Chapter -IV

Analysis and Interpretation of the Results
CHAPTER IV
ANALYSIS AND INTERPRETATION OF RESULTS

In order to test the objectives and hypotheses, the details of analysis of the data have been presented in this chapter. Various kinds of analysis and their discussions have been given in four sections.

Section I deals with the nature of score distribution for stress, mental health, home environment, and emotional intelligence of teacher trainees to justify the application of various statistical techniques.

Section II deals with the calculation of percentages of teacher trainees depicting different levels of stress, i.e., very high, high, average, low and very low and finding out percentages of teacher trainees, i.e., total, rural, urban, male and female expressing different levels of stress.

Section III has been devoted to locate the significant difference in the stress of rural - urban and male - female teacher trainees.

Section IV explores the relationship of stress of rural, urban, male and female teacher trainees with their mental health, home environment and emotional intelligence.

Section V has been devoted to locate the conjoint effect of mental health, home environment, and emotional intelligence on stress of teacher trainees.
SECTION - I

NATURE OF SCORE DISTRIBUTION

Before presenting the actual analysis of data and discussion of results pertaining to hypotheses, advanced earlier in the present study, it was desirable to see the nature of score distribution. Therefore, it was thought appropriate to describe the nature of score distribution for stress, mental health, home environment and emotional intelligence of teacher trainees to justify the application of various statistical techniques for testing various hypotheses.

In order to test the normality of distribution the value of mean, median, mode, standard deviation, skewness and kurtosis were worked out for stress, mental health, home environment and emotional intelligence. To provide the mean, median, mode, S.D, skewness, kurtosis analytically and conveniently, these descriptive statistics were represented in tabular form for the total sample of teacher trainees. The frequency polygon for the variables stress, mental health, home environment and emotional intelligence is drawn on the basis of score distribution.

In the normal distribution curve the mean, median and mode all coincide and there is a perfect balance between the right and left halves of the bell shaped figure. This is because the normal curve is bilaterally symmetrical; all the measures of central tendency must coincide at the centre of the distribution.

A distribution is said to be "Skewed" when the mean and median fall at different points in the distribution and the balance is shifted to one side or the other i.e. to the left or right.

Trends of scores on stress of teacher trainees are described below in the form of table 4.1 and fig. 4.1.
**Analysis and Interpretation of Results**

### Table 4.1

**Showing frequency distribution scores of teacher trainees on the variable of stress (N= 600)**

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Class Interval</th>
<th>Mid-Point</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>0 - 500</td>
<td>250</td>
<td>0</td>
</tr>
<tr>
<td>2.</td>
<td>500-1000</td>
<td>750</td>
<td>50</td>
</tr>
<tr>
<td>3.</td>
<td>1000-1500</td>
<td>1250</td>
<td>249</td>
</tr>
<tr>
<td>4.</td>
<td>1500-2000</td>
<td>1750</td>
<td>288</td>
</tr>
<tr>
<td>5.</td>
<td>2000-2500</td>
<td>2250</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td></td>
<td><strong>600</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mean</th>
<th>Median</th>
<th>Mode</th>
<th>S.D.</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1442.7</td>
<td>1507</td>
<td>1516</td>
<td>332.45</td>
<td>-0.413</td>
<td>-0.374</td>
</tr>
</tbody>
</table>

**Showing frequency polygon of scores of teacher trainees on the variable of stress (N= 600)**

**Fig. 4.1**

183
Analysis and Interpretation of Results

Mean, median, mode in variable stress were 1442.7, 1507 and 1516 respectively which are in close proximity to each other. The skewness for stress was -0.413 showing the distribution as negatively skewed and the value of kurtosis -0.374 showing the curve as leptokurtic. The distortions in both the values from normal value (0.00 for skewness and 0.263 for kurtosis) were negligible. Therefore, the distribution can be treated as normal.

Trends of scores of mental health of teacher trainees are described below in the form of table 4.2 and fig. 4.2.

