CHAPTER - IV

METHOD OF INVESTIGATION
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Method of Investigation

This chapter includes the research design, the plan, strategy and structure of the present study. The type of research, the variables employed, the sample selection, tools employed, the main study and the statistical methods used in the present investigation are described.

Nature of Research

2 x 3 repeated measure Quasi experimental design (Broota, 1989) was used in the present study. The effect of self-esteem training (independent variable) on behavior problems, adjustment, locus of causality academic performance (dependent variables) was observed for the students of 8th and 9th standard.

Sample of the Study

The Guild of Service (Central), established over six decades ago, is a national level social welfare organization, set up to co-ordinate activities for the benefit of the economically backward, physically and mentally handicapped and socially weaker sections from its main office at Chennai and branches. The Guild extends service to children women and families. One of its branches is the Seva Samajam Girls Home.
The present research was carried out in the Seva Samajam Girls Home which is situated at the heart of the city. It was established in 1955 by Mrs. Mary Clubwala Jadhav. This institution provides care and shelter for destitute girls age ranging 8 to 20 years. It also provides education at Mary Clubwala Jadhav Girls High School which is attached to the home. The institution was started with 3 girls and at present it has a strength of 122 residential students. Some the students are total orphans, and the rest are neglected children, having single parent, coming from different family background (ref. Table 4.1 for parental status). Permission of the concerned authorities was obtained to carry out the study in this institution. The students also volunteered to take part in the self-esteem training.

Table 4.1

Parental Status of the Neglected Institutionalized Adolescent Girls

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Parental Status</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Father alive-Mother dead</td>
<td>2</td>
<td>5.72</td>
</tr>
<tr>
<td>2.</td>
<td>Mother alive-Father dead</td>
<td>11</td>
<td>31.42</td>
</tr>
<tr>
<td>3.</td>
<td>Father alive-Mother deserted</td>
<td>19</td>
<td>54.28</td>
</tr>
<tr>
<td>4.</td>
<td>Mother alive-Father deserted</td>
<td>1</td>
<td>2.86</td>
</tr>
<tr>
<td>5.</td>
<td>No Response</td>
<td>2</td>
<td>5.72</td>
</tr>
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</table>

**Total** 35 100.00
The following Table 4.2 describes the nature of the sample.

### Table 4.2

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency No. of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Age</td>
<td></td>
</tr>
<tr>
<td>13 Years</td>
<td>12</td>
</tr>
<tr>
<td>14 Years</td>
<td>14</td>
</tr>
<tr>
<td>15 Years</td>
<td>9</td>
</tr>
<tr>
<td>2. Father</td>
<td></td>
</tr>
<tr>
<td>Dead</td>
<td>11</td>
</tr>
<tr>
<td>Alive</td>
<td>24</td>
</tr>
<tr>
<td>3. Mother</td>
<td></td>
</tr>
<tr>
<td>Dead</td>
<td>2</td>
</tr>
<tr>
<td>Alive</td>
<td>33</td>
</tr>
<tr>
<td>4. Parental Status</td>
<td></td>
</tr>
<tr>
<td>Separated</td>
<td>29</td>
</tr>
<tr>
<td>Divorced</td>
<td>4</td>
</tr>
<tr>
<td>Unknown</td>
<td>2</td>
</tr>
<tr>
<td>5. No. of Siblings</td>
<td></td>
</tr>
<tr>
<td>1-2</td>
<td>10</td>
</tr>
<tr>
<td>3-4</td>
<td>22</td>
</tr>
<tr>
<td>5 and Above</td>
<td>3</td>
</tr>
<tr>
<td>6. Birth Order</td>
<td></td>
</tr>
<tr>
<td>1st Born</td>
<td>10</td>
</tr>
<tr>
<td>Middle Born</td>
<td>11</td>
</tr>
<tr>
<td>Last Born</td>
<td>14</td>
</tr>
<tr>
<td>7. Years of Stay at the Institution</td>
<td></td>
</tr>
<tr>
<td>1-2</td>
<td>6</td>
</tr>
<tr>
<td>3-4</td>
<td>6</td>
</tr>
<tr>
<td>5 and Above</td>
<td>23</td>
</tr>
<tr>
<td>1. No. of Institutions Stayed</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>2</td>
<td>23</td>
</tr>
<tr>
<td>3 and Above</td>
<td>4</td>
</tr>
</tbody>
</table>
The following Table 4.2 describes the nature of the sample.

