Chapter IV
Analysis, Interpretation and Discussion of Results

Data tabulation, statistical analysis, interpretation and discussion of the results of the study are dealt in this chapter. Various steps are involved to get a meaningful picture out of the raw information gathered through the use of various tools. The data needs to be classified and tabulated so that it should serve worthwhile purpose.

Statistical tabulation refers to the recording of the classified material in accurate mathematical terms. To achieve this end the data collected during the investigation was processed on IBM – Pentium II computer installed in Department of Computer Science and Applications, Panjab University, Chandigarh.

Analysis of data refers to breaking down the complex factors of the tabulated material into simpler parts and putting the parts together in new arrangements in order to determine inherent facts or meaning. All similarities, differences, trends and outstanding factors are taken note of while analyzing data. Good, Barr and Scates (1959) stated that, “the process of interpretation is essentially one of stating what the results (finding) show. What do they mean?
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

What is their significance? What is the answer to the original problem? Interpretation calls for a critical examination of results. The data was processed with the following objectives and hypotheses in mind.

4.1 OBJECTIVES

4.1.1. GENERAL OBJECTIVE

To study ‘The Effect of Relaxation Techniques on Job Stress in Relation to Blood Pressure, Hypertension and Heart-rate in women teachers’.

4.1.2. SPECIFIC OBJECTIVES

1. To study the difference between High stressed and Low stressed teachers in response to Relaxation Techniques.
2. a) To study the Stress level of women teachers.
   b) To study the Anxiety level of employed women teachers.
   c) To study the Blood Pressure level of the women teachers.
   d) To study the Hypertension among women teachers.
   e) To study the Heart-rate in women teachers.
3. To study the effect of Relaxation Techniques on Stress, Anxiety, Blood-pressure, Hypertension and Heart-rate among employed women teachers.

4.2. HYPOTHESES

1. High stressed women teachers will show better response to relaxation techniques employed, than Low stressed teachers.
2. There will be a significant difference in Pre-test and Post-test scores and values on variables of Stress, Anxiety, Blood Pressure and Heart-rate of teachers in Experimental group.
3. There will be a significant impact of the Relaxation Techniques on the Stress, Anxiety, Blood Pressure, Hypertension and Heart-rate among employed women teachers.
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

Before going in for analysis and interpretation of data it becomes utmost necessary to describe in brief the various statistical techniques adopted by the investigator to achieve the ends. They are as follows.

4.3. STATISTICAL TECHNIQUES

According to the nature and complexity of the study, to test the various hypotheses based on objectives of the study, different statistical techniques were used.

1. Descriptive statistics like mean, percentage and standard deviation. Mean and percentage to measure the central tendency and standard deviation to measure variability.
2. Inferential statistics like t-test and paired t-test were used. t-test to measure the difference between two groups and paired t-test to measure the difference between the pairs of scores.
3. Histogram (Bar Graph) and Line Graph for graphic representation of data.

Thus with the help of the above mentioned statistical treatment of the data, the investigator could draw the conclusion empirically. Before proceeding on to the detailed analysis, interpretation and discussion of results, it is important to describe the meaning of various variable codes used further in this chapter. The Table 4.1 describes various variable codes with their meaning.

TABLE 4.1 – Variable Codes and their interpretation.

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Variable Code</th>
<th>Interpretation of Variable Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>S</td>
<td>Stress Pre-test</td>
</tr>
<tr>
<td>2.</td>
<td>S</td>
<td>Stress Post-test</td>
</tr>
<tr>
<td>3.</td>
<td>A</td>
<td>Anxiety Pre-test</td>
</tr>
<tr>
<td>4.</td>
<td>A</td>
<td>Anxiety Post-test</td>
</tr>
<tr>
<td>5.</td>
<td>S.P.</td>
<td>Mean Systolic Pressure</td>
</tr>
</tbody>
</table>
6. S.P.  Systolic Pressure Pre-test
7. S.P.  Systolic Pressure Post-test
8. D.P.  Mean Diastolic Pressure
9. D.P.  Diastolic Pressure Pre-test
10. D.P.  Diastolic Pressure Post-test
11. H.R.  Mean Heart-rate
12. H.R.  Heart-rate Pre-test
13. H.R.  Heart-rate Post-test

The detailed analysis, interpretation and discussion of results are presented as follows -

4.4 ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

4.4.1 ANALYSIS AND INTERPRETATION OF LOW AND HIGH STRESSED EXPERIMENTAL GROUPS

Here the investigator deals with the analysis of low and high stressed Experimental groups. As well as the difference between the pre and post scores and values on different variables of Stress, Anxiety, Systolic pressure, Diastolic pressure and Heart-rate were also measured.

The scores of teachers on Stress Pre-test i.e. variable S₁ in Experimental group was placed in descending order. The above 27% teachers who lay in the Experimental group were placed in high stressed group. And the last 27% teachers of the Experimental group were placed in low stressed group. There were total 55 teachers in all Experimental group; so 27% of 55 is 15 teachers. Hence the above 15 teachers comprised of high stressed teachers and the last 15 teachers formed a group of low stressed teachers.
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

TABLE 4.2 - The t-values for Low Stressed Experimental group and High Stressed Experimental group on variables of Stress Anxiety, Systolic pressure, Diastolic pressure and Heart-rate.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>S.</td>
<td>66.15</td>
<td>15.20</td>
<td></td>
<td>138.60</td>
<td>15.94</td>
<td></td>
<td>12.74**</td>
</tr>
<tr>
<td>2</td>
<td>S.</td>
<td>45.80</td>
<td>15.11</td>
<td></td>
<td>71.51</td>
<td>33.22</td>
<td></td>
<td>2.53*</td>
</tr>
<tr>
<td>3</td>
<td>A.</td>
<td>39.33</td>
<td>9.21</td>
<td></td>
<td>39.07</td>
<td>10.16</td>
<td></td>
<td>0.08</td>
</tr>
<tr>
<td>4</td>
<td>A.</td>
<td>34.87</td>
<td>8.98</td>
<td></td>
<td>30.93</td>
<td>11.49</td>
<td></td>
<td>1.04</td>
</tr>
<tr>
<td>5</td>
<td>S.P.</td>
<td>115.73</td>
<td>10.31</td>
<td></td>
<td>110.00</td>
<td>8.25</td>
<td></td>
<td>1.08</td>
</tr>
<tr>
<td>6</td>
<td>S.P.</td>
<td>107.60</td>
<td>12.00</td>
<td></td>
<td>101.67</td>
<td>8.67</td>
<td></td>
<td>1.55</td>
</tr>
<tr>
<td>7</td>
<td>D.P.</td>
<td>77.80</td>
<td>7.12</td>
<td></td>
<td>69.87</td>
<td>6.33</td>
<td></td>
<td>2.22**</td>
</tr>
<tr>
<td>8</td>
<td>D.P.</td>
<td>70.93</td>
<td>7.91</td>
<td></td>
<td>65.67</td>
<td>6.80</td>
<td></td>
<td>1.90</td>
</tr>
<tr>
<td>9</td>
<td>H.R.</td>
<td>70.00</td>
<td>4.19</td>
<td></td>
<td>65.27</td>
<td>1.83</td>
<td></td>
<td>4.01**</td>
</tr>
<tr>
<td>10</td>
<td>H.R.</td>
<td>64.93</td>
<td>2.96</td>
<td></td>
<td>62.27</td>
<td>2.19</td>
<td></td>
<td>2.90**</td>
</tr>
</tbody>
</table>

** Value significant at 0.05 level = 2.05
** Value Significant at 0.01 level = 2.76

From the Table 4.2, it is revealed that there is a significant difference on variable Stress Pre-test i.e. S₁ in the Experimental low stressed and Experimental high stressed group. The t-value obtained for Stress Pre-test is also significant at 0.01 level (t = 12.74) Stress Pre-test S₁ mean of low stressed group is 66.13 Stress Pre-test S₁ mean of high stressed group is 138.60. Which indicates that teachers in high stressed group were more stressed than teachers in low stressed group.

On variable Stress Post-test i.e. S₂ though significant difference in mean scores of low and high stressed groups is obtained. The t-ratio is found to be significant at 0.05 level (t = 2.73, vide Table 4.2) rather than at 0.01 level as in case of Stress Pre-test. Further, means of low and high stressed groups are 45.80 and 71.53. This suggests that after two months of relaxation therapy the Stress level in both groups i.e. the low and high stressed groups reduced. But the reduction was more profound in case of high stressed group. It further adds that
the individuals in high stressed group showed better performance but they were not able to reach the levels attained by low stressed group in the given time interval.

The change in scores for variable Stress i.e. $S_1$ and $S_2$ in both groups with time is graphically represented in Fig. 4.1.

Fig. 4.1. Graphical representation of Stress levels of both Low and High Stressed Experimental Groups.

For variable $A_1$ (Anxiety Pre-test), for low stressed group mean = 39.33 and SD = 9.21 whereas for high stressed group value of mean = 39.07 and SD = 10.16. Which highlights that teachers in both groups were equal in their Anxiety level. Obtained t-value is not significant ($t = 0.08$ vide Table 4.2). On variable $A_2$ (Anxiety Post-test), for low stressed group mean = 34.87 and SD = 8.98 while for Experimental high stressed group mean = 30.93 and SD = 11.49. Though the mean values suggest that there exists a difference in the two groups, but this difference is not of significant value as evidenced by t-value ($t = 1.04$). Mean values of both groups on variable $A_1$ and $A_2$ suggests that after two months of Relaxation Therapy the Anxiety level in both groups reduced and that the reduction in Anxiety level was more profound in high stressed group. Which goes on to state that high stressed group individuals were far better in reducing their Anxiety level than the low stressed group.
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

The change in scores for variable of Anxiety i.e. $A_1$ and $A_2$ in both groups after a gap of two months is graphically by represented in Fig. 4.2.

The variable $S.P.1$ (Systolic Pressure Pre-test) for low stressed group mean value = 115.73 and S.D. is 10.31, on the other hand for high stressed group mean value = 110 and S.D. = 8.25. Though the means of two group suggests that high stressed group had more a healthy Systolic pressure. But the difference between the two groups for $S.P.1$ is not significant, which is stressed by $t$-test value which is insignificant ($t = 1.68$, vide Table 4.2).

On variable $S.P.2$ (Systolic Pressure Post-test) for low and high stressed group no significant differences in the mean scores of two groups is obtained. The $t$-ratio is insignificant ($t = 1.55$, vide Table 4.2). Means of two groups suggest that the teachers in both groups were more or less equal on their $S.P.2$ level. Mean for low stressed group is 107.60 and that for high stressed group it was 111.67.

Hence the finding suggests that the two groups remained equal on their Systolic Pressure level at the end of two months therapy programme. No significant differences were obtained.
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

The change in score for variable of Systolic Pressure i.e. S.P. 1 and S.P. 2 in both groups is graphically represented in Fig. 4.3.

Fig. 4.3. Graphical representation of Systolic Pressure levels in both Low and High Stressed Experimental groups.

Table 4.2 reveals that there exists significant difference in D.P. 1 (Diastolic Pressure Pre-test) level in low and high stressed groups as obtained t-value is significant at 0.01 level (t = 3.22) D.P. 1 mean of low stressed group is higher (mean = 77.80) as compared to D.P. 1 mean of high stressed group (mean = 69.87) which indicates that teachers in high stressed group had more a healthy D.P. 1 value as compared to low stressed group. The variable D.P. 2 (Diastolic Pressure Post-test) the mean values of two groups were more or less equal. The difference between the means is insignificant as verified by the t-value which is insignificant (t = 1.96, vide Table 4.2). Means of low and high stressed Experimental groups are 70.93 and 65.67 respectively.

Above findings suggest that with two months of relaxation therapy the two groups became equal on their D.P. value. That is they became equal on their mean Diastolic Pressure level. And that the low group showed better response to relaxation therapy in reducing its Diastolic pressure.
The change in scores for variable of Diastolic Pressure i.e. $D_P_1$ and $D_P_2$ in both groups is graphically represented in Fig. 4.4.

![Graphical representation of Diastolic Pressure levels in both Low and High Stressed Experimental groups.](image)

Fig. 4.4. Graphical representation of Diastolic Pressure levels in both Low and High Stressed Experimental groups.

For variable $H_R_1$ (Heart-rate Pre-test) mean value for low stressed group is 70 while for high stressed group is 65.27. There exists a significant difference in $H_R_1$ level in the two groups. Obtained t-value is also significant at 0.01 level ($t = 4.01$, vide Table 4.2). This points that teachers in high stressed group had more a normal and healthy Heart-rate as compared to their counterpart in low stressed group.

Significant differences in the mean scores of low and high stressed Experimental groups are gained for variable $H_R_2$ (Heart-rate Post-test). The obtained t-value is also significant at 0.01 level ($t = 2.80$, vide Table 4.2). Means of low and high stressed groups on variable $H_R_2$ are 64.93 and 62.27 respectively. Which signifies that teachers in high stressed group had more healthy Heart-rate at the end of two months.

The change in scores for variable Heart-rate i.e. $H_R_1$ and $H_R_2$ in both low and high stressed Experimental groups is graphically represented in Fig. 4.5.
4.4.2 DISCUSSION OF RESULTS OF LOW AND HIGH STRESSED EXPERIMENTAL GROUPS

The results of analysis of mean scores of Low and High stressed Experimental groups are given in Table 4.2. t-values of Low and High stressed Experimental groups on variables of Stress, Anxiety, Systolic pressure, Diastolic pressure and Heart-rate were computed. t-value for Pre-test Stress or variable S1 showed significant difference in Stress levels of two groups. t-ratio was found to be significant at 0.01 level (t = 12.73; vide Table 4.2). Which signifies that Teachers in high stressed group were more stressed as compared to ones in low stressed group, t-value was found to be significant at 0.01 level.

Diastolic Pressure Pre-test (D.P.), Heart-rate Pre-test (H.R.) and Heart-rate Post-test (H.R.) t-value = 3.32, 1.01 and 2.80 respectively, while for Stress Post-test (S2) t-value is found to be significant at 0.05 level; t = 2.73, whereas for all other variables i.e. Anxiety Pre-test (A1), Anxiety Post-test (A2), Systolic Pressure Pre-test (S.P.), Systolic Pressure Post-test (S.P2) and Diastolic Pressure Post-test (D.P2) the t-value was insignificant. (t = 0.08, 1.04, 1.68, 1.55 and 1.96 respectively; vide Table 4.2).
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

The findings signify that the teachers in both groups became more or less equal, or the two groups were at par with each other at the end of two months of relaxation program adopted by the investigator. Hence teachers in High stressed group showed better response to relaxation techniques adopted by the researcher as compared to their counterparts in Low Stress group. The findings confirmed that the Relaxation Techniques employed by the investigator to reduce Stress, Anxiety, Blood Pressure and Heart-rate levels of the women teacher was effective.


The findings corroborate the hypothesis that High stressed women teachers will show better response to relaxation techniques employed than low stressed teachers.
4.5. ANALYSIS, INTERPRETATION AND DISCUSSION OF EXPERIMENTAL GROUP

4.5.1. ANALYSIS AND INTERPRETATION OF EXPERIMENTAL GROUP

Here the analysis of the Experimental group along with differences between Pre-test and Post-test scores and values on different variables of Stress, Anxiety, Systolic pressure, Diastolic pressure and Heart-rate have been dealt with.

TABLE 4.3 - The t-values for Pre-test and Post-test scores and values of Experimental group on variables of Stress, Anxiety, Systolic Pressure, Diastolic Pressure and Heart-rate.

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Variable</th>
<th>Experimental group (N = 55)</th>
<th>Mean differences</th>
<th>S.D.</th>
<th>t-values</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Pre-test Mean</td>
<td>Post-test Mean</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Stress</td>
<td>59.27</td>
<td>45.70</td>
<td>6.51</td>
<td>1*</td>
</tr>
<tr>
<td>2</td>
<td>Anxiety</td>
<td>38.49</td>
<td>52.95</td>
<td>8.46</td>
<td>0.05</td>
</tr>
<tr>
<td>3</td>
<td>Systolic Pressure</td>
<td>114.58</td>
<td>125.47</td>
<td>8.23</td>
<td>0.019</td>
</tr>
<tr>
<td>4</td>
<td>Diastolic Pressure</td>
<td>75.98</td>
<td>69.15</td>
<td>5.53</td>
<td>0.124**</td>
</tr>
<tr>
<td>5</td>
<td>Heart-rate</td>
<td>67.96</td>
<td>58.95</td>
<td>4.05</td>
<td>0.011**</td>
</tr>
</tbody>
</table>

* Value significant at 0.05 level  2.141
** Value significant at 0.01 level  2.660

From the Table 4.3 it is revealed that there exists a significant difference between variables \( S_1 \) and \( S_2 \) in Experimental group. The t-value is also significant at 0.01 level (t = 6.511) \( S_1 \) mean for Experimental group is 59.27, while \( S_2 \) mean is 50.27. Mean difference for variable \( S_1 \) and \( S_2 \) is 43.70 and S.D. is 6.789. This indicates that relaxation treatment given to subjects in Experimental group was
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

effective in reducing their Stress level significantly. The change in scores for variable Stress i.e. $S_1$ and $S_2$ in the Experimental group with time is graphically represented in Fig. 4.6.

Significant differences between variables $A_1$ and $A_2$ in Experimental group were observed. The t-value $t = 8.146$ is found to be statistically significant at 0.01 level. $A_1$ mean for Experimental group is 38.49, whereas $A_2$ mean is 32.95. Mean difference for variable $A_1$ and $A_2$ is 6.300 and S.D. is 4.236. The findings suggest that Relaxation Techniques adopted by the investigator had significant impact in reducing the Anxiety level of teachers.

The changes in scores for variable Anxiety i.e. $A_1$ and $A_2$ in the Experimental group with gap of two months is graphically represented in Fig. 4.7.

There exists a significant difference between variables of $S_P_1$ and $S_P_2$ in Experimental group. Obtained t-value is also significant at 0.01 level $t = 14.930$ (vide Table 4.3). Mean values of $S_P_1$ and $S_P_2$ are 114.58 and 105.47 respectively. Mean difference of variable $S_P_1$ and $S_P_2$ is 8.233 and S.D is 3.019. The above findings point out that the Relaxation Techniques employed by the investigator on Experimental group helped them to reduce their Systolic Pressure within the normal ranges with time.

The change in score for Systolic pressure i.e. $S_P_1$ and $S_P_2$ for Experimental group with time is graphically represented in Fig. 4.8.

Significant difference is exhibited between variables $D_P_1$ and $D_P_2$ in Experimental group. Mean values of $D_P_1$ and $D_P_2$ are 74.98 and 69.15 respectively. Mean difference of variable $D_P_1$ and $D_P_2$ is 5.533 and S.D is 6.250. The attained t-value $t = 12.124$ (vide Table 4.3) is also significant at 0.01 level which signifies that Relaxation Techniques employed by investigator were effective in reducing the Diastolic pressure of the women teachers significantly.
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

The change in score for variable Diastolic pressure i.e. D.P₁ and D.P₂ for Experimental group with time is graphically depicted in Fig. 4.9.

In Experimental group significant difference between variable H.R₁ and H.R₂ is depicted. Mean values for variable H.R₁ in Experimental group is 67.56, whereas mean H.R₂ was found to be 63.95. Mean difference for variable H.R₁ and H.R₂ is 4.033 and S.D is 2.627. The t-value 8.411 (vide Table 4.3) is found to be statistically significant at 0.01 level. Which verifies that subject in Experimental group after two months of Relaxation training had more healthy Heart-rate And that the treatment given to the subjects was effective in reducing their Heart-rate.

The change in scores for Heart-rate or H.R i.e H.R₁ and H.R₂ in Experimental group is graphically represented in Fig. 4.10.

4.5.2 DISCUSSION OF RESULTS OF EXPERIMENTAL GROUP

The results of analysis of mean scores and values of Experimental group are given in Table 4.3 The t-values of Experimental group were computed. The calculated values of ‘t’ for variable of Stress i.e. S₁ and S₂ is 0.511, for Anxiety i.e A₁ and A₂ it is 8.146, for Systolic pressure i.e S.P₁ and S.P₂ is 14.939, for Diastolic pressure i.e D.P₁ and D.P₂ it was 12.124 while for variable Heart-rate i.e H.R₁ and H.R₂ it was 8.411, were all found to be significant at 0.01 level of confidence.

