CHAPTER- III

METHODOLOGY
3.1 Statement of the Problem

Impact of Rational Emotive Behaviour Therapy on self-esteem, aggression and depression among adolescent students.

3.2 Objectives

1. To find the impact of Rational Emotive Behaviour Therapy (REBT) on self-esteem among adolescent students.
2. To find the impact of Rational Emotive Behaviour Therapy (REBT) on aggression among adolescent students.
3. To find the impact of Rational Emotive Behaviour Therapy (REBT) on depression among adolescent students.
4. To find the interaction between gender and treatment with respect to self-esteem among adolescent students.
5. To find the interaction between gender and treatment with respect to aggression among adolescent students.
6. To find the interaction between gender and treatment with respect to depression among adolescent students.
7. To find the interaction between age and treatment with respect to self-esteem among adolescent students.
8. To find the interaction between age and treatment with respect to aggression among adolescent students.
9. To find the interaction between age and treatment with respect to depression among adolescent students.
10. To find the relationship between self-esteem and aggression.
11. To find the relationship between self-esteem and depression.
12. To find the relationship between aggression and depression.
3.3 Hypotheses

- $H_01$. Rational Emotive Behaviour Therapy (REBT) does not influence self-esteem among adolescent students.
- $H_02$. Rational Emotive Behaviour Therapy (REBT) does not influence aggression among adolescent students.
- $H_03$. Rational Emotive Behaviour Therapy (REBT) does not influence depression among adolescent students.
- $H_04$. There is no significant interaction between gender and treatment with respect to self-esteem among adolescent students.
- $H_05$. There is no significant interaction between gender and treatment with respect to aggression among adolescent students.
- $H_06$. There is no significant interaction between gender and treatment with respect to depression among adolescent students.
- $H_07$. There is no significant interaction between age and treatment with respect to self-esteem among adolescent students.
- $H_08$. There is no significant interaction between age and treatment with respect to aggression among adolescent students.
- $H_09$. There is no significant interaction between age and treatment with respect to depression among adolescent students.
- $H_{10}$. There is no significant relationship between self-esteem and aggression.
- $H_{11}$. There is no significant relationship between self-esteem and depression.
- $H_{12}$. There is no significant relationship between aggression and depression.

3.4 Variables and their Operational Definitions

3.4.1 Independent Variable: Rational Emotive Behaviour Therapy (REBT)

3.4.2 Dependent Variables: Self-esteem, Aggression and Depression
3.4.3 Rational Emotive Behaviour Therapy (REBT)

Rational Emotive Behaviour Therapy (REBT) was operationally defined as an active-directive, solution-oriented therapy which focuses on resolving emotional, cognitive and behavioural problems in clients, originally developed by the American psychotherapist Albert Ellis (Dawoodi, 2013). In the present study, modification implies instilling/strengthening the adaptive behaviour (enhance self-esteem) and eliminating/reducing the maladaptive behaviour (aggression and depression).

3.4.4 Self-esteem

In the present study self-esteem is operationally defined as measured by scale for assessing self-esteem - (Rosenberg, 1965).

3.4.5 Aggression

In the present study aggression is operationally defined as measured by scale for assessing aggression- (Mathur & Bhatnagar, 2004).

3.4.6 Depression

In the present study, depression is operationally defined as depressive symptoms measured by Beck’s Depression Inventory-BDI- (1961).

3.5 Research Tools and their Descriptions

3.5.1 Socio-demographic Questionnaire

A demographic questionnaire will be used to obtain descriptive information about the participating subjects. Adolescent students will be asked questions such as their name, age, gender, grade etc.
3.5.2 Rosenberg Self-esteem Scale (Rosenberg, 1965)

Self-esteem was measured using the Rosenberg Self-esteem Scale (RSES). It was considered to evaluate adolescents’ global feelings of self-worth and attempts to attain a unidimensional evaluation of global self-esteem. It was planned to be a Gutman scale, which means that the RSES items were to signify a sequence of self-worth declarations ranging from declarations that are promised even by individuals with low self-esteem to declarations that are confirmed only by persons with high self-esteem. It is consisted of 10 first person declarations and the answers were on a 4 point scale of “strongly agree,” “agree,” “disagree” and “strongly disagree.” Positively and negatively worded items were included in the scale to reduce the likelihood of a represent set. Scores ranged from 0 to 30, with higher scores indicating better self-esteem.