**Table 4.2**

<table>
<thead>
<tr>
<th>No.</th>
<th>Description of the Sample</th>
<th>Frequency No. of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Age</td>
<td>13 Years</td>
</tr>
<tr>
<td></td>
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<td>14 Years</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15 Years</td>
</tr>
<tr>
<td>2.</td>
<td>Father</td>
<td>Dead</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Alive</td>
</tr>
<tr>
<td>3.</td>
<td>Mother</td>
<td>Dead</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Alive</td>
</tr>
<tr>
<td>4.</td>
<td>Parental Status</td>
<td>Separated</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Divorced</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Unknown</td>
</tr>
<tr>
<td>5.</td>
<td>No. of Siblings</td>
<td>1-2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3-4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 and Above</td>
</tr>
<tr>
<td>6.</td>
<td>Birth Order</td>
<td>1st Born</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Middle Born</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Last Born</td>
</tr>
<tr>
<td>7.</td>
<td>Years of Stay at the Institution</td>
<td>1-2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3-4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 and Above</td>
</tr>
<tr>
<td>8.</td>
<td>No. of Institutions</td>
<td>Stayed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 and Above</td>
</tr>
</tbody>
</table>
Selection of Sample

The institution had a total strength of 122 residential students. The pre-assessment was done using Youth Self Report Questionnaire (Achenbach and Edelbrock, 1987) on 96 students as the remaining 26 students were undergoing various vocational training outside the campus.

Exclusion Criteria

- Mentally ill and mentally retarded.
- Physically handicapped.
- Total orphans.
- Abused (physical, emotional, sexual).
- Girls having both the parents.

Some of the other reasons for excluding samples were, the 10th, 11th and 12th standard students had to appear for the Public/Board Examination. The authorities did not give permission to include them in the study as they were not permitted to participate in non-academic activities. Hence, 36 students were excluded from the study.

Purposive sampling procedure was adopted based on the following criteria.
Selection Criteria

Individuals who have scored above the 95th percentile on behavior problems in the Youth Self Report.

Girls ranging between 13-16 years.

Only institutionalized neglected school going girls.

Girls coming from single parent home.

Out of 46 girls, 37 of them have scored above the 95th percentile in Youth Self Report Questionnaire which is considered as high behavioral problem. The remaining 9 were excluded as they scored below the 95th percentile which is considered to be "normal range." Thus the sample consisted of 37 students whose age ranged between 13 to 15 years with the mean age of 14. Out of the 37 girls, 23 were from seventh standard and 14 from eighth standard. However, during the follow-up assessment 2 students left the home after the academic year.

Note: 9 girls who were in the normal range for behavioral problems also participated in the training on request from the authorities. However they were excluded for statistical analysis.
Similarly the control group was also selected based on the same criteria as for the experimental group. The control group consisted of 25 girls from Girls Home - Kellys, Chennai. They were selected from a different Institution to avoid interactional effect of training.

Pre-assessment was done for experimental and control group during the same period. However, the self-esteem training was given only to the experimental group. Post and follow-up assessment were done for both the groups at the same period.

Procedure Followed During Training

The trainer initially established a rapport with the students and a behavioral contract was signed by every participant and the trainer to ensure their commitment to this program (Refer Appendix - II).

