Chapter - III

METHOD

This chapter outlines the methodology adapted for the present research study. The chapter includes the following sections: (i) Problem (ii) Objectives (iii) Variables (iv) Operational Definitions (v) Hypotheses (vi) Participants (vii) Instruments (viii) Procedures (ix) Statistical analysis.

i. PROBLEM

To study the psycho-social problems of children with HIV/AIDS.

ii. OBJECTIVES

1. To study the level of adjustment of children with HIV/AIDS and Non-HIV/AIDS.
2. To study the level of self-esteem of children with HIV/AIDS and Non-HIV/AIDS.
3. To study the level of emotional competencies of children with HIV/AIDS and Non-HIV/AIDS.
4. To study the level of adjustmental, self-esteem and emotional competencies of girls and boys with HIV/AIDS.
5. To study the level of adjustmental, self-esteem and emotional competencies of rural and urban children with HIV/AIDS.
iii. VARIABLES

1. Dependent Variables: In the present investigation the psycho-social problems refer to adjustment, self-esteem and emotional competencies. Therefore, adjustment, self-esteem and emotional competencies are considered as dependent variables.


iv. OPERATIONAL DEFINITIONS

Adjustment: Child’s response with its environment as measured by the Adjustment Inventory.

Self-Esteem: Child’s response with its environment as measured by the Self-Esteem Inventory.

Emotional competencies: Child’s response with its environment as measured by the Emotional Competencies Scale.

Children with HIV/AIDS: Diagnosed by qualified medical officials as children with HIV/AIDS.

Children with Non-HIV/AIDS: Normal children are considered as children with non-HIV/AIDS.

Gender: A response of girls or boys as indicated by themselves in the personal information schedule.
Domicile: A response of rural or urban as indicated by themselves in the personal information schedule.

v. Hypotheses

According to the aim and objectives of the study the following directional hypotheses were formulated.

H₁: Children with HIV/AIDS have significantly higher adjustment problems than Non-HIV/AIDS children.

H₂: Children with HIV/AIDS have significantly lower self-esteem than Non-HIV/AIDS children.

H₃: Children with HIV/AIDS have significantly lower emotional competencies than Non-HIV/AIDS children.

H₄: Girls with HIV/AIDS have significantly higher adjustment problems than Boys.

H₅: Girls with HIV/AIDS have significantly lower self-esteem than Boys.

H₆: Girls with HIV/AIDS have significantly lower emotional competencies than Boys.

H₇: Rural children with HIV/AIDS have significantly higher adjustment problems than urban children with HIV/AIDS.

H₈: Rural children with HIV/AIDS have significantly lower self-esteem than urban children with HIV/AIDS.
H0: Rural children with HIV/AIDS have significantly lower emotional competencies than urban children with HIV/AIDS.

vi. PARTICIPANTS

The participant group consists of total 800 children, among them 400 children were with HIV/AIDS, who were diagnosed by qualified medical officials as children with HIV-infection. They were under treatment for HIV/AIDS called Antiretroviral Therapy (ART) and 400 children were non-HIV/AIDS. Participants were selected from Paediatric ART Centre, Indira Gandhi Institute of Child Health (IGICH), Bangalore, ART Centre district hospital Mandya and for children with Non-HIV/AIDS were selected from schools nearby Bangalore and Mandya. Selection was based on the requirement that the participants had been registered at the Anti Retroviral Therapy for at least two years, and that the children were in good health at the time of the study. An equal number of boys and girls were purposively selected from between the ages from 9 to 14 years and the mean age was 11.5 years. The study was conducted during the year December 2010 to May 2011.

Table 3.1: Shows the distribution of participants.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Children with HIV/AIDS</th>
<th>Children with Non-HIV/AIDS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Boys</td>
<td>Girls</td>
</tr>
<tr>
<td>Rural</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Urban</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td></td>
<td>400</td>
<td></td>
</tr>
</tbody>
</table>
Inclusive criteria

1. Children were under treatment on Antiretroviral Therapy (ART) for at least two years.
2. Nine to Fourteen years children were selected.
3. School going children were selected.
4. For Non-HIV/AIDS school going normal children were selected.