**Reliability:** Test retest reliability was .85 over a two-week interval for this scale. A Guttman scale reliability coefficient of .92 among adolescents was reported by Rosenberg (1965). The alpha coefficient was found to be .86.

3.5.3 Aggression Scale (Mathur and Bhatnagar, 2004)

Aggression scale is used to study the level of aggression in any age group (above 14 years). It consists of 55 statements. Each statement describes different forms of individual’s aggression in different situations. It is on a likert type 5 point scale and scale statements are in two forms i.e. positive and negative. 30 statements are in positive form and 25 in negative form. In positive form of statements, scores are as 5,4,3,2,1 and in negative form of statements, scores are as 1,2,3,4,5. The maximum score is 275 and the minimum is 55, the higher scores show higher aggression level and the lower scores show lower aggression level.

**Reliability:** Reliability co-efficient of the aggression scale was calculated by ‘test retest reliability’ method. Reliability was .88 in males and, .81 in females.

**Validity:** To obtain concurrent validity co-efficient of the aggression scale, the scale was compared with “statement in questionnaire of aggression” borrowed from Murray. Validity is .80 in males and .78 in females.
3.5.4 Beck’s Depression Inventory-BDI- (1961)

The Beck Depression Inventory (BDI) is a 21-item self-report rating inventory that measures characteristic attitudes and symptoms of depression. Each question has a set of at least four probable answer selections, ranging in strength. It takes approximately 15 minutes to complete and the clients require a fifth–sixth grade reading age to sufficiently comprehend the questions. After the test is counted, a value of 0 to 3 is allocated for each answer and then the total score is compared to a key to specify the depression's severity. The standard cut-offs are as follows: 5-8 specifies that a person is not depressed, 9-17 indicates mild depression, 18-28 indicates moderate and 29-63 signifies severe depression. Higher total scores indicate more severe depressive symptoms (Beck, Ward, & Mendelson, 1961).

**Reliability:** Internal consistency for the BDI ranges from .73 to .92 with a mean of .86 (Beck et al., 1961).

**Validity:** Groth-Marnat (1990) found moderate correlations between the revised BDI and other scales measuring depression such as Hamilton Psychiatric rating scale for depression (.73), the Zung self-reported depression scale (.76) and the MMPI depression scale (.76).

3.6 Sample

Samples for the present research were selected from different high school students (14-16 years) (Using a simple random sampling technique). Initially 478 students (206 boys and 272 girls) were screened based on the inclusion and exclusion criteria. Out of 478 students, 120 students (60 boys and 60 girls) fulfilled the cut off score criteria used for the study. cut off score criteria based on research tools for selecting subjects for intervention on self-esteem was the score of below 15 (15 to 0); for aggression was 250 and above and for depression was 18 and above (18 to 63). For the main study out of 120 students (who met cut off score criteria) 60 boys and 60 girls 14 to 16 years were randomly assigned to experimental group (30 boys and 30 girls) and control group (30 boys and 30 girls).Experimental group was subjected to intervention and control group did not receive any intervention.
3.6.1 Inclusion Criteria

1. Adolescent students (14-16 years) in Bangalore.
2. The students should have regularly attended the school.
3. Both boys and girls.

3.6.2 Exclusion Criteria

1. Adolescent students who have undergone similar intervention previously.
2. Adolescent students below 14 and above the age of 16 years.

3.7 Homogenising the Groups

Since the students who were selected for the treatments were from different schools, the researcher had to make sure that they were parallel in their age, family educational background, family income background, self-esteem, aggression and depression. To homogenize the groups, pretests in age, family educational background, family income background, self-esteem, aggression and depression were administered. Mann-Whitney test and Independent samples t-test was used to compare the means.

Table 3.1:

<table>
<thead>
<tr>
<th>Homogeneity of Groups in Age</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Test for Equality of means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>df</td>
</tr>
<tr>
<td>Experimental</td>
<td>60</td>
<td>15.05</td>
<td>0.75</td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>60</td>
<td>14.85</td>
<td>0.73</td>
<td>118</td>
</tr>
</tbody>
</table>

*Not significant

Table 3.1 shows obtained p-value 0.14 is not significant hence the null hypothesis stating “there is no significant difference in the mean score of groups in age” is accepted. So it was
concluded that the students in the schools were homogenous with respect to age.

