

METHODOLOGY

CHAPTER – III

METHODOLOGY

3.0 INTRODUCTION

Term Methodology refers to the processes and procedures one adopts while carrying out a study in order to achieve the particular objectives specified. This chapter gives details about the methodology followed in this study. The description of tools and techniques used, design, the sample, the procedure of data collection and the outline of statistical techniques utilized in the analysis of data are described under appropriate heads as presented below:

3.1 DESCRIPTION OF TOOLS

In order to achieve the objectives of the study, the following tools were used to collect the necessary quantitative and qualitative data for the study. The quantitative data were used to supplement the information gained through qualitative data.

3.1.1 Identification Data Sheet

3.1.2 Observation Schedule

3.1.3 Family Needs Assessment Semi structured Interview Schedule (NIMH – FAMNS)

3.1.4 Pretest and Posttest Questionnaire

3.1.5 Anecdotal Records

3.1.6 Case Studies

3.1.7 Reaction Scale for Feedback of the Intervention Programme

3.1.1 Identification Data Sheet

Data sheet was prepared to collect general information about the child with mental retardation and his or her family. This includes information such as personal characteristics of the participant and the child characteristics.

Personal characteristics consisted of the name, age, education, occupation, per capita income of the family, address with telephone number.

Child characteristics included, name of the child, age, sex and level of retardation (Appendix - II)

3.1.2 Observation Schedule for Parents

An observation schedule was developed to observe the behaviour of the children and attitude of the parents before and after the intervention programme in different situations. Observations were made in the following areas.

- ❖ Attitude of the parents towards their child with mental retardation.
- ❖ Efforts to help and cooperate the child in his daily activities and behavioural aspects.
- ❖ Acceptance of child's disability.
- ❖ Measures adopted by the parents through yoga and relaxation techniques.

The purpose behind this was to observe if there is any special change in behaviour of the children after the intervention programme and during follow ups.

Table 3.1 : Description of Family Needs Assessment Interview Schedule

| Areas / Needs | Number of Items | Type of Items |
|---------------|-----------------|-------------------------------------|
| I | 6 | Information Needs |
| II | 8 | Child Management |
| III | 2 | Facilitating Interaction |
| IV | 5 | Services |
| V | 1 | Vocational Planning |
| VI | 1 | Sexuality |
| VII | 1 | Marriage |
| VIII | 2 | Hostel |
| IX | 4 | Personal – Emotional |
| X | 2 | Personal – Social |
| XI | 3 | Support – Physical |
| XII | 3 | Financial |
| XIII | 2 | Family – Relationships |
| XIV | 2 | Future Planning |
| XV | 2 | Government Benefits and Legislation |

3.1.3 Family Needs Assessment Schedule (NIMH – FAMNS)

The Needs of the parents were assessed by using standardized tool developed by NIMH (National Institute for Mentally Handicapped) which was further modified by the investigator. NIMH – Family Needs Assessment Schedule (NIMH – FAMNS), a Semi structured Interview Schedule was developed for the following purpose.

- 1 To identify the needs of the families having individual with mental retardation.
2. To priorities the needs for family intervention.

Table 3.1 depicts the description of Family Needs Assessment Schedule (NIMH – FAMNS).

There are altogether forty-three items in the semi structured interview schedule, which are grouped under fifteen different areas. The score of each item on the schedule ranged from 0 – 2 i.e., 0 (No need); 1 (Little need); 2 (Very much a need). Area I includes six items on Information – condition, Area II has eight items on child management comprised managing behavioural problems, daily activities etc. Area III includes facilitating interaction. Area IV has items related to the services that are available for the child with mental retardation. Area V includes the vocational planning; Area VI consisted of marriage aspects, Area VII includes the information about hostel facilities; Area VIII comprises personal and emotional information; Area IX has items related to personal – social aspects; Area X has items concerned to support – physical aspects; Area XI includes needs related to financial aspects; Area XII includes family relationship, Area XIII is based on future planning; Area XIV includes Government benefits and legislation. (Refer Appendix – III)

The test-retest reliability coefficient for NIMH Family Needs schedule (Parents) was found to be 0.75 There validities were established viz. Concurrent validity, content validity and face validity

3.1.4 Questionnaire

Questionnaire was prepared on the basis of needs perceived by the parents on need based interview schedule. This tool was prepared mainly to measure the parents' level of awareness regarding the concept of mental retardation. The tool has four different types of questions. First part consists of twenty statements on awareness level The responses were measured on a three point rating scale.