Exclusive criteria

1. Children who have any other disease like Opportunistic Infections (OI), TB, Malaria etc based on report, were excluded
2. Children, who have not taken treatment on Antiretroviral Therapy (ART) or Pre- ART Cases, were excluded.

vii. INSTRUMENTS

The following instruments were used to study the psycho-social problems, level of adjustment problems, self-esteem and emotional competencies:

(1) Personal Information Schedule

(2) Adjustment Inventory for School Students

(3) Self–Esteem Inventory

(4) Emotional Competencies Scale
1. Personal Information Schedule (PIS)

Personal Information Schedule was prepared by investigator. This schedule includes identification data and index variables such as: 1) Age, 2) Gender, 3) Type of School (Government or Private school), 4) Education, 5) Domicile, 6) Socio-economic status of parent, 7) Children with HIV/AIDS and Non-HIV/AIDS, 8) Father or Mother with HIV/AIDS, 9) Caregiver of the child.

2. Adjustment Inventory for School Students (AISS)

Adjustment inventory is developed by Sinha and Singh in 1993. It consists of 60 items which measures adjustment in three different areas namely social, emotional and educational.

The description of three areas of adjustment measured by the scale is as follows;

a) **Social**: How for one is adjusted can be determine by one’s social development and adaptability to the social environment. Social adjustment requires the development of social qualities and virtues in an individual. It also requires that one should be social enough to live in harmony with others and feel responsibility and obligations towards his fellow beings, society and country.

b) **Emotional**: Emotional adjustment plays an important part in one’s adjustment to self and environment. An individual is said to be emotionally adjusted if he is able to express his emotions in a proper way at a proper time. It requires one’s balanced emotional development and proper training in the outlet of emotions.
c) **Educational:** How far a student is satisfied with his school environment, its discipline, time-table, co-curricular activities, method of teaching, class and school mates, teachers and head of the institution, etc. All these factors contribute significantly towards his total adjustment.

**Scoring procedure:** the questions are to be answered as ‘Yes’ or ‘No’ response.

Highest score that the respondent could obtain for each area is 20 and lowest is 1 (Appendix - E). Higher score indicates higher adjustmental problems. Inventory can be scores by hand only. For any answer indicative of adjustment Zero if given, otherwise a score of one is awarded.

Table 3.2: Shows the key responses.

<table>
<thead>
<tr>
<th>Social Adjustment</th>
<th>Emotional Adjustment</th>
<th>Educational Adjustment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item No.</td>
<td>Response indicative of lack of adjustment</td>
<td>Item No.</td>
</tr>
<tr>
<td>1</td>
<td>Yes</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>Yes</td>
<td>5</td>
</tr>
<tr>
<td>7</td>
<td>Yes</td>
<td>8</td>
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<tr>
<td>10</td>
<td>Yes</td>
<td>11</td>
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<td>13</td>
<td>Yes</td>
<td>14</td>
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<tr>
<td>16</td>
<td>Yes</td>
<td>17</td>
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<td>19</td>
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<td>55</td>
<td>Yes</td>
<td>56</td>
</tr>
<tr>
<td>58</td>
<td>Yes</td>
<td>59</td>
</tr>
</tbody>
</table>
Social adjustment: Individuals scoring high are submissive and retarding. Low scores indicate aggressive behaviour. Emotional adjustment: Higher scores indicate unstable emotion. Students with low scores tend to be emotionally stable. Educational adjustment: Individual scoring high is poorly adjusted with their curricular and co-curricular programmes. Children with low scores are well adjusted with the school programmes.

Psychometric Properties of the Inventory: Authors claim that the test-retest reliability was found to be 0.93 and the split-half reliability was found to be 0.95. Validity coefficients were determined for each item by biserial correlation method and only such items were retained which yielded biserial correlation with both the criteria (i) total score and (ii) area score, significant level being .001.