Table 3.2:

Homogeneity of Groups in Mother Literacy

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of ranks</th>
<th>sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>60</td>
<td>63.02</td>
<td>3781</td>
<td>0.39*</td>
</tr>
<tr>
<td>Control</td>
<td>60</td>
<td>57.98</td>
<td>3479</td>
<td></td>
</tr>
</tbody>
</table>

* Not significant

As the mother literacy is ordinal data so Mann-Whitney test was used for the homogenising of data. Table 3.2 shows mean rank of the experimental group was found to be 63.02 whereas mean rank of the control group was found to be 57.98. There was no significant difference between two groups (sig= 0.39) with regard to mother literacy.

Table 3.3:

Homogeneity of Groups in Father Literacy

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of ranks</th>
<th>sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>60</td>
<td>64.56</td>
<td>3873.50</td>
<td>0.17*</td>
</tr>
<tr>
<td>Control</td>
<td>60</td>
<td>56.44</td>
<td>3386.50</td>
<td></td>
</tr>
</tbody>
</table>

* Not significant

As the father literacy is ordinal data so Mann-Whitney test was used for the homogenising of data. Table 3.3 shows mean rank of the experimental group was found to be 64.56 whereas mean rank of the control group was found to be 56.44. There was no significant difference between two groups (sig= .169) with regard to father literacy.
Table 3.4:

**Homogeneity of Groups in Economic**

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Test for Equality of means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>df</td>
</tr>
<tr>
<td>Experimental</td>
<td>60</td>
<td>1.98</td>
<td>0.34</td>
<td>118</td>
</tr>
<tr>
<td>Control</td>
<td>60</td>
<td>1.91</td>
<td>0.27</td>
<td></td>
</tr>
</tbody>
</table>

*Not significant

Independent t test revealed no significant difference between the control and the experimental groups (t = 1.16; p = 0.24) with regard to economic.

Table 3.5:

**Homogeneity of Groups in Self-Esteem**

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Test for Equality of means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>df</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>118</td>
</tr>
<tr>
<td>Experimental</td>
<td>60</td>
<td>12.67</td>
<td>1.65</td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>60</td>
<td>12.63</td>
<td>1.59</td>
<td></td>
</tr>
</tbody>
</table>

*Not significant

Table 3.5 shows obtained p-value 0.91 is not significant hence the null hypothesis stating “there is no significant difference in the mean score of groups in self-esteem” is accepted. So it was concluded that the students in the schools were homogenous with respect to self-esteem.
Table 3.6:

**Homogeneity of Groups in Aggression**

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Test for Equality of means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>df</td>
</tr>
<tr>
<td>Experimental</td>
<td>60</td>
<td>220.33</td>
<td>14.81</td>
<td>118</td>
</tr>
<tr>
<td>Control</td>
<td>60</td>
<td>223.02</td>
<td>17.05</td>
<td></td>
</tr>
</tbody>
</table>

* Not significant

Table 3.6 shows obtained p-value 0.36 is not significant hence the null hypothesis stating “there is no significant difference in the mean score of groups in aggression” is accepted. So it was concluded that the students in the schools were homogenous with respect to aggression.

Table 3.7:

**Homogeneity of Groups in Depression**

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Test for Equality of means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>df</td>
</tr>
<tr>
<td>Experimental</td>
<td>60</td>
<td>27.70</td>
<td>6.43</td>
<td>118</td>
</tr>
<tr>
<td>Control</td>
<td>60</td>
<td>25.82</td>
<td>5.77</td>
<td></td>
</tr>
</tbody>
</table>

* Not Significant

Table 3.7 shows obtained p-value 0.09 is not significant hence the null hypothesis stating “there is no significant difference in the mean score of groups in depression” is accepted. So it was concluded that the students in the schools were homogenous with respect to depression.

Distributions of the sample by gender, age, mother literacy, and father literacy and economic are presented in table’s No. 3.8, 3.9, 3.10, 3.11 and 3.12 respectively. Figures No.3.1, 3.2, 3.3 and 3.4 also depict the sample size according to age, mother literacy, and father literacy and economic.
Table 3.8:
Distribution of Sample by Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Group</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>girl</td>
<td>Experimental</td>
<td>30</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>30</td>
<td>25%</td>
</tr>
<tr>
<td>boy</td>
<td>Experimental</td>
<td>30</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>30</td>
<td>25%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 3.8 shows that the frequency of girls and boys in each group (experimental and control) is 30.