The objective of the training was explained to the participants highlighting the importance and development of an integrated "Self". The girls were also told about the usefulness of the training in their everyday life, interpersonal relationship, communication as well as academic performance.
The following rules of the program was clearly stated to be observed throughout the course:-

1. The students have to attend the sessions regularly and be punctual.

2. Each student has to be attentive and take active participation (group work, role play, games etc.).

3. Every student has to strictly maintain confidentiality of the feelings/thoughts shared by others in the group.

4. Feedback and evaluation has to be given but no criticism.

5. Home assignment has to be completed and brought to the next session.

6. Each student has to take personal responsibility for her growth.

Conduction of Training

Experiential methodology was adopted for this training to make the students actively involve themselves in whatever they do. The total duration of the training was for 3 months. For the administrative convenience of the school, institution and for research
purposes the group was divided into two A=(23), B=(14). Each group was met twice a week after the school-hours for a period of one hour per session ensuring that the students were not disturbed during the school hours. In the total period of 3 months, each group was given self-esteem training for 21 sessions. Classrooms, playground and prayer hall were the venues chosen for conducting the training.

Tools Used in the Study

The following tools were used for the present study.

Table 4.3
Tools Used in the Study

<table>
<thead>
<tr>
<th>No.</th>
<th>Name of the Tool</th>
<th>Authors</th>
<th>Variable Measured</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.</td>
<td>Pre-Adolescent Adjustment Scale (PAAS)</td>
<td>Pareek et.al., (1975)</td>
<td>Adjustment</td>
</tr>
</tbody>
</table>
The rationale for use, development, description, administration, procedure, scoring methods, reliability and validity of all the 5 questionnaire are described below.

Youth Self Report (YSR)

Rationale

This scale is widely used in disturbed population (Malavika, 1995). It is an effective measure to obtain description about children’s academic performance, adaptive functioning, and behavioral problems in a standardized format. This questionnaire is used to assess and screen neglected adolescents on various dimensions of problems such as somatic complaints, anxious/depressed behavior, aggressive behavior, social problems, etc. It is a comprehensive tool, very suitable for adolescents in India.

Development and Description

Youth Self Report (YSR) was developed by Achenbach and Edelbrock 1987; Achenbach, 1991. It is virtually identical to the CBCL in format and content, but is completed by the adolescent like the CBCL, the YSR was reformed in 1991 (Achenbach, 1991b). On the new revision, the sub scales that comprise the Internalizing and Externalizing factors are entirely
consistent with those on CBCL. YSR was designed for youngsters aged 11 to 18 years. It is simple enough to be filled out by youngsters with a mental age of about 10 and fifth grade reading skills. It can also be read aloud to the respondent if necessary.

YSR is a self-report measure of social competence and behavioral difficulties appropriate for adolescent. But the social competency scale was not used for the present study as it was not required.

The YSR is a 112 item check list. Items are scored on a scale of 0 ("not true"), 1 ("some what or sometimes true") 2 (very true or often true). There are nine standard sub scales: withdrawn, somatic complains, anxious/depressed, social problems, thought problems, attention problems, delinquent behavior, aggressive behavior and self-destruct/identity (only for boys). Second-order factor analysis performed with these sub scales across sex/age groups resulted in the formulation of two broader scales, internalizing and externalizing (Achenbach 1991).

Administration Procedure

YSR is a self-administering tool. It can also be read aloud to the respondent if necessary. The following instructions were given. Below is a list of
items that describe youngsters: For each item that describes you now or within the past six months, please circle the 2 if the item is very true or often true of you. Circle the 1 if the item is somewhat or sometimes true of you. If the item is not true of you circle the 0.

The students were asked to respond without discussing with each other. Three fourths of the students completed the questionnaire in 20 minutes and the rest in about 30 minutes. There was no time limit but care was taken to see that the entire group answered with full involvement.