Table 4.2
Showing frequency distribution scores of teacher trainees on the variable of mental health (N= 600)

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Class Interval</th>
<th>Mid-Point</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>0 - 8</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>2.</td>
<td>8 - 16</td>
<td>12</td>
<td>138</td>
</tr>
<tr>
<td>3.</td>
<td>16 - 24</td>
<td>20</td>
<td>398</td>
</tr>
<tr>
<td>4.</td>
<td>24 - 32</td>
<td>28</td>
<td>61</td>
</tr>
<tr>
<td>5.</td>
<td>32 - 40</td>
<td>36</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td>600</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mean</th>
<th>Median</th>
<th>Mode</th>
<th>S.D.</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>18.3640</td>
<td>18</td>
<td>17</td>
<td>4.06869</td>
<td>-0.75182</td>
<td>-0.658976</td>
</tr>
</tbody>
</table>
Analysis and Interpretation of Results

Showing frequency polygon of scores of teacher trainees on the variable of mental health (N= 600)

Fig. 4.2

Mean, median, mode in variable mental health were 18.36, 18 and 17 respectively which are in close proximity to each other. The skewness for mental health was -0.75182 showing the distribution as negatively skewed and the value of kurtosis -0.658976 showing the curve as leptokurtic. The distortions in both the values from normal value (0.00 for skewness and 0.263 for kurtosis) were negligible. Therefore, the distribution can be treated as normal.

Trends of scores on home environment of teacher trainees are described below in the form of table 4.3 and fig. 4.3.
Analysis and Interpretation of Results

Table 4.3

Showing frequency distribution scores of teacher trainees on the variable of home environment (N= 600)

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Class Interval</th>
<th>Mid-Point</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>0 - 70</td>
<td>35</td>
<td>2</td>
</tr>
<tr>
<td>2.</td>
<td>70-140</td>
<td>105</td>
<td>112</td>
</tr>
<tr>
<td>3.</td>
<td>140-210</td>
<td>175</td>
<td>152</td>
</tr>
<tr>
<td>4.</td>
<td>210-280</td>
<td>245</td>
<td>298</td>
</tr>
<tr>
<td>5.</td>
<td>280-350</td>
<td>315</td>
<td>36</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>600</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mean</th>
<th>Median</th>
<th>Mode</th>
<th>S.D.</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>203.617</td>
<td>213.5</td>
<td>275</td>
<td>60.9554</td>
<td>-0.44988</td>
<td>-0.62142</td>
</tr>
</tbody>
</table>

Showing frequency polygon of scores of teacher trainees on the variable of home environment (N= 600)

Fig. 4.3
Analysis and Interpretation of Results

Mean, median, mode in variable home environment were 203.617, 213.5 and 275 respectively which are in close proximity to each other. The skewness for home environment was -0.44988 showing the distribution as negatively skewed and the value of kurtosis -0.62142 showing the curve as leptokurtic. The distortions in both the values from normal value (0.00 for skewness and 0.263 for kurtosis) were negligible. Therefore, the distribution can be treated as normal.

Trends of scores on emotional intelligence of teacher trainees are described below in table 4.4 and fig. 4.4.

Table 4.4

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Class Interval</th>
<th>Mid-Point</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>0 - 5</td>
<td>2.5</td>
<td>0</td>
</tr>
<tr>
<td>2.</td>
<td>5 -10</td>
<td>7.5</td>
<td>3</td>
</tr>
<tr>
<td>3.</td>
<td>10 -15</td>
<td>12.5</td>
<td>97</td>
</tr>
<tr>
<td>4.</td>
<td>15 -20</td>
<td>17.5</td>
<td>396</td>
</tr>
<tr>
<td>5.</td>
<td>20 -25</td>
<td>22.5</td>
<td>144</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>600</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mean</th>
<th>Median</th>
<th>Mode</th>
<th>S.D.</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>17.259</td>
<td>17</td>
<td>17</td>
<td>2.7688</td>
<td>-0.2225</td>
<td>-0.07590</td>
</tr>
</tbody>
</table>
Mean, median, mode in variable emotional intelligence were 17.259, 17 and 17 respectively which are in close proximity to each other. The skewness for emotional intelligence was -0.2225 showing the distribution as negatively skewed and the value of kurtosis -0.07590 showing the curve as leptokurtic. The distortions in both the values from normal value (0.00 for skewness, 0.263 for kurtosis) were negligible. Therefore, the distribution can be treated as normal.