Table 3.9:
Distribution of the Sample by Age

<table>
<thead>
<tr>
<th>Age group</th>
<th>group</th>
<th>Frequency</th>
<th>percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>experimental</td>
<td>15</td>
<td>12.5</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>21</td>
<td>17.5</td>
</tr>
<tr>
<td>15</td>
<td>experimental</td>
<td>25</td>
<td>20.8</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>27</td>
<td>22.5</td>
</tr>
<tr>
<td>16</td>
<td>experimental</td>
<td>21</td>
<td>16.6</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 3.9 shows that the most frequency of age in each group (experimental and control) is on 15 years.
Figure 3.1 shows that the most frequency of age in each group (experimental and control) is on 15 years.

Table 3.10:

Distribution of Sample by Mother Literacy

<table>
<thead>
<tr>
<th>Group</th>
<th>Economic</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>Primary and secondary</td>
<td>17</td>
<td>28.3</td>
</tr>
<tr>
<td></td>
<td>High school</td>
<td>25</td>
<td>41.7</td>
</tr>
<tr>
<td></td>
<td>Diploma</td>
<td>18</td>
<td>30</td>
</tr>
<tr>
<td>Control</td>
<td>Primary and secondary</td>
<td>16</td>
<td>26.7</td>
</tr>
<tr>
<td></td>
<td>High school</td>
<td>34</td>
<td>56.7</td>
</tr>
<tr>
<td></td>
<td>Diploma</td>
<td>10</td>
<td>16.7</td>
</tr>
</tbody>
</table>
Table 3.10 shows that the most frequency of mother literacy in experimental group was on high school (41.7%) also the most frequency of mother literacy in control group was on high school (56.7%).

**Figure 3.2:**

**Sample Size According to Mother Literacy**

![Bar chart showing sample size according to mother literacy.](image)

Figure 3.2 shows that the most frequency of mother literacy in experimental and control group is on high school.
Table 3.11:

Distribution of Sample by Father Literacy

<table>
<thead>
<tr>
<th>Group</th>
<th>Economic</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Primary and secondary</td>
<td>11</td>
<td>18.3</td>
</tr>
<tr>
<td></td>
<td>High school</td>
<td>25</td>
<td>41.7</td>
</tr>
<tr>
<td></td>
<td>Diploma</td>
<td>24</td>
<td>40.0</td>
</tr>
<tr>
<td>Experimental</td>
<td>Primary and secondary</td>
<td>15</td>
<td>25.0</td>
</tr>
<tr>
<td></td>
<td>High school</td>
<td>28</td>
<td>46.7</td>
</tr>
<tr>
<td></td>
<td>Diploma</td>
<td>17</td>
<td>28.3</td>
</tr>
</tbody>
</table>

Table 3.11 shows that the most frequency of father literacy in experimental group was on high school (41.7%) also the most frequency of father literacy in control group was on high school (46.7%).

Figure 3.3:

Sample Size According to Father Literacy
Figure 3.3 shows that the most frequency of father literacy in experimental and control group is on high school.

Table 3.12:

**Distribution of Sample by Economic**

<table>
<thead>
<tr>
<th>Group</th>
<th>Economic</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>High</td>
<td>4</td>
<td>6.7</td>
</tr>
<tr>
<td></td>
<td>Average</td>
<td>53</td>
<td>88.3</td>
</tr>
<tr>
<td></td>
<td>Poor</td>
<td>3</td>
<td>5.0</td>
</tr>
<tr>
<td>Control</td>
<td>High</td>
<td>5</td>
<td>8.3</td>
</tr>
<tr>
<td></td>
<td>Average</td>
<td>55</td>
<td>91.7</td>
</tr>
<tr>
<td></td>
<td>Poor</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 3.12 shows that the most frequency of economic statues in experimental group was on average (88.3%) also the most frequency of economic in control group was on average (91.7%).

**Figure 3.4:**

**Sample Size According to Economic**
Figure 3.4 shows that the most frequency of economic statues in experimental and control group is on average.