Scoring

Hand Scoring the YSR Profile

Total Problem Score

To compute the total problem score, sum the 1s and 2s of the YSR. Items 2, 4 and 16 socially desirable items were omitted as per the scoring procedure. The following 16 items are excluded from the problem scores: 6, 15, 28, 49, 59, 60, 73, 78, 80, 88, 92, 98, 106, 107, 108, 109. Comments written by the youth at the bottom of the page are also not scored.

If responses were missing for more than 8 problem items, not counting items 2, 4 or 56h, the questionnaire was rejected. If responses were encircled
for two numbers for an item, scoring was done for the first response. Note that there are 103 problem items, even though the numbers range from 1-112. If the youth has entered a problem for item 56h that is not covered by another item, include the score for 56h. The total problem score can be cross checked by subtracting the number of problem items scored as present from the sum of 1s and 2s. The difference should equal the number of 2s, omitting items 2 and 4 (the number and sum of items cannot be competed by adding scale totals, because some items appear on more than one scale). The YSR provides raw scores for each sub scales as well as externalizing, internalizing and total problem score. In the present study the internalizing and externalizing dimensions were not included. Refer appendix for the scoring profile.

Reliability and Validity

The YSR was revised in 1991 (Achenbach, 1991b). On the new revision, the sub scales that comprise internalizing and externalizing factors are entirely consistent with those on the CBCL (Child Behavior Check List). Reliability at 1 week retest for the YSR total scores are very good, ranging from 0.79 to 0.81. Long term stability is moderate with a mean of 0.49 at 7 month retest (Achenbach, 1991b).
Self ratings of YSR behavior problem items thus show high stability and correlations with other people's view of the subjects, to inspire confidence in their meaningfulness.

**Pilot Study for the Youth Self Report**

The pilot study was conducted as the original version of YSR was translated into Tamil to suit the sample of the present research. The purpose of the pilot study was to determine whether the respondents were able to comprehend and interpret both the Tamil and English versions in a similar manner (ie) without misinterpretation or confusion of items in the translated (Tamil) version.

The English version of the Youth Self Report was distributed to 37 adolescent students.

The same questionnaire (YSR) but the Tamil version was given to the same 37 respondents after 2 weeks with instructions given in Tamil. A statistical analysis was made of the data collected. Karl Pearson's co-efficient correlation was calculated between the total scores. A high degree of positive correlation was found between the scores for which the results are given below.
Karl Pearson's Co-efficient Correlation

\[
\frac{N \Sigma xy - \Sigma x \Sigma y}{\sqrt{[\Sigma x^2 - (\Sigma x)^2] [\Sigma y^2 - (\Sigma y)^2]}}
\]

= 0.914

Thus, the results showed that there is a positive correlation between the English and Tamil versions of YSR administered at two different periods.

Self-Esteem Questionnaire

Coopersmith Inventory (1968) and self-esteem questionnaire (Pope et al., 1988) were initially selected for the study and was given to experts to evaluate and select the one best suited for the study. Accordingly the self-esteem questionnaire by Pope, et al., (1988) was selected as it was considered to be more appropriate for the neglected population.

Rationale

This Questionnaire was used because it is easily comprehensible by students and short enough to be completed quickly. The scale has an advantage of focusing over different dimensions (multidimensional) such as global, academic, physical, social and family domains.
Development and Description

Self-Esteem Questionnaire development by Pope et al., (1988) was derived from the social learning model. The basic assumption of the social learning model is that self-esteem enhancement procedures are best developed from the findings of basic psychology research. In order to make these findings more useful, they were grouped into the following domains: behavioral, cognitive, biological and emotional. Based on these 4 domains, the following dimensions were formed. Social, academic, family, body global as well as an index for general self-worth.

The questionnaire consists of 59 items in the form of statements with a three point scale for scoring purposes. The responses were Almost Always (2), Sometimes (1) and Never Almost (0).

There are both positive and negative items to counter the tendency to acquiesce. The questionnaire also consists of a lie scale suggesting that the child may respond in a socially desirable manner.