The findings confirmed that the Relaxation Techniques employed by the investigator to reduce Stress, Anxiety, Blood Pressure and Heart-rate levels of women teachers was effective in reducing their Stress, Anxiety, Blood Pressure and Heart-rate levels significantly. Thus at the end of two months of training program the teachers became less stressed, less anxious and more healthy human beings.

Relaxation reduces Stress the results are in conformity, with (Benson, 1975; Belcastro and Gold, 1984; Walia et al, 1984; Pestonjee, 1985; Dubey, 1989.)

The findings ratify the hypothesis that - There will be a significant difference in Pre-test and Post-test scores and values on variables of Stress, Anxiety, Blood Pressure and Heart-rate of teachers in the Experimental group.

4.5.3. ANALYSIS AND INTERPRETATION OF EXPERIMENTAL GOVERNMENT 10\textsuperscript{th} GROUP

Here the analysis of the Experimental government 10\textsuperscript{th} group is done. As well as the difference between the Pre and Post scores and values on different variables of Stress, Anxiety, Systolic pressure, Diastolic pressure and Heart-rate were also measured.
TABLE 4.4 - The t-values for Pre-test and Post-test scores and values of Experimental Government 10th Group on variable of Stress, Anxiety, Systolic Pressure, Diastolic Pressure and Heart-rate.

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Variable</th>
<th>Experimental group (N = 15)</th>
<th>Mean Differences</th>
<th>S.D.</th>
<th>t-values</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Pre-test Mean</td>
<td>Post-test Mean</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Stress</td>
<td>111.07</td>
<td>60.13</td>
<td>50.93</td>
<td>35.64</td>
</tr>
<tr>
<td>2</td>
<td>Anxiety</td>
<td>40.87</td>
<td>34.73</td>
<td>6.13</td>
<td>4.08</td>
</tr>
<tr>
<td>3</td>
<td>Systolic Pressure</td>
<td>115.33</td>
<td>106.60</td>
<td>8.73</td>
<td>3.64</td>
</tr>
<tr>
<td>4</td>
<td>Diastolic Pressure</td>
<td>74.87</td>
<td>68.53</td>
<td>6.33</td>
<td>3.93</td>
</tr>
<tr>
<td>5</td>
<td>Heart-rate</td>
<td>60.87</td>
<td>64.13</td>
<td>2.77</td>
<td>1.81</td>
</tr>
</tbody>
</table>

* Value significant at 0.05 level = 2.14  
** Value significant at 0.01 level = 2.98

From the Table 4.4, it is revealed that there exists a significant difference between variables S_1 and S_2 in Experimental Govt. 10th group. The t-value is also significant at 0.01 level (t = 5.53) S_1 mean for Experimental Government 10th group is 111.07, while S_2 mean is 60.13. Mean difference for variable S_1 and S_2 is found to be 50.93 and S.D is 35.64. This points out that Relaxation treatment given to subjects in Experimental group was effective in reducing their Stress level significantly. And that the subject in the Experimental group became less stressed at the end of two months Relaxation training programme.

The change in scores for variable Stress i.e. S_1 and S_2 in Experimental Govt. 10th group with time is graphically represented in Fig 44.

Significant differences between variables A_1 and A_2 in Experimental Govt. 10th group were observed. The t-value = 5.82 (vide Table 4.4) is found to be statistically significant at 0.01 level. A_1 mean for Experimental Govt. 10th group is 40.87, whereas A_2 mean is 34.87. Mean difference for variable A_1 and A_2 is 6.13 and S.D. is 4.08. The findings suggest that at the end of two months of Relaxation
training programme the subjects in Experimental group became less anxious. And that the Relaxation Techniques employed by the investigator had significant impact in reducing the Anxiety level of teachers. The changes in scores for variable Anxiety i.e. $A_1$ and $A_2$ in the Experimental Government $10^{th}$ group within time interval of two months is graphically represented in Fig. 4.7.

There persists a significant difference between variables $S.P_1$ and $S.P_2$ of Experimental Government $10^{th}$ group. Obtained t-value is also significant at 0.01 level of confidence ($t = 9.29$; vide Table 4.4). Mean values of $S.P_1$ and $S.P_2$ are 115.33 and 106.60 respectively. Mean difference between variables $S.P_1$ and $S.P_2$ is 8.71 and S.D is 3.64. The above findings highlights that the Relaxation therapy adopted by the experimenter on Experimental Government $10^{th}$ group helped them to reduce their Systolic pressure within 'normal' ranges with time.

The change in values for variable Systolic Pressure i.e. $S.P_1$ and $S.P_2$ in the Experimental group within time gap of two months is graphically presented in Fig. 4.8.

Significant difference is exhibited between variables $D.P_1$ and $D.P_2$ in Experimental Government $10^{th}$ group. Mean values of $D.P_1$ and $D.P_2$ are 74.87 and 68.53 respectively. Mean difference between variables $D.P_1$ and $D.P_2$ is 6.33 and S.D is 3.93. The obtained t-value 6.25 (vide Table 4.4) is also significant at 0.01 level. Which signifies that Relaxation therapy/treatment adopted by the investigator was effective in reducing the Diastolic pressure of the women teachers significantly.

The change in values for variable Diastolic pressure i.e. $D.P_1$ and $D.P_2$ in the Experimental Government $10^{th}$ group by the end of two months of Relaxation training is graphically represented in Fig. 4.9.

In Experimental group significant differences between variable $H.R.1$ and $H.R.2$ were gained. Mean values for variable $H.R.1$ in Experimental Government $10^{th}$ group is 60.87 whereas mean $H.R.2$ obtained after two months of Relaxation therapy was found to be 64.13. Mean difference between variables $H.R.1$ and
H.R.₂ is 2.73 and S.D. is 1.81. The obtained t-value 5.86 (vide Table 4.4) is also found to be statistically significant at 0.01 level. Which verifies that subjects in Experimental Government 10th group after two months of Relaxation training had more healthy Heart-rate. The Relaxation treatment given to the subjects was effective in reducing their Heart-rate.

The change in values for variable Heart-rate or H.R. i.e. H.R₁ and H.R₂ in Experimental Government 10th group is graphically represented in Fig. 4.10.

4.5.4. DISCUSSION OF RESULTS FOR EXPERIMENTAL GOVERNMENT 10TH GROUP

The results of analysis of mean scores and values for Experimental group are given in Table 4.4. The t-values of Experimental group were computed. The calculated values of 't' for variable of Stress i.e. S₁ and S₂ is 5.53, for Anxiety i.e. A₁ and A₂ it is 5.82, for variable Systolic Pressure i.e. S.P₁ and S.P₂ is 9.29, for Diastolic Pressure i.e. D.P₁ and D.P₂ it was 6.25 whereas for Heart-rate i.e. H.R₁ and H.R₂ it was 5.86; were significant at 0.01 level of confidence.

The findings confirmed that the Relaxation Techniques employed by the investigator to reduce Stress, Anxiety, Blood Pressure, and Heart-rate levels of women teachers was effective in reducing their Stress, Anxiety, Blood Pressure and Heart-rate levels significantly. Thus at the end of two months of training programme the teachers became less stressed, less anxious and more healthy human beings. The results are in conformity, that Relaxation reduces Stress (Benson, 1975; Beastro and Gold, 1984; Walia et al. 1984; Pestonjee, 1985; Dubey, 1989; Zilli, 1989; Singh, A. 1989; Khumar, 1989; Latha and Kaliappan, 1991; Mishra et al. 1991; Winchester Vega, 1992; Davis, 1992; Pestonjee, 1992; Myers, 1995; Kennedy’s, 1995; Douglas, 1995; Cockburn, 1996; Glick’s, 1998; TNS, 2000; Kamavar, 2000; TNS, 2001a, www.mbbm.org, 2002; and Orme Johnson 2002). Relaxation Techniques reduce Anxiety (Sherman and Plummer, 1973; Nicoletti, 1973; Ferguson and Cowan, 1974; Fanning and Hisangra, 1985; Keneal et al. 1972; Williams, 1978; Walia et al. 1984; Eppley and Shear, 1989; Deffenbacher and Stark, 1992; Malathi et al. 1998; Touch Research Institute, 1998).
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS


The findings confirm the hypothesis that There will be a significant difference in Pre-test and Post-test scores and values on variable of Stress, Anxiety, Blood Pressure and Heart-rate of teachers in the Experimental group.

4.5.5. ANALYSIS AND INTERPRETATION OF EXPERIMENTAL GOVERNMENT 12TH GROUP

Here the analysis of results of the Experimental Government 12th group is dealt with. As well as the difference between the Pre and Post-test scores and values on different variables of Stress, Anxiety, Systolic Pressure, Diastolic Pressure and Heart-rate were also taken into account.
### TABLE 4.5 - The t-values for Pre-test and Post-test scores and values of Experimental Government 12th Group, on variables of Stress, Anxiety, Systolic Pressure, Diastolic Pressure and Heart-rate.

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Variable</th>
<th>Experimental group (N = 15)</th>
<th>Mean Differences</th>
<th>S.D.</th>
<th>t-values</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Pre-test Mean</td>
<td>Post-test Mean</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Stress</td>
<td>104.60</td>
<td>67.00</td>
<td>37.60</td>
<td>28.52</td>
</tr>
<tr>
<td>2.</td>
<td>Anxiety</td>
<td>37.07</td>
<td>30.60</td>
<td>4.40</td>
<td>4.63</td>
</tr>
<tr>
<td>3.</td>
<td>Systolic Pressure</td>
<td>108.87</td>
<td>100.13</td>
<td>8.73</td>
<td>2.52</td>
</tr>
<tr>
<td>4.</td>
<td>Diastolic Pressure</td>
<td>72.40</td>
<td>66.07</td>
<td>6.33</td>
<td>2.41</td>
</tr>
<tr>
<td>5.</td>
<td>Heart-rate</td>
<td>65.20</td>
<td>62.20</td>
<td>3.00</td>
<td>1.74</td>
</tr>
</tbody>
</table>

* Value significant at 0.05 level = 2.14  
** Value significant at 0.01 level = 2.98

From the Table 4.5, it is revealed that there exists a significant difference between variables of Stress i.e. S₁ and S₂ in Experimental Government 12th group. The secured t-value is also significant at 0.01 level (t = 5.11). S₁ mean for Experimental Government 12th group is 104.60, while S₂ mean is 67.00. Mean difference between variable S₁ and S₂ is found to be 37.60 and S.D. is 28.52. This points out that Relaxation treatment given to subjects in Experimental group was effective in reducing their Stress level significantly. And that the subjects in the Experimental group became less stressed at the end of two months Relaxation training programme.

The change in scores for variable Stress i.e. S₁ and S₂ in Experimental Government 12th group with time is graphically represented in Fig. 4.6.

Significant differences between variables of Anxiety i.e. A₁ and A₂ in Experimental Government 12th group were observed. The t-value = 5.41 (vide Table 4.5) is found to be statistically significant at 0.01 level. A₁ mean for Experimental group is 37.07, whereas A₂ mean is 30.00. Mean difference for
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

variable $A_1$ and $A_2$ is 6.47 and S.D. is 4.63. The findings suggest that at the end of two months of Relaxation training programme the subjects in Experimental group became less anxious. And that the Relaxation Techniques employed by the investigator had significant impact in reducing the Anxiety level of teachers. The change in score for variable Anxiety i.e. $A_1$ and $A_2$ in the Experimental Government 12th group. After the time interval of two months is graphically represented in Fig. 4.7.

There prevails a significant difference between the variables of Systolic Pressure i.e. $S.P_1$ and $S.P_2$ of Experimental Government 12th group. Procured $t$-value is also significant at 0.01 level of confidence ($t = 13.45$, vide Table 4.5). Mean values of $S.P_1$ and $S.P_2$ are 108.87 and 100.13 respectively. Mean difference between variables $S.P_1$ and $S.P_2$ is 8.73 and S.D is 2.52. The above findings highlights that the Relaxation therapy employed by the experimenter in Experimental Government 12th group helped the subjects to reduce their Systolic Pressure significantly within 'optimal' ranges.

The change in values for variable Systolic Pressure i.e. $S.P_1$ and $S.P_2$ in the Experimental group after time interval of two months is graphically represented in Fig. 4.8.

A significant difference is exhibited between the variables of Diastolic Pressure i.e. $D.P_1$ and $D.P_2$ for Experimental Government 12th group after the time period of two months. The mean values of $D.P_1$ and $D.P_2$ are 72.40 and 69.07 respectively. Mean difference between variables $D.P_1$ and $D.P_2$ is 3.33 and S.D is 2.41. The obtained $t$-value is 10.17 (vide Table 4.5) is also significant at 0.01 level. Which signifies that Relaxation treatment adopted by the investigator was effective in reducing the Diastolic Pressure of the women teachers significantly.

The change in values for variable Diastolic Pressure i.e. $D.P_1$ and $D.P_2$ in the Experimental Government 12th group by the end of two months of Relaxation training programme is graphically represented in Fig. 4.9.
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

In Experimental Government 12th group significant difference between variables of Heart-rate i.e. H.R.1 and H.R.2 were gained. Mean values for variable H.R.1 in Experimental Government 12th is 65.20, whereas mean H.R.2 obtained after two months of Relaxation therapy was 62.60. The mean difference between variables H.R.1 and H.R.2 is 2.60 and S.D. is 1.74. The obtained t-value 5.78 (vide Table 4.5) is also found to be statistically significant at 0.01 level. Which verifies that subjects in Experimental Government 12th group after two months of Relaxation training had more healthy Heart-rate. And that the Relaxation treatment given to the subjects was effective in reducing their Heart-rate.

The change in values for variable Heart-rate i.e. H.R.1 and H.R.2 in Experimental Government 12th group is graphically represented in Fig 4.10

4.5.6. DISCUSSION OF RESULTS FOR EXPERIMENTAL GOVERNMENT 12th GROUP

The results of analysis of mean scores and values for Experimental Government 12th group are given in Table 4.5. The t-values of Experimental group were computed. The calculated values of 't' for variable of Stress i.e. S1 and S2 is 5.11. for Anxiety variable i.e. A1 and A2 it is 5.41. for variable Systolic Pressure i.e. S.P1 and S.P2 is 13.45, for Diastolic Pressure i.e. D.P1 and D.P2 it was 10.17 whereas for variable Heart-rate i.e. H.R.1 and H.R.2 it was 5.78, were all found to be significant at 0.01 level of confidence.

The findings confirmed that the Relaxation Techniques employed by the investigator to reduce Stress, Anxiety, Blood Pressure and Heart-rate levels of women teachers was effective in reducing their Stress, Anxiety, Blood Pressure and Heart-rate level significantly. Thus at the end of two months of training programme the teachers became less stressed, less anxious and more healthy human beings. The results are in conformity with researches, that Relaxation reduces Stress (Benson, 1975; Belcastro and Gold, 1984; Walia et al, 1984; Pestonjee, 1985; Dubey, 1989; Zilli, 1989; Singh, A 1989; Khumar, 1989; Latha and Kaliappan, 1991; Mishra et al, 1991; Winchester Vega, 1992; Davis, 1992; Pestonjee, 1992; Myers, 1995; Kennedy's 1995; Douglas, 1995; Cockburn, 1996.

187
The findings confirm the hypothesis that – There will be a significant difference in Pre-test and Post-test scores and values on variables of Stress, Anxiety, Blood Pressure and Heart-rate of teachers in the Experimental group.

4.5.7. ANALYSIS AND INTERPRETATION OF EXPERIMENTAL PRIVATE 10TH GROUP

Here the analysis of results of the Experimental Private 10th group is dealt in detail. Along with the difference between Pre-test and Post-test scores and values on different variables of Stress, Anxiety, Systolic Pressure, Diastolic Pressure and Heart-rate.
TABLE 4.6 - The t-values for Pre-test and Post-test scores and values of Experimental Private 10th group on variables of Stress, Anxiety, Systolic Pressure, Diastolic Pressure and Heart-rate.

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Variable</th>
<th>Experimental group (N = 12)</th>
<th>Mean Differences</th>
<th>S.D.</th>
<th>t-values</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Pre-test Mean</td>
<td>Post-test Mean</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Stress</td>
<td>97.92</td>
<td>63.42</td>
<td>34.50</td>
<td>17.91</td>
</tr>
<tr>
<td>2</td>
<td>Anxiety</td>
<td>38.67</td>
<td>35.00</td>
<td>3.67</td>
<td>2.84</td>
</tr>
<tr>
<td>3</td>
<td>Systolic Pressure</td>
<td>117.67</td>
<td>107.50</td>
<td>10.17</td>
<td>5.47</td>
</tr>
<tr>
<td>4</td>
<td>Diastolic Pressure</td>
<td>76.58</td>
<td>71.75</td>
<td>4.83</td>
<td>1.99</td>
</tr>
<tr>
<td>5</td>
<td>Heart-rate</td>
<td>68.83</td>
<td>63.50</td>
<td>5.33</td>
<td>1.27</td>
</tr>
</tbody>
</table>

* Value significant at 0.05 level = 2.20  
** Value significant at 0.01 level = 3.11

The Table 4.6, reveals that there persists a significant difference between variables of Stress i.e. S_1 and S_2 in Experimental Private 10th group. Mean values for variable S_1 and S_2 for Experimental group were found to be 97.92 and 63.42 respectively. Mean difference between variable S_1 and S_2 is 34.50 and S.D. is 17.91. The secured t-value is also significant at 0.01 level (t = 6.67). It too stresses out that the Relaxation therapy given to the subjects in Experimental group was effective in reducing their Stress level radically. And also, the subjects in the Experimental group became less stressed or more relaxed at the end of two months of therapy schedule.

The change in scores for variable Stress i.e. S_1 and S_2 in Experimental Private 10th group after time gap of two months is graphically represented in Fig. 4.6

Significant differences were observed between variables of Anxiety i.e. A_1 and A_2 for Experimental Private 10th group. The t-value = 4.48 (vide Table 4.6) is
found to be statistically significant at 0.01 level. $\mu_1$ mean for Experimental Private
10th group is 38.67, whereas $\mu_2$ mean is 35.00. The mean of difference for
variable $\mu_1$ and $\mu_2$ is 3.67 and S.D is 2.84. The findings suggests that at the end of
two months of Relaxation training programme the subjects in Experimental group
became less anxious. And that the Relaxation Techniques employed by the
investigator had significant impact in reducing the Anxiety level of teachers. The
change in score for variable Anxiety i.e. $\mu_1$ and $\mu_2$ in the Experimental Private
10th group after the time interval of two months is graphically represented in Fig
4.7

There prevails a significant difference between the variables of Systolic
Pressure i.e. $S.P_1$ and $S.P_2$ of Experimental Private 10th group. Procured t-value
is also significant at 0.01 level of confidence (t = 1.43, vide Table 4.01). The mean
values of $S.P_1$ and $S.P_2$ are 117.67 and 107.50 respectively. Mean difference
between variables $S.P_1$ and $S.P_2$ is 10.17 and S.D is 5.47. The above findings
highlight that the Relaxation therapy employed by the experimenter in
Experimental group was helpful in reducing the Systolic Pressure of the subjects
significantly within 'optimal' ranges.

The change in values for variable Systolic Pressure from $S.P_1$ to $S.P_2$ in
the Experimental Private 10th group after time interval of two months is
graphically represented in Fig. 4.8

A significant difference is exhibited between the variables of Diastolic
Pressure i.e. $D.P_1$ and $D.P_2$ for Experimental Private 10th group after the time
period of two months. The mean values for variable $D.P_1$ and $D.P_2$ are 76.58 and
71.75 respectively. The mean difference between variable $D.P_1$ and $D.P_2$ is
4.83 and S.D is 1.99. The attained t-value is 8.49 (vide Table 4.01) is also
significant at 0.01 level. Which signifies that Relaxation treatment adopted by the
investigator was effective in reducing the Diastolic Pressure of the women
teachers significantly.
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

The change in values for variable Diastolic Pressure from D.P_1 to D.P_2 in the Experimental Private 10th group by the end of two months of Relaxation training is graphically represented in Fig. 4.9.