### 3.8 Research Design

The present study employs an Experimental design. The adolescents who scored low on Self-esteem, high on Aggression and high on Depression questionnaires were selected and were randomly assigned to the experimental and control groups, each group consist of 60 adolescent boys and 60 adolescent girls. The experimental group received 7 sessions of Rational Emotive Behavioural intervention and the control group was not subjected to intervention. The dependent variables (Self-esteem, Aggression and Depression) were measured before and after the intervention. The treatment effect was assessed by comparing pre-test and post-test scores. However the adolescent students in the control group were given Rational Emotive Behaviour Therapy intervention after the study was complete.
Figure 3.5:

Schematic Representation of the Research Design

Phase 1

120 Selected

60 Experimental Group

30 Boys

Pre test

Intervention-REBT

30 Girls

Intervention was given to the Control Group after the process of data collection was over

Phase 2

60 Control Group

30 Boys

Pre test

No Intervention

30 Girls

Phase 3

Post test

Comparison of the Scores

Post test

30 Boys

30 Girls
3.9 Data Collection

3.9.1 Procedure:

The selected subjects were randomly assigned to the experimental and control groups. The experimental group had 30 adolescent boys and 30 adolescent girls. The control group also had 30 adolescent boys and 30 adolescent girls. The experimental group received 7 sessions of Rational Emotive Behaviour Therapy (REBT) and the control group received no intervention. The dependent variables were measured before and after the intervention.

The present study has been carried out in three following phases:

1. Screening
2. Rational Emotive Behaviour Therapy (REBT) Intervention
3. Post-Assessment

Phase I:

Screening

Principals of the high Schools were contacted to acquire their consent and to clarify the way of exploration. They were asked to give authorization and chip in to collect information for the research. The procedure of research was disclosed to them. They were given a guarantee that the information would be kept confidential. After acquiring authorization, specialists built up affinity with the students for participation in the research and for acquiring informed consent from students (Appendix E).

For the purpose of the present study, initially 478 high school students (206 boys and 272 girls) were administered the research tools. Out of 478 students, 120 students met the cut off score criteria. From 120 students 60 of them have been grouped into experimental (30 girls and 30 boys) and control (30 girls and 30 boys) groups using simple random sampling technique (Table, 3.13).
Cut off score criteria based on research tools for selecting subjects for intervention on self-esteem was the score of below 15 (15 to 0); for aggression was 250 and above and for depression was 18 and above (18 to 63). Experimental group subjects were subjected to intervention and control group subjects did not receive any intervention. Details of the boys and girls who fulfilled research criteria are given below.

Table 3.13:

**Numbers of Boys and Girls in Each Group**

<table>
<thead>
<tr>
<th>Groups</th>
<th>Experimental</th>
<th>Control</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>boys</td>
<td>girls</td>
<td>boys</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>14</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>15</td>
<td>15</td>
<td>16</td>
<td>11</td>
</tr>
<tr>
<td>16</td>
<td>16</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>30</td>
<td>30</td>
</tr>
</tbody>
</table>

Phase II:

**Rational Emotive Behaviour Therapy (REBT) Intervention Programme:**

The 60 subjects of the experimental group were selected for this stage of study which included 7 sessions (each session approximately 60 to 90 minute per each week) of Rational Emotive Behaviour Therapy (REBT) on small groups of 10 subjects. Sessions were conducted in group, separately for boys and girls. There were 6 experimental groups in total.

Rational Emotive Behaviour Therapy (REBT) intervention was given in four stages accordingly:
Stage 1: Introductory Session

Stage 2: Using Cognitive Techniques of Rational Emotive Behaviour Therapy (REBT)
I: Active Disputing.
II: Rational Coping Self Statements.
III: Cognitive Homework.

Stage 3: Using Emotive Techniques of Rational Emotive Behaviour Therapy (REBT)
I: Rational Emotive Imagery.
II: Role-Playing.
III: Reverse-Role Play.

Stage 4: Using Behavioral Techniques of Rational Emotive Behaviour Therapy (REBT)
I: Skill Training
II: Use of Reinforcement
II: Use of Penalties

Stage 1: Introductory Session

The researcher as a therapist presented herself quickly and the subjects additionally got some information about their propensities, intrigues and their top choices. Every student was asked to speak a few sentences about himself/herself. When one’s name was called out, the group had to attribute one or two positive qualities to that person. This was done to build up a superior compatibility between the researcher and the students in the group and to persuade the students to take an interest in the exercises and discourses. In this session they were likewise educated about how it would be useful to them.