Administration Procedure

This is a self-administered questionnaire. The following instructions were given before they began answering the questionnaire. "These questions are to
Social

Items (5), (11), 17, 23, (29), (35), (41), 47, 53, 59.

Lie

Items 6, (12), (18), (24), 30, 36, 42, (48), 54.

A score of 2 (Almost Always) on four or more items of the Lie Scale suggests that the child may be responding in a socially desirable manner and the questionnaire may be rejected.

Pilot Study

Pope, et.al., (1988) self-esteem questionnaire was modified as certain items were not suitable for the Indian students. Hence, 7 items in the lie scale was modified and items 12, 18 and 60 were deleted. These modifications were done to suit the present sample. A Tamil version of this questionnaire (self-esteem) was translated so that the children would easily comprehend as they were predominantly Tamil speaking children. The translated questionnaire was tested for reliability. The reliability co-efficient was 0.76 for the self-esteem questionnaire.
The Pre-Adolescent Adjustment Scale (PAAS)

Rationale

This tool was used to assess psycho-social adjustment of adolescents. This scale is widely been used in India, as it was standardised on the Indian population. It is a comprehensive scale which measures 5 significant areas of adjustment such as school, home, teachers, peers and general.

According to Pareek, Rao, Ramalingaswamy and Sharma although these tests have been developed for pre-adolescents, it could also be used with adolescents.

Development and Description

This PAAS was developed by Pareek, Rao, Ramalingaswamy and Sharma (1975). In this questionnaire adjustment is defined as, "the individual's orientation towards his parents, peers, school and himself, in terms of the satisfaction he derives from his interactional relationship with these significant others and himself. This test measures the adjustment of the student towards home, school, teachers, peers and general matters."
The questionnaire consists of 40 items relating to home (9), school (8), teachers (8), peers (8) and general (7). However for this particular sample only the 18 negative items were scored with the purpose of measuring only adjustment problems. The home dimension was deleted as it will not be applicable for this neglected children. The PAAS was translated into Tamil.

Administration Procedure

This is a self-administered test. It could also be administered as a group test. The following instruction were given to the students: "Read each sentence carefully. If the sentence is applicable to you, (ie) if it occurs to you that the sentence is true for you, circle the appropriate number given. If the sentence is not applicable to you, do not write anything."

There is no time limit. The estimated time for a group test is 15 to 25 minutes.

Scoring

Each negative items was given a score of one. The total score for each dimension is obtained by adding all responses of the negative items. In the present study the following items were scores on each sub scale.
Items 2, 10, 11.

Items 6, 7, 18, 21.

Teachers

Items 26, 27, 39.

General

Items 16, 19, 37.

The total adjustment score was computed by adding scores on all the sub scales. The total score may range from 0-18. High scores indicate more adjustment problems.

Reliability

For the reliability of the scale, retest data was obtained from five middle schools, with an interval of three months between test and retest. Product moment correlations are given in the table. The values show an acceptable level of reliability. However, the values in the area of adjustment towards home are negative, although very low. Other values are satisfactory, keeping in view the gap of 3 months and the developmental stage of the children.
Validity

PAAS has been validated with the ratings of the teachers from schools. The teachers were asked to name five most adjusted and five least adjusted or most maladjusted children, after they were given the meaning of adjustment and maladjustment. Mann-Whitney U-values were calculated for each area of adjustment, for each of the five schools. For all the areas one or more of the U values were significant at 0.05 level or above. In view of the fact that various biases are involved in ratings, and that teachers rated after an interval of about three months, the U values show an acceptable level of validity. The levels of significance are shown in the table.

Adjustment towards teacher could not be validated as teachers rated more than one student as maladjusted towards him or her, and U values could not be computed.

Intellectual Achievement Responsibility (IAR)

Rationale

The Intellectual Achievement Responsibility test by Crandall, Ratkovosky and Crandall (1965) was used for assessing locus of control. This tool was used specifically to find out the students' attribution for
success and failure in school settings. It has been widely used on the Indian student population (Premalatha, 1989).