In Experimental Private 10th group significant differences on variables of Heart-rate i.e. H.R.1 and H.R.2 were gained. The mean values for the group on variable H.R.1 is 68.83 while H.R.2 is 63.50 was obtained after two months of Relaxation therapy. The mean difference between variables H.R.1 and H.R.2 is 5.33 and S.D is 1.99. The secured t-value 5.64 (vide Table 4.6) is also found to be statistically significant at 0.01 level. Which verifies that subjects in Experimental Private 10th group after two months of Relaxation training had more healthy Heart-rate. And that the Relaxation treatment given to the subjects was effective in reducing their Heart-rate significantly.

The change in values for variable of Heart-rate i.e. H.R.1 and H.R.2 in Experimental Private 10th group is graphically represented in Fig. 4.10.

4.5.8. DISCUSSION OF RESULTS FOR EXPERIMENTAL PRIVATE 10th GROUP

The results of analysis of mean scores and values for Experimental Private 10th group are given in Table 4.6. The t-values of Experimental group were computed. The calculated values of 't' for variables of Stress i.e. S1 and S2 is 0.67, for Anxiety variables i.e. A1 and A2 it is 4.48, for variable Systolic Pressure i.e. S.P.1 and S.P.2 is 0.43, for Diastolic Pressure i.e. D.P.1 and D.P.2 it is 8.40 while for variables of Heart-rate i.e. H.R.1 and H.R.2 it is 5.04, were all found to be significant at 0.01 level of confidence.

The findings confirmed that the Relaxation Techniques employed by the investigator to reduce Stress, Anxiety, Blood Pressure and Heart-rate levels of women teachers was effective in reducing their Stress. Anxiety, Blood Pressure and Heart-rate levels significantly. Thus at the end of two months of training in relaxation techniques, the teachers became less stressed or more relaxed, less anxious and more healthy and effective human beings with more or less normal
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS


The findings confirm the hypothesis that - There will be a significant difference in Pre-test and Post-test scores and values on variables of Stress, Anxiety, Blood Pressure and Heart-rate of teachers in the Experimental group.

4.5.9. ANALYSIS AND INTERPRETATION OF EXPERIMENTAL PRIVATE 12TH GROUP

The results of the Experimental Private 12th group are analyzed here in detail. Also the difference between Pre-test and Post-test scores and values on
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

different variables of Stress, Anxiety, Systolic Pressure, Diastolic Pressure and Heart-rate are dealt in.

TABLE 4.7 - The t-values for Pre-test and Post-test scores and values of Experimental Private 12th group, on variables of Stress, Anxiety, Systolic Pressure, Diastolic Pressure and Heart-rate.

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Variable</th>
<th>Experimental group Mean (N = 13)</th>
<th>Mean Differences</th>
<th>S.D.</th>
<th>t-values</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Pre-test Mean</td>
<td>Post-test Mean</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Stress</td>
<td>79.62</td>
<td>45.54</td>
<td>34.08</td>
<td>28.29</td>
</tr>
<tr>
<td>2</td>
<td>Anxiety</td>
<td>71.69</td>
<td>31.09</td>
<td>5.54</td>
<td>4.52</td>
</tr>
<tr>
<td>3</td>
<td>Systolic Pressure</td>
<td>117.46</td>
<td>108.46</td>
<td>9.00</td>
<td>5.01</td>
</tr>
<tr>
<td>4</td>
<td>Diastolic Pressure</td>
<td>76.62</td>
<td>71.00</td>
<td>5.62</td>
<td>2.90</td>
</tr>
<tr>
<td>5</td>
<td>Heart-rate</td>
<td>69.92</td>
<td>65.69</td>
<td>4.23</td>
<td>2.22</td>
</tr>
</tbody>
</table>

* Value significant at 0.05 level = 2.18  
** Value significant at 0.01 level = 3.06

The Table 4.7 reveals that there exists a significant difference between variables of Stress i.e. $S_1$ and $S_2$ in Experimental Private 12th group. The mean values for variable $S_1$ and $S_2$ for Experimental group were found to be 79.62 and 45.54 respectively. The mean difference between variable $S_1$ and $S_2$ is 34.08 and S.D is 28.29. The secured t-value is also significant at 0.01 level ($t = 4.34$). It too confirms that the Relaxation therapy given to the subjects in the group was effective in reducing their Stress level radically. And that the subjects in the Experimental group became less stressed and more relaxed at the end of two months of therapy schedule.

The change in scores for variable Stress i.e. $S_1$ and $S_2$ in Experimental Private 12th group after time gap of two months is graphically represented in Fig. 4.6.
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

Significant differences were observed between variables of Anxiety i.e. A₁ and A₂ for Experimental Private 12th group. The obtained t-value 5.67 (vide Table 4.7) is found to be statistically significant at 0.01 level. A₁ mean for Experimental Private 12th group is 37.23, whereas A₂ mean is 31.69. The mean difference between two variables A₁ and A₂ is 5.54 and S.D. is 3.52. The findings suggest that at the end of two months of Relaxation training programme the subjects in Experimental group became less anxious. And that the Relaxation Techniques employed by the investigator had significant impact in reducing the Anxiety level of teachers. The change in score for variable Anxiety from A₁ to A₂ in the Experimental Private 12th group after time interval of two months is graphically represented in Fig. 4.7.

There prevails a significant difference between the variables of Systolic pressure i.e. S P₁ and S P₂ of Experimental Private 12th group. Procured t-value is also significant at 0.01 level of confidence (t = 10.77, vide Table 4.7). The mean values of S P₁ and S P₂ are 117.46 and 108.46 respectively. The mean difference between S P₁ and S P₂ is 9.00 and S.D. is 3.01. The above findings highlight that the Relaxation Techniques employed by the experimenter on Experimental group was helpful in reducing the Systolic Pressure of the subjects significantly within normal ranges.

The change in values for variable Systolic Pressure from S P₁ to S P₂ in the Experimental Private 12th group after time interval of two months is graphically represented in Fig. 4.8.

A significant difference is exhibited between the variables of Diastolic Pressure i.e. D P₁ and D P₂ for Experimental Private 12th group after two months of time interval. The mean values of variables D P₁ and D P₂ are 71.00 and 62.00 respectively. The mean difference between variables D P₁ and D P₂ is 5.00 while the S.D. is 2.90. The obtained t-value is 6.90 (vide Table 4.7) is also significant at 0.01 level. Which signifies that the Relaxation treatment adopted by the investigator was effective in reducing the Diastolic Pressure of the women teachers significantly.
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

The change in values for variable Diastolic Pressure from \( D.P_1 \) to \( D.P_2 \) in the Experimental Private 12\(^{th}\) group by the end of two months of Relaxation training is graphically represented in Fig. 4.9.

In Experimental Private 12\(^{th}\) group significant differences on variables of Heart-rate i.e. \( H.R_1 \) and \( H.R_2 \) were earned. The mean value for variable \( H.R_1 \) is 69.92, while for variable \( H.R_2 \) is 65.69. The mean difference between variable \( H.R_1 \) and \( H.R_2 \) is 4.23 and \( S.D \) is 2.22. The procured t-value is 6.86 (vide Table 4.7), found to be statistically significant at 0.01 level. Which verifies that subjects in Experimental Private 12\(^{th}\) group after two months of Relaxation treatment had more healthy Heart-rate. And the treatment given to the subjects was effective in reducing their Heart-rate significantly.

The change in values for variable Heart-rate from \( H.R_1 \) to \( H.R_2 \) in Experimental Private 12\(^{th}\) group is graphically represented in Fig. 4.10.

4.5.10. DISCUSSION OF RESULTS FOR EXPERIMENTAL PRIVATE 12\(^{th}\) GROUP

The results of analysis of mean scores and values for Experimental Private 12\(^{th}\) group are given in Table 4.7. The t-values of Experimental group were computed. The calculated values of ‘t’ for variables of Stress i.e. \( S_1 \) and \( S_2 \) is 4.34 for Anxiety variables i.e. \( A_1 \) and \( A_2 \) it is 5.67. for variable Systolic Pressure i.e. \( S.P_1 \) and \( S.P_2 \) is 10.77. for Diastolic Pressure i.e. \( D.P_1 \) and \( D.P_2 \) it is 6.99 while for variables of Heart-rate i.e. \( H.R_1 \) and \( H.R_2 \) it is 6.86, were all found to be significant at 0.01 level of confidence.

The findings confirmed that the Relaxation Techniques employed by the investigator to reduce Stress, Anxiety, Blood Pressure and Heart-rate levels of women teachers was effective in reducing their Stress, Anxiety, Blood Pressure and Heart-rate levels significantly. Thus at the end of two months of training in Relaxation Techniques, the teachers became less stressed and more relaxed, less anxious and more healthy and effective individuals with more or less normal Blood Pressure and Heart-rate. The results are also in conformity, that Relaxation
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS


The finding corroborate the hypothesis that - There will be a significant difference in Pre-test and Post-test scores and values on variables of Stress, Anxiety, Blood Pressure and Heart-rate of teachers in the Experimental group.
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

Fig. 4.6. – Graphical representation of Pre and Post Stress levels of Experimental Groups.

Fig. 4.7. - Graphical representation of Pre and Post Anxiety levels of Experimental Groups.

197
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

Fig. 4.8. – Graphical representation of Pre and Post Systolic Pressure levels of Experimental Groups.

Fig. 4.9. – Graphical representation of Pre and Post Diastolic Pressure levels of Experimental Groups.
4.6. ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

4.6.1. ANALYSIS AND INTERPRETATION OF CONTROL AND EXPERIMENTAL GROUPS

Here the analysis and interpretation of Control and Experimental groups are dealt. As well as the difference between the scores and values of two groups on different variables of Stress, Anxiety, Systolic Pressure, Diastolic Pressures and Heart-rates were also measured.

Fig. 4.10 – Graphical representation of Pre and Post Heart-rate levels of Experimental Groups.
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

TABLE 4.8 - The t-values for Control and Experimental Group on variables of Stress, Anxiety, Systolic Pressure, Diastolic Pressure and Heart-rate.

<table>
<thead>
<tr>
<th>Var. No.</th>
<th>Var. Code</th>
<th>Control group (N = 59)</th>
<th>Experimental Group (N = 55)</th>
<th>t-values</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mean</td>
<td>S.D.</td>
<td>Mean</td>
</tr>
<tr>
<td>1</td>
<td>S</td>
<td>97.49</td>
<td>55.24</td>
<td>99.00</td>
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<tr>
<td>2</td>
<td>S</td>
<td>110.54</td>
<td>32.61</td>
<td>59.27</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>35.07</td>
<td>8.24</td>
<td>38.49</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>59.22</td>
<td>8.59</td>
<td>52.95</td>
</tr>
<tr>
<td>5</td>
<td>S P</td>
<td>121.19</td>
<td>13.65</td>
<td>114.58</td>
</tr>
<tr>
<td>6</td>
<td>D P</td>
<td>79.69</td>
<td>8.99</td>
<td>74.98</td>
</tr>
<tr>
<td>7</td>
<td>H R</td>
<td>69.20</td>
<td>4.83</td>
<td>67.86</td>
</tr>
</tbody>
</table>

* Value significant at 0.05 level = 1.98
** Value significant at 0.01 level = 2.62

The Table 4.8 reveals that there exists no significant difference between Control and Experimental group on variable $S_1$. As evidenced by $t = 0.25$ is insignificant. The mean values for variable $S_1$ for Control and Experimental group were found to be 97.49 and 99.00 respectively. Which indicates that before the start of Relaxation therapy by the investigator, both groups were at par with each other. In other words both groups were equal in their Stress level.

However on variable $S_2$, significant differences between mean scores of Control and Experimental groups were obtained. For Control group mean = 110.54 and S.D = 32.61 Whereas for Experimental group mean = 59.27 and S.D is 24.13. Mean scores of two groups suggest that teachers in Control group who were not given any Relaxation training gained on Stress scores, their Stress level increased. While for their counterparts in Experimental group who were subjected to two months of Relaxation training by investigator their level of Stress score declined significantly. Which is pointed by obtained t-value is significant at 0.01 level ($t = 9.48$, vide Table 4.8).
Analyzing, interpreting and discussing the results

The above findings suggest that after a gap of two months the two groups differed significantly in their levels of Stress. The teachers in the Experimental group reported a sharp decline in their Stress level at the end of two months. While the teachers of Control group showed increase in their Stress level with time. This confirms that the relaxation techniques employed in the Experimental group to reduce their Stress level was effective in reducing the Stress level of the teachers significantly at the end of two months. Whereas for the Control group who were not subjected to any such relaxation technique their level of Stress increased. This further adds that the relaxation technique employed by the investigator to help reduce the Stress level of women teachers was effective in its purpose. The change in scores for variable Stress i.e. $S_1$ and $S_2$ in both groups is graphically represented in Fig. 4.11

![Graphical representation of change in Stress levels in both groups](image)

**Fig. 4.11.** – Graphical representation of change in Stress levels in both groups

For variable $A_i$ value of mean for Control group is 35.07 and S.D is 8.24. For Experimental group mean is 38.49 and S.D is 8.52. Which highlights that individuals in Experimental group were more anxious than that of Control group. Which is even **Stressed** by t-test value which is significant at 0.05 level ($t = 2.18$, vide Table 4.8).
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

Significant differences were obtained between Control and Experimental group on variable A2. For Control group mean score is 39.22 and S.D. is 8.59, while for Experimental group mean is 32.95 and S.D. is 9.25. The attained t-value 3.75 (vide Table 4.8) is statistically significant at 0.01 level. The findings suggest that though, teachers in Experimental group were more anxious than the teachers in Control group at the start of experiment. But after undergoing relaxation training for two months the Anxiety level of Experimental group fall below that of Control group. Rather on the other hand Control group teachers became more and more anxious with passage of time. This further supports that relaxation techniques employed by the investigator had significant impact in reducing the Anxiety level of teachers, the purpose for which it was used.

The change in scores for variable Anxiety i.e. A1 and A2 in both groups with time is graphically represented in Fig. 4.12.

![Graphical representation of change in Anxiety levels in both groups](image)

Fig. 4.12. – Graphical representation of change in Anxiety levels in both groups

There prevails a significant difference between Control and Experimental group on mean Systolic Pressure on variable S.P. For Control group S.P mean = 121.19 and S.D. is 13.65 while for Experimental group S.P mean value is 114.58 and S.D is 10.51 procured t-value is also significant at 0.01 level of
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

A significant difference is exhibited between Control and Experimental group on mean Diastolic Pressure i.e. variable DP. For Control group DP mean is 79.69 and SD is 8.99 while for Experimental group DP mean value is 74.98 and SD 7.56. The obtained t-value is 3.02 (vide Table 4.8). Which signifies that the relaxation treatment adopted by the investigator was effective in reducing the Diastolic Pressure of the women teachers in Experimental group within 'optimal' ranges.

Graphical representation for the S.P. values for both groups are shown in Fig. 4.13.

Fig. 4.13. – Graphical representation of the mean Systolic Pressure of both groups.
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

‘optimal’ range. However, for teachers in Control group their D.P. value of all
between ‘optimal’ and ‘normal’ ranges with tendency towards ‘normal’ value.
This further asserts that after two months of relaxation training the Experimental
group teachers had more ‘optimal’ value of D.P. as compared to that of teachers in
Control group.

Graphical representation for the D.P. values for both groups are shown in
Fig. 4.14.

![Graphical representation of mean Diastolic Pressure](image.png)

Fig. 4.14. – Graphical representations of the mean Diastolic Pressure of both
groups.

Between Control and Experimental groups their existed significant
differences in respect of mean Heart-rate i.e. HR. For Control group
mean = 69.20 and SD = 4.83 whereas for Experimental group mean = 67.86 and
SD = 3.55. This indicates that HR of individuals in Experimental group was
more towards normal than their counterparts in Control group, which is verified
by the t-test value which is significant as 0.05 level (t = 2.05, vide Table 4.8). This
proves that relaxation techniques employed by the investigator were effective in
reducing the Heart-rate of women teachers in Experimental group radically. So
after two months of training teachers in Experimental group had more relaxed Heart-rate.

The graphical representation of the Heart-rate for both group is given in Fig. 4.15.

4.6.2. DISCUSSION OF RESULTS FOR CONTROL AND EXPERIMENTAL GROUPS

The results of analysis of mean scores and values for Control and Experimental groups are given in Table 4.8. The t-values for Control and Experimental groups were computed. The calculated values of 't' for variables of Stress i.e. $S_1$ and $S_2$ are; for $S_1$ it is 11.25 and it is insignificant, which suggest that both group were equal on their Stress index at start. For variable $S_2$ it is 9.48 and is significant at 0.01 level, which asserts that relaxation technique had powerful impact in reducing the Stress level of Experimental group significantly. For variables of Anxiety i.e. $A_1$ and $A_2$ the calculated values of 't' are 2.18 and 3.75 respectively, which points out that before the onset of training schedule teachers in Experimental group reported higher level of Anxiety than those in Control.
group which is verified by t-value which is also significant at 0.05. However at the end of two months of training, teachers in Experimental group had significantly reduced their Anxiety level as compared to ones in Control group. The obtained t-value for variable \( A_2 \) is also significant at 0.01 level. For variable mean Systolic Pressure i.e. S.P, t-value is 2.88 which is significant at 0.01 level, and that for variable Diastolic Pressure i.e. D.P, t-value is 3.02 which is also significant at 0.01 level. Both t-values i.e. for variable S.P and D.P. indicate that relaxation techniques had positive effect in reducing the Blood Pressure level of teachers in Experimental group significantly. While for variable H.R. t-value is 2.05 which is significant at 0.05. It too directs that after undergoing training in relaxation techniques the Experimental group teachers had more relaxed Heart-rate as compared to their counterparts in Control group who were not subjected to any such training by the investigator.

ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS


The findings thus give support to the hypothesis that - There will be a significant impact of the relaxation Techniques on the Stress, Anxiety, Blood Pressure, Hypertension, and Heart-rate in employed women teachers.

4.6.3. ANALYSIS AND INTERPRETATION OF CONTROL GOVERNMENT 10TH AND EXPERIMENTAL GOVERNMENT 10TH GROUPS

Here the analysis and interpretation of Control Government 10th group and Experimental Government 10th group is done. As well as the difference between the scores and values of two groups on different variables of Stress, Anxiety, Systolic Pressure, Diastolic Pressures and Heart-rate were also measured.

The Table 4.9 reveals that there exists no significant difference between Control Government 10th group and Experimental Government 10th on variable S1. For Control Government 10th group mean 114.47 and S.D 22.40 and for Experimental Government 10th group mean 114.07 and S.D 28.69. Mean scores of two groups points out that before the start of relaxation treatment by the investigator both group were equal on the their level of Stress. Teachers in both the groups were equally stressed. Which is verified by the t-value which is insignificant (t = 0.06).
TABLE 4.9 - The t-values for Control Government 10th and Experimental Government 10th on variables of Stress, Anxiety, Systolic Pressure, Diastolic Pressure and Heart-rate.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mean</td>
<td>S.D.</td>
<td>Mean</td>
</tr>
<tr>
<td>1</td>
<td>S</td>
<td>Stress Pre-test</td>
<td>110.4*</td>
<td>22.40</td>
<td>111.0*</td>
</tr>
<tr>
<td>2</td>
<td>S</td>
<td>Stress Post-test</td>
<td>117.6*</td>
<td>23.61</td>
<td>60.13</td>
</tr>
<tr>
<td>3</td>
<td>A</td>
<td>Anxiety Pre-test</td>
<td>85.53</td>
<td>8.06</td>
<td>40.87</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>Anxiety Post-test</td>
<td>40.00</td>
<td>9.59</td>
<td>34.73</td>
</tr>
<tr>
<td>5</td>
<td>S.P</td>
<td>Mean Systolic Pressure</td>
<td>130.60</td>
<td>15.15</td>
<td>115.33</td>
</tr>
<tr>
<td>6</td>
<td>D.P</td>
<td>Mean Diastolic Pressure</td>
<td>83.94</td>
<td>9.01</td>
<td>74.87</td>
</tr>
<tr>
<td>7</td>
<td>H.R</td>
<td>Mean Heart-rate</td>
<td>70.2*</td>
<td>5.37</td>
<td>66.07</td>
</tr>
</tbody>
</table>

* Value significant at 0.05 level = 2.05
** Value Significant at 0.01 level = 2.77

However on variable S1, significant differences between mean scores of Control Government 10th and Experimental Government 10th groups were observed. For Control Government 10th group mean = 117.67 and S.D. = 23.61, while for Experimental Government 10th group mean = 60.13 and S.D. = 31.06. Which suggests that subjects in Control group who were not subjected to any Relaxation treatment gained on Stress scores or their Stress level increased comparatively. While their counterparts in Experimental group who had undergone two months Relaxation treatment programme their level of Stress score showed radical decline. Which is again highlighted by obtained t-value which is significant at 0.01 level (t = 5.71 vide Table 4.9).

