CHAPTER III

RESEARCH METHODOLOGY

This chapter deals with the research approach, research design, variables under study, schematic representation of the design, research hypothesis proposed, setting of the study, population, sample, and sampling technique.

It also describes the data collection tool, its selection and development, and scoring of content validity and reliability.

The chapter records details about the pretesting, pilot study, procedure of actual data collection, plan for data analysis and actual data collection.

Research Approach

The study uses the quantitative research approach. A quasi experimental approach was considered best suited to the study, which aims to find out the effect of selected planned interventions on grief and coping strategies of mothers of children with selected chronic diseases.

Research Design

This study uses a non equalent control group design with one experimental and one control group
Fig no-2 Diagrammatic representation of the Research Design

Target Population: Mothers of children with Thalassemia or Leukemia

Accessible population: Mothers of children with Thalassemia or Leukemia admitted in selected hospitals of Pune city

Sample: mothers of children with Thalassemia or Leukemia diagnosed since last five years admitted in selected hospitals of Pune city

Sample Size: 120 mothers of children with Thalassemia or Leukemia (60 in experimental and 60 in control group)

Sampling technique: Non probability convenient sampling technique

Experimental group

Control group

Pretest assessment of perception of grief and coping strategies

Treatment/ Intervention

No Treatment/ No Intervention

After 30 days

Posttest assessment of perception of grief and coping strategies
Variables

• **Independent Variable:**
  
  In this study the Independent Variable is the planned intervention (information booklet and relaxation therapy) given to the mothers of children with selected chronic diseases.

• **Dependent variable:**
  
  In this study the dependant variable is the perception of grief and coping strategies of mothers of children having selected chronic diseases

Setting of the study

The study was conducted in four settings. The following hospitals were included in the study as per the number of children admitted in these hospitals.

Setting description.

**Bharati Hospital**- It is a private hospital located in Katraj area of Pune city. At the time of this study this Hospital had 830 functional beds. Out of which Pediatric ward is of 60 beds. 46 children are registered for the treatment of Leukemia, they are coming regularly for the follow up. 38 children are registered for the treatment of Thalasemia, coming regularly for Blood transfusion.

**Red Cross Society**- Indian Red cross Society Pune Branch is situated in Rastapeth area of Pune city. It has got a well- equipped Thalassemia Unit. Around 65-70 children with Thalassemia are receiving blood transfusion every month.
**Nawale hospital**- It is a private hospital located in Sinhgad Road. Pediatric ward consist of 50 beds. 46 children are registered for the treatment of Leukemia, they are coming regularly for the follow up. 38 children are registered for the treatment of Thalassemia, coming regularly for Blood transfusion.

**Yashoda Hematological clinic**- It is a private clinic run by Dr Vijay ramanan in Deccan area of Pune city. Around 42 children with leukemia and 24 cases of thalassemia are taking regular treatment from this clinic.

**Population, Sample and sampling techniques.**

**Population**

The population of the present study comprised of mothers of children with Leukemia and Thalassemia admitted in the selected hospitals from March 2013 to November 2013. Only those mothers who fulfilled the sample criteria were selected for the study.

**Sample**

In the present study sample consist of mothers of children with selected chronic diseases (Leukemia and Thalassemia) from four settings as per the inclusion criteria
Sampling Criteria

Inclusion criteria

- Mothers who are having children with selected chronic diseases (Thalassemia and Leukemia)
- Mothers whose children diagnosed with Thalassemia or Leukemia from the last 5 years
- Mothers who understand English and or Marathi.

Exclusion criteria

- Mothers who are not willing to participate in the study

Sampling Technique

Non probability purposive sampling technique is used in the study.

Sample size

The sample size consisted of 120 mothers of children with selected chronic diseases admitted in selected hospitals of Pune city. Out of 120 mothers 60 were in control group and 60 in experimental group

Data Collection Technique and tool
Description of Data Collection Tool

Based on the objective of the study the data collection tool had the following sections:

Section I : Demographic variables Performa

Section II- Revised grief experience inventory to assess the grief of mothers of children with selected chronic disease.

Section III - Modified tool to assess the coping strategies of mothers of children with selected chronic diseases.

Section IV- Opinion of mothers regarding planned intervention.