**CONCLUSION**

An overview of the above results suggests that the score distributions of all the variables can be treated as normal. Although, the distortions in both the values of skewness and kurtosis from normal value (0.00 for skewness, 0.263 for kurtosis), were negligible. Hence, the distribution can be treated as normal.
SECTION – II

RESULTS PERTAINING TO LEVELS OF STRESS

The first objective of the present study was - To study the levels of stress among teacher trainees. To achieve this objective, scores of teacher trainees on the variable of stress were collected with the help of Bisht Battery Scale of Stress by Abha Rani Bisht. This tool was administered to 600 subjects, i.e., teacher trainees, out of which 300 were from rural areas and 300 were from urban areas. The sample was equally balanced between male and female teacher trainees. The subjects were studying in the Colleges of Education of 4 districts of Punjab, i.e., Bathinda, Moga, Ludhiana and Sangrur. Teacher trainees were classified into following five groups - Group with very high level of stress, group with high level of stress, group with average level of stress, group with low level of stress and group with very low level of stress.

The classification of teacher trainees into above said different groups was done on the basis of their stress scores. As the scores were found to be normally distributed, the subjects could be easily put into above stated five categories.

For the present sample (N=600) Mean was=1442.7 with S.D. of 332.45. Thus the subjects whose scores were equal to and above Mean +2 S.D. (1442.7+664.90 =2107.60) were termed as the group with very high level of stress. In this group the number of teacher trainees was 9. The subjects whose scores were equal to and above Mean+1S.D. (1442.7+332.45 =1775.15) were termed as the group with high level of stress. In this group the number of teacher trainees was 45. The subjects whose scores were between Mean -1S.D. to Mean+1S.D. (1110.25 to1775.15) were termed as the group with average level of stress. Number of teacher trainees in this group came out to be 198. Whereas the subjects whose scores were equal to and below Mean -1 S.D. (1442.7-332.45 =1110.25) were termed as the group with low level of stress. Number of teacher trainees in this group was 39. The subjects whose scores were equal to and below Mean -2 S.D. (1442.7–664.90=777.80) were termed as the group with very low level of stress. 9 teacher trainees fell in this group.

3% teacher trainees among the total sample (N=600) were in the group of very high level of stress, 15% teacher trainees were in the group of high level of...
Analysis and Interpretation of Results

stress, 66% teacher trainees were in the group of average level of stress. 13% teacher trainees depicted low level of stress, whereas only 3% teacher trainees were in the group of very low level of stress. Hence, it may be concluded that maximum number of teacher trainees were in the average level of stress, i.e., (66%). The results are presented in fig. 4.5.

Showing percentages of teacher trainees at different levels of stress (N=600)

![Pie chart showing percentages of teacher trainees at different levels of stress](image)

Fig. 4.5

The percentages of teacher trainees depicting different levels of stress were also calculated for the following groups:

(i) Teacher trainees belonging to rural areas.
(ii) Teacher trainees belonging to urban areas.
(iii) Male teacher trainees.
(iv) Female teacher trainees.

Teacher trainees belonging to rural areas (N=300), had Mean of 1436.91 with S.D. of 298.73 on the variable of stress. Thus the subjects whose scores were equal to and above Mean + 2 S.D. (1436.91 + 597.46 = 2034.37) were put in the group with very high level of stress. In this group the percentage of teacher trainees...
Analysis and Interpretation of Results

was 4%. The subjects whose scores were equal to and above Mean + 1S.D. (1436.91 + 298.73 = 1730.64) were termed as the group with high level of stress. In this group 18% of teacher trainees fell. The subjects whose score were between Mean - 1S.D. to Mean + 1S.D. (1138.18 to 1730.64) were termed as the group with average level of stress. Number of teacher trainees in this group was maximum (i.e.195). Whereas the subjects whose scores were equal to and below Mean - 1S.D. (1436.91 - 298.73 = 1138.18) were termed as the group with low level of stress. Number of teacher trainees in this group was 30. The subjects whose scores were equal to and below Mean - 2S.D. (1436.91 - 298.73 = 839.45) were termed as the group with very low level of stress. Number of teacher trainees in this group was 9 depicting a percentage of 3. Results are presented in fig. 4.6 and fig. 4.8.

Showing percentages of rural teacher trainees at different levels of stress (N=300)

Teacher trainees belonging to urban areas had Mean of 1431.66 with S.D. of 313.907 on the variable of stress. Thus the subjects whose scores were equal to and
above Mean + 2 S.D. were put in the group with very high level of stress. Number of teacher trainees in this group was 2%. The subjects whose scores were equal to and above Mean + 1 S.D. were termed as the group with high level of stress. In this group the number of teacher trainees was 39. The subjects whose scores were between Mean - 1 S.D. to Mean + 1 S.D. (1117.97 to 1745.56) were termed as the group with average level of stress. In this group, number of teacher trainees was maximum, i.e., 67%. The subjects whose scores were equal to and below Mean - 1 S.D. (1431.66 - 313.907 = 1117.75) were termed as the group with low level of stress. Number of teacher trainees in this group was 45. The subjects whose scores were equal to and below Mean - 2 S.D. (1431.66 - 627.814 = 806.84) were termed as the group with very low level of stress. Number of teacher trainees in this group was 9. Results are presented in fig. 4.7 and fig. 4.8:

**Showing percentages of urban teacher trainees at different levels of stress (N=300)**

![Pie chart showing percentages of urban teacher trainees at different levels of stress](image-url)
Analysis and Interpretation of Results

Showing comparison of percentages of rural and urban teacher trainees at different levels of stress

![Bar chart showing comparison of percentages of rural and urban teacher trainees at different levels of stress]

Fig.4.8

Male teacher trainees (N=300), had Mean of 1431.3 with S.D. of 317.79 on the variable stress. Thus the subjects whose scores were equal to and above Mean + 2 S.D. \((1431.3 + 635.58 = 2066.88)\) were termed as the group with very high level of stress. In this group the number of teacher trainees was 6 depicting a percentage of 2.

The subjects whose scores were equal to and above Mean + 1 S.D. \((1431.3 + 317.79 = 1749.09)\) were termed as the group with high level of stress. 39 teacher trainees represented this group. The subjects whose scores were between Mean - 1 S.D. to Mean + 1 S.D. \((1138.18 \text{ to } 1730.64)\) were termed as the group with average level of stress. 66% of teacher trainees fell in this group. The subjects whose scores were equal to and below Mean - 1 S.D. \((1436.91 - 298.73 = 1138.18)\) were termed as the group with low level of stress. Number of teacher trainees in this group was 45. The subjects whose scores were equal to and below Mean - 2 S.D. \((1436.91 - 298.73 = 839.45)\) were termed as the group with very low level of stress. 4% of teacher trainees belonged to this group. The results are presented in fig. 4.9 and fig. 4.11.
Showing percentages of male teacher trainees at different levels of stress (N=300)

Female teacher trainees had Mean of 1437 with S.D. of 294.82 on the variable of stress. The subjects whose scores were equal to and above Mean + 2 S.D. were termed as the group with very high level of stress. In this group the number of teacher trainees was 12 depicting a percentage of 4. The subjects whose scores were equal to and above Mean + 1S.D. were termed as the group with high level of stress. 51 teacher trainees were in this group. The subjects whose scores were between Mean - 1S.D. to Mean + 1S.D. (1142.18 to 1731.82) termed as the group with average level of stress. Number of teacher trainees in this group was maximum, i.e., 198. The subjects whose scores were equal to and below Mean - 1S.D. were termed as the group with low level of stress. 11% subjects were with low level of stress. The subjects whose scores were equal to and below Mean - 2S.D. were termed as the group with very low level of stress. Number of teacher trainees in this group was 6 depicting a percentage of 2. The results are presented in fig. 4.10 and fig. 4.11.
Analysis and Interpretation of Results

Showing percentages of female teacher trainees at different levels of stress (N=300)

Fig. 4.10

Showing comparison of percentages of male and female teacher trainees at different levels of stress

Fig. 4.11

195
Analysis and Interpretation of Results

From all above, it may be concluded that 2% to 4% teacher trainees belong to very high level of stress, 13% to 18% fall in the range of high level of stress, 65% to 67% in average level of stress, 10% to 15% in low level of stress and 2% to 4% in the range of very low level of stress for the total as well as for rural, urban, male and female teacher trainees.

The probable reason for the above results may be that like the other aspects of personality in the modern complex world stress has also become an important component of personality. Hence, it is normally distributed in the population ranging from very high to very low.

CONCLUSIONS

The following conclusions can be drawn:

1. 2% to 4% teacher trainees belong to very high level of stress.
2. High level of stress is shown by 13% to 18% of teacher trainees.
3. 65% to 67% of teacher trainees show average level of stress.
4. Low level of stress is shown by 10% to 15% of teacher trainees.
5. 2% to 4% teacher trainees belong to very low level of stress.
To achieve objectives II, III, IV & V of the present study, i.e., to find out the difference in stress, mental health, home environment and emotional intelligence of teacher trainees following hypotheses were formulated:

**HYPOTHESES**

1. There is a significant difference in the mean scores of stress among teacher trainees w.r.t.
   - (a) rural and urban areas
   - (b) males and females