The group was asked to think about rules and to get some information about principles that may be useful for their group to follows, and such guidelines were put into records, circulated amongst the group and evaluated before every session: (a) Respect for others, (b) No chuckling or
teasing, (c) Raising the hand to talk, (d) Option to "pass" if choosing not to partake and (e) Keeping data discourses in the group secret. At that point, for around 10 minutes, the group was requested to associate with one another and to share their sentiments and thoughts. Small notebooks were distributed among them with instructions that they had to carry it every session. The notebooks were given to them as an inspiration for getting their work done which would be discussed later (Da, 2013). Towards the end of the session, the researcher informed them about the following session and gave them a little prologue to the Rational Emotive Behaviour Therapy (REBT). The first session ended on a positive note. The group members reported that the sharing session was very useful to know one another better in the gathering.

**Stage 2: Using Cognitive Techniques of Rational Emotive Behaviour Therapy (REBT)**

**I: Active Disputing**

Here the members learned the ABCs of Rational Emotive Behaviour Therapy (REBT) from the researcher, who showed how to view their self-defeating, absolutist “should” and “musts”, awfulizing, their damning of self and of other persons, their over-generalizations, and other dysfunctional inferences and attributions and are shown how to dispute these with empirical, logical, and pragmatically useful challenges (Dawoodi, 2013). The knowledge of ABC Theory of Personality was given to subjects accordingly: A = Activating Event, B = Belief, C = Emotional and behavioral response, D = Disputing, E = Effect. The ABC framework is the basic approach to Rational Emotive Behaviour Therapy (REBT) practice. The A in this framework stands for an activating event, which may be either external or internal to the client. B stands for beliefs. There are evaluative cognitions or constructed views of the world that are either rigid or flexible and extreme or non-extreme. When these beliefs are rigid, they are called irrational beliefs and take the form of “musts”, “absolute”, “should”, “have to” and so forth.

These irrational beliefs end up in irrational conclusions such as: awfulizing, low frustration tolerance and depreciation. When the client’s beliefs are flexible, they are called rational beliefs. They tend to draw rational conclusions in the forms of anti-awfulizing, higher frustration tolerance and acceptance. C in the ABC framework stands for the emotional, behavioral, and cognitive consequences of the clients’ beliefs about A. The C’s that follow from irrational beliefs about negative A’s will be disturbed and are called unhealthy negative consequences, whereas the C’s
that follow from rational beliefs about negative A’s will be undisturbed and are termed healthy negative consequences (Ellis, 1994).

Before teaching the members about the ABC, the members were asked to talk about their main emotional problems and their daily difficulties. They mostly talked about having problems with family, teachers, students, getting angry fast and being hot tempered and getting into fights. As mentioned before, they all shared four common symptoms, aggression behavior, destructive behavior, lying or theft and violation of rules. Therefore, the researches focused on the problems which the subjects were talking about, and which were a part of these four symptoms. Then the ABC theory mentioned above was taught to the students.

Asking for one example from each member about when they were feeling hurt, the A was assessed and then the B-C connection - the notion that their emotional problems are determined largely by their beliefs rather than by the activating event (A) - was shown to them. Then the three major “musts” were explained to them which are: “I must do well and get approved”, “you must treat me nicely and kindly”, and “the world must give me what I want quickly, easily, and with great certainty”. After learning about the irrationality of dogmatic musts, ought to, and so on, they learned to draw a rational conclusion in the form of anti-awfulizing, e.g., “it is bad, but it is not awful.” higher frustration tolerance, e.g., “I don’t like it but I can bear it.” and acceptance; to accept themselves and others as fallible human beings who cannot legitimately be given a single global rating. Then the D which stands for disputing was worked out by the researcher. Here the therapist helped the client to challenge the irrational belief (B). Therefore the self-defeating beliefs were disputed and replaced with a rational one resulting in an effective philosophy (E). Although it was more of a theoretical session, students seemed to be more interested in it when it was explained with the help of examples (Dawoodi, 2013).

II: Rational Coping Self Statements

In groups and at personal levels, the members were encouraged to prepare Rational Beliefs (RBs) and coping statements to substitute for their Irrational Beliefs (IBs) and to keep using them steadily until they consistently believe them and acted accordingly. Such self-statements were factual and encouraging (e.g. “I am able to succeed in this”, and “I will work hard
to show that I can”). Or, preferably, they could be more philosophical (e.g., “I’d like very much to succeed but I don’t have to do so”; and “If I fail I am not a failure or a worthless individual”).

The researcher explained the coping self-statement technique with two or three examples, described the use and effect of the technique, and then asked them to write 10 self-statements pertaining to their life situations. Each statement again was rewritten in a more easy coping style (Dawoodi, 2013).