3. Self-Esteem Inventory (SEI)

Self-Esteem Inventory was developed by Cooper Smith in 1987. It consists of 58 items and assesses the five different areas, namely general self-esteem, social self-esteem, home parent’s self-esteem, school-academic self-esteem and includes a lie scale also. The description of the five areas of Self-Esteem measured by the inventory is given below;

a) General Self-esteem: This consists of 26 items; they are 1, 2, 3, 8, 9, 10, 15, 16, 17, 22, 23, 24, 29, 30, 31, 36, 37, 38, 43, 44, 49, 50, 51, 56, 57 and 58. Lower score indicates lower general self-esteem.

b) Social Self-esteem: This consists of 8 items; they are 4, 11, 18, 25, 32, 39, 45 and 52. Lower score indicated to lower social self-esteem.
c) **Home Parents Self-esteem:** This consists of 8 items; they are 5, 12, 19, 26, 33, 40, 46 and 53. Lower score indicate to lower home parents’ self-esteem.

d) **School Academic Self-esteem:** This consists of 8 items; they are 7, 14, 21, 28, 35, 42, 48 and 55. Lower score indicate to lower school academic self-esteem.

e) **Lie scale:** This consists of 8 items; they are 6, 13, 20, 27, 34, 41, 47 and 54. If the obtained score is 5 or below, then it is considered that the responded statement is valid.

**Scoring procedure:** This Self-Esteem Inventory obtains two responses -“Like Me” and “Unlike Me”. There is no right or wrong answers. Each of the 58 items was scored on 2 points, ranging from 0 to 1 point, which show the most positive attitudes and the most negative attitudes. The maximum score for this inventory is 50 and the minimum is 0.

**Reliability:** The test-retest reliabilities obtained with the full Self-esteem Inventory, it ranges from .88 (over a five week period) to .70 (over a three year period). These values considered to be highly significant and satisfactory. According to Kimball (1972) with 7,600 public-school students, grade 4 through 8 from all socioeconomic status, Kuder-Richardson reliability of the scale was ranged from .87 to .92 (Barron, 1995). Behamdouni (1993) founded the test-retest reliability for a 5-week interval as .88 with a sample of 50 fifth grade students and for a 3-year interval as .70 with 56 fifth grade students. The study conducted by Karacan (2009) reports the alpha coefficient calculated from 130 sixth grade students for the total scale was .90. The reliability coefficients of subscales of SEI were as follows; general .85, social .63,
family .74 and school .61. On the other hand, by using Piers-Harris Self-Concept Scale as a criterion and Karl Pearson’s Product Moment Correlation coefficient, the validity of SEI with similar scales was found .72. Overall, researchers stated that SEI is highly recommended research tool due to its realibility and validity evidence (Barron, 1995).

4. Emotional Competencies Scale (ECS)

The emotional competence scale developed by Sharma, and Bharadwaj, in 1995. It consisting of 30 items, the scale measures five emotional competencies and overall emotional competency. The descriptions of five categories of emotional competencies measured by the scale are as follow:

a) **Adequate Depth of feeling:** Feeling in its broadest sense is any kind of process or experiencing, (English and English, 1958) characterized by predominance of affect and accessible emotions which lead to some kind of involvement to a great degree of the individual. A feeling of being confident or capable with all reality assumptions may be termed as adequate depth of feeling specifically associated with effective judgement and personality integration, which ensures vigorous participation in living.

b) **Adequate Expression and Control of Emotions:** Generally the appropriate reaction to certain situation is not expressed adequately in emotional reactions and a mature person accepts his emotions as a part of himself, neither allows them to rule over him nor rejects them as aligned to his nature and is not at all worried because he accepts them and has an adequate control over them. Emotional competencies require both an adequate expression and their control which may be regarded as natural.
dynamic stability of an individual to express and control emotions spontaneously as demanded by the situation.