2. There is a significant difference in the mean scores of mental health among teacher trainees w.r.t.
   - (a) rural and urban areas
   - (b) males and females

3. There is a significant difference in the mean scores of home environment among teacher trainees w.r.t.
   - (a) rural and urban areas
   - (b) males and females

4. There is a significant difference in the mean scores of emotional intelligence among teacher trainees w.r.t.
   - (a) rural and urban areas
   - (b) males and females

To test hypothesis 1 (a), which states, “There is a significant difference in the mean scores of stress among teacher trainees with respect to rural and urban areas.”
**Differential Analysis**

**Table 4.5**

Showing difference in mean scores of stress among teacher trainees with regard to area differences

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>S.D.</th>
<th>SE_d</th>
<th>t-value</th>
<th>Inference</th>
</tr>
</thead>
<tbody>
<tr>
<td>RURAL</td>
<td>300</td>
<td>1436.91</td>
<td>298.73</td>
<td>25.018</td>
<td>0.2098</td>
<td>Not Significant</td>
</tr>
<tr>
<td>URBAN</td>
<td>300</td>
<td>1431.66</td>
<td>313.907</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mean scores of rural teacher trainees on the variable of stress was 1436.91 with S.D. of 298.73 and mean of urban teacher trainees was 1431.66 with S. D. of 313.907. Difference in mean scores of rural and urban teacher trainees on stress was 5.25 and t - value came out to be 0.2098 which was not significant. Meaning thereby, there is no significant difference in the stress of teacher trainees belonging to rural and urban area. Results are presented in table 4.5 and fig 4.12.

**Showing mean scores of rural and urban teacher trainees on the variable of stress**

![Graph showing mean scores of rural and urban teacher trainees on stress](image)

**Fig.4.12**
The probable reason for this result is that with the influence of science and technology in today’s life and dissemination of information through mass media the needs, problems and aspirations of teacher trainees residing in the rural and urban areas in the state of Punjab have become the same. So there is no significant difference between the teacher trainees of rural and urban areas on the variable of stress.

The results of the present study are in line with the results of King and King (1990) who pointed out that environment conditions caused negligible effect on the stress of the individual.

The results of the study are in contrast with the results of the study conducted by Duqyette, et. al. (1984), Sharma, Sharma and Yadav (2002) and Monica (2004) and Singh (2004) who concluded that there exist significant difference in stress of students with respect to locale so place of working was a strong antecedent for psychological distress.

On the basis of above results, hypothesis 1(a) which states “There will be a significant difference in the mean scores of stress among teacher trainees with respect to rural and urban areas”, is rejected.

Hypothesis 1 (b), which states, “There will be a significant difference in the mean scores of stress among male and female teacher trainees.” To verify this hypothesis mean scores of male and female teacher trainees were compared on the variable of stress.

Table 4.6
Showing difference in mean scores of stress among teacher trainees with regard to sex differences

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>S.D.</th>
<th>S.E</th>
<th>t-value</th>
<th>Inference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>300</td>
<td>1431.3</td>
<td>317.79</td>
<td>25.027</td>
<td>0.2277</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Female</td>
<td>300</td>
<td>1437</td>
<td>294.82</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mean scores of male teacher trainees on the variable of stress was 1431.3 with S.D. of 317.79 and mean scores of female teacher trainees was 1437 with S. D. of 294.82. Difference in mean scores of male and female teacher trainees on stress was 199
Differential Analysis

5.7 which is in favor of female teacher trainees but the difference is statistically not significant as the t-value came out to be 0.2277. Results are presented in table 4.6 and fig. 4.13.

Showing mean scores of male and female teacher trainees on the variable of stress

![Bar graph showing mean scores of male and female teacher trainees on stress](image)

**Fig. 4.13**

The probable reason for this result is that as in present scenario, males and females are playing same kind of roles. Both have to do equal and similar kinds of work in society and home to fulfill the basic needs of family. So both male and female teacher trainees are also facing almost same stress in different conditions of life.

The results of the present study were similar to the results of Bush & Simmons (1987), Kaur (2004) and Singh (2004) who concluded that no significant difference was found between male and female teachers on stress.

The results of the study are not similar with the results of the study conducted by Compass, Davis and Forsythe (1985), Sehgal (1999) and Deo (2004) who found that significant difference was observed between boys and girls on stress.

Thus Hypothesis 1(b) which states “There will be a significant difference in the mean scores of stress among male and female teacher trainees”, is rejected.