Section I : Demographic variable

One of the objectives of the present study was to find out the correlation between grief and coping strategies and background variables. The purpose was to find out whether background variables, which are treated as independent variables in this study, affected grief and coping strategies. Section I included items on background variables such as number of children, diagnosis, duration after diagnosis, occupation.

Section I- Revised Grief Experience Inventory.

The second objective of the study was to determine the perception of grief of mothers of children with selected chronic disease. Hence this tool was adopted. This tool was developed by Lev, Munro & McCorkle 1993. The revised grief Experience Inventory (RGEI) is a 22 item self reported measure that assess the experience of grief and
bereavement. This scale was chosen because it is both a concise and valid measure that is sensitive to the grief experience.\textsuperscript{91}

The RGEI was developed for use with adults, and contains four subscales. As grief is a multidimensional process a questionnaire that outlined the different aspect of grief in its subscale was important because it ensured one was measuring more than just depression. It also allowed more of an insight in to how people grieve and enabled one to be more accurate in identifying where help may be needed. For example, an individual may only be having difficulty with one particular area of grief\textsuperscript{91}.

The RGEI was revised using Parkes (1972) theory of grief. Its 22 items were chosen because they had corrected item total correlations of 0.35 or above, and its four subscales are based on a principal components factor rotation which yielded a four factor solution. The four subscales in this inventory are: existential concern, depression, tension and guilt, and physical distress. Responses are scored in a 3 point scale ranging from 1-3. Each answer is recorded, and then summed to get a score of each subscale. The subscale scores are then summed to get a total score. Overall higher scores indicate higher levels of grief.\textsuperscript{91,92}

The RGEI was translated in to Marathi for better understanding by mothers. The instrument was shown to experts; however experts made no changes on this scale. This scale was pilot tested on 12 mothers for practicability, feasibly and reliability. The tool was found to be easily understandable.
Since this tool is introduced for the first time in Indian setting, the reliability of the tool was checked with Cronbach’s Co-efficient alpha and found to be 0.92.

**Section III- The coping strategies scale**

The third objective of the present study was to determine the coping strategies used by the mothers of children with selected chronic diseases. Hence this tool was created after reading literature on coping strategies. The tool had 24 items, of which 12 were problem solving coping strategies and 12 were emotion coping strategies. The scoring of this tool was based on the 3-point Likert scale: 0 being the patients never used the strategy, 1 meant patients sometimes used the strategy, and 2 indicated that the patients often used the strategy.

The review of literature clearly identifies both strategies as effective and useful. The items were mainly taken from Rahe and Moos, Lazarus and Folkman’s coping strategies instruments.93

The coping strategy scale was translated into Marathi for better understanding by mothers. The instrument was shown to experts, however experts made no changes on this scale. This scale was pilot tested on 12 mothers for practicability, feasibility and reliability. The tool was found to be easily understandable.

The reliability of the tool was checked with Cronbach’s coefficient alpha and found to be 0.82.
Section IV- Opinion of mothers regarding planned intervention.

One of the objectives of the present study is to assess the opinion of the mother of children with selected chronic disease regarding planned intervention. Five point likert scale is used to assess the opinion of mothers regarding relaxation therapy and information booklet which ranging from Strongly agree, Agree, neutral, disagree, strongly disagree.

Planned Intervention.

Relaxation Therapy.

The researcher underwent a certified relaxation therapy. Relaxation is a behavior therapy technique wherein clients are taught to keep their body and mind calm, as a result of which they will be able to handle situations more effectively. Relaxation programme aims at teaching the clients methods to produce the basic relaxation responses so that she can eliminate tension from her body and feel a deep sense of relaxation.94

Experts in the field of psychology were consulted for approval of the relaxation therapy. Experts validated the researcher’s use of the relaxation therapy. A Marathi translation of the technique was given to the mothers to read and understand. The researcher demonstrated the techniques after obtaining the pretest. Every third day contacted the mothers and supervised the relaxation therapy for one month. Instructed the mothers to do the relaxation therapy every day.
Information booklet

Based on the objectives Information booklet was prepared which was handed to the mothers of children with Leukemia and Thalassemia and discussion was encouraged on all aspects of the care of children with leukemia and Thalassemia. It includes meaning, treatment, care of the child, Sources of support, ways to reduce the stress.\textsuperscript{6,95,96,97} Experts validated the information booklet.