The above findings indicate that after a gap of two months the two groups differed significantly in their level of Stress. The teachers in the Experimental group reported a sharp decline in their Stress level at the end of two months.
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

While the teachers of Control group exhibited an increase in their Stress level with time. This confirms that relaxation techniques employed in the Experimental Government 10th group was effective in its purpose. It reduced the Stress level of the teachers significantly at the end of two months. Whereas for the Control Government 10th group, who were devoid of any such relaxation technique their level of Stress increased.

This further supports that the relaxation technique used by the investigator to help reduce the Stress level of women teachers were effective in its aim. The change in scores for variable Stress i.e. S1 and S2 with time in both groups is graphically represented in Fig. 4.16.

For variable \( \text{ Anxiety} \) value of mean for Control Government 10th is 35.53 and \( \text{ S D} \) is 8.66. For Experimental Government 10th, mean is 40.87 and \( \text{ S D} \) is 10.15. Which highlights that teachers in Experimental group were more anxious. But the observed t-value states that the difference in between the two groups was not of significant value (t = 1.55, vide Table 4.9) Which states that the two group were more or less equal in their Anxiety level.

Fig. 4.16. – Graphical representation of change in Stress levels in both the groups
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

On variable A2 value of mean for Control Government 10th is 40.00 and S.D is 9.59 while for Experimental Government 10th mean = 34.73 and S.D = 11.33. Though the mean values of two groups indicate that after gap of two months teachers in Control group became more anxious. And that the teachers in Experimental group showed decline in their Anxiety level. But statistically no significant difference existed between the two groups which is even emphasized by t-value which is also insignificant (t = 1.37, vide Table 4.9).

The change in score for variable of Anxiety i.e. A1 and A2 in both groups after a gap of two months time is graphically represented in Fig. 4.17

![Graphical representation of change in Anxiety level in both groups](image_url)

**Fig. 4.17. – Graphical representation of change in Anxiety level in both groups**

There prevails a significant difference between Control Government 10th and Experimental Government 10th groups on mean Systolic Pressure or variable SP. For Control group SP mean is 150.00 and S.D is 15.15 whereas for Experimental group mean value is 115.33 and S.D is 11.3. Procured t-value is also significant at 0.01 level of confidence (t = 3.12, vide Table 4.9). This suggests that the relaxation therapy employed by the investigator for two
months on Experimental group aided them to reduce their S.P. value within ‘optimal’ ranges. While for their counterparts in Control group who were given no such training their mean Systolic Pressure i.e. S.P. value fell in ‘high normal’ ranges. Which further goes on to add that relaxation technique employed by investigator had significant impact in reducing the Systolic Pressure of Experimental group within ‘optimal’ ranges. Graphical representation for the S.P. values for both groups are shown in Fig. 4.18.

![Graphical representation of mean Systolic Pressure of both groups of Government 10th](image)

**Fig. 4.18. – Graphical representation of mean Systolic Pressure of both groups of Government 10th**

A significant difference is exhibited between Control Government 10th and Experimental Government 10th groups on mean Diastolic Pressure or variable D.P. The Control group mean is 83.93 and S.D. is 9.00 while for Experimental group D.P. mean value is 74.87 and S.D. is 9.04. The attained t-value is 2.75 which is significant at 0.05 level (vide Table 4.9). Which signifies that the relaxation treatment adopted by the investigator was effective in reducing the Diastolic Pressure of the women teachers within ‘optimal’ range. However for teachers in Control group their D.P. value fall in ‘normal’ range. This further asserts that after two months of training the Experimental group teachers had more optimal value of D.P. compared to that of teachers in Control group.
Graphical representation for the D.P. values if both groups is shown in Fig. 4.19.

Between Control Government 10th and Experimental Government 10th groups significant difference on variable mean Heart-rate or variable H.R were earned. For Control group mean H.R is 70.27 and S.D is 5.57, while for Experimental group mean is 66.87 and S.D is 2.10. It indicates that H.R of individuals in Experimental group was more towards normally relaxed value than that of Control group individuals. Which is verified by t-value which is significant at 0.05 level (t = 2.13, vide Table 4.9). This proves that relaxation techniques employed by the investigator were effective in reducing the Heart-rate of women teachers in Experimental group radically. So after two months of training teachers in Experimental group had more relaxed Heart-rate.

The graphical representation of the Heart-rate for both groups is given in Fig. 4.20.
Fig. 4.20. – Graphical representation of mean Heart-rate in both groups of Government 10th.

4.6.4. DISCUSSION OF RESULTS FOR CONTROL GOVERNMENT 10th AND EXPERIMENTAL GOVERNMENT 10th GROUPS

The results of analysis of mean scores and values for Control Government 10th and Experimental Government 10th groups are given in Table 4.9. The t-values for Control and Experimental groups were computed. The calculated values of \( t \) for variables of Stress i.e. \( S_1 \) and \( S_2 \) are, for \( S_1 \) it is 0.06 and it is insignificant, which purports that both groups were equal on their Stress level before the onset of training programme in Experimental group. For variable \( S_2 \), it is 5.71 and it is significant at 0.01 level, which asserts that relaxation techniques used in Experimental group had powerful impact in reducing their Stress level significantly. For variables of Anxiety i.e. \( A_1 \) and \( A_2 \), the calculated values of \( t \) were 1.55 and 1.37 respectively. Both values are insignificant. This suggests that both groups were equal in their Anxiety level before and after two months training in Experimental group. The mean scores do show decrease in score for Anxiety test in Experimental and an increase in Control group but that was of not
significant value statistically. For variable S.P and D.P obtained t-values are 3.12 and 2.75 respectively which are significant at 0.01 level and 0.05 level respectively. The t-values for both S.P and D.P indicate that intervention techniques used had positive effect in reducing the Blood Pressure levels of teachers in Experimental group significantly. Blood Pressure of teachers in Experimental group was in 'optimal' ranges. While teachers in Control group reported S.P in 'high normal' ranges and D.P in 'normal' ranges. While for variable H.R t-value is 2.13 which is significant at 0.05 level. It too directs that after undergoing training in relaxation techniques the Experimental group teachers had more relaxed Heart-rate as compared to their counterparts in Control group who were not subjected to any such training by the experimenter.

conformity with researches (Benson, 1975; Wasir, 1990; Malathi et al. 1998; Mashin and Mashina, 2000; Bedi, 2001; and www.mbmi.org. 2002).

The findings thus give support to the hypothesis that - There will be a significant impact of Relaxation Techniques on the Stress, Anxiety, Blood Pressure and Hypertension and Heart-rate in employed women teachers.

4.6.5. ANALYSIS AND INTERPRETATION OF CONTROL GOVERNMENT 12th GROUP AND EXPERIMENTAL GOVERNMENT 12th GROUP

Here the analysis and interpretation of Control Government 12th group and Experimental Government 12th group is done. As well as the difference between the scores and values of two groups on different variables of Stress, Anxiety, Systolic Pressure, Diastolic Pressure and Heart-rate were also measured.

TABLE 4.10 - The t-values for Control Government 12th and Experimental Government 12th on variables of Stress, Anxiety, Systolic Pressure, Diastolic Pressure and Heart-rate.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>S</td>
<td>Stress Pre-test</td>
<td>104.40 ± 17.90</td>
<td>102.60 ± 20.77</td>
<td>0.05</td>
</tr>
<tr>
<td>2</td>
<td>S</td>
<td>Stress Post-test</td>
<td>118.90 ± 21.18</td>
<td>106.00 ± 21.77</td>
<td>7.08**</td>
</tr>
<tr>
<td>3</td>
<td>A</td>
<td>Anxiety Pre-test</td>
<td>108.10 ± 5.80</td>
<td>117.07 ± 10.27</td>
<td>0.35</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>Anxiety Post-test</td>
<td>121.07 ± 5.82</td>
<td>108.60 ± 10.70</td>
<td>3.96**</td>
</tr>
<tr>
<td>5</td>
<td>S.P</td>
<td>Mean Systolic Pressure</td>
<td>118.40 ± 11.65</td>
<td>108.87 ± 9.46</td>
<td>1.71</td>
</tr>
<tr>
<td>6</td>
<td>D.P</td>
<td>Mean Diastolic Pressure</td>
<td>76.67 ± 12.40</td>
<td>65.20 ± 2.02</td>
<td>2.25*</td>
</tr>
<tr>
<td>7</td>
<td>H.R</td>
<td>Mean Heart-rate</td>
<td>87.87 ± 17.87</td>
<td>65.20 ± 2.02</td>
<td></td>
</tr>
</tbody>
</table>

* Value significant at 0.05 level = 2.05
** Value Significant at 0.01 level = 2.77
The Table 4.10 depicts that there exists no difference between Control Government 12th and Experimental Government 12th in variable $S_1$. For Control Government 12th mean = 104.07 and S.D. = 27.90 and for Experimental Government 12th group mean is 104.60 and S.D = 30.05. Mean scores of two groups points out that before the start of Relaxation Technique by the investigator both groups were equal on their level of Stress. Teachers in both the groups were equally stressed, which is verified by that t-value which is also insignificant (t = 0.05).

However on variable $S_2$, significant differences between mean scores of Control Government 12th and Experimental Government 12th groups were observed. For Control Government 12th group mean = 123.93 and S.D = 23.18, however for Experimental Government 12th group mean = 67.00 and S.D = 20.77. This suggests that subjects in Control group who were not subjected to any Relaxation therapy gained on Stress scores or their Stress level increased radically. While their counterparts in Experimental group who had undergone two months Relaxation treatment schedule their level of Stress score showed radical decline Which is again highlighted by obtained t-value, significant at 0.01 level (t = 7.08 vide Table 4.10).

The above findings indicate that after a gap of two months the two groups differed significantly in their level of Stress. The teachers in the Control group exhibited an increase in their Stress level with time. The teachers of this group became more stressed and tensed after two months. While the teachers in the Experimental group reported a sharp decline in their Stress level at a close of two months. The teachers of this group became less stressed and more relaxed. This confirms that Relaxation Techniques employed in the Experimental Government 12th group was effective in its purpose. It reduced the Stress level of the teachers significantly at the end of two months. Whereas for the Control group who were devoid of any such Relaxation Technique their level of Stress increased radically.

This further supported the view that the Relaxation Techniques employed by the investigator to help reduce the Stress level of women teachers was effective in its aim.
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

This change in scores for variable Stress i.e. $S_1$ and $S_2$ with time in both groups is graphically represented in Fig. 4.21.

![Graphical representation of change in Stress levels in both groups of Government 12th](image)

**Fig. 4.21. – Graphical representation of change in Stress levels in both groups of Government 12th**

The variable $A_1$ for Control Government 12th group mean is 38.13 and S.D is 5.80, while for Experimental Government 12th group mean is 37.07 and S.D is 10.27. Mean scores of two groups indicate that before the onset of relaxation treatment by the investigator both groups were equal on their level of Anxiety. Teachers in both groups were equally anxious, which is again verified by t-value which is also statistically insignificant ($t = 0.35$, vide Table 4.10)

However on variable $A_2$ significant differences between mean scores of Control Government 12th and Experimental Government 12th groups were observed. For Control Government 12th mean $= 43.07$ and S.D $= 8.82$, while for Experimental Government 12th group mean $= 30.67$ and S.D $= 10.70$. Which suggests that subjects in Control group who were not subjected to any such relaxation treatment gained in Anxiety score i.e. their Anxiety level increased comparatively. While their counterparts in Experimental group who had undergone two months treatment programme their Anxiety score showed radical decline which is again highlighted by obtained t-value which is also significant at 0.01 level ($t = 3.96$, vide Table 4.10)
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

The above findings indicate that after a gap of two months the two groups differed significantly in their levels of Anxiety. The teachers in the Experimental group reported a sharp decline in their Anxiety level at the end of two months. Their mean values were inclined more towards normal values. On the other hand Control group teachers became more anxious and deviated away from the normal value of Anxiety. They exhibited an increase in their Anxiety level with time. This confirms that relaxation techniques employed in the Experimental Government 12th group was effective in its purpose. It reduced the Anxiety level of the teachers significantly at the end of two months. Whereas for the Control Government 12th group, who were devoid of any such relaxation technique their level of Anxiety increased.

This further supports that the relaxation technique used by the investigator to help reduce the Anxiety level of women teachers was effective in its aim.

The change in scores for variable Anxiety i.e. $A_1$ and $A_2$ in both groups after a gap of two months time is graphically represented in Fig. 4.22.

![Graphical representation of change in Anxiety levels of both groups of Government 12th](image)

**Fig.4.22.** – Graphical representation of change in Anxiety levels of both groups of Government 12th
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

On variable S.P. value of mean for Control Government 12th group is 115.40 and S.D. is 11.65, while for Experimental Government 12th group mean = 108.87 and S.D. = 9.16. Though the mean values of two groups indicate that after gap of two months there exists a difference in Systolic Pressure values between the two groups. With Experimental group having more a healthy ‘optimal’ Systolic Pressure. But statistically no significant difference between the two groups existed. Which is even emphasized by t-value which is also insignificant (t = 1.71, vide Table 4.10).

Thus the two groups were more or less equal on their Systolic Pressure level. The graphical representation for the S.P. values for both groups are shown in Fig. 4.23.

![Graphical representation of both groups of Government 12th for mean Systolic Pressure.](image)

Fig. 4.23. – Graphical representation of both groups of Government 12th for mean Systolic Pressure.

No significant difference on variable D.P. between Control Government 12th and Experimental Government 12th groups were observed. Mean value for Control group is 76.07 and S.D. is 7.14. On the other hand for Experimental group mean value is 72.40 and S.D. 5.90. Though the mean values of D.P. suggest that
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

Experimental group teachers had more and healthy optimum Diastolic Pressure than their counterparts in Control group. But the difference between the two groups on variable D.P was not significant, as is evidenced by t-value which is non-significant ($t = 1.53$, vide Table 4.10). Thus the two groups did not differ significantly on their levels of Diastolic Pressure.

Graphical representation for the D.P values of both groups is shown in Fig. 4.24.

![Graphical representation of mean Diastolic Pressure of both groups of Government 12th.](image)

Between Control Government 12th and Experimental Government 12th groups significant difference on variable H.R existed. For Control group mean = 67.87 and S.D = 3.78, while for Experimental group mean = 65.20 and S.D = 2.87. It indicates that Heart-rate of individuals in Experimental group was more towards normal,relaxed value than that of Control group individuals. Which is verified by t-value which is significant at 0.05 level ($t = 2.25$, vide Table 4.10). This proves that Relaxation Techniques employed by the investigator were effective in reducing the Heart-rate of teachers in Experimental group. So after two months of training teachers in Experimental group had more relaxed Heart-rate.
The graphical representation of the Heart-rates for both groups is shown in Fig. 4.25.

![Graphical representation of mean Heart-rate of both groups](image)

**Fig. 4.25.** — Graphical representation of the mean Heart-rate of both groups of Government 12th.

### 4.6.6 DISCUSSION OF RESULTS FOR CONTROL GOVERNMENT 12TH AND EXPERIMENTAL GOVERNMENT 12TH GROUPS

The results of analysis of mean scores and values for Control Government 12th and Experimental Government 12th groups are given in Table 4.10. The t-values for Control and Experimental group were computed. The calculated values of t for variables of Stress i.e. $S_1$ and $S_2$, are: for $S_1$ it is 0.05 which is insignificant, which purports that both groups were equal on their level of Stress before the onset of training programme in Experimental group. For variable $S_2$ it is 7.08 and it is significant at 0.01 level, which asserts that intervention techniques used in Experimental group had powerful impact in reducing the Stress level of teachers significantly. The t-values for variables of Anxiety i.e. $A_1$ and $A_2$, are: for $A_1$ it is 0.35 which is insignificant which stresses that teachers in both groups were equally anxious in the beginning. The t-value for variable $A_2$ it is 3.96 and is
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

significant at 0.01 level, which thrusts that Relaxation Techniques used in Experimental group had positive effect in reducing the Anxiety level of teachers significantly. Though mean values for variables of Systolic Pressure i.e. S.P. and Diastolic Pressure D.P. expressed differences between the two groups. But the difference in scores were not significant enough as is indicated by t-values which are non significant. The t-value for S.P. is 1.71 and for variable D.P. it is 1.53.

While for variable H.R. t-value is 2.25, which is significant at 0.05 level. It too directs that after undergoing training in Relaxation Techniques the Experimental group teachers had more relaxed Heart-rate as compared to ones in Control group who were not subjected to any such training by the experimenter.

The findings hence ratify that the relaxation techniques employed by the investigator to reduce Stress, Anxiety, Blood Pressure and Heart-rate levels of women teachers in Experimental Government were able to reduce Stress, Anxiety and Heart-rate levels effectively but not their Blood Pressure level.

Thus at the end of two months of training in relaxation techniques, the teachers in Experimental group became less stressed, less anxious and more relaxed and more effective persons with more healthy 'optimal' level of Blood Pressure and Heart-rate. However the teachers in Control group at the end of two months indicated higher levels of Stress and Anxiety. Studies also support that Relaxation Therapy decreases Stress and Anxiety are (Walla et al. 1984; Belcastro and Gold, 1984; Pestonjee, 1985; Dubey, 1989; Zilli, 1989; Singh, A. 1990; Khunwar, 1998; Fathe and Kaliappan, 1991; Mishra et al., 1994; Winchester Vega, 1992; Davis, 1992; Pestonjee, 1992; Myers, 1995; Kennedy's 1995; Douglas, 1995; Cockburn, 1996; Geicks, 1998; NS, 2000; Kanwar, 2000; NSS, 2001a; www.mhm.org, 2002; and Orme Johnson 2002). Researches which are in conformity with above results that Relaxation reduces Anxiety are Sherman and Plummer, 1973; Nicoletti, 1973; Ferguson and Cowan, 1974; Lantue and Hisangra, 1983; Konetal et al. 1972; Williams, 1978; Walla et al. 1984; Lippke and Shear 1989; Deffenbacher and Stark, 1992; Malathi et al. 1998; Hook Research Institute, 2000; Kanwar, 2000; NSS, 2001a; www.mmm.edu, 2002; Orme Johnson, 2002 and www.users.erols.com. 2002). Relaxation therapy also

The findings thus corroborate the hypothesis that - There will be a significant impact of Relaxation Techniques on the Stress, Anxiety, Blood Pressure, Hypertension and Heart-rate in employed women teachers.

4.6.7. ANALYSIS AND INTERPRETATION OF CONTROL PRIVATE 10\textsuperscript{th} AND EXPERIMENTAL PRIVATE 10\textsuperscript{th} GROUPS

The analysis and interpretation of Control Private 10\textsuperscript{th} and Experimental Private 10\textsuperscript{th} groups are dealt here. Also the difference between the scores and values of two groups on different variables of Stress, Anxiety, Systolic Pressure, Diastolic Pressure and Heart-rate were also measured.

<table>
<thead>
<tr>
<th>Var No</th>
<th>Var Code</th>
<th>Meaning of Variable Code</th>
<th>Control Group (N = 51)</th>
<th>Experimental Group (N = 12)</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>S.D.</td>
<td>Mean</td>
<td>S.D.</td>
<td>t-value</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>S</td>
<td>Stress Pre-test</td>
<td>95.84</td>
<td>4.481</td>
<td>97.92</td>
</tr>
<tr>
<td>2</td>
<td>S</td>
<td>Stress Post-test</td>
<td>61.80</td>
<td>5.36</td>
<td>65.42</td>
</tr>
<tr>
<td>3</td>
<td>A</td>
<td>Anxiety Pre-test</td>
<td>51.91</td>
<td>7.51</td>
<td>58.67</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>Anxiety Post-test</td>
<td>54.67</td>
<td>6.71</td>
<td>5.90</td>
</tr>
<tr>
<td>5</td>
<td>S.P</td>
<td>Mean Systolic Pressure</td>
<td>117.22</td>
<td>10.54</td>
<td>117.67</td>
</tr>
<tr>
<td>6</td>
<td>D.P</td>
<td>Mean Diastolic Pressure</td>
<td>51.27</td>
<td>5.16</td>
<td>58.58</td>
</tr>
<tr>
<td>7</td>
<td>H.R</td>
<td>Mean Heart-rate</td>
<td>69.91</td>
<td>3.87</td>
<td>68.83</td>
</tr>
</tbody>
</table>

* Value significant at 0.05 level = 2.06
** Value Significant at 0.01 level = 2.70
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

The Table 4.11 displays that there exists no significant difference between Control Private 10th group and Experimental Private 10th group on variable $S_1$. For Control group mean = 95.53 and S.D. = 44.81; and for Experimental group mean = 97.92 and S.D. = 24.99. Mean scores of two groups points out that before the start of relaxation therapy in Experimental group both groups were at par with each other. Stress level of teachers in both groups was equal, which is verified by t-value which is insignificant ($t = 0.16$).