To verify hypothesis 2(a), which states, “There will be a significant difference
Differential Analysis

in the mean scores of mental health among teacher trainees with respect to rural and urban areas.” Mean scores of teacher trainees on the variable of mental health were compared on means.

Table 4.7

Showing difference in mean scores of mental health among teacher trainees with regard to area differences

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>S.D.</th>
<th>S.E.</th>
<th>t-value</th>
<th>Inference</th>
</tr>
</thead>
<tbody>
<tr>
<td>RURAL</td>
<td>300</td>
<td>18.1</td>
<td>3.949</td>
<td>0.313</td>
<td>1.686</td>
<td>Not Significant</td>
</tr>
<tr>
<td>URBAN</td>
<td>300</td>
<td>18.62</td>
<td>3.731</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mean scores of rural teacher trainees on the variable of mental health was 18.1 with S.D. of 3.949 and mean scores of urban teacher trainees was 18.62 with S. D. of 3.731. Difference in mean scores of teacher trainees of rural and urban areas on mental health was 0.52 and t - value came out to be 1.686 which was not significant. Results are presented in table 4.7 and fig. 4.14.

Fig.4.14

Showing mean scores of rural and urban teacher trainees on the variable of mental health.
Differential Analysis

The reason may be that the teacher trainees residing in the rural and urban areas in the state of Punjab are getting same type of education hence they are aware of their physical and mental health. They are also getting similar kinds of facilities and environment now-a-days. So there is almost no difference of mental health among the teacher trainees of rural and urban areas.

The result of the present study is matching with the results of Singh (2004) who concluded that mental health scores showed no significant difference with respect to locale.

Thus Hypothesis 2 (a) which states “There will be a significant difference in the mean scores of mental health among teacher trainees with respect to rural and urban areas”, stands rejected.

To verify hypothesis 2 (b), which states, “There will be a significant difference in the mean scores of mental health among male and female teacher trainees” mean values were calculated and are shown in table 4.8.

### Table 4.8

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>S.D.</th>
<th>S.E_0</th>
<th>t-value</th>
<th>Inference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>300</td>
<td>18.47</td>
<td>3.83</td>
<td>0.313</td>
<td>0.7092</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Female</td>
<td>300</td>
<td>18.25</td>
<td>3.84</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mean scores of male teacher trainees on the variable of mental health was 18.47 with S.D. of 3.83 and mean scores of female teacher trainees was 18.25 with S. D. of 3.84. Difference in mean scores of male and female teacher trainees on mental health was 0.22 which is in favor of male teacher trainees but the difference is statistically not significant as the t - value came out to be 0.7092. Results are presented in fig.4.15.
Differential Analysis

Showing mean scores of male and female teacher trainees on the variable of mental health

![Differential Analysis Graph]

Fig. 4.15

This may be due to the reason that the parents of today are nourishing their kids (both male and female) in the same manner and in the same environment. They are giving almost equal opportunities and facilities to their children. Even both males and females have to play very hard role to fulfill their basic needs, so difference was not found in the scores of mental health of male and female teacher trainees also.

The result of the present study was supported with the results of Sehgal (1999), Taak (1999) and Singh (2004) who pointed out that there exist no significant gender difference among students with respect to mental health.

The result of the present study was not in tune with the results of Grover (1989), Mangotra (1982) and Gupta and Bonnel (1993) who concluded that significant difference has been found in male and female teachers on the dimension of mental health.

On the basis of the results hypothesis 2 (b) which states “There will be a significant difference in the mean scores of mental health among male and female teacher trainees”, stands rejected.
**Differential Analysis**

To verify hypothesis 3 (a), which states, “There will be a significant difference in the mean scores of home environment among teacher trainees with respect to rural and urban areas”. Mean scores of rural and urban teacher trainees were compared on the variable of home environment.

**Table 4.9**

Showing difference in mean scores of home environment among teacher trainees with regard to area differences

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>S.D.</th>
<th>S.E₀</th>
<th>t-value</th>
<th>Inference</th>
</tr>
</thead>
<tbody>
<tr>
<td>RURAL</td>
<td>300</td>
<td>17.45</td>
<td>2.54</td>
<td>0.2068</td>
<td>1.9028</td>
<td>Not Significant</td>
</tr>
<tr>
<td>URBAN</td>
<td>300</td>
<td>17.06</td>
<td>2.51</td>
<td></td>
<td></td>
<td>Significant</td>
</tr>
</tbody>
</table>

Mean scores of rural teacher trainees on the variable of home environment was 17.45 with S.D. of 2.54 and mean scores of urban teacher trainees was 17.06 with S. D. of 2.51. Difference in mean scores of rural and urban areas teacher trainees on home environment was 0.39 and t - value came out to be 1.9028 which was not significant. Results are presented in table 4.9 and fig. 4.16.