Table 3.2 : Description of Pretest and Posttest Questionnaire on Awareness Level

| Sections | Nature of Questions | No. of Items |
|----------|--|--------------|
| I | Awareness Level- 3 – point rating scale | 20 |
| II | Multiple choice questions | 10 |
| III | Open-ended questions | 21 |
| IV | Stress and anxiety level 3 – point scale | 10 |

I.e. yes, no, can't say. Second part of the questionnaire has ten multiple-choice questions. All the questions were followed by four alternative responses. Third part consists of twenty-three open-ended questions in which parents were asked to give their responses.

Fourth part of the tool consists of ten statements with three point rating on stress and anxiety scale i.e. always, sometimes, never related to stress and anxiety faced by the parents. (Table 3.2)

Parts of the tool allowed parents to express freely about their experiences and day to day problems faced by them. The draft of the questionnaire was validated by the panel of experts in area of mental retardation. Tool was prepared in English and Hindi languages (Appendix – IV).

3.1.5 Anecdotal Records

An anecdotal record is a short, concise, narrative summarizing one directly observed incident, usually chosen for its developmental significance. It is recorded after the occurrence. A day-to-day observation record of the children during and after the intervention programme was maintained in the diaries by the parents that was supervised and monitored by the investigator.

3.1.6 Case Study

It involves an in depth, information of a single instance or event. It is a systematic way of studying at what is happening, collecting data, analyzing information and reporting the results. For the in depth study, from the sample, two cases were identified and chosen The data were collected through observations, interview schedule, pretest and posttest scores and field diaries maintained by the parents

3.1.7 Reaction Scale for Feedback of the Intervention Programme

In order to delve into the views and opinions of parents regarding each module of the intervention programme in terms of feedback was developed by the investigator. All the twelve statements were rated by the parents in terms of three responses i.e. to large extent, to some extent and to a little extent. (Appendix – V)

3.2 DESIGN OF THE STUDY

The present research investigation was an intervention study. The study aimed at evaluating changes on a sample of subjects as a result of the intervention programme employed. It was an experimental study. The detailed design of the study has been divided into five phases. The procedural details pertaining to each of the objectives are presented phase wise in the following subsections.

3.2.1 Phase I: The Sample Selection

Multistage sampling was selected as a sampling technique. In the first stage of sampling, Baroda city was chosen purposively. A complete list of special schools / integrated schools for children with mental retardation was prepared.

In the second stage of sampling, a sample of three special schools / and an integrated school for children with mental retardation was selected randomly from the list of schools prepared previously. The selected schools comprised, Meera school - an integrated school, Arpan – a centre for multiple handicapped; Bal Bhavan- special school.

In each of the selected special schools / and integrated schools, a complete list of children was prepared with the provision of the school authorities who fulfilled the following criteria:

- (a) Children should have mild / moderate retardation.
- (b) Children should fall under the age group of 8 – 15 years.

From this complete list again randomly twenty-five children were selected.