However on variable $S_2$ significant differences between mean scores of Control Private 10th and Experimental Private 10th groups were attained. For Control Private 10th group mean = 104.80 and S.D. = 38.36; however for Experimental Private 10th group mean was 63.42 and S.D. = 20.23. Which signifies that subjects of Control group who were not given any relaxation training gained on Stress score or their Stress level showed radical increase. While the subjects in Experimental group who had undergone two months of training schedules their level of Stress score manifests a radical decline. Which is again highlighted by procured t-value which is significant at 0.01 level ($t = 3.37$, vide Table 4.11).

The above findings indicate that after a gap of two months the two groups differed significantly in their levels of Stress. The teachers in the Control group exhibited an increase in their Stress level with time. The teachers of this group became more stressed and tensed after two months. While the teachers in Experimental group reported a sharp decline in their Stress level at the end of two months of training. The teachers of the Experimental group became less stressed and more relaxed. This confirms that relaxation techniques employed in the Experimental Private 10th by the investigator was effective in its purpose. It reduced the Stress level of teachers significantly at the end of two months. Whereas for the Control group, who were devoid of any such relaxation techniques their level of Stress increased radically.

This further supports the view that the relaxation techniques employed by the investigator to help reduce the Stress level of women teachers was effective in
its aim. The change in scores for variable Stress i.e. $S_1$ and $S_2$ with time in both groups is graphically represented in Fig. 4.26.

![Graphical representation of change in Stress levels in both the groups of Private 10th](image)

**Fig. 4.26.** – Graphical representation of change in Stress levels in both the groups of Private 10th

The variable $A_1$ value of mean for Control Private 10th is 31.93 and S.D. is 6.73. For Experimental Private 10th mean score is 38.67 and S.D = 6.58. Which highlights that teachers in Experimental group were more anxious than those in Control group before the start of relaxation technique in Experimental group. Which is even stressed by t-test value which is significant at 0.05 level ($t = 2.61$, vide Table 4.11).

On variable $A_2$ value of mean for Control Private 10th is 34.67 and S.D is 7.71 while for Experimental Private 10th mean is 35.00 and S.D is 5.89. Though the mean values of two groups indicate that after a gap of two months the teachers in Control Group became more anxious comparatively. And that the teachers in Experimental group show somewhat decrease in their Anxiety level. But statistically no significant difference existed between the two groups as emphasized by t-value which is also insignificant ($t = 0.12$, vide Table 4.11). Which states that the two groups were more or less equal in their Anxiety level.
The change in score for variable Anxiety i.e. A₁ and A₂ in both groups after a gap of two months time is graphically represented in Fig. 4.27.

**Fig. 4.27. - Graphical representation of change in Anxiety levels in both groups of Private 10th**

On variable S.P. value of mean for Control Private 10th is 121.20 and S.D. is 10.81, while for Experimental Private 10th group mean is 117.67 and S.D is 11.62. Though the mean values of the two groups suggest that there exists a difference in Systolic Pressure levels of two groups after gap of two months. With Experimental group having an optimal Systolic Pressure and Control group having 'normal' Systolic Pressure. However statistically no significant difference between the two groups existed. The attained t-value is also insignificant (t = 0.82, vide Table 4.11). Thus the two groups were more or less equal on then Systolic Pressure level. The graphical representation for the S.P values for both the group are shown in Fig. 4.28.

No significant difference on variable D.P. between Control Private 10th and Experimental Private 10th groups were observed. Mean values for Control Group is 81.27 and S.D is 8.11. On other hand for Experimental group mean value is 76.58 and S.D is 7.91. Though the mean values of D.P suggests that Experimental group teachers had more a healthy ‘optimum’ Diastolic Pressure while teachers in Control group reported ‘normal’ value of Diastolic Pressure. But
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

the difference between the two groups on variable D.P. was not of significant one, which is again expressed by t-value which is non-significant ($t = 1.41$, vide Table 4.11). Thus the two groups were equal on their levels of Diastolic Pressure.

**Fig. 4.28.** – Graphical representation of both groups of Private 10th for mean Systolic Pressure.

Graphical representation for the Diastolic Pressure values of both groups is shown in Fig. 4.29.

**Fig. 4.29.** – Graphical representation of mean Diastolic Pressure of both groups of Private 10th.
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

In between Control Private 10th and Experimental Private 10th, no significant difference on variable Heart-rate were earned. For Control group mean Heart-rate is 69.93 and S.D. is 5.16, while for Experimental group mean is 68.83 and S.D is 4.22. Mean values of two groups point out that teachers in both groups were equal on their Heart-rate level, which is also verified by t-value which is insignificant statistically (t = 0.60; vide Table 4.11)

Graphical representation of the Heart-rate values of both groups is shown in Fig. 4.30.

Fig. 4.30. - Graphical representation of the mean Heart-rate of both groups of Private 10th.

4.6.8 DISCUSSION OF RESULTS FOR CONTROL PRIVATE 10th AND EXPERIMENTAL PRIVATE 10th GROUPS

The results of analysis of mean scores and values for Control Private 10th and Experimental Private 10th groups are given in Table 4.11. The t-values for Control and Experimental groups were computed. The calculated values of 't' for variables of Stress i.e. S1 and S2 are, for S1 it is 0.60 and it is insignificant.
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

directs that both groups were equal on their Stress level before the start of intervention treatment in Experimental group. For variable $S_2$ 't' is 3.37 which is significant at 0.01 level. Which asserts that Relaxation Techniques used in Experimental group had profound effect in reducing the Stress level of teachers significantly.

The t-values for variables of Anxiety i.e. $A_1$ and $A_2$ are for $A_1$ it is 2.61 which is significant at 0.05 level which stresses that before the start of Relaxation Techniques in Experimental group, the teachers of this group were more anxious as compared to those in Control group. Though mean values for variable $A_2$ point out that after two months the teachers in Control group became more anxious while those in Experimental group became less anxious. But the difference between the two groups on variable $A_2$ is insignificant. Which is stressed by obtained t-value which is insignificant ($t = 0.12$, vide Table 4.11). Thus at the end of two months, teachers of both group did not show difference in their Anxiety levels.

The mean values for variables of Systolic Pressure i.e $S.P.$, Diastolic Pressure i.e $D.P.$ and Heart-rate i.e $H.R.$ express that there is exists significant difference between the two groups. With Experimental group having more healthy and ‘optimal’ Blood Pressure level and healthy relaxed Heart-rate. And that teachers of Control group having a normal range of Blood Pressure level with ‘normal’ Heart-rate. However t-values for variables of $S.P.$, $D.P.$ and $H.R.$ signifies that there exists no significant difference between the two groups. The t-values for $S.P.$, $D.P.$ and $H.R.$ are 0.82, 1.41 and 0.60 respectively. All t-values are insignificant.

The findings thus directs that the Relaxation Techniques employed by the investigator to reduce Stress, Anxiety, Blood Pressure and Heart-rate levels of women teachers of Experimental Private 10th group was only able to reduce Stress level effectively and that of Anxiety, Blood Pressure and Heart-rate level only minimally.

Thus at the end of two months of training in Relaxation Techniques the teachers in Experimental group became less stressed, more relaxed and effective.
individuals with optimal range of Blood Pressure and relaxed Heart-rate. However, the Control group teachers after two months indicated higher levels of Stress. There are studies which support the above findings that Relaxation Therapy reduces Stress (Benson, 1975; Belcastro and Gold, 1984; Walia et al, 1984; Pestonjee, 1985; Dubey, 1989; Zilli, 1989; Singh, A, 1989; Khumar, 1989; Latha and Kalippan, 1991; Mishra et al, 1991; Winchester Vega, 1992; Davis, 1992; Pestonjee, 1992; Myers, 1995; Kennedy's, 1995; Douglas, 1995; Cockburn, 1996; Geick's, 1998; TNS, 2000; Kanwar, 2000; TNS, 2001a; www.mhmi.org 2002 and Orme – Johnson 2002).

The findings thus corroborate the hypothesis that there will be a significant impact of Relaxation Techniques on the Stress, Anxiety, Blood Pressure, Hypertension and Heart-rate in employed women teachers.

4.6.9. ANALYSIS AND INTERPRETATION OF CONTROL PRIVATE 12\textsuperscript{th} AND EXPERIMENTAL PRIVATE 12\textsuperscript{th} GROUPS

The analysis and interpretation of Control Private 12\textsuperscript{th} and Experimental Private 12\textsuperscript{th} groups are being dealt here. Also, the difference between the scores and values of two groups on different variables of Stress, Anxiety, Systolic Pressure, Diastolic Pressure and Heart-rate were also measured.

\textbf{TABLE 4.12 - The t-values for Control Private 12\textsuperscript{th} and Experimental Private 12\textsuperscript{th} on variable of Stress, Anxiety, Systolic Pressure, Diastolic Pressure and Heart-rate.}

<table>
<thead>
<tr>
<th>Var. No.</th>
<th>Var. Code</th>
<th>Meaning of Variable</th>
<th>Control group (N = 14)</th>
<th>Experimental Group (N = 13)</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>S\textsubscript{1}</td>
<td>Stress-Pre-test</td>
<td>78.04 ± 7.00</td>
<td>79.02 ± 8.70</td>
<td>0.08</td>
</tr>
<tr>
<td>2</td>
<td>S\textsubscript{2}</td>
<td>Stress-Post-test</td>
<td>91.71 ± 7.54</td>
<td>85.64 ± 6.00</td>
<td>4.28**</td>
</tr>
<tr>
<td>3</td>
<td>A\textsubscript{1}</td>
<td>Anxiety-Pre-test</td>
<td>84.54 ± 10.09</td>
<td>87.23 ± 7.00</td>
<td>0.78</td>
</tr>
<tr>
<td>4</td>
<td>A\textsubscript{2}</td>
<td>Anxiety-Post-test</td>
<td>99.14 ± 9.40</td>
<td>93.09 ± 7.34</td>
<td>2.29*</td>
</tr>
</tbody>
</table>
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

<table>
<thead>
<tr>
<th></th>
<th>S.P.</th>
<th>Mean Systolic Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td></td>
<td>117.29 12.42 117.46 8.08 0.04</td>
</tr>
<tr>
<td>6</td>
<td>D.P.</td>
<td>Mean Diastolic Pressure</td>
</tr>
<tr>
<td></td>
<td></td>
<td>77.36 9 20 76.62 7.08 0.23</td>
</tr>
<tr>
<td>7</td>
<td>H.R.</td>
<td>Mean Heart-rate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>68.71 5.04 69.92 3.45 0.72</td>
</tr>
</tbody>
</table>

* Value significant at 0.05 level = 2.06
** Value Significant at 0.01 level = 2.79

The Table 4.12 displays that there exists no significant difference between Control Private 12th group and Experimental Private 12th group on variable $S_1$. For Control group mean = 78.64 and S.D = 37.00, and for Experimental group mean = 79.62 and S.D = 28.70. Mean scores of the two groups indicate that before starting the relaxation therapy in Experimental group, teachers in both groups were equal on their stress levels. Which is also suggested by the t-value which is non-significant (t = 0.08).

However on variable $S_2$, significant differences between mean scores of Control Private 12th and Experimental Private 12th groups were obtained. For Control group mean = 94.71 and S.D = 37.54, however for Experimental group mean was 45.54 and S.D = 18.00. Which signifies that subjects of Control group who were not given any relaxation training gained on Stress score or their Stress level showed radical increase. While the subjects in Experimental group who were under relaxation treatment for two months their level of Stress score presented a radical decline or their Stress level decreased. Which is again highlighted by procured t-value which is significant at 0.01 level (t = 4.28, vide Table 4.12).

The above findings indicate that after a gap of two months the two groups differed significantly in their level of Stress. The teachers in the Control group exhibited an increase in their Stress level with time. The teachers of this group became more stressed and tensed after two months. While the teachers in Experimental group reported a sharp decrease in their Stress level at end of two months of training. The teachers of this group became less stressed and more relaxed. This confirms that relaxation techniques adopted in Experimental Private
12\textsuperscript{th} group was effective in its purpose. It reduced the Stress level of the teachers significantly at the end of two months. Whereas for the Control group, who were not subjected to any such relaxation technique their level of Stress increased radically.

This further ratify the view that the relaxation techniques employed by the investigator to help reduce the Stress level of women teachers was effective in its very aims. The change in scores for variable Stress i.e. $S_1$ and $S_2$ with time in both groups is graphically represented in Fig. 4.31.

![Graphical representation of change in Stress Levels in both groups of Private 12\textsuperscript{th}](image_url)

**Fig. 4.31. – Graphical representation of change in Stress Levels in both the groups of Private 12\textsuperscript{th}**

The variable $A_1$ for Control Private 12\textsuperscript{th} group mean is 34.64 and S.D is 10.69, while for Experimental Private 12\textsuperscript{th} group mean is 37.23 and S.D is 5.69. Mean scores of two groups indicate that before the onset of relaxation treatment by the investigator in the Experimental group, both groups were equal on their level of Anxiety. Teachers in both groups were equally anxious. Which is again expressed by t-value which is also statistically insignificant ($t = 0.78$, vide Table 4.12).
However on variable A\textsuperscript{2} significant differences between mean scores of Control Private 12\textsuperscript{th} and Experimental Private 12\textsuperscript{th} were stated. For Control Private 12\textsuperscript{th} mean = 39.14 and S.D. = 9.40, while for Experimental Private 12\textsuperscript{th} group mean = 31.69 and S.D. = 7.31. Which asserts that subjects in Control group who were not subjected to any such Relaxation treatment gained on Anxiety score i.e. their Anxiety level increased comparatively. While their counterparts in Experimental group who had undergone two months treatment programme their Anxiety level showed radical decline. Which is indicated by t-value which is also significant at 0.05 level (t = 2.29; vide Table 4.12).

The above findings indicate that after a gap of two months the two groups differed significantly in their levels of Anxiety. The teachers in the Experimental group reported a sharp decline in their Anxiety level at the end of two months. Their mean values were inclined more towards 'normal' values. On the other hand Control Group teachers became more anxious and deviated away from the normal value of Anxiety. They exhibited an increase in their Anxiety level with time. This confirms that Relaxation Techniques employed in the Experimental Private 12\textsuperscript{th} group was effective in its purpose. It reduced the Anxiety level of the teachers significantly at the end of two months. Whereas for the Control Private 12\textsuperscript{th} group, who were devoid of any such Relaxation Technique their level of Anxiety increased.

This further supports that the Relaxation Technique used by the investigator to help reduce the Anxiety level of women teachers was effective in its aim.

The change in scores for variable Anxiety i.e. A\textsubscript{1} and A\textsubscript{2} in both groups after a gap of two months time is graphically represented in Fig. 4.32.

On variable S.P. value of mean Control Private 12\textsuperscript{th} group is 117.29 and S.D. = 12.42, while for Experimental Private 12\textsuperscript{th} group mean is 117.46 and S.D. = 8.08. Statistically no significant difference between the two groups existed. Which is even emphasized by t-value, which is also non-significant (t = 0.04; vide
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

Table 4.12). It too verifies that the two groups were equal in their Systolic Pressure level. Both groups had ‘optimal’ Systolic Pressure.

![Graphical representation of both groups of Private 12 for mean Systolic Pressure.](image)

**Fig. 4.32.** – Graphical representation of change in Anxiety levels in both groups of Private 12th.

The graphical representation for the S.P. values for both groups is shown in Fig. 4.33.

![Graphical representation of both groups for mean Systolic Pressure.](image)

**Fig. 4.33.** – Graphical representation of both groups of Private 12th for mean Systolic Pressure.
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

No significant difference on variable Diastolic Pressure between Control Private 12th and Experimental Private 12th groups were observed. For Control group mean = 77.36 and S.D. = 9.20, however for Experimental group mean = 76.62 and S.D. = 7.08. Mean values of D.P. of the two groups indicate that teachers in both groups were equal on their levels of Diastolic Pressure. Which is again stressed by t-value which is non-significant (t = 0.23; vide Table 4.12). Graphical representation for the D.P. values of both groups is shown in Fig. 4.34.

![Graphical representation of mean Diastolic Pressure of both groups of Private 12th.](image)

Fig. 4.34. - Graphical representation of mean Diastolic Pressure of both groups of Private 12th.

In between Control Private 12th and Experimental Private 12th groups no significant difference on variable Heart-rate i.e. H.R. were earned. For Control group mean = 68.71 and S.D. = 6.20, while for Experimental group mean = 69.62 and S.D. = 3.45. Mean values of the two groups points out that teachers in both groups were equal on their levels of their Heart-rate. Which is also expressed by t-value which is non-significant statistically (t = 0.72; vide Table 4.12).

Graphical representation of the H.R. values of both groups is shown in Fig. 4.35.
4.6.10. DISCUSSION OF RESULTS FOR CONTROL PRIVATE 12th AND EXPERIMENTAL PRIVATE 12th GROUPS

The results of analysis of mean scores and values for Control Private 12th and Experimental Private 12th groups are given in Table 4.12. The t-values for Control and Experimental groups were computed. The t-values for variables of Stress i.e. $S_1$ and $S_2$ are, for $S_1$ it is 0.08 which is insignificant. Which purports that both groups were equal on their level of Stress before the onset of Relaxation training programme in Experimental group. For variable $S_2$ it is 4.28 and it is significant at 0.01 level, which asserts that Relaxation Techniques used in Experimental group had great impact in reducing the Stress level of teachers significantly.

The t-values for variables of Anxiety i.e. $A_1$ and $A_2$ are, for $A_1$ it is 0.78 which is insignificant which stresses that teachers in both groups were equally anxious in the beginning. The t-value for variable $A_2$ is 2.29, which is significant at 0.05 level, which thrusts that Relaxation Techniques used in Experimental group had positive effect in reducing the Anxiety level of teachers significantly. Mean values for variables of Systolic Pressure i.e. S.P., Diastolic Pressure D.P.
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

and Heart-rate i.e. H.R. - express that there exists no significant differences between the two groups. As is indicated by t-values which are non-significant. The t-values for S.P. is 0.04, for D.P. is 0.23 and for H.R. it is 0.72. All t-values are insignificant.


The findings thus confirmed the hypothesis that there will be a significant impact of Relaxation Techniques on the Stress, Anxiety, Blood Pressure, Hypertension and Heart-rate in employed women teachers.
4.7 FINDINGS ON THE BASIS OF STRESS, ANXIETY, SYSTOLIC PRESSURE, DIASTOLIC PRESSURE AND HEART-RATE LEVELS OF TEACHERS

1. FINDINGS BASED ON STRESS LEVEL OF TEACHERS

The overall Stress level of the Sample teachers before the start of relaxation schedule in Experimental group teachers is as follows:

<table>
<thead>
<tr>
<th>No. of Teachers</th>
<th>Percentage of Teachers</th>
<th>Stress Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>3.5%</td>
<td>Not at all Stressful</td>
</tr>
<tr>
<td>24</td>
<td>21.1%</td>
<td>Mildly Stressful</td>
</tr>
<tr>
<td>64</td>
<td>56.14%</td>
<td>Moderately Stressful</td>
</tr>
<tr>
<td>15</td>
<td>13.16%</td>
<td>Very Stressful</td>
</tr>
<tr>
<td>7</td>
<td>6.14%</td>
<td>Extremely Stressful</td>
</tr>
</tbody>
</table>

2. Group wise Stress level of the teachers is as follows:

i) Experimental Group

<table>
<thead>
<tr>
<th>No. of Teachers</th>
<th>Percentage of Teachers</th>
<th>Stress Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>3.64%</td>
<td>Not at all Stressful</td>
</tr>
<tr>
<td>7</td>
<td>12.73%</td>
<td>Mildly Stressful</td>
</tr>
<tr>
<td>35</td>
<td>63.64%</td>
<td>Moderately Stressful</td>
</tr>
<tr>
<td>8</td>
<td>14.55%</td>
<td>Very Stressful</td>
</tr>
<tr>
<td>3</td>
<td>5.45%</td>
<td>Extremely Stressful</td>
</tr>
</tbody>
</table>

ii) Control Group

<table>
<thead>
<tr>
<th>No. of Teachers</th>
<th>Percentage of Teachers</th>
<th>Stress Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>3.04%</td>
<td>Not at all Stressful</td>
</tr>
<tr>
<td>17</td>
<td>28.8%</td>
<td>Mildly Stressful</td>
</tr>
<tr>
<td>29</td>
<td>49.2%</td>
<td>Moderately Stressful</td>
</tr>
<tr>
<td>7</td>
<td>11.86%</td>
<td>Very Stressful</td>
</tr>
<tr>
<td>4</td>
<td>6.78%</td>
<td>Extremely Stressful</td>
</tr>
</tbody>
</table>
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

This demonstrates that teachers comprising Experimental group relatively had higher Stress index as compared to ones in Control group.