Adequate expression and control of emotions refer to a tendency marked by adequate emotional expressiveness based on fulsome expression and control of emotions. Any form of inadequacy in either expression or control of emotions may lead to uncontrolled and disorganized emotionality.

c) **Ability to Function with Emotions**: It is, sometime difficult to carry out even routine work, when one finds themselves face to face with a highly emotional situation. Emotional competence requires that the individual should develop a characteristic pattern of emotional reactivity which should not let them be influenced in there adequate mode of functioning that helps them in performing their daily routine activity properly.

d) **Ability to cope with emotional problems**: Certain emotions play a destructive role and pose potential damage to the life orientations of the individual’s course of life. Therefore, emotional competence requires an understanding of the role of sensitivity and the detrimental effects of such emotions in the beginning and also a development of ability to resist their harmful effects thereafter.

e) **Encouragement of positive emotions**: The congenial growth of personality requires the predominance of positive emotions that show a constructive influence in the dynamics of behaviour. The growing vitality and a feeling of wholeness with a continuous capacity for intellectual and spiritual growth are associated with an experience of positive emotions. The encouragement of positive emotions refers to the ability of the person
to develop a predominance of positive emotions in the personality make-up of oneself to ensure a meaningful and fairly well integrated life.

**Scoring:** It is Likert type five points scale. The entire items are positively loaded. Hence, scoring of each item was followed with pattern of 1,2,3,4 and 5. The total emotional competencies score ranges from 30 -150. Higher scores on the scale indicate high emotional competency.

**The Reliability:** The reliability of the scale has been derived by employing two methods, test-retest and split-half method. The test-retest reliability for the different competencies range from .75 to .90 and on total emotional competency is .74. The split-half reliability range from .71 to .82 for different competencies and on total emotional competency the reliability is .76. These values are highly significant.

**The Validity** of this scale has been determined by the test author with factor A and C of 16 Personality Factor Questionnaire and found to be .64 and .69 respectively.
viii. PROCEDURE

a) Ethical Considerations

For the ethical considerations, permission was obtained by the University of Mysore and Institutional Human Ethical Committee (IHEC), University of Mysore, Mysore, to conduct the research study on human beings (Appendix - A). The researcher considers the subject of ethical practice to be of utmost importance and the fundamental principle that underlies the research. It was the researcher’s sincere intent to ensure that no harm came to any participant of this study. The following ethical considerations are ensured.

**Ensuring Informed Consent:** When obtaining consent, the researcher is required to ensure that this is voluntary and well informed. Participants received full, non-technical and clear explanation of what is expected of them. Researcher provided each participant with a clear outline of research goals, procedure, publishing of results, as well as the possible advantages and disadvantages of the study. Participants were informed that they were free to withdraw from the study at any point, without need of any explanation. Parent and Guardians were included in this process and also gave their consent by signing the form (Informed consent form- Appendix - C).

**Ensure Confidentiality:** Each participant is entitled to his or her privacy; including the right to decide who receives access to their responses and identity. The researcher is aware of and grateful for the trust each participant placed in his and ensured that there was no breach of confidentiality. The researcher was therefore the only person who had access to the information shared by each participant who were coded with serial number. No names were revealed at any point in this study.
**Data Protection:** In order to, further, ensure confidentiality, all data had been recorded, stored and processed under secure conditions, protecting the identity of each participant. Furthermore, only relevant information pertaining to the present research study was collected, avoiding unnecessary invasion of privacy.

**b) Test Administration**

Once a final decision on participants was made, the authorities /parents / guardian provided signed consent for each child, in their capacity as legal guardians. Separate meetings were then held between the participants and researcher. The initial meeting was primarily for rapport building. Then the following was also achieved: the study and process was explained verbally; consent forms for participation and recording were signed; and questions were answered. The Personal Information schedule regarding socio-demographic details was then completed with the input of the children, parents or caregiver (Appendix - D).

