Vineland Social Maturity Scale (VSMS) developed by Doll (1936) has been a uniquely useful instrument for estimating the differential social capacities of an individual.

VSMS measures the social competence of an individual. Social competence is a universal human attribute and is not something static. It varies with physical and cultural conditions according to time, place and circumstances. Social competence may be defined as the functional ability of the human organism for exercising personal independence and social responsibility.

Although the VSMS is intended for use with a normal population as well as with the mentally deficient, it was first conceived as an aid in the
diagnosis of feeble-minded. It is intended to differentiate between mentally deficient individuals who are socially inadequate and those who are competent to conduct, their personal and social lives. This scale is unique in having been constructed and standardized on the model of the Stanford-Binet Scale. Since its appearance in 1935, the VSMS has been widely used in conjunction with the Stanford-Binet and other intelligence tests to assess Social Age (SA) relative to Mental Age (MA) or Social Quotient (SQ) relative to Intelligence Quotient (IQ). Doll (1935) has noted a high correlation between SA and MA ($r=0.86$) and Patterson (1943) reports higher correlation ($r=0.96$) for the same relationship on a sample of normal children with respect to MA functioning.

Goulet and Baylay (1963) have shown a consistent and high correlation between the VSMS, SA and the Binet Mental Age. The scale was adapted in India by Malin in 1965. The use of this scale in the Nagpur Child Guidance Centre has confirmed these high correlations also in the case of mentally retarded children. The results appear so promising that a wider use of this scale should be encouraged especially in other Indian cultural environments, so as to eventually produce a scale adapted perfectly to the Indian social milieu.

The original scale goes up to the 25th year of age but Nagpur Centre has limited the Indian adaptation up to the 15th year as the cultural changes in the upper years are more drastic as compared to the norms of
Doll's original test. Unlike many other scales, this one is based upon a well defined rationale and has been systematically constructed (Malin, 1965). Behaviour items are grouped at the age levels as in the Stanford-Binet. The items of the scale are arranged in order of normal average life age progression (LA) and are numbered in arithmetical sequence from 1 to 117. That is, items of the scale are arranged in order of increasing difficulty and represent progressive maturation and adjustment to the environment in the following 8 categories:

(i) Self-Help General (SHG)
(ii) Self-Help Eating (SHE)
(iii) Self-Help Dressing (SHD),
(iv) Self-Direction (SD)
(v) Occupation (O)
(vi) Communication (C)
(vii) Locomotion (L)
(viii) Socialization (S)

Items are scored after interviewing someone well acquainted with the subject (e.g. parents or teachers). A Social Age is then obtained, this is divided by Chronological Age, yielding a Social Quotient (SQ). Vineland Social Maturity Scale is given at Appendix 'C'.

**Socio-Economic Status Scale (Srivastava, 1978)**

This scale was developed by Srivastava in 1978. The importance of this scale has been realised by the
research workers in the field of Psychology, Education, Sociology, Social Work and other allied disciplines. Researchers have shown socio-economic status to be related with values, attitudes, child rearing practices, school achievements, emotional stability, aggressiveness and dominance, verbal behaviour and many other phenomena.

The final form of the scale was developed after item analysis of the responses of 370 students on the preliminary form for recording responses of the scale.

This form of scale seeks information about education, occupation and social participation of the subject under study. This scale claims a very high reliability. Coefficient of stability was calculated by administering the test on 100 students at two different times with an interval of 4 weeks and was found to be .94.

This scale was standardized on 1000 school and college students. The variable of socio-economic status was divided into five categories taking two units together. The total possible score is 44 and the following five categories are obtained:

<table>
<thead>
<tr>
<th>Scores</th>
<th>Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>34 and above</td>
<td>Upper Class</td>
</tr>
<tr>
<td>25-33</td>
<td>Upper Middle Class</td>
</tr>
<tr>
<td>16-24</td>
<td>Lower Middle Class</td>
</tr>
<tr>
<td>9-15</td>
<td>Lower Class</td>
</tr>
<tr>
<td>8 and below</td>
<td>Lower Lower Class</td>
</tr>
</tbody>
</table>
The Socio-Economic Status Scale is given at Appendix 'D'.