3. The post therapy Stress level of Sample teachers is as follows:-

<table>
<thead>
<tr>
<th>No. of Teachers</th>
<th>Percentage of Teachers</th>
<th>Stress Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>15.79%</td>
<td>Not at all Stressful</td>
</tr>
<tr>
<td>31</td>
<td>27.19%</td>
<td>Mildly Stressful</td>
</tr>
<tr>
<td>43</td>
<td>37.72%</td>
<td>Moderately Stressful</td>
</tr>
<tr>
<td>20</td>
<td>17.54%</td>
<td>Very Stressful</td>
</tr>
<tr>
<td>2</td>
<td>1.75%</td>
<td>Extremely Stressful</td>
</tr>
</tbody>
</table>

The Stress level of teachers indicate that after relaxation programme in general, the Stress level of teachers reduced, verifying the effectiveness of investigator’s programme schedule.

4. Group-wise post-scores of Stress indicating the teachers Stress level is as follows:-

i) Experimental Group

<table>
<thead>
<tr>
<th>No. of Teachers</th>
<th>Percentage of Teachers</th>
<th>Stress Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>29.1%</td>
<td>Not at all Stressful</td>
</tr>
<tr>
<td>22</td>
<td>40%</td>
<td>Mildly Stressful</td>
</tr>
<tr>
<td>17</td>
<td>30.9%</td>
<td>Moderately Stressful</td>
</tr>
<tr>
<td>Nil</td>
<td>0%</td>
<td>Very Stressful</td>
</tr>
<tr>
<td>Nil</td>
<td>0%</td>
<td>Extremely Stressful</td>
</tr>
</tbody>
</table>

The findings reflect that relaxation therapy was very effective in reducing teachers Stress as there were more teachers in low Stress level and comparatively Nil in high Stress level.
ii) Control Group

<table>
<thead>
<tr>
<th>No. of Teachers</th>
<th>Percentage of Teachers</th>
<th>Stress Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>3.39%</td>
<td>Not at all Stressful</td>
</tr>
<tr>
<td>9</td>
<td>15.25%</td>
<td>Mildly Stressful</td>
</tr>
<tr>
<td>26</td>
<td>44.07%</td>
<td>Moderately Stressful</td>
</tr>
<tr>
<td>20</td>
<td>33.9%</td>
<td>Very Stressful</td>
</tr>
<tr>
<td>2</td>
<td>3.39%</td>
<td>Extremely Stressful</td>
</tr>
</tbody>
</table>

This demonstrates that as compared to pre therapy Stress level, the Stress level of Control group teachers had increased. There were more teachers in ‘very Stressful’ level in Post-test in Control group as compared to Pre-test.

Hence investigator came to conclusion that teachers who were not subjected to any intervention therapy their level of Stress increased with time and those who had advantage of undergoing therapy their Stress level declined rapidly.

II. FINDING BASED ON ANXIETY LEVEL OF TEACHER

1. Pre-test Anxiety level of the Sample teachers before commencing the relaxation therapy in Experimental group is as follows:-

<table>
<thead>
<tr>
<th>No. of Teachers</th>
<th>Percentage of Teachers</th>
<th>Anxiety Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>1.75%</td>
<td>Optimal</td>
</tr>
<tr>
<td>15</td>
<td>13.16%</td>
<td>Normal</td>
</tr>
<tr>
<td>58</td>
<td>50.88%</td>
<td>High-normal</td>
</tr>
<tr>
<td>34</td>
<td>34.21%</td>
<td>Severe</td>
</tr>
</tbody>
</table>

The findings suggest that during Pre-test stage there were more teachers in ‘High-normal’ and ‘Severe’ Anxiety level. Which meant that their Anxiety state was getting morbid and that they needed immediate help.
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

2. **Group-wise Anxiety level of the teachers is as follows:-**

i) **Experimental Group**

<table>
<thead>
<tr>
<th>No. of Teachers</th>
<th>Percentage of Teachers</th>
<th>Anxiety Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>3.64%</td>
<td>Optimal</td>
</tr>
<tr>
<td>3</td>
<td>5.45%</td>
<td>Normal</td>
</tr>
<tr>
<td>27</td>
<td>49.09%</td>
<td>High-normal</td>
</tr>
<tr>
<td>23</td>
<td>41.82%</td>
<td>Severe</td>
</tr>
</tbody>
</table>

ii) **Control Group**

<table>
<thead>
<tr>
<th>No. of Teachers</th>
<th>Percentage of Teachers</th>
<th>Anxiety Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>20.34%</td>
<td>Optimal</td>
</tr>
<tr>
<td>31</td>
<td>52.54%</td>
<td>Normal</td>
</tr>
<tr>
<td>16</td>
<td>27.12%</td>
<td>High-normal</td>
</tr>
<tr>
<td>0 (Nil)</td>
<td>0%</td>
<td>Severe</td>
</tr>
</tbody>
</table>

Group wise distribution of Anxiety levels of teachers clearly highlights that the Experimental group teachers were more anxious than the teachers in Control group. There was no teacher with ‘Severe’ Anxiety level for Control group however a large number of teachers of Experimental group suffered from Severe form of Anxiety, reflecting that those teachers needed some professional help.

3. **The post-therapy Anxiety level of the Sample teachers is as follows:-**

<table>
<thead>
<tr>
<th>No. of Teachers</th>
<th>Percentage of Teachers</th>
<th>Anxiety Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>2.63%</td>
<td>Optimal</td>
</tr>
<tr>
<td>22</td>
<td>19.29%</td>
<td>Normal</td>
</tr>
<tr>
<td>50</td>
<td>43.86%</td>
<td>High-normal</td>
</tr>
<tr>
<td>39</td>
<td>34.21%</td>
<td>Severe</td>
</tr>
</tbody>
</table>

The above findings state that though there were equal number of teachers with ‘Severe’ level of Anxiety in both pre and post-therapy Anxiety scores. However there was an increase in number of teachers at post-therapy stage as compared to pre-therapy stage in both ‘optimal’ and
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

‘normal’ Anxiety level with simultaneous decrease in number of teachers in ‘High-normal’ group.

The Anxiety level of teachers in Post-test reflect that relaxation techniques employed by the investigator helped teachers to reduce their Anxiety level.

4. **Group-wise post-scores of Anxiety indicate the teachers Anxiety level as follows:**

i) **Experimental Group**

<table>
<thead>
<tr>
<th>No. of Teachers</th>
<th>Percentage of Teachers</th>
<th>Anxiety Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>45%</td>
<td>Optimal</td>
</tr>
<tr>
<td>14</td>
<td>25.45%</td>
<td>Normal</td>
</tr>
<tr>
<td>27</td>
<td>49.06%</td>
<td>High-normal</td>
</tr>
<tr>
<td>11</td>
<td>20%</td>
<td>Severe</td>
</tr>
</tbody>
</table>

ii) **Control Group**

<table>
<thead>
<tr>
<th>No. of Teachers</th>
<th>Percentage of Teachers</th>
<th>Anxiety Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>13.56%</td>
<td>Optimal</td>
</tr>
<tr>
<td>23</td>
<td>38.98%</td>
<td>Normal</td>
</tr>
<tr>
<td>28</td>
<td>50.90%</td>
<td>High-normal</td>
</tr>
<tr>
<td>11</td>
<td>0%</td>
<td>Severe</td>
</tr>
</tbody>
</table>

Findings clearly point out as compared to pre and post Anxiety test scores the Anxiety level of teachers in Experimental group reduced with more number of teachers in ‘optimal’ and ‘normal’ level and less number of teachers in ‘Severe’ Anxiety level in Post-test. Stating that for Experimental group the therapy was effective in reducing their Anxiety level. However the pre and post-Anxiety test scores of Control group reflect a different picture, that after a gap of two months the teachers in Control group became more anxious, there is an increase in the number of teachers falling in ‘High-normal’ level and a decrease in number of teachers falling in ‘optimal’ and ‘normal’ level in Post-test scores as compared to Pre-test scores.
Though overall the Anxiety level of teachers in Experimental group had reduced while for Control group had increased but still there were 11 teachers (20%) in Experimental group who had ‘Severe’ level of Anxiety. While there were none in Control group.

III. FINDINGS BASED ON SYSTOLIC BLOOD PRESSURE LEVEL OF TEACHERS

1. Mean Systolic Blood Pressure level of the Sample teachers is as follows:

<table>
<thead>
<tr>
<th>No. of Teachers</th>
<th>Percentage of Teachers</th>
<th>Systolic Pressure Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>64</td>
<td>56.14%</td>
<td>Optimal</td>
</tr>
<tr>
<td>32</td>
<td>28.07%</td>
<td>Normal</td>
</tr>
<tr>
<td>12</td>
<td>10.53%</td>
<td>High-normal</td>
</tr>
<tr>
<td>4</td>
<td>3.51%</td>
<td>Mild hypertension</td>
</tr>
<tr>
<td>2</td>
<td>1.75%</td>
<td>Moderate hypertension</td>
</tr>
<tr>
<td>Nil</td>
<td>0%</td>
<td>Severe hypertension</td>
</tr>
</tbody>
</table>

This demonstrates that the major number of teachers had more or less normal Systolic Blood Pressure with only a few teachers having Systolic hypertension.

2. Group-wise distribution of Systolic Blood Pressure level of teachers is as follows:

i) Experimental Group

<table>
<thead>
<tr>
<th>No. of Teachers</th>
<th>Percentage of Teachers</th>
<th>Systolic Pressure Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>37</td>
<td>62.27%</td>
<td>Optimal</td>
</tr>
<tr>
<td>12</td>
<td>21.82%</td>
<td>Normal</td>
</tr>
<tr>
<td>0</td>
<td>10.91%</td>
<td>High-normal</td>
</tr>
<tr>
<td>Nil</td>
<td>0%</td>
<td>Mild hypertension</td>
</tr>
<tr>
<td>Nil</td>
<td>0%</td>
<td>Moderate hypertension</td>
</tr>
<tr>
<td>Nil</td>
<td>0%</td>
<td>Severe hypertension</td>
</tr>
</tbody>
</table>
ii) Control Group

<table>
<thead>
<tr>
<th>No. of Teachers</th>
<th>Percentage of Teachers</th>
<th>Systolic Pressure Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>27</td>
<td>45.76%</td>
<td>Optimal</td>
</tr>
<tr>
<td>20</td>
<td>33.90%</td>
<td>Normal</td>
</tr>
<tr>
<td>6</td>
<td>10.17%</td>
<td>High-normal</td>
</tr>
<tr>
<td>4</td>
<td>6.78%</td>
<td>Mild hypertension</td>
</tr>
<tr>
<td>2</td>
<td>3.39%</td>
<td>Moderate hypertension</td>
</tr>
<tr>
<td>Nil</td>
<td>0.0%</td>
<td>Severe hypertension</td>
</tr>
</tbody>
</table>

Group-wise mean Systolic Pressure distribution clearly demonstrate that teachers in Control group had more elevated Blood Pressure level than those in Experimental group. Some of the teachers in Control Group were even hypertensive. While there were none hypertensive case in Experimental group.

3. The Post-therapy Systolic Pressure measurement for Experimental group. These Systolic Pressure values were obtained only for Experimental group as no therapy treatment was given to Control group. However in case of Experimental group each time the therapy was administered to the teachers, pre-therapy and post-therapy values of Systolic Pressure were noted.

<table>
<thead>
<tr>
<th>No. of Teachers</th>
<th>Percentage of Teachers</th>
<th>Systolic Pressure Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>90.91%</td>
<td>Optimal</td>
</tr>
<tr>
<td>4</td>
<td>7.27%</td>
<td>Normal</td>
</tr>
<tr>
<td>1</td>
<td>1.82%</td>
<td>High-normal</td>
</tr>
<tr>
<td>Nil</td>
<td>0.0%</td>
<td>Mild hypertension</td>
</tr>
<tr>
<td>Nil</td>
<td>0.0%</td>
<td>Moderate hypertension</td>
</tr>
<tr>
<td>Nil</td>
<td>0.0%</td>
<td>Severe hypertension</td>
</tr>
</tbody>
</table>

The above findings clearly express that after undergoing treatment the teachers in Experimental group became more healthy with optimal level of Systolic Pressure as compared to their Pre-test Systolic Pressure values. Hence at the end of relaxation therapy the number of teachers having ‘optimal’ range of Systolic...
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

Pressure increased while the number of teachers having 'normal' and 'High-normal' pressure levels decreased. There was only one teacher with 'High-normal' Systolic Pressure. Hence therapy was very effective in making teachers very healthy with 'optimal' range of Systolic Blood Pressure.

IV. FINDING BASED ON DIASTOLIC BLOOD PRESSURE LEVEL OF TEACHERS

1. Mean Diastolic Blood Pressure level of the Sample teachers before commencing the relaxation therapy to Experimental group is as follows:-

<table>
<thead>
<tr>
<th>No. of Teachers</th>
<th>Percentage of Teachers</th>
<th>Diastolic Pressure Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>71</td>
<td>62.3%</td>
<td>Optimal</td>
</tr>
<tr>
<td>25</td>
<td>21.93%</td>
<td>Normal</td>
</tr>
<tr>
<td>8</td>
<td>7.02%</td>
<td>High-normal</td>
</tr>
<tr>
<td>7</td>
<td>6.14%</td>
<td>Mild hypertension</td>
</tr>
<tr>
<td>3</td>
<td>2.63%</td>
<td>Moderate hypertension</td>
</tr>
<tr>
<td>Nil</td>
<td>0%</td>
<td>Severe hypertension</td>
</tr>
</tbody>
</table>

The findings state that majority of teachers had 'normal' levels of Diastolic Blood Pressure. There were a small number of teacher’s having Diastolic Hypertension.

2. Group-wise distribution of Diastolic Blood Pressure level of teacher’s is as follows:-

i) Experimental Group

<table>
<thead>
<tr>
<th>No. of Teachers</th>
<th>Percentage of Teachers</th>
<th>Diastolic Pressure Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>41</td>
<td>74.55%</td>
<td>Optimal</td>
</tr>
<tr>
<td>9</td>
<td>16.36%</td>
<td>Normal</td>
</tr>
<tr>
<td>3</td>
<td>5.45%</td>
<td>High-normal</td>
</tr>
<tr>
<td>2</td>
<td>3.64%</td>
<td>Mild hypertension</td>
</tr>
<tr>
<td>Nil</td>
<td>0%</td>
<td>Moderate hypertension</td>
</tr>
<tr>
<td>Nil</td>
<td>0%</td>
<td>Severe hypertension</td>
</tr>
</tbody>
</table>
### ii) Control Group

<table>
<thead>
<tr>
<th>No. of Teachers</th>
<th>Percentage of Teachers</th>
<th>Diastolic Pressure Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>17.7%</td>
<td>Optimal</td>
</tr>
<tr>
<td>16</td>
<td>27.1%</td>
<td>Normal</td>
</tr>
<tr>
<td>5</td>
<td>8.5%</td>
<td>High-normal</td>
</tr>
<tr>
<td>5</td>
<td>8.5%</td>
<td>Mild hypertension</td>
</tr>
<tr>
<td>3</td>
<td>5.1%</td>
<td>Moderate hypertension</td>
</tr>
<tr>
<td>Nil</td>
<td>0%</td>
<td>Severe hypertension</td>
</tr>
</tbody>
</table>

The above findings reflect that teachers in Experimental group had less variations in their Diastolic Blood Pressure as compared to one’s in Control group. From the very beginning, teachers of Experimental group demonstrated more normal levels of Diastolic Pressures as compared to those in Control group. There were more Diastolic hypertensive cases in Control than in Experimental group. Most teachers in Experimental group had ‘optimal’ level of Diastolic Blood Pressure and few in ‘normal’ and ‘High-normal’ levels. Whereas in Control group in comparison to Experimental group the number of teachers showing optimal level of Diastolic Pressure was less. On other hand the number of teachers in ‘normal’ and ‘High-normal’ was comparatively more in Control group than those in Experimental group.

### 3. The Post-therapy Diastolic Blood Pressure findings were only for the Experimental group and not for Control group. As the Control group was not given any treatment. The Post-therapy Diastolic Pressure findings for Experimental group are as follows:-

<table>
<thead>
<tr>
<th>No. of Teachers</th>
<th>Percentage of Teachers</th>
<th>Diastolic Pressure Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>49</td>
<td>89.1%</td>
<td>Optimal</td>
</tr>
<tr>
<td>5</td>
<td>9.1%</td>
<td>Normal</td>
</tr>
<tr>
<td>1</td>
<td>1.8%</td>
<td>High-normal</td>
</tr>
<tr>
<td>Nil</td>
<td>0%</td>
<td>Mild hypertension</td>
</tr>
<tr>
<td>Nil</td>
<td>0%</td>
<td>Moderate hypertension</td>
</tr>
<tr>
<td>Nil</td>
<td>0%</td>
<td>Severe hypertension</td>
</tr>
</tbody>
</table>
The above findings indicate that after undergoing relaxation therapy teachers in Experimental group became more healthy, more relaxed with more number of teachers having ‘optimal’ levels of Diastolic Blood Pressure. There was none teacher in Diastolic ‘hypertensive’ range reflecting that teachers relaxed state of mind. There was only one teacher left in the ‘High-normal’ Diastolic Pressure range. Hence it is concluded that the therapy was very effective in reducing the Diastolic Pressure of the teacher and making them more relaxed, healthy and effective individuals.

V. FINDINGS BASED ON HEART-RATE LEVEL OF TEACHERS

1. Heart-rate levels of teachers at pre-therapy stage of Sample teachers are as follows:-

<table>
<thead>
<tr>
<th>No. of Teachers</th>
<th>Percentage of Teachers</th>
<th>Heart-rate Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nil</td>
<td>0%</td>
<td>Bradycardia</td>
</tr>
<tr>
<td>113</td>
<td>99.12%</td>
<td>Normal</td>
</tr>
<tr>
<td>1</td>
<td>0.88%</td>
<td>Tachycardia</td>
</tr>
</tbody>
</table>

The above quoted findings express that majority of sample teachers had ‘normal’ level of Heart-rate with only one case having Tachycardia.

2. Distribution of pre-therapy Heart-rate level of teachers in their respective groups is as follows:-

i) Experimental Group

<table>
<thead>
<tr>
<th>No. of Teachers</th>
<th>Percentage of Teachers</th>
<th>Heart-rate Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nil</td>
<td>0%</td>
<td>Bradycardia</td>
</tr>
<tr>
<td>55</td>
<td>100%</td>
<td>Normal</td>
</tr>
<tr>
<td>Nil</td>
<td>0%</td>
<td>Tachycardia</td>
</tr>
</tbody>
</table>

ii) Control Group

<table>
<thead>
<tr>
<th>No. of Teachers</th>
<th>Percentage of Teachers</th>
<th>Heart-rate Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nil</td>
<td>0%</td>
<td>Bradycardia</td>
</tr>
<tr>
<td>58</td>
<td>98.3%</td>
<td>Normal</td>
</tr>
<tr>
<td>1</td>
<td>1.7%</td>
<td>Tachycardia</td>
</tr>
</tbody>
</table>
Above stated finding point out that in the Experimental group all the teachers had ‘normal’ level of Heart-rate. However in Control Group though maximum number reported normal levels of Heart-rate there was one case with ‘Tachycardia’.