Development and Description

The test comprises of 34 forced choice items. Each item describes either a positive or a negative experience in school going students. Every item is followed by two statements - one stating that the event was caused by the behavior of someone else in the child's immediate environment and other statement states that the event was caused by the individuals.

Administration Procedure

The students were instructed as follows: "There are number of statements given which are applicable in your school situation. Each one has 2 alternative assumptions (a) and (b). Read each statement carefully, and select from the 2 alternatives the one applicable to you mark a circle in the alphabets a or b. Follow the same procedure for all the statements one after the other. There is no time limit for the test but the students were requested not to spend too much time on any particular item."
Scoring

The students I⁺ (Credit Score) is obtained by summing all the events for which he assumes credit, and I⁻ (blame score) is the total of all the negative events for which he assumes blame. The total 'I' score is the sum of his I⁺ and I⁻ sub scores.

On the LOC test the score of 17 and above indicates Internal locus of control. The score below 17 indicates external locus of control.

Reliability

This instrument was found reliable as reported by Premalatha (1989). The test retest correlations were 0.29, 0.69 for Total I, 0.66 for total I⁺ and 0.74 for Total I⁻, all significant at 0.001 level. Split-half reliability co-efficients on the random sample of 130 of the younger children were 0.54 for I⁺, 0.57 for I⁻ after correlation with the Spearman Brown Prophecy Formula.

The Main Study

The main study was carried out in 5 phases:

I  Pre Assessment
II  Formulation of Self-Esteem Training
III Implementation of the Self-Esteem Training
IV  Post Assessment
V  Follow-Up Assessment

Note: Phases II & III are Reported in Chapter V.
Pre Assessment

The personal data sheet (refer appendix) was filled by the researcher herself from the Institutions case register as children could distort information regarding their family background.

Before administration of the tools, students were made to sit comfortably. Care was taken to see that they were not disturbed by other students activities. Classroom was utilized for this purpose. Seating arrangements were made such that the investigator could move in between the seats for supervision.

The questionnaires were administered in two sessions to avoid boredom and fatigue effect. During the first session the pre-adolescent adjustment inventory and test for locus of control (IAR) was administered. During the 2nd session the self-esteem questionnaire and self-acceptance inventory was given. Before administration of the questionnaire the following instruction were given.

"You have to give your honest responses regarding your experiences, attitude and the way you feel about yourself. There are no right or wrong answers. All these questions do not test your
pre-training assessment except were considered as an index for

There was no limit but please questions as quick as possible. Do questions. Thank you for your cooperation.

Instructions for each questionnaire was read out. Once the students understood the same they were asked to give their responses according to each instructions of the questionnaire. They were told not to proceed to the next questionnaire unless instructed by the investigator. Similarly the 2nd session was also conducted.

Half yearly examination marks of the students was obtained from the respective 'House Mothers' as an index of their academic performance. The total number of problems reported by the students on youth self report (for screening purposes) was also retained as part of the baseline data.

Post Assessment

After the training program the students were administered all the five questions for the day. The post-training assessment procedure was
similar to that of the pre-training assessment except the III Mid term marks were considered as an index for academic performance.

**Follow-Up Assessment**

Follow-up Assessment was done after 3 months duration with no training. The follow-up assessment was done in order to ascertain the consistency of improvement gained through the training program. The same procedure was followed as in the pre and post-training assessment, but Annual examination marks were obtained as an index for the academic performance.

**Statistics Used**

The data collected during the pre, post and follow-up assessments for the experimental and control group were analyzed using Analysis of variance, Trend-analysis and Fisher's Least Significant difference test for multiple comparisons.

The next chapter includes tabulation of the results and discussion based on the analysis.
Tell me, I will forget
Show me, and I may not remember
Involve me and I will understand

- Anonymous