III: Cognitive Homework

Members were now ready to put their Rational Beliefs into practice. They were reminded that the Rational Emotive Behaviour Therapy (REBT) of change holds that, in order to deepen their convictions in their Rational Beliefs, they need to practice questioning their Irrational Beliefs and strengthen their Rational Beliefs in situations that are the same or similar to the activating event already assessed. The researcher tried to give the students more examples of why they should be sincere in doing the homework. The researcher explained to the students, for example, that they have learned a formula of mathematics wrongly over several years. Now in order to learn the correct formula they need to practice a lot. Likewise the students were convinced of why they should be particular about doing the homework and why is that important to the therapy. The students were told that in order to change our behavior we need to practice as much as we can.

Students used the ABCDEs of Rational Emotive Behaviour Therapy (REBT), observed some of their unfortunate adversities (As), figured out their IBs, disputed them (at D) and arrived at effective new philosophy (E). This assignment involved having the members practice their newly learned questioning techniques by attempting to convince other members in the group of their rationality (appendix G) (Dawoodi, 2013).

Cognitive homework was given to the subjects in the form of writing assignments (self-help homework) at the end of each session. It was done in the notebooks which were distributed to the subjects earlier during the introduction session. The subjects were asked to complete Thought Challenging Record (appendix H), Angry Dairy (appendix I) and Anger Decision Sheet (appendix J).
Stage 3: Using Emotive Techniques of Rational Emotive Behaviour Therapy (REBT)

I: Rational Emotive Imagery (REI)

Group members do REI, both during group sessions and as homework, by imagining one of the worst things that could happen to them, letting themselves feel very upset about this image, imploding this disturbed feeling; and then working on their feeling, to make themselves have healthy or appropriate negative feelings (such as sorrow, disappointment, or frustration).

The researcher asked each subject to imagine themselves in troublesome situations which put them out of control and make them angry or hot tempered; or in situations in which they violate the laws. This may allow the researcher to see if the emotion has changed. If it has, the researcher asked the subjects what they are now telling themselves. It was a way to rehearse more rational beliefs. Then they were instructed to change their feeling from a disturbed emotion to a more constructive negative emotion (e.g., from anger to disappointment). As it usually takes a minute or two to do the REI, members were asked to do this during every session and every day for thirty days as their homework until they automatically experience their healthy negative feelings when they imagine, or actually encounter, similar “horrible” happenings (Dawoodi, 2013).

II: Role-Playing

Another in-session strategy is the use of role-play. In role-playing, under the tutelage of the therapist, the client rehearses a new behaviour that is more consistent with a rational philosophy. In role-play, group members often role-play with other group members or with the therapist, for example one plays the interviewee for an important job and the other plays the interviewer. During this form of behaviour rehearsal, the rest of the group critique how well the member was doing in the role-play and suggest how she or he could improve. If either of the role players shows anxiety, the role-play is temporarily stopped and the person is asked what he or she was thinking to create the anxiety and how he or she could think, instead, to allay it. Here the researcher worked more on problems which are related to aggression and depression (Dawoodi, 2013).

For example one major problem of the students was that they were unable to control their anger which resulted in many fights with parents or peers. Roleplaying consisted of two or
more individuals acting out a situation in which a group member experienced anger control difficulties in the past. As the individuals acted out these situations, they were stopped at key points so that the group members could identify A, B, and C from the Rational Emotive Behaviour Therapy (REBT) model. They then provided suggestions for D and E so that similar situations could be handled more rationally in the future.

Role-playing was the focus of this research as it was more focused on the behavioral modification of students with aggression problems. Students participated in role-playing activities during each session, based on situations in which they personally experienced anger control problems and other irrational ways of solving their problems in life. Here the researcher worked on the problems which students were facing like the problems with parents, teachers, friends, getting hot tempered and having low tolerance. Such problems were selected for the role-play. The exercise was effective in many ways. They became freer with the group and counselor. They got insights and solutions for their problems. One who acted and one who observed both were active in the problem analysis and problem solving in a more rational way (Dawoodi, 2013).

III: Reverse-Role Play

In reverse-role play, one group member takes another’s Irrational Beliefs (e.g. “so-and-so must always love me completely!”) and holds on to it rigidly and forcefully while playing the irrational member’s role. The person with the Irrational Belief then has to talk to the other role-player – actually himself or herself – out of this firmly held Irrational Beliefs. The researcher selected the Irrational Beliefs, (e.g. “They should love me”, “I must be perfect”, “It is horrible if...” and so on), of each sub-group and they are asked to do reverse-role play. This technique was very effective in changing the members’ behavior and accepting the fact that their behavior is irrational and they should react to the problems in a more rational way. (Dawoodi, 2013).