**Instructions and procedure for adjustment inventory:** Participant were made to seat comfortably and instructed thus, “The questions covering your social, emotional and educational problems, which have two alternative responses ‘Yes’ and ‘No’. Read every question carefully and decide whether you want to answer it with yes or no. If your answer is ‘yes’, then cross (x) the cell box under ‘yes’ and if in ‘NO’, cross (x) the cell box under ‘No’. Whenever they had doubt in understanding items, the test administrator clarified their doubts in their local language. Remember your answers will not be told to any person, so please give the correct answer without hesitation. You may take your own time, but try to finish at your earliest.
**Instruction and procedure for Self-esteem scale:** Participant seated comfortably and instructed thus; This Self-Esteem Inventory statement covering your self-esteem, which has two alternatives response ‘Like Me’ and ‘Unlike Me’. Read every statement carefully and decide whether you want to answer it with ‘Like Me’ or ‘Unlike Me’. If the statement describes how you usually feel, put a tick in the column “Like Me”. If the statement does not describe how you usually feel, put a tick in the column “Unlike Me”. There is no right or wrong answers. Remember your answers will not be revealed to any person. So please give your correct response without hesitation. You may take your own time, but try to finish at your earliest.

**Instruction and procedure for emotional competencies scale:** The Participants were given instructions as follows; ‘thirty incomplete statements are given in the scale. Every incomplete statement can be completed with the help of any of the five alternatives mentioned before the incomplete statement. You have to complete every statement in terms of your own. Therefore think adequately and respond in a determined manner. Tick the mark which so ever suits you among the five alternatives. There is no right or wrong alternatives. Please note that your answers will not be revealed to any one and anywhere. So please give the appropriate response without hesitation. You may take your own time, but try to finish it your earliest’.

The test was administered to the participants in two groups, one group is children with HIV/AIDS, and another one is non-HIV/AIDS.

**Children with HIV/AIDS:** All the tests were administered to the group of 20 to 25 children, in a separate counseling room with appropriate instructions. Parents/caregivers were permitted whenever necessary.
Children with non-HIV/AIDS: Administration procedures for tests were the same as in the children with HIV/AIDS group.

C. Time and Duration of Data Collection

The study was conducted during the year December 2010 to May 2011. The participants were given appropriate instructions and then the tests were administered one by one. Adjustment Inventory for School Student (Appendix - E), Self-Esteem Inventory (Appendix - F) and Emotional Competencies Scale (Appendix - G) were given in the group of 20 to 25 children. They were to indicate their responses in the answer sheets given to them. Whenever they had doubt in understanding items, the test administrator clarified their doubts in their local language. Data collection took about 60-75 minutes approximately. Then the data was scored and statistically analysed by using descriptive and ANOVA techniques.
D. STATISTICAL ANALYSES

In order to test the hypotheses, a computer based SPSS (20 version) package was used to analyze the data.

a) Descriptive Statistics

The Descriptive procedure displays univariate summary statistics for several variables in a single table and calculates standardized values.

b) Independent Samples ‘t’ test

The Independent-Sample’s ‘t’ Test procedure compares means for two groups of cases. In the present investigation ‘t’ test was applied to find out the difference between children with HIV/AIDS and non-HIV/AIDS, in various areas of adjustment, self-esteem and emotional competencies.

c) Analysis of Variance (GLM - General Linear Model)

The GLM Univariate procedure provides analysis of variance for one dependent variable by two or more factor and/or variables. The factor variables divide the population in to groups. Using this General Linear Model procedure, one can test directional hypotheses about the effects of other variables on the means of various groupings of a single dependent variable. One can investigate interactions between factors as well as the effects of individual factors, some of which may be random. In addition, the effects of covariates and covariate interactions with factors can be included. In the present investigation two-way ANOVA was employed to find out the significance of difference between girls and boys with HIV/AIDS, rural and urban children with HIV/AIDS, in various areas of adjustment, self-esteem and emotional competencies.