The post-therapy Heart-rate findings were only meant for the Experimental group and not for the Control group as they did not undergo any therapy regime. The Post-therapy Heart-rate level findings for Experimental group are given below:-

<table>
<thead>
<tr>
<th>No. of Teachers</th>
<th>Percentage of Teachers</th>
<th>Heart-rate Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>3.64%</td>
<td>Bradycardia</td>
</tr>
<tr>
<td>53</td>
<td>96.36%</td>
<td>Normal</td>
</tr>
<tr>
<td>Nil</td>
<td>0%</td>
<td>Tachycardia</td>
</tr>
</tbody>
</table>

Of the 55 Experimental group teachers 2 i.e. 3.64% teachers reported ‘Bradycardia’ i.e. below 60 beats per minute. This is not due to any disease etc but was because of more relaxed state they had achieved. The regular practice of relaxation therapy had made them achieve this level. This is considered as a healthy Heart-rate value for regular practitioners of relaxation therapy. Rest all other teachers had normal Heart-rate. Therefore the investigator could conclude that after two months the teachers in Experimental group became more relaxed, healthy and effective individual. And that relaxation therapy was very effective in attaining the aim of investigator i.e. to reduce Stress, Anxiety, Blood Pressure and Heart-rate of women teachers so as to make them more effective and relaxed individuals.
4.8 CONCLUSIONS ON THE BASIS OF STRESS, ANXIETY, SYSTOLIC PRESSURE, DIASTOLIC PRESSURE AND HEART-RATE LEVELS OF TEACHERS

At the preliminary stage the sample reported in general higher levels of Stress, Anxiety, Systolic Pressure, Diastolic Pressure and Heart-rate. However after commencing relaxation therapy in Experimental group, where on one hand the Stress, Anxiety, Blood Pressure and Heart-rate levels for Experimental group decreased. While on the other hand the Stress, Anxiety, Blood Pressure and Heart-rate levels showed an increase for Control group. On variable of Stress where on one hand the range of Stress level for Experimental group after two months was within ‘not at all Stressful’ range to ‘Moderately Stressful’ range. While for Control group range was more wide ranging from ‘not at all Stressful’ to ‘Extremely Stressful’ level. Similarly for variable of Anxiety also depicts that after undergoing relaxation therapy regime the Anxiety level of Experimental group decreased. While for Control group, the Anxiety level increased. There were no hypertensive case in the Experimental group both for Systolic Pressure and Diastolic Pressure however there were hypertensive cases reported in Control group on both Systolic and Diastolic pressure. For variable Heart-rate while there was one case reporting Tachycardia in Control group. However there was Bradycardia case in Experimental group. This was because of continuous effect of relaxation therapy on the individual in Experimental group and not because of any disorder in the individual.

Therefore the investigator could conclude that after two months the teachers in Experimental group became less Stressed, more relaxed, less anxious with more number of teachers reporting ‘optimal’ level of Blood Pressure and healthy Heart-rate. Thus making the teachers of Experimental group more effective individuals. Also that relaxation therapy was very effective in attaining the very aim of investigator for which she undertook the study.
4.9 FINDINGS BASED ON DIFFERENTIAL ANALYSIS OF PRE-THERAPY SCORES AND VALUES OF DIFFERENT GROUPS

I. FINDINGS BASED ON PRE-TEST STRESS SCORES

At Pre-test stage both Experimental Government 10th and Control Government 10th groups scored maximum on Stress score. The Experimental Government 10th school teachers scored 111.07, highest mean score among Experimental group. While Control Government 10th school too scored highest mean score of 110.47 among sub-groups of Control group. Which point out that Government High School teachers were most Stressed individuals.

Similarly at Pre-test stage both Experimental Private 12th and Control Private 12th secured lowest values on Stress test. With Experimental group securing a mean score of 79.62 and Control group having a mean score of 78.64. Hence among the Experimental group and Experimental Private 12th teachers scored lowest on Stress test. similarly the Control Private 12th group teachers scored minimum among various Control group school teachers.

Hence investigator concluded that at Pre-test stage on variable of Stress teachers of Government High School were more Stressed while the teachers of Private Higher Secondary School were least Stressed.

II. FINDINGS BASED ON PRE-TEST ANXIETY SCORES

Among Experimental groups, Experimental Government 10th teachers scored highest on Anxiety test with mean score of 40.87. Making them highly anxious individual among the Experimental group teachers. On the other hand teachers of Experimental Government 12th obtained lowest score of Anxiety with mean score of 37.07. Making them least anxious among the Experimental group.
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

However among Control groups, Control Government 12th teachers secured highest Anxiety score of 38.13 making them highly anxious teachers among the Control group teachers. On the other hand Control Private 10th teachers scored least on Anxiety test with score of 31.93. Thus establishing that amongst Control groups they were least anxious

III. FINDINGS BASED ON PRE-THERAPY SYSTOLIC BLOOD PRESSURE VALUES

The pre-therapy Systolic Pressure values among the Experimental groups, Experimental Private 10th group teachers scored highest mean value of 117.67 mmHg. While Experimental Government 12th teachers scored the lowest mean value of Systolic Pressure of 108.87 mmHg. Whereas amongst the Control groups, the group which secured highest on pre-therapy Systolic Pressure measurement was Control Government 10th group with values of 130.60 mmHg. And the group which obtained lowest value was Control Government 12th group with Systolic Pressure value of 115.40 mmHg.

IV. FINDINGS BASED ON PRE-THERAPY DIASTOLIC BLOOD PRESSURE VALUES

Groups securing highest values on pre-therapy Diastolic Blood Pressure, among Experimental groups was Experimental Private 12th, whilst in Control groups was Control Government 10th group. The Experimental Private 12th teachers scored the mean Diastolic Pressure value of 76.62 mmHg and the Control Government 10th teachers secured the value of 83.93 mmHg. Groups securing lowest values on pre-therapy Diastolic Blood Pressure amongst Experimental groups was Experimental Government 12th with mean value of 72.40 mmHg. And among Control groups was Control Government 12th with mean value of 76.07 mmHg.
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

V. FINDINGS BASED ON PRE-THERAPY HEART-RATE VALUES

Groups obtaining highest values on pre-therapy Heart-rate were, among Experimental groups was Experimental Private 12th with mean value of 69.92 and among Control groups was Control Government 10th with mean Heart-rate of 70.27.

Group wise the groups securing lowest mean values on Pre-therapy Heart-rate were from Experimental groups, it was Experimental Government 12th with mean value of 62.60 And from Control groups it was Control Government 12th group with mean value of 67.87.

Hence both Experimental and Control Government 12th School teachers reported lowest values of Heart-rates amongst their respective groups.

VI. CONCLUSIONS BASED ON THE PRE-THERAPY SCORES AND VALUES OF DIFFERENT VARIABLES

On the basis of pre-therapy mean scores and values following conclusions were drawn:

1) AMONGST THE EXPERIMENTAL GROUPS

1. Amongst the Experimental groups the Experimental Government 10th group reported highest mean scores on Pre-test Stress and Anxiety. Thus making them highly Stressed and anxious individuals amongst other sub-groups of Experimental group.

2. While the sub-group Experimental Private 10th showed highest mean value of Systolic Pressure indicating that amongst other sub-groups of Experimental group they had more elevated Blood Pressure.

3. However Experimental Private 12th teachers reported highest values of Diastolic Blood Pressure and Heart-rate. Thus stating that their elevated Diastolic Blood Pressure and Heart-rate value was due to long term Stress.
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

I. FINDINGS BASED ON POST-TEST SCORES OF STRESS

4. Only on Pre-test Stress test did Experimental Private 12th group indicated low scores, thereby stating that either they were hiding some facts because of being in Private Schools or they were really comparatively less Stressed when the investigator administered them the Stress questionnaire.

5. The sub-group Experimental Government 12th group reported the lowest mean values for Pre-test Anxiety test, Systolic Pressure, Diastolic Pressure, and Heart-rate. Thus pointing that they were less anxious and had more healthy state of body and mind as compared to other sub-groups in Experimental groups.

II) AMONG THE VARIOUS SUB-GROUPS OF CONTROL GROUP

1. At pre-therapy stage the Government Control 10th scored highest mean values for Pre-test Stress, Systolic Pressure, Diastolic Pressure and Heart-rate. Thereby making them highly Stressed individuals with more elevated Blood Pressure and Heart-rate measurements.

2. Highest score on Anxiety was secured by Control Government 12th sub-group, making the individuals of that group very anxious in comparison with other sub-group teachers.

3. While the lowest score for Pre-test Stress was secured by Control Private 12th, thus, making them least Stressed individuals in the main Control group.

4. Control Private 10th teachers were least anxious.

5. And Control Government 12th teachers obtained least values of their Systolic and Diastolic Pressure and Heart-rate. They were therefore more physically healthy.

III. FINDINGS BASED ON POST-THERAPY SCORES AND VALUES OF DIFFERENT GROUPS

I. FINDINGS BASED ON POST-TEST SCORES OF STRESS

After two months Post-test on Stress and Anxiety was administered to both groups (Experimental and Control groups) to deduce any change in Stress and Anxiety scores after a gap of two months.
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

The Post-test scores for Experimental groups showing the sub-group securing the most and least on Stress mean scores are: Experimental Government 12th with mean score of 67.00 and Experimental Private 12th with mean score of 45.54 respectively.

Among the Control groups the sub-group obtaining the maximum in respect of Stress was Control Government 12th group with mean score of 123.93. And the sub-group with minimum mean score of Stress was Control Private 12th with score of 94.71.

Hence in both Experimental and Control groups it was Government 12th teachers reporting highest level of Stress score and Private 12th teachers reporting least level of Stress.

II. FINDINGS BASED ON POST-TEST SCORES OF ANXIETY

Among the Experimental groups the sub-groups which obtained maximum and minimum scores on Anxiety are Experimental Private 10th teachers with mean score of 35.00 and Experimental Government 12th teachers with mean score of 30.60 respectively.

The Post-test scores on Anxiety test for Control group showing the sub-groups obtaining higher scores and lower mean scores are as follows: Control Government 12th with mean score of 43.07 and Control Private 10th with mean score of 34.67 respectively.

III. FINDING BASED ON POST-THERAPY VALUES OF SYSTOLIC BLOOD PRESSURE

Since only the Experimental group was administered the relaxation therapy and not the Control group. Hence the post-therapy values of Blood Pressure and Heart-rate were only measured for Experimental group after the teachers had been administered therapeutic treatment to find any difference i.e., any reductions for Blood Pressure and Heart-rate values.
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

The sub-group which depicted highest index of Systolic Blood Pressure was Experimental Private 12th with mean value of 108.46 mmHg. And the sub-group which showed least was Experimental Government 12th.

IV. FINDINGS BASED ON POST-THERAPY VALUES OF DIASTOLIC BLOOD PRESSURE

The sub-group which reported highest value of post-therapy Diastolic Pressure was Experimental Private 10th of mean value of 71.75 mmHg. While Experimental Government 12th group reporting lowest level of post-therapy Diastolic Pressure with mean value of 66.07 mmHg.

V. FINDINGS BASED ON POST-THERAPY VALUES OF HEART-RATE:

Experimental Private 12th scored highest value of post-therapy Heart-rate. The mean value was 65.69. While Experimental Government 12th group teachers scored least mean value of post therapy Heart-rate (62.60).

4.12. CONCLUSIONS BASED ON THE POST-THERAPY SCORES AND VALUES OF DIFFERENT VARIABLES

On the basis of post-therapy mean scores and values of different variables following conclusions were drawn.

I. AMONG THE VARIOUS SUB-GROUPS OF EXPERIMENTAL GROUP

1. Amongst the Experimental groups, Experimental Government 12th sub-group secured highest mean score on Post-test Stress. Making them relatively less relaxed than other sub-groups. However, on all other variables they scored the least mean values making them less anxious and physically healthy individuals.
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

2. Experimental Private 10th teachers scored highest mean Post-test Anxiety score and at the same time on post-therapy Diastolic Pressure which means that their high values was a result of long term Stress.

3. While Experimental Private 12th teachers reported higher mean values of Post-therapy Systolic Blood Pressure and Heart-rate.

II. AMONG THE VARIOUS SUB-GROUPS OF CONTROL GROUPS

1. Control Government 12th sub-group secured highest scores on Post-test Stress and Anxiety Signifying that after a gap of two months they were the most Stressed and anxious group in whole Control group.

2. Control Private 12th group obtained lowest value of on Stress Post-test while Control Private 10th group obtained least score for Anxiety Post-test. All this signifies that the Control Private 12th teachers were least Stressed among the Control group while Control Private 10th teachers reported being least anxious on Post-test among the other Control Sub-groups.

III. FINDINGS BASED ON GROUPS SECURING HIGHEST AND LOWEST MEAN SCORES AND VALUES ON DIFFERENT VARIABLES

Irrespective of the fact that the group fell in Experimental or Control group some of the findings based on groups securing highest and lowest mean scores and values on different variables is shown in Table 4.13.
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

TABLE 4.13 - Depicts different groups securing highest and lowest mean scores and values on different variables.

<table>
<thead>
<tr>
<th>Variable Code</th>
<th>Groups Securing Highest mean Score and Value</th>
<th>Groups Securing Lowest mean Score and Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>S₁</td>
<td>Experimental Government 10th (111.07)</td>
<td>Control Private 12th (78.64)</td>
</tr>
<tr>
<td>S₂</td>
<td>Control Government 10th (123.97)</td>
<td>Experimental Private 12th (45.54)</td>
</tr>
<tr>
<td>A₁</td>
<td>Experimental Government 10th (40.87)</td>
<td>Control Private 10th (31.93)</td>
</tr>
<tr>
<td>A₂</td>
<td>Control Government 12th (43.07)</td>
<td>Experimental Government 12th (30.69)</td>
</tr>
<tr>
<td>S.P</td>
<td>Control Government 10th (130.60 mmHg)</td>
<td>Experimental Governmental 12th (108.87 mmHg)</td>
</tr>
<tr>
<td>S.P.₂</td>
<td>Experimental Private 12th (108.46 mmHg)</td>
<td>Experimental Government 12th (100.13 mmHg)</td>
</tr>
<tr>
<td>D.P</td>
<td>Control Government 10th (83.93 mmHg)</td>
<td>Experimental Government 12th (72.40 mmHg)</td>
</tr>
<tr>
<td>D.P.₂</td>
<td>Experimental Private 10th (71.75 mmHg)</td>
<td>Experimental Government 12th (66.07 mmHg)</td>
</tr>
<tr>
<td>H.R.</td>
<td>Control Government 10th (70.27)</td>
<td>Experimental Government 12th (65.20)</td>
</tr>
<tr>
<td>H.R.₂</td>
<td>Experimental Private 12th (69.92)</td>
<td>Experimental Government 12th (62.60)</td>
</tr>
</tbody>
</table>

4.14 CONCLUSIONS BASED ON GROUPS SECURING HIGHEST AND LOWEST MEAN SCORES AND VALUES ON DIFFERENT VARIABLES

Control Government 10th teachers were highly Stressed by having high scores for variables : S₁ (Stress Post-test), S.P (mean Systolic Pressure), D.P (mean Diastolic Pressure) and H.R (mean Heart-rate). While Experimental Government 12th reported of being least Stressed by scoring lowest values for variables : A₂ (Anxiety Post-test), S.P (mean Systolic Pressure), S.P.₂ (Post-
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

therapy Systolic Pressure), D.P. (mean Diastolic Pressure), D.P.2 (Post-therapy Diastolic Pressure), H.R. (mean Heart-rate) and H.R.2 (Post-therapy Heart-rate).

Investigator thus concluded that Control Government 10th teachers were highly stressed and Experimental Government 12th teachers were highly relaxed among the sample teachers.

(15) FINDINGS BASED ON THE MAXIMUM AND MINIMUM EFFECT SHOWN BY DIFFERENT EXPERIMENTAL GROUPS TO RELAXATION THERAPY

1. Maximum effect of relaxation therapy on variable of Systolic Pressure was shown by Experimental Government 10th group with mean difference between Pre-test and Post-test of 50.94. While Experimental Private 12th teachers showed minimum decrease with mean difference of -44.08.

2. Maximum decrease in Anxiety level was stated by Experimental Government 12th teachers with mean difference of 6.47. And minimum decrease in Anxiety level was reported by Experimental Private 10th teachers with mean difference of -3.67.

3. Higher decrease in Systolic Pressure level was reported by Experimental Private 10th with mean difference of 10.17. And lower level of decrease was shown by Experimental Government 10th group with mean difference of -8.73.

4. Experimental Government 10th group reported higher reduction in Diastolic Pressure level with mean difference of 6.34. And Experimental Private 10th group had lower reduction in Diastolic Pressure level with mean difference of 4.53.

5. On variable Heart-rate maximum decrease was highlighted by Experimental Private 10th group teachers with mean difference of -5.33. While minimum decrease was purported by Experimental Government 10th teachers with mean difference of -2.74.

258
4.16. FINDING BASED ON NUMBER OF HYPERTENSIVE CASES

There were 14 hypertensive cases in the whole sample of 114 teachers which mean that the rate of hypertension in women teachers in Chandigarh is 12.28%.

4.17. CASE STUDIES

CASE – 1.

Personal Information:

<table>
<thead>
<tr>
<th>Name</th>
<th>Anjali Vohra</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>32 years</td>
</tr>
<tr>
<td>Post</td>
<td>Chemistry Lecturer</td>
</tr>
<tr>
<td>Teaching Experience</td>
<td>8 years</td>
</tr>
<tr>
<td>School</td>
<td>Shishu Niketan Sr. Secondary School, Sector 22-D, Chandigarh</td>
</tr>
<tr>
<td>Pay Scale</td>
<td>Rs. 6292/- per month</td>
</tr>
</tbody>
</table>

Personal Problems:

Anjali was a physically healthy individual, i.e. she suffered no ailments.

Phase I (Pre-therapy Scores and Values)

Investigator administered tests on Stress and Anxiety before conducting therapy on Anjali to note her initial level of Stress and Anxiety. Scores on Stress test was 142, which indicate of her being ‘very stressful’. However her score on Anxiety was 30 which places her in ‘high normal’ Anxiety level. Anjali’s Blood Pressure and Heart-rate values before commencing relaxation therapy were 110/72 mmHg and 66 respectively both values falling in ‘optimal ranges’. Teacher’s pre-therapy scores on Stress and Anxiety on one hand highlight of her being Stressed up but her Blood Pressure and Heart-rate values on another hand points out that her Stress did not have any impact on her health. She was physically healthy i.e. she did not suffer from any physical ailments.
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

Phase II (Therapy)

Investigator contacted Anjali between 11:20 A.M. and 12:00 Noon. Investigator administrated Anjali all the four group of exercises, viz. physical exercises, breathing exercises, relaxation exercises and mental exercises. The therapy session in her case lasted for 30 minutes. Investigator initially for a week period regularly met the teacher so as to teach her various exercises, which the teacher could continue later at her own. Later the investigator visited the client weekly to note any change in the Blood Pressure and Heart-rate levels of the teacher for two months.

Phase III (Post-therapy Scores and Values):

At the end of two months tests on Stress and Anxiety (Post-test) were again administered to the teacher to observe any change or reduction in scores. Post-test scores of Stress and Anxiety for Anjali were 68 and 19 respectively. Anjali’s Stress score reflect that her Stress level decreased from ‘very Stressful’ to ‘Mildly Stressful’ and her Anxiety score too reflect a decrease in her Anxiety level from ‘high normal’ to ‘normal’ level. Her Blood Pressure and Heart-rate values also indicate the similar change which were 96/60 mmHg and 60 respectively.

Comments of Investigator:

The researcher concluded that relaxation therapy was Extremely useful in Anjali Vohra’s case in bringing down her Stress and Anxiety level in normal ranges. While her Blood Pressure and Heart-rate in ‘optimal’ ranges. Making her a very relaxed and physically sound individual.

Comments of the Teacher:

The opinion of Anjali Vohra is also stated.
CASE – 2.

Personal Information :

Name : Balwinder Kaur
Age : 46 years
Post : Social Science Mistress
Teaching Experience : 11 years
School : Government High School, Sector 41-A, Chandigarh.
Pay Scale : Rs. 9000/- per month

Personal Problems :

Balwinder suffered from multiple health problems viz. high Blood Pressure, palpitation and cervical spondilis. She was under medication (Betaiog and Zolax) when investigator contacted her.