Stage 4: Using Behavioural Techniques of Rational Emotive Behaviour Therapy (REBT)

I: Skill Training

In this part, group members often learn and practice particular important interpersonal skills in the group sessions, for example, learning to listen to others, accepting them with their poor behavior, communicating openly with them, and forming relationships with them. As
the subjects in this study had low self-esteem, high aggression and depression, this skill training helped them to increase their self-esteem and interpersonal skills to enable them to have better relations with their parents, teachers, and friends and so on. One of the main problems of adolescents with aggression is their impaired relations with other people as they show aggression and destructive behavior. Skill training is a good option of helping these adolescents to understand the right of others and to respect them in order to have better relations with people. During skill training, the students learned a better way of communicating with others and they reported it to be very effective in their social life (Dawoodi, 2013).

II: Use of Reinforcement

Rational Emotive Behaviour Therapy (REBT) shows group members how to suitably reinforce themselves by doing something enjoyable only after they have done something onerous-such as working on a term paper well - that they are avoiding. In group itself they may be allowed to speak up about their own problems only after they have tried to help other members with their difficulties. In this study the researcher gave reinforcement to the members who would do their homework assignment for every session. They gave small things such as pen, pencil, notebooks, etc. Also the members were asked to motivate themselves by meeting a friend or someone who they like to spend time with. This technique is helpful in motivating the students to do their homework assignments regularly and to teach them a better method of self-management (Dawoodi, 2013).

III: Use of Penalties

Many members won’t stop their addictive or compulsive behaviour because for them it is too immediately pleasurable or reinforcing; and they will not change it for an ordinary reinforcement. Thus they may not give up smoking or problem drinking to read or to enjoy television. Consequently Rational Emotive Behaviour Therapy (REBT) encourages some group members to penalize themselves after their destructive indulgences-for example, to spend an hour with a boring person every time they gamble, or light every cigarette they smoke with a ₹100/- note. Members are encourage to come up with suitable penalties and monitor other group members.
As some of the members weren’t particular about doing their homework assignment and also had not cooperated with other members, they were penalized by being made to give 5 rupees to one of the members who had done his or her homework clearly. This stage was also effective and made the members to be more active in order to get the reinforcement and to avoid the penalties. (Dawoodi, 2013).

Phase III:

Post-Assessment:

The delayed posttest was conducted after a period of two weeks after the last session of each group. Once again all the questionnaires were administered to participants of both the experimental and the control groups to respond.

3.10 General Conclusion of the Study

Rational Emotive Behavior Therapy (REBT) is partly indigenous to most group therapy, because when several people regularly meet together with a leader in order to work on their psychological problems, they almost always talk about their thoughts, feelings, and behaviors and try to help one another change their cognitions, emotions, and actions. Moreover they usually give advice to one another, show how others’ behavior had better be changed outside the group, and check to see if their homework suggestions are actually being carried out. Again, they normally interact with one another in the group itself, comment on one another’s in-group behaviors, and give themselves practice in changing some of their dysfunctional interactions. In conclusion the main purpose of using this therapy in this study was to minimize emotional and behavioral disturbances of adolescents with low self-esteem, high aggression and high depression by acquiring a more realistic philosophy of life, reducing tendency to blame others and learn new ways to effectively deal with future difficulties.
3.11 Ethical Issues

1. Written informed consent was obtained from each subject participating in the study.

2. Confidentiality was assured and maintained.

3. The subjects were given an explanation about the nature of the study and informed that participation in the study was voluntary and that they had have the right to opt out at any time.

4. Participants who did not fit the study criteria were offered necessary help such as counseling, which were not included in the main study (done on voluntary basis).

3.12 Statistical Methods

In the present study to analyze the data, statistical methods such as descriptive statistical methods (e.g., graphs, mean and standard deviation) and inferential statistical techniques (e.g., repeated measure analysis of variance to assess the effects of Rational Emotive Behaviour Therapy (REBT), Pearson moment correlations to analyze the relationships between variables, independent t-test to compare the pre-post mean scores between experimental and control group) were used. Also, data was analyzed with the statistical package of software system -21 for windows.