PARENTAL ATTITUDE SCALE (BHATTI, 1975)

It is a scale through which the orientation of the parents towards child rearing practice, knowledge of mental retardation, attitude towards mental retardation and attitude towards management of mentally retarded can be judged.

This scale consists of 56 items. 26 of these were adapted from Shoben's Attitude Scale (1949) and the other 30 were constructed with relevance to attitude of parents towards mentally retarded in India. The 56 items are again divided into the following four sub-areas:

Orientation of the Parents Towards Child Rearing. This area consists of 35 items and this helps us to understand the general attitude of the parents towards the participation of parents in the socialization of the child and their specific attitudes towards child as such.

Knowledge of Mental Retardation. This sub-area consists of 8 items. Through this the knowledge of the parents towards mental retardation is tested.

Attitude Towards Mental Retardation. This sub-area consists of 8 items. Through this the attitude of the parents towards mental retardation is estimated.

Attitude Towards Management of Mental Retardation. This sub-area consists of 5 items for measuring the
attitude of the parents towards the management of mentally retarded children.

A four point scale is given to each statement, the rating being (a) Strongly Agree (SA), (b) Mildly Agree (MA), (c) Mildly Disagree (MD), and (d) Strongly Disagree (SD). Each parent is asked to rate all the items. As per the weightage given to each item, the total score ranges from 0 to 148. The weightage scores are summed up and this constitutes the total score of the individual. Reliability co-efficient has been reported to be .72 by test-retest method. The validity of this tool is discussed in a study by Bhatti, Channabasava and Leny (1985). Parental Attitude Scale by Bhatti (1975) is given at Appendix 'E'.

CHECKLIST TO EXAMINE THE PSYCHO-SOCIAL PROBLEMS OF MENTALLY RETARDED INDIVIDUALS (COMMUNITY HEALTH UNIT, NIMHANS, 1985)

A 30 item checklist and a case history data sheet was developed by Community Health Unit, National Institute of Mental Health And Neuro Sciences (NIMHANS), Bangalore in 1985 for the purpose of examining the psycho-social problems of mentally retarded individuals. For all cases, the clinical diagnosis is made by a team and confirmed by the consultant of the unit, and then case is screened using the checklist to see whether it satisfied the inclusion criteria.

The investigator used this 30 item checklist developed by NIMHANS, in this study. This checklist is
based on semi-structured questions gathered from three checklists used for earlier investigations. These three checklists are:

(a) Tool to measure the social burden of families of psychiatric patients (Pai, S. 1981),

(b) Porforma for the examination of mentally retarded persons used at the NIMHANS Mental Retardation Clinic. It consists of 5 sections dealing with sociodemographic data, family history, physical examination, behavioural observation and present development as well as behaviour rating scale for the mentally retarded children which deals with their incapacities, behaviour problems and speech.

(c) Case history sheet for mentally retarded persons (Community Health Unit, NIMHANS, 1985) and includes a sub-section on the management plan for the individual. This checklist deals broadly with 6 main areas, which are divided into six sections as shown below:

Section A: Sociodemographic data,
Section B: Problems of the individual,
Section C: Family history,
Section D: Clinical diagnosis,
Section E: Dimensions of the problem,
Section F: Nature of the felt needs of the parents, support systems and assistance provided by the clinic.
The investigator did not make use of Clinical Diagnosis, Section D; and Behaviour assessment under Section F as these are to be administered only by professionals in the field. Also in section F, information under 'assistance provided by the clinic' has been omitted. The checklist is given at Appendix 'F'.