Phase I (Pre-therapy Scores / Values)

Investigator administered tests on Stress and Anxiety before conducting the relaxation therapy on Balwinder to ascertain her initial levels of Stress and Anxiety. Her Stress score was 138, indicating of her being ‘very Stressful’. Her Anxiety score of 52 also reflect of her having a ‘Severe’ form of Anxiety. And that she definitely needs some personal assistance.

Balwinder’s Blood Pressure and Heart-rate values (along with medication), before commencing relaxation therapy were 120/76 mmHg and 72
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

respectively. However her Blood Pressure, and Heart-rate values were in ‘normal’ range along with medication.

To sum up, teacher’s high Stress and Anxiety level definitely had an impact on her health. Due to which she was put on medication. Her medication though had definitely brought her Blood Pressure within normal reaches, however it could not bring her Stress and Anxiety level down. On a whole Balwinder was a highly Stressed and anxious person.

Phase II (Therapy)

Investigator contacted Balwinder between 10:30 AM and 11:15 AM. Since the teacher suffered ailments like high Blood Pressure, palpitation and cervical spondilitis, the teacher followed light physical exercises and especially those which had an effect in reducing her cervical spondilitis i.e. in physical exercise group she opted for exercises like neck-rolling, wringing of toes and hands, toe-stretching, upward-stretch, hand-stretch, sideways neck twists (I and II) Forward and backward neck twists, spinal twists and hand press. These exercises comprised of physical exercises. However in other three groups of exercises she worked out all the exercises of that group. The other three groups were Breathing exercises, Relaxation exercises and Mental exercises. In her case the therapy session lasted for 40 minutes. Investigator initially for a week regularly approached the teacher concerned so as to teach her various exercises, which she could continue later at her own. Later the investigator visited the respondent weekly to note any change in the Blood Pressure and Heart-rate levels of the teacher for two months. Between the therapy schedule her medication was lowered. While at the end of the therapy regime the doctor had actually stopped her medication.

Phase III (Post-therapy Scores and Values)

After two months Balwinder’s Scores and Values on Stress, Anxiety, Blood Pressure and Heart-rate were 59, 40, 110/68 and 63 respectively. Her post scores of Stress indicate that she became more relaxed. Her Blood Pressure and Heart-rate were also in ‘optimal ranges’ (without medication), making her a more healthy person. However her Anxiety score which was in high normal indicated
that she needed to continue the therapy for some more time to decrease her Anxiety level within normal ranges.

**Comments of Investigator:**

When Investigator approached Balwinder, the teacher was very Stressed and anxious. Her Stress and Anxiety had powerful impact in putting her on medication relating to her health problems like high Blood Pressure, palpitation and cervical spondilitis. All indicating that she definitely needs help in reducing her Anxiety and Stress level. Balwinder was highly enthusiastic in learning the various exercises taught to her so that she could reduce her felt Stress level and Anxiety level. Another boost came to Balwinder when her doctor lowered her medication. Thereafter she religiously followed her relaxation regime. She also asked for the researcher’s help wherever she found difficulty in doing some group of exercise. By the time investigator came to close of her relaxation regime the doctor had actually stopped her medication.

Hence the researcher came to the conclusion that relaxation therapy was extremely useful to Balwinder Kaur in bringing down her Stress level to merely ‘slightly Stressful level’ and that of her Anxiety in ‘high normal’ and while her Blood Pressure and Heart-rates in ‘optimal ranges’. Making her a very relaxed and at same time freeing her from any kind of medication, which she took earlier.

**Comments of the Teacher:**

The views of Balwinder Kaur regarding the relaxation therapy are as follows.
The therapy which was given is quite effective. I feel very relaxed after doing these exercises, I have found some exercises are really very useful. I always used much medicines for blood pressure and fast heart beating but after therapy I feel much relaxed and stop taking medicine for some time. I am very thankful to Gitanjali Ji.

Balwinder Kaur
S. S. Mistress
G. H. S. Sector 4,
CHO.

CASE - 3.

Personal Information:

Name: Krishna Sharma
Age: 49 years
Post: Hindi Mistress
Teaching Experience: 24 years
School: Government Model Senior Secondary School,
Sector 40, Chandigarh.
Pay Scale: Rs. 12000/- per month
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

Personal Problems:

Krishna was a physically healthy individual with no clinical ailments.

Phase I (Pre-therapy Scores and Values)

Before commencing the therapy on Krishna the investigator administered Stress and Anxiety tests, to find her preliminary level of Stress and Anxiety. She was 'Moderately Stressed' with her Stress score of 88. However her Anxiety level was definitely high, a score of 45 which indicates that her Anxiety was definitely getting serious and that she needed professional help. However her Blood Pressure and Heart-rate values were in 'normal' ranges of 120/80 and 66 respectively indicating that physically she enjoyed good health.

Phase II (Therapy)

Researcher approached Krishna between 12:15 P.M and 1:00 P.M. Researcher administered the teacher concerned all the four groups of exercises namely physical exercises, breathing exercises, relaxation exercises and mental exercises. The therapy in her case lasted for 35 minutes. Investigator in the first week regularly met the teacher so as to teach her various exercises So that the teacher could continue at her own thereafter

Latter the investigator visited Krishna on a weekly basis to deduce any change in her Blood Pressure and Heart-rate levels for two months.

Phase III (Post-therapy Scores and Values)

After the end of training programme Krishna reported a good response to the therapy. Her Stress score of 29 indicated her being in a 'Not at all Stressful' Stress level and that she became a relaxed individual. Krishna's Anxiety level also decreased from 'Severe Anxiety' to 'High-normal' Anxiety level. Her score on Anxiety test was 38. While her Blood Pressure and Heart-rate values were in 'optimal ranges' of 103/74 mmHg and 61 respectively.

Comments of Investigator

The researcher came to the conclusion that relaxation programme was effective for Krishna in making her a relaxed individual with more healthy
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

optimal values of Blood Pressure and Heart-rate. However Krishna needs to continue the relaxation regime for some more time so that her Anxiety level too falls in normal range which at the termination of relaxation programme could only be reduced to high normal level.

Comments of Teacher

The response of Krishna Sharma to relaxation programme are indicated as follows:

CASE – 4.

Personal Information :

Name : Karamjit Kaur
Age : 46 years
Post : Hindi Mistress
Teaching Experience : 25 years
School : Government Model Senior Secondary School, Sector 37-B Chandigarh.
Pay Scale : Rs. 12000/- per month
Personal Problems:
Karanjit suffered from multiple problems. She suffered from hypothyroidism, cataract in her eyes. She was also on medication for both disorders. When the investigator contacted her, she was using homeopathic and allopathic treatments for her ailments.

Phase I (Pre-therapy Scores and Values)
Karanjit reported high levels of both Stress and Anxiety at an initial stage. Her scores of Stress and Anxiety tests were 176 and 46 respectively. Both values indicating that she was ‘Extremely Stressful’ and that her Anxiety was taking a serious form. Being a hypothyroidic she reported a lower values both for her Blood Pressure and Heart-rate which were 98/59 mmHg and 67 respectively (along with medication).

Hence, the teacher concerned was highly Stressed up and anxious and also had clinical problems, which also acted as Stressors to her.

Phase II (Therapy)
Investigator assessed Karanjit between 9:00 AM and 9:45 AM. Since the teacher concerned suffered from hypothyroidism and cataract the teacher preferred certain light exercises only from the physical exercise group like neck-rolling, wringing of toes and hands, toe stretching, hand stretch, sideways neck twists (I and II), and forward and backward neck twists. However she completed / followed all the exercises of the remaining three groups namely breathing exercises, relaxation exercises, and mental exercises. Karanjit took 35 minutes to complete her relaxation therapy.

Phase III (Post-therapy Scores and Values)
At the end of two months training schedule Karanjit reported a radical decline on all variables – Stress, Anxiety, Systolic and Diastolic Blood Pressure and Heart-rate. Her post values of Stress and Anxiety were 97 and 32 respectively.

Her Stress score reduced from ‘Extremely Stressful’ to ‘Moderately Stressful’. While her Anxiety level was reduced from ‘Severely anxious’ to ‘High-
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

normal’. Teacher’s Blood Pressure value was 90/55 while her Heart-rate was 64 all in ‘optimal ranges’. Again reflecting her relaxed altitude.

Comments of Investigator

When investigator approached Karanjit, the teacher was Extremely Stressful with Severe Anxiety. However with two months training in relaxation there was a good decline in teacher’s Stress and Anxiety level. With reduced Stress and Anxiety level and Blood Pressure and Heart-rate in ‘optimal’ ranges, the teacher became very relaxed, less anxious, and less tense. Again reflecting her relaxed attitude.

However Karanjit needs to continuing her relaxation regime for some more time to have normal levels of Stress and Anxiety.

Comments of Teacher :

Karanjit’s view about the therapy are:-
CASE – 5.

Personal Information:

Name: Promila Sharma
Age: 43 years
Post: Geography Lecturer
Teaching Experience: 14 years
School: Government Model Senior Secondary School, Sector 37-B, Chandigarh
Pay Scale: Rs. 11000/- per month

Personal Problems:

Promila reported some physical problems. Mostly of body aches specially in muscles and back, she also had cervical spondilitis. And she was under Homeopathic treatment.

Phase I (Pre-therapy Score/Values)

Promila reported of being 'very Stressful' with her Stress score of 138. She also had 'Severe Anxiety' level which was taking a serious form with a score of 48. Her Anxiety level indicated that she needed some help. Promila's Blood Pressure and Heart-rate values were in 'normal range'. They were 118/72 mmHg and 65 respectively.

Phase II (Therapy)

Investigator contacted Promila between 11:20 A.M and 12:00 Noon. As the teacher suffered from cervical spondilitis and body aches specially muscular pain and back-ache, hence the teacher restricted herself to certain exercises only in the physical exercise group. They were neck rolling, wringing of toes and hands, toe stretching, hand-stretch, sideways neck twists (I and II) and forward and backward neck twists. However the teacher completed all the sets of exercises in remaining three groups namely breathing exercises, relaxation exercises and mental exercises. In her case the therapy session lasted for 30 minutes.

Researcher initially for a week regularly visited Promila in order to teach her various exercises, so that the teacher could continue later at her own.
the investigator visited the teacher on a weekly basis to descry any change in the Blood Pressure and Heart-rate levels of the teacher for two months.

Phase III (Post-therapy Scores and Values)

After undergoing treatment for two months, Promila showed a good response to the treatment in the form of decreased scores of Stress and Anxiety. Her Stress score was 79, while Anxiety score was 39. As for her Blood Pressure and Heart-rate values they were 114/68 mmHg and 63 respectively. All reflecting that at the end of two months the teacher became less Stressed, less anxious, more relaxed and more healthy a person.

Comments of Investigator:

Researcher came to the conclusion that relaxation therapy did a lot good to Promila in terms of diminishing her Stress from ‘Very Stressful’ range to ‘Moderately Stressful’ range with more tendency towards being ‘Mildly Stressful’. Similarly her Anxiety level came down from ‘Severe Anxiety’ to ‘High-normal Anxiety’. Promila’s Blood Pressure also now fell in ‘optimal ranges’ with normal Heart-rate. So relaxation therapy adopted by investigator on Promila Sharma made her more relaxed, healthy an individual.

Comments of Teacher:

Promila reports her view about the therapy as follows:
CASE – 6.

Personal Information :

Name : Yelluri Indira
Age : 48 years
Post : Science Mistress
Teaching Experience : 22 years
School : St Anne’s Convent School
Sector 32-D, Chandigarh.
Pay Scale : Rs 8000/- per month

Personal Problems :

Yelluri is an angina patient. She was on medication when investigator first met her.

Phase I (Pre-Therapy Scores and Values)

Yelluri’s preliminary Stress index was high indicating of her being ‘Very Stressful’ with a Stress score of 138. Her Anxiety score of 30 was in ‘High-normal’ range. Being Angina patient Yelluri’s Blood Pressure and Heart-rate showed marked fluctuations. So in her case mean of several readings was taken for both her Blood Pressure and Heart-rate to note her initial levels of both Blood Pressure and Heart-rate. Which in rounded figures were 119/71mmHg and 67 respectively.

Teacher’s pre-therapy Scores and Values on different variables clearly indicate that she was stressed up individual

Phase II (Therapy)

Researcher visited Yelluri between 8.30 A.M and 9.00 A.M. Being an angina patient, Yelluri preferred to do only breathing exercises, relaxation exercises and mental exercises. Therapy in her case lasted for only 20 minutes. Researcher in the first week regularly visited the teacher and taught her the various exercises so that the teacher could thereafter continue them independently.
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

Latter the investigator made weekly visits to the teacher to deduce any change in her Blood Pressure and Heart-rate values for two months.

Phase III (Post-therapy Scores and Values)

Yelluri’s response to two months intervention programme can be stated as follows: Stress level reduced to a score of 101 which came under ‘Moderately Stressful’. Her, Anxiety score was 28 which fell in ‘normal’ range. And as for Blood Pressure it was 111-73 mmHg and Heart-rate was 50 both in optimal range.

Comments of Investigator

As said earlier initially Yelluri’s Blood Pressure and Heart-rate both showed great fluctuations. Her Systolic Blood Pressure varied from 130 to 67 mmHg while Diastolic Blood Pressure varied from 90 to 57 mmHg. As for her Heart-rate it varied from 84 to 60.

Later after she had continued the therapy for sometime there were reduced fluctuations observed with systolic pressure ranging from 120-100 and diastolic pressure ranging from 80-68. Similarly her Heart-rate too showed less fluctuations from 68 to 54.

Hence the investigator concluded that for Yelluri the therapy was overall very effective in reducing the fluctuations in her Blood Pressure and Heart-rate. And also in reducing her Stress level from ‘Very Stressful’ range to ‘Moderately Stressful range’. On other hand reducing her Anxiety from ‘high normal’ range to normal range. At same time making her Blood Pressure and Heart-rate values fall in optimal ranges. Therefore one can say that she became a relaxed individual after undergoing the therapy schedule.

Comments of Teacher:

Overall the therapy was very effective for Yelluri Indra as is also stated by her.
CASE – 7.

Personal Information :

Name : Chitranjan Pal Kaur
Age : 43 years
Post : Science Mistress
Teaching Experience : 10 years
School : Ajit Karam Singh International Public School Sector 41, Chandigarh.

Personal Problems :

Chitranjan was also a case with multiple disorders like – Migraine, Digestive disorders, Cervical spondilitis. In past she had some renal disorder too, as a result of which she was surviving on single kidney.
Phase I (Pre-therapy Scores and Values)

Investigator administered tests on Stress and Anxiety before conducting the relaxation therapy on Chitranjan Pal, to deduce her initial Stress and Anxiety level. Her Stress score of 95 placed her in ‘Moderately Stressful’ level. While her Anxiety score of 47 was in ‘Severe’ Anxiety level which indicated for her being very anxious and that her Anxiety was taking a serious form and that she also needed some professional help. Before the investigator came in contact with the teacher, the doctor had already put her on some kind of medication which the teacher had discontinued all by herself. When the investigator learnt about her discontinuing of the medication, and secondly she also had an elevated Blood Pressure value of 146/106 placing her in ‘Moderately hypertensive’ state. Since the teacher was surviving on a single kidney, which could have some very serious life-threatening impact on her, the researcher immediately asked her to consult the doctor immediately. Which she did and was put on medication (Beta cap 40 mg). Medication too brought her Blood Pressure down from 146/106 to 135/90 (mild hypertension). Chitranjan initial Heart-rate was 72 falling in ‘normal’ range.

Phase II (Therapy)

Researcher met Chitranjan Pal between 11:40 A.M. and 12:15 P.M. the teacher did only selective physical exercises like neck rolling, wringling of toes and hand, toe-stretching, hand stretch and side ways neck twists (I and II). However the teacher completed all sets of exercises in other groups viz., breathing exercises, relaxation exercises and mental exercises. The therapy session lasted for 30 minutes in her case. Investigator initially for a week regularly approached the teacher and taught her various exercises which she could continue latter at her own. Later the investigator made weekly visit to ensure any change in teacher’s Blood Pressure and Heart-rate levels for two months.

Phase III (Post-therapy Scores/Values)

After two months tests on Stress and Anxiety were again administered (Post-test) to observe any change or reduction in scores. Chitranjan’s Stress level decreased to 46 indicating her ‘Mildly Stressful’ state. However her Anxiety score did not show much difference it was 46, probably she was anxious about her
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

While her Blood Pressure level depicts marked reduction with Blood Pressure value of 109/83 mmHg falling in ‘normal range’. Similarly her Heart-rate was also in ‘normal’ range with value 63. Her Blood Pressure and Heart-rate values were along with medication.

Comments of Investigator

For Chitranjan both relaxation therapy and medication played an important role in lowering her Blood Pressure from ‘Moderate hypertension’ to normal level. However the reduction in Stress level was only because of the relaxation therapy bringing her Stress level from ‘Moderately Stressful’ to ‘Mildly Stressful’.

Investigator concludes with a note that Chitranjan needs to follow the relaxation regime for some more time to reduce both her Anxiety level and also to reduce her medication intake.

Comments of Teacher:

Chitranjan presents her view about the therapy as follows:

CASE – 8.
Personal Information:
Name : Manjit Kaur
Age : 37 years
Post : English Teacher
ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

Teaching Experience : 8 years
School : Shivalik Public School
  Sector 41, Chandigarh.
Pay Scale : Rs. 5500/- per month

Personal Problems:

Manjit was a physically healthy individual, i.e., she suffered no ailments.

Phase I (Pre-therapy Scores and Values)

Pre-therapy scores for Stress and Anxiety for Manjit were 108 and 43 respectively, which reflect that she was 'Moderately Stressful' while her Anxiety was in 'Severe' level which mean she needed professional help to reduce her Anxiety level. Manjit's Blood Pressure and Heart-rate values before commencing relaxation therapy was 104/70 mmHg and 73 respectively. Blood Pressure value of teacher fell in 'optimal range' while her Heart-rate fell in 'normal range'. Both Blood Pressure and Heart-rate values indicating her sound health.

Teacher’s pre-therapy scores on Stress and Anxiety on one hand highlight of her being Stressed up but her Blood Pressure and heart values on another hand points out that her Stress and Anxiety did not impact her health. She was physically healthy i.e., she did not suffer from any physical ailments.

Phase II (Therapy)

Researcher contacted Manjit between 10:30 AM and 11:10 AM. Investigator administered Manjit all the four sets of exercises namely, physical, breathing, relaxation and mental exercise. The therapy session for Manjit lasted for 30 minutes. Investigator initially for a week period regularly visited the teacher so as to teach her various exercises, which the teacher could continue later at her own. Later the investigator visited the client weekly to note any change in the Blood Pressure and Heart-rate levels of the teacher for two months.

Phase III (Post-Therapy Scores / Values)

After two months of relaxation schedule, tests on Stress and Anxiety (Post-test) were again administered to the teacher to observe any change or reduction in
scores. Manjit’s post therapy Stress score was 86 which was in ‘Moderately Stressful’ state. Though there was a decrease in the Stress score but the level of Stress for the teacher remained the same i.e. ‘Moderately Stressful’. However there was a decrease in Anxiety level of the teacher with a score of 35 which was in ‘High-normal’ range. The teacher’s Post-therapy Blood Pressure and Heart-rate measurements were 92/68 mmHg and 65 respectively both in ‘optimal’ range.

**Comments of Investigator:**

The investigator could draw the conclusion that – the relaxation therapy was useful for Manjit Kaur for reducing her Anxiety from ‘Severe’ Anxiety to ‘High-normal’ Anxiety level. And maintaining her Blood Pressure and Heart-rate in ‘optimal’ ranges with more healthy values. However the therapy could not bring much change in her Stress level as it remained in the same level i.e. ‘Moderately Stressful’ though there was a reduction in scores. Which mean that the teacher Stress emerged more from her work or occupation or job.

Hence the teacher need to continue the therapy for some time more so that she could reduce her Anxiety and Stress level within normal ranges.

**Comments of the Teacher:**

Manjit expresses her view about the therapy as follows.

> This therapy relieved me of my tensions. I think I got released after doing this. I will continue it when feel stressed. <br>Manjit

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