Parents of the children with mental retardation were interviewed for need assessment that acted as the respondents for the present study (Figure 3.1)

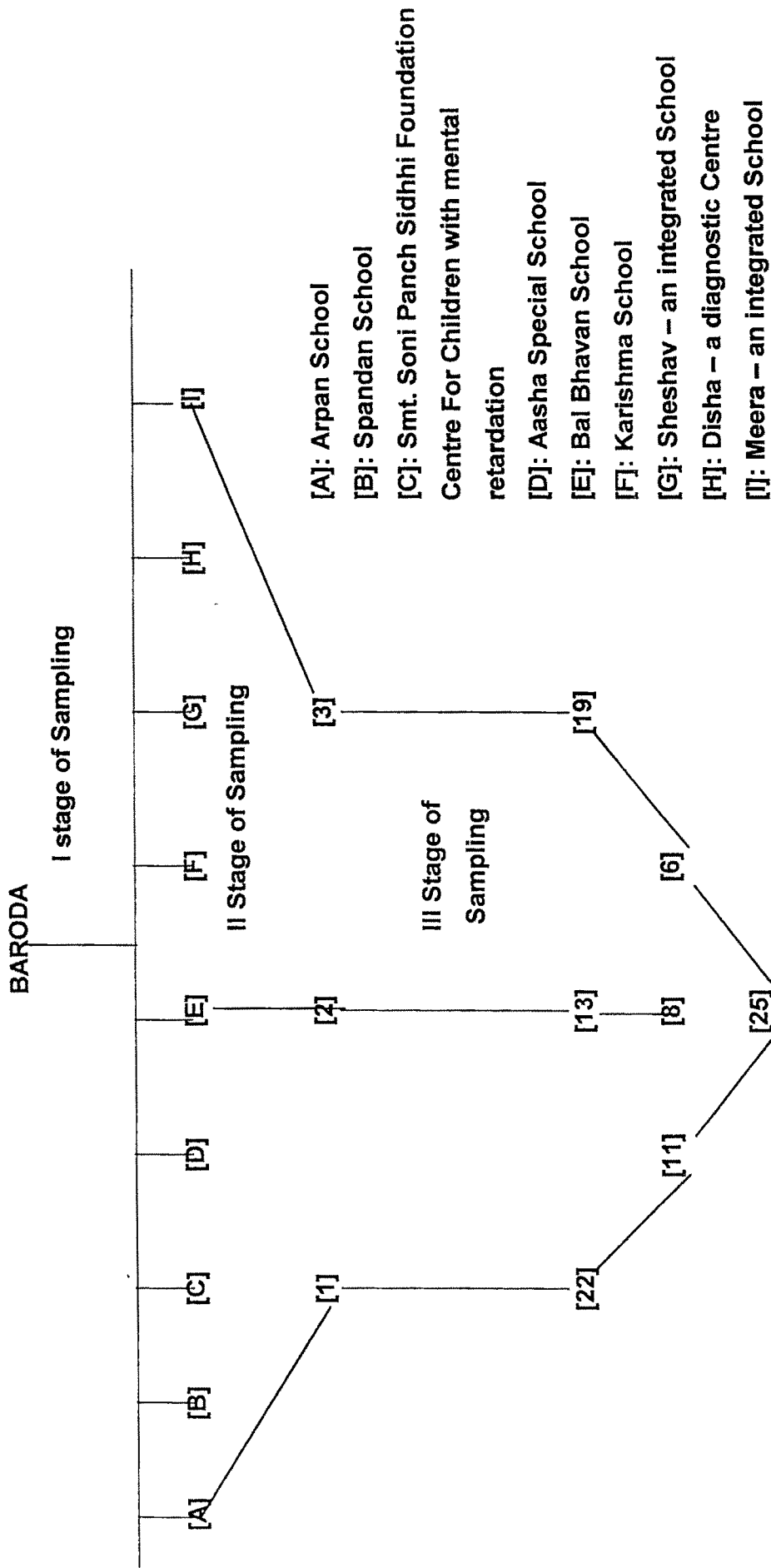


Figure 3.1: Sampling Design

3.2.2 Phase II: Needs Assessment of the Parents

Before assessing the parental needs, investigator selected twenty-five parents from special schools and integrated school in the city. The investigator personally contacted the special school authorities. Home addresses of the children were collected from the records of the school.