**Showing mean scores of rural and urban teacher trainees on the variable of home environment**

![Bar chart showing mean scores of rural and urban teacher trainees on the variable of home environment.](image-url)

Fig.4.16
Differential Analysis

The probable reason can be that in the present scenario of modernization there exists a minor difference in the life style of people residing in the rural and urban areas. Although more affection and care is there in rural homes as compared to the urban homes. In rural homes, parents are spending more time with their children and with other members of the family as mostly joint families are there. But there is not much differences in home environment of rural and urban areas.

The result of the present study was not supported by the results of Baldwin (1949), Adler (1952), Richard (1954) Sailer and Schlacter and Edwards (1982) and Kaur (2007) who concluded that home atmosphere has great impact on child behavior. Even the variation in adjustment in different aspects of life shown by a child will contribute much by the type of family.

Thus Hypothesis 3 (a) which states “There will be a significant difference in the mean scores of home environment among teacher trainees with respect to rural and urban areas”, is rejected.

To verify hypothesis 3 (b), which states, “There will be a significant difference in the mean scores of home environment among male and female teacher trainees”. The mean values of male and female teacher trainees were calculated on the variable of home environment and the results are shown in table 4.10.

**Table 4.10**

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>S.D.</th>
<th>S.E.</th>
<th>t-value</th>
<th>Inference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>300</td>
<td>16.98</td>
<td>2.488</td>
<td>0.205</td>
<td>2.719</td>
<td>Significant at 0.01 level</td>
</tr>
<tr>
<td>Female</td>
<td>300</td>
<td>17.53</td>
<td>2.553</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mean scores of male teacher trainees on the variable of home environment was 16.98 with S.D. of 2.488 and mean scores of female teacher trainees was 17.53 with S. D. of 2.553. Difference in mean scores of rural and urban areas teacher trainees on home environment was 0.55 and t-value was 2.719 which were significant and scores were in favor of females than males. Results are presented in fig. 4.17.
Differential Analysis

Showing mean scores of male and female teacher trainees on the variable of home environment

The probable reason can be that home environment is better for female teacher trainees as compared to male teacher trainees. As our society is changing, females are provided with good environment and more facilities now-a-days. Females get more comfort than males at homes, as males have to go out to earn livelihood. Moreover, today is an era of nuclear families so females are getting good and comfortable environment at homes. So, significant difference is found in the scores of home environment among males and females teacher trainees.

The result of the study is not supported by the study conducted by Bhatia (1984) and Singh & Broota (1992) who found that the family atmosphere was more tense and unhappy for girls in Indian environment as parents were more favorably inclined towards boys.

Thus on the basis of the above result, hypothesis 3 (b) which states, “There will be a significant difference in the mean scores of home environment among male and female teacher trainees”, is accepted.
Differential Analysis

To verify hypothesis 4 (a), which states, “There will be a significant difference in the mean scores of emotional intelligence among teacher trainees with respect to rural and urban areas.” Mean scores of rural and urban teacher trainees were compared on emotional intelligence.

Table 4.11
Showing difference in mean scores of emotional intelligence among teacher trainees with regard to area differences

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>S.D.</th>
<th>S.E</th>
<th>t-value</th>
<th>Inference</th>
</tr>
</thead>
<tbody>
<tr>
<td>RURAL</td>
<td>300</td>
<td>199.01</td>
<td>60.93</td>
<td>4.814</td>
<td>1.9116</td>
<td>Not Significant</td>
</tr>
<tr>
<td>URBAN</td>
<td>300</td>
<td>208.21</td>
<td>56.94</td>
<td></td>
<td></td>
<td>Significant</td>
</tr>
</tbody>
</table>

The mean scores of rural teacher trainees on the variable of emotional intelligence were 199.01 with S.D. of 60.93 and mean scores of urban teacher trainees were 208.21 with S.D. of 56.94. Difference in mean scores of teacher trainees of rural and urban areas on emotional intelligence was 9.2 and t-value came out to be 1.9116 which was not significant. Results are presented in table 4.11 and fig. 4.18.