MADRAS DEVELOPMENTAL PROGRAMMING SYSTEM : BEHAVIOURAL SCALES (VIJAY HUMAN SERVICES, 1986)

The Madras Developmental Programming System (MDPS) behavioural scales are designed to provide information about the functional skills of the mentally retarded persons for purposes of individualized programme planning. The scales contain 360 items grouped under 18 functional domains. As an aid to programme planning, the items under each domain are developmentally sequenced along a dependence/independence continuum. The scales are designed to collect information about the retarded person by those people who have an interest in the life of the retarded person.

In order to use the Madras Developmental Programming System for behavioural assessment, the following materials are necessary:-

- Booklet containing the behavioural scales and instruction,
- the behavioural profile form, and
- ABAK- Adaptive Behavioural Assessment Kit
With the help of the Adaptive Behaviour Assessment Kit (ABAK), each subject's behaviour is assessed every quarter. For the purpose of this study the investigator proposes to carry out one pre-test and three post-tests with one month's intervention programmes between each of the post-tests.

The scale has been in use since 1986 at the two centres of Vijay Human Services for the mentally handicapped individuals at Madras. The reliability and validity are under publication. The investigator assessed reliability by test-retest method from data collected. The MDPS-behavioural profile is given at Appendix 'G'.

**COLOURED PROGRESSIVE MATRICES (RAVEN, 1960)**

This test was developed in England and has been used as the principal screening test for military classification during World War II, somewhat as a general intelligence test (Raven, 1960). It has been used in the United States as a brain measure of organic brain damage. In this non-verbal test, a subject is presented a series of coloured designs. A section has been omitted from each design. Beneath the main design are six design sections. Each of the designs fits the shape of the missing section of the main design but only one of them contains the correct pattern. The subject is told to select one of the six pieces which would complete the design if placed in the missing section. Since the task requires, first, a correct perceptual discrimination of properties which
the missing part should contain, and second, transporting bits of information to reconstruct the total design, the measurement of these processes provides a sensitive measure of organic brain damage or other cerebral dysfunction. The test covers the age range from four-and-one-half to eleven-and-one-half year. In case of mentally retarded children, this test was carried out on individuals upto the age of 18 years. It consists of 36 coloured designs presented in three sections of 12 each. Administration and scoring takes from 10 to 15 minutes.

PARENTAL OPINIONNAIRE (TOOL CONSTRUCTED BY THE INVESTIGATOR)

Since no standardized questionnaire was available to elicit the opinion of the parents of the subjects belonging to the experimental group (Phase II of this study) regarding their attitude towards the role of weekly and daily Self-Help group meetings, a structured questionnaire with multiple choice was designed by the investigator. The usefulness of weekly and daily self-help group meetings could not be assessed merely by way of interviewing parents and therefore, there was a need to design an opinionnaire and administer it to a representative sample of parents, who participated in the daily and weekly self-help group meetings. A copy of the opinionnaire is given at Appendix 'H'.
PROCEDURE FOR DATA COLLECTION

In phase I, the investigator carried out a survey on 150 mentally retarded institutionalized subjects and their parent/parents from two institutions at Pune. Though the institutions maintained all the records of IQ and case history of every individual, yet the investigator assessed each subject's performance independently, so that clear idea about the subjects' intellectual functioning and adaptive behaviour in addition to their detailed case history could be obtained.

Records, files and dossiers maintained by these institutions were thoroughly read through in order to select subjects who had obtained an IQ of above 35 and below 70 on whatever psychological tests that had been administered on them.

A total of 150 noninstitutionalised subjects who met the criteria of age and IQ were selected together with their parents to form the noninstitutionalised group for phase I of the study. Data was collected from Jammu region of J&K state and Bangalore region.

A total of 300 subjects, 150 institutionalised and 150 noninstitutionalised, of both sexes and belonging to mild and moderate degrees of mental retardation together with their parents were selected for the purpose of phase I of this study. Five psychological tests were administered on the subjects of Phase I with their parents'/teachers' co-operation. All the subjects of Phase I were administered Binet-Kamat's
test of Intelligence, Developmental Screening Test and Vineland Social Maturity Scale. Parents were administered Socio-Economic Status Scale, Parental Attitude Scale and Psycho-Social Check-list.