Validity

The tool was given for content validity to experts in the field of nursing, Medicine and psychology. (List given in Appendix.) Their valuable suggestions were incorporated in the final tool.

Reliability

In the present study reliability was done in Bharati Hospital of Pune city. The tool was administered to 12 samples by split half method. The reliability of the tool was established using Cronbach’s coefficient alpha formula. The scores were entered on a data sheet, and total mean and variance calculated using Cronbach’s formula.

The reliability of section II was 0.92; and section III was 0.82
**Pilot Study**

The pilot study was conducted on 12 patients from November 2012 to February 2013 in Bharati Hospital Pune. Its purpose was to ensure the feasibility and practicability of the design. The researcher contacted the mothers with selected chronic diseases in the pediatric ward, and explained the purpose of the study. Their consent was taken after assuring them that their responses would be kept confidential and used for the research purposes only. The demographic variable, RGEI scale, and coping strategy scale were collected on the first day of admission. For experimental group information booklet was given to the mothers with brief discussion. Relaxation therapy was taught to the mothers. Every third day contacted the mothers and supervised relaxation therapy for one month. After one month post test taken. Opinion of mothers regarding planned intervention is also taken. For control group the RGEI scale, and coping strategy scale is measured on the first day of admission and post taken after one month.

**Analysis of the pilot study**

The pilot data analysis included both descriptive and inferential statistics. Descriptive statistics such as mean, standard deviation were used to describe the RGEI scale and coping strategy. Frequency and percentage were computed. A student t test was used to find out the effect of intervention.
Result of the Pilot study

The mothers easily understood the RGEI scale and coping strategy scale. The findings on stress and coping responses observed and reported showed significance at 0.5 level for experimental group. The findings were tabulated and presented to the guide. The final study was undertaken only after obtaining approval from the guide.

Actual Data Collection

Data collection started in March 2013 after obtaining the required permission from the hospital authorities and the subjects. Samples of 120 subjects were completed after nine months of data collection. The demographic variable, RGEI scale, and coping strategy scale were collected on the first meeting with the mothers of children with leukemia and thalassemia. For experimental group information booklet was given to the mothers with brief discussion. Relaxation therapy was taught to the mothers. Every third day contacted the mothers and supervised relaxation therapy for one month. Total 10 sessions were conducted. After one month post test was taken. Opinion of mothers regarding planned intervention is also taken. For control group the RGEI scale, and coping strategy scale is measured on the first day of meeting and post test was taken after one month.
The data collection schedule was as follows

<table>
<thead>
<tr>
<th>S.N</th>
<th>Setting</th>
<th>Group</th>
<th>Period of data collection</th>
<th>Selected conditions</th>
<th>Number of samples</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yashoda Hematological Clinic</td>
<td>Control group</td>
<td>25/03/13-28/6/13</td>
<td>Leukemia Thalassemia</td>
<td>30</td>
<td>5-7 pm</td>
</tr>
<tr>
<td>2</td>
<td>Nawale Hospital</td>
<td>Control group</td>
<td>20/4/13-10/6/13</td>
<td>Thalassemia</td>
<td>20</td>
<td>12-2 pm</td>
</tr>
<tr>
<td>3</td>
<td>Red cross society</td>
<td>Experimental group</td>
<td>1/7/13-28/8/13</td>
<td>Thalassemia</td>
<td>30</td>
<td>12-2 pm</td>
</tr>
<tr>
<td>4</td>
<td>Bharati Hospital</td>
<td>Experimental group</td>
<td>1/9/13-26/11/13</td>
<td>Leukemia</td>
<td>30</td>
<td>12-2 pm</td>
</tr>
</tbody>
</table>

**Plan for Data analysis**

The data analysis would be done based on the objectives and hypothesis to be tested.

It was decided that tests of descriptive and inferential statistics would be used to derive the necessary results.

**Summary**

This chapter deals with the research methodology adopted for the study and includes descriptions of the research approach, design, setting, sample, sampling technique, data collection tools, their information, validity, reliability, proposed plan of data collection and actual data collection.