The objectives of the study were explained to them and their permission was sought for collecting data from the parents. Investigator took appointment telephonically from the parents before assessing their needs. While assessing the needs, investigator introduced herself to the parents' saying that she was a researcher in the 'Centre of Advanced Study in Education' and that she wanted to conduct an intervention programme for the parents of the children with mental retardation after their need assessment. She explained the nature of the study to the parents.

After establishing rapport, the investigator provided the general information sheet to parents and got it filled.

Common felt needs of the parents were assessed by the observation schedule and a semi structured interview schedule of NIMH. The observed behaviour of the parents and the children with mental retardation in different situations were recorded in the field diaries. Semi structured interview schedule were also conducted so as to elicit the needs of the parents having child with mental retardation.

3.2.3 Phase III: Development of the Intervention Programme

During the third phase of the study, the intervention programme was developed taking into consideration all the needs of parents, which were assessed during the initial phase. The programme was conducted for twenty-five parents. The sessions were held at Meera School, an integrated school premises. Intervention programme was spread over six modules. Modules were selected on the basis of their assessed needs. Booklets and a folder were also developed by the investigator. Description of the framework is given in figure 3.2.

Table3.3: Framework of the Intervention Programme

| Module | Description of Module |
|--------|---|
| I | Orientation and Concept of mental retardation. |
| II | Concept of Inclusion and Integrated School approach. |
| III | Behavioural problems and behavioural modification techniques for children with mental retardation. |
| IV | Vocational Rehabilitation, Employment opportunities and benefits given by the Government to the children with mental retardation. |
| V | Self help skill Training. |
| VI | Yoga therapy / Relaxation techniques for the children with mental retardation and their parents. |

There were three field visits to Vocational Rehabilitation Centre, K. G. P. Children’s hospital and Karishma School for special needs children.

3.2.4 Phase IV: Implementation of the Programme

Both mother and father from the same family of index child was considered as a one parent. On the whole, out of twenty-five respondents, twenty-two respondents either mother or father came to attend the intervention programme.

- ❖ Pretesting - Before the implementations of the programme, the pretest questionnaires were distributed to parents with the prescribed instructions.
- ❖ Implementation of the programme -Booklet named ‘Handbook for the parents of children with mental retardation’ both in English and Hindi was distributed to the parents, which was developed by the investigator. This handbook was developed on the basis of perceived needs of the parents. This was validated by the experts from education department to seek their opinion in terms of adequacy and appropriateness. It includes following topics:
 - General information regarding scientific concepts and misconceptions
 - Handling behavioural problem of children with mental retardation

- Developing daily living skills
- Employment opportunities for children with mental retardation
- Yoga as a therapy for parents as well as for their children with mental retardation.

The Handbook can be used as a ready reckoner even after the workshop. Folder with an attractive calendar was distributed to the parents. List of Vocational Rehabilitation Centres in India were also provided to the parents.

The modules of the intervention programme were outlined and the brief framework of the programme was discussed with the parents. The Intervention Programme was conducted in Hindi as per the request of the parents to facilitate greater understanding.

To increase the authenticity and confidence in dealing with the child, a team of interdisciplinary experts like, psychologist, special educator and yoga therapists were invited for a few of the sessions.

Multiple strategies such as films, demonstrations, and role-plays were used to make the programme interesting and effective. Two video films developed by 'NIMH' in the form of short stories named 'step by step we learn' and 'manzil ki oar' in Hindi was shown to parents. Former was based on the early intervention and the misconceptions arising in the society and the later one emphasized on stress and anxieties, training in daily living skills and Vocational Training Centres. Field visits were organized in order to help them in increasing their insight and sensitivity regarding the training of the child.

- ❖ Post testing - At the end of the session, the same questionnaire on awareness level of the parents were distributed.