For phase II of this study, 15 subjects from the non institutionalised group of Phase I, living in and around Bangalore and attending the self-help group programme comprised the experimental group. As in phase I, subjects for phase II of this study met the criteria of selection. 15 subjects along with their parents comprised the experimental group. A brief write-up in training through self-help group is given at Appx 'J'.

Before the commencement of the daily self-help group and weekly self-help group programmes, the psychological tests were administered on the subjects of phase II as done in Phase I.

In phase II two additional tests were administered on the subjects of the experimental group; viz, Madras Developmental Programming System (MDPS) and Raven's Coloured Progressive Matrices (RCPM). The parents in addition to tests of Phase I, responded to Parental Opinionnaire and Interview (audio recording).

**CRITERIA FOR ELIGIBILITY OF THE SAMPLE**

The sample of the present study consisted of 150 institutionalised and 150 non institutionalized mentally retarded subjects, selected for the survey phase. Out of the noninstitutionalised subjects, 15 mentally retarded subjects along with their parents
comprised the experimental group. The subjects ranged in age between 6 years to 18 years with the mean age of 12 years. On the basis of the AAMD (1983) classification the investigator identified and selected subjects with IQ ranging between 35 to 70, for this study.

**Case Studies of the Subject of Experimental Group Sample**

After the experimental group sample of 15 subjects were selected, the investigator recorded the case study of every subject with parental help. The case studies helped the researcher in gaining deep understanding about the psychological as well as medical background of each subject. For each subject the sex, chronological age, IQ as per Binet-Kamath intelligence test, Developmental Screening Test (DST) and Vineland Social Maturity Scale (VSMS) scores are given. A brief history from birth including medical treatment and family history is given. The increase/decrease in combined IQ (average of IQ Binet-Kamath, DST and Social Quotient of VSMS) is also given. The case studies of the 15 subjects (S1 to S15) is given at Appendix 'K'.

**Statistical Analysis**

Various statistical techniques were employed for testing the research hypotheses. A brief description of these techniques is being made here as follows: -

- Raw scores of DST and VSMS were converted into IQ 2 and SQ respectively.
- Combined IQ was obtained by averaging IQ Binet-Kamath, IQ DST and Social Quotient VSMS.
- Chi-square test of significance is used to compare institutionalised and noninstitutionalised subjects for various psycho-social dimensions.
- t-test was applied to different groups to test the difference in means of the variables measuring mental and social maturity of mentally retarded subjects and parental attitudes.
- Paired t-test was applied between pre-test and three post-tests on the experimental group to ascertain if the impact of self-help group training was significant in measures of mental and social maturity, and also in parental attitudes towards mental retardation.
- Graphic representation was done wherever necessary.
### TABLE OF CODES

<table>
<thead>
<tr>
<th>Description of Terms</th>
<th>Codes used</th>
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<tr>
<td><strong>Variables</strong></td>
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<tr>
<td>IQ as per Binet-Kamth’s Intelligence Testing</td>
<td>IQ 1</td>
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<tr>
<td>IQ as per Developmental Screening Test</td>
<td>IQ 2</td>
</tr>
<tr>
<td>Social Quotient as per Vineland Social Maturity Scale</td>
<td>SQ</td>
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<tr>
<td>Average IQ of IQ 1, IQ 2 and SQ</td>
<td>IQ Comb</td>
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<td>Orientation toward mental retardation</td>
<td>ORN</td>
</tr>
<tr>
<td>Knowledge of mental retardation</td>
<td>KGE</td>
</tr>
<tr>
<td>Attitude towards mental retardation</td>
<td>ATMR</td>
</tr>
<tr>
<td>Attitude towards management of mental retardation</td>
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<tr>
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</tr>
<tr>
<td>Score of Madras Developmental Programming System</td>
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<td>Score of Raven’s Coloured Progressive Matrices</td>
<td>RCPM</td>
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<td>DST</td>
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<td>VSMS</td>
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<td>Prt</td>
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<td>Pst( )</td>
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