3.2.5 Phase V: Effectiveness of the Intervention Programme

Daily evaluation reports were maintained by the investigator of each session, which include (a) attendance of the parents (b) Reactions of the parents towards the programme in each session (c) General interest of the parents throughout the session (d) Participation in the sessions of the programmes

After the workshop, posttest was administered. The results of pretest and posttest were compared

The effectiveness of the intervention programme were evaluated through:

- ❖ Pretest and Posttest questionnaire on awareness level of parents: Awareness level of parents was judged by the scores obtained from the pretest and posttest questionnaire.
- ❖ Pretest and Posttest semi structured interview schedule on family needs: Effectiveness of the programme was also evaluated by comparing pretest scores with posttest scores on satisfied needs of the parents after the intervention programme.
- ❖ Attendance of parents in the sessions of the intervention programme: The overall attendance of parents in the programme sessions indicated their interest and motivation.
- ❖ Observations during follow ups through home visits: A follow-ups study is conducted to determine the status of a group of interest after some period of time. The follow-up study is essential to a more complete understanding of the effects of a given approach or technique. Programme was evaluated by follow ups through home visits conducted by the investigator in terms of perceived needs fulfillment of parents and how far they could use in their daily regular lives.

Home visits were scheduled as follows:

- 1st month – Once in a week
- 2nd month – Once in a fortnight
- 3rd month – At the end of the month
- 4th – 8th month – Once in a month

During the final phase of follow ups, posttest questionnaire on stress and anxiety was distributed to the parents.

- ❖ Reaction Scale: Opinions and views of parents regarding the intervention programme were evaluated by the opinion inventory through reaction scale for feedback in the last phase of follow-ups

Following points were considered in mind through follow-ups.

- ❖ To what extent they could implement the programme with their children.
- ❖ To what extent, they accepted the child's mental retardation.
- ❖ What change they could observe in their children due to implementation of the intervention programme?
- ❖ What is a short-term gain and long-term gain of the activities and behaviours resolved or modified?
- ❖ Overall need fulfillment and benefit from the programme.

It was evaluated in terms of:

- ❖ Change in the attitude and perception of parents as a result of their increased insight, understanding and sensitization to their role and responsibilities as an impact of the programme.
- ❖ To the extent, they can implement behaviour modification techniques and for strengthening skill development and managing behavioural problem.
- ❖ Parents' diaries about the child's behaviour programme or any positive change seen in the child.
- ❖ Anecdotal records.

3.3 DATA ANALYSIS

The present investigation was an intervention study. Data collected were analyzed, objective wise using appropriate statistical techniques. The data were analyzed both qualitatively and quantitatively. For the realization of objective I, to assess the needs of parents of the children with mental retardation in order to plan an intervention programme was measured by observations and by using descriptive statistics (percentages and frequencies) and chi square test in the Family needs assessment semi structured interview schedule. These tests were used to assess and compare the needs with regard to parent's variables of education and per capita income of the family.

For the realization of objective IV i.e., to study the effectiveness of an intervention programme, qualitative technique, percentage analysis and t-test

were used to compare pretest and posttest scores. The quantitative data were used to supplement the information gained through qualitative data. The data thus collected being both quantitative and qualitative was subjected to both quantitative and qualitative analysis. This was done in order to assess the needs, develop and implement and see the effectiveness of the intervention programme for parents of children with mental retardation (Fig 3.3).

Table 3.4: Analytical Framework

| | Objective | Sample | Tool | Analysis |
|---|---|-------------------|--|---|
| 1 | To assess the needs of the parents of the children with mental retardation in order to plan an intervention programme | Parents n = 25 | Observation Schedule, NIMH Semi structured Interview Schedule | Descriptive statistics percentages and frequencies Inferential statistics Chi square tests |
| 2 | To develop the intervention programme for the parents of children with mental retardation | - | - | - |
| 3 | To implement an intervention programme for parents | - | - | - |
| 4 | To study the effectiveness of an intervention programme | Parents n = 22 | Pretest – Posttest questionnaire, observation through follow-ups. Anecdotal records. | Descriptive statistics - qualitative analysis. Inferential statistics -t- test. |