Fig. 4.18

Showing mean scores of rural and urban teacher trainees on the variable of emotional intelligence
Differential Analysis

The reason for this can be that due to advancement and modernization, people in rural and urban areas face almost same level of stress at both home and work place. They both try to control their emotions and express themselves properly and according to the situations. So area does not affect the scores of emotional intelligence of the individuals.

The result of the present study was in accordance with the results of Mandeep (2004) and Madhukar (2007) who pointed out that no significant difference exists between rural and urban teachers in emotional intelligence.

The result of the present study was not in accordance with the results of Kashyap (1989), Gottman (1993) and Singh, Chaudhary & Asthana (2008) who found significant difference in emotional intelligence of rural and urban adolescents.

Thus hypothesis 4 (a) which states “There will be a significant difference in the mean scores of emotional intelligence among teacher trainees with respect to rural and urban areas”, is rejected.

To verify hypothesis 4 (b), which states, “There will be a significant difference in the mean scores of emotional intelligence among male and female teacher trainees”. The mean values of teacher trainees on the variable of emotional intelligence were calculated with regard to sex differences.

Table 4.12
Showing difference in mean scores of emotional intelligence among teacher trainees with regard to sex differences

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>S.D.</th>
<th>S.E.D</th>
<th>t-value</th>
<th>Inference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>300</td>
<td>206.94</td>
<td>58.26</td>
<td>4.8119</td>
<td>1.3819</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Female</td>
<td>300</td>
<td>200.29</td>
<td>59.60</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The mean scores of male teacher trainees on the variable of emotional intelligence were 206.94 with S.D. 58.26 and mean scores of emotional intelligence of female teacher trainees were 200.29 with S. D. 59.60 with a difference of 6.65. So the mean scores of emotional intelligence in case of male teacher trainees were higher as compared to that of female teacher trainees. But results revealed that there was no
significant difference in the variable of emotional intelligence of male and female teacher trainees as the value of $t = 1.3819$.

**Differential Analysis**

Showing mean scores of male and female teacher trainees on the variable of emotional intelligence

<table>
<thead>
<tr>
<th>Mean Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
</tr>
<tr>
<td>206.94</td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td>200.29</td>
</tr>
</tbody>
</table>

**Fig. 4.19**

The probable reason may be that both male and female teacher trainees are equally emotionally intelligent. In present society, both have full control on their emotions and they can handle the situation according to the needs. So, gender does not play any role in the emotional intelligence of teacher trainees.

The results of the present study was similar with the results of Miglani (2001), Bansibihari and Pathan (2004), Tyagi (2004), Patil and Kumar (2006) and Singh, Chaudhary & Asthana (2008) who found that there is no significant difference between emotional intelligence of male and female adolescents/teachers.

The result of the present study was not in accordance with the results of Kashyap (1989), Katyal & Awasthi (2005) and Santesso, et. al. (2006), who found significant difference of emotional intelligence of males and females.
Differential Analysis

On the basis of the results, hypothesis 4 (b) which states “There will be a significant difference in the mean scores of emotional intelligence among male and female teacher trainees”, stands rejected.

CONCLUSIONS:

The analysis and interpretation of results presented in this chapter leads to the following conclusions:

1. Rural and urban teacher trainees do not differ significantly on the variable of stress.
2. Male and female teacher trainees do not differ significantly on the variable of stress.
3. There is no significant difference in the mental health of rural and urban teacher trainees.
4. There is no significant difference in the mental health of male and female teacher trainees.
5. There is no significant difference in the home environment of rural and urban teacher trainees.
6. Significant difference exists in the home environment of male and female teacher trainees.
7. There is no significant difference exists in the emotional intelligence of teacher trainees of rural and urban areas.
8. Male and female teacher trainees do not differ significantly on the variable of emotional intelligence.

*******
SECTION - IV

CORRELATION ANALYSIS

The VI, VII, and VIII objectives of the present study were to find out the relationship of stress of teacher trainees with their mental health, home environment and emotional intelligence. To achieve these objectives the hypotheses framed are:

5. There exists significant relationship between stress and mental health of teacher trainees w.r.t.
   (a) rural areas.
   (b) urban areas
   (c) males
   (d) females

6. There exists significant relationship between stress and home environment of teacher trainees w.r.t.
   (a) rural areas.
   (b) urban areas
   (c) males
   (d) females

7. There exists significant relationship between stress and emotional intelligence of teacher trainees w.r.t.
   (a) rural areas.
   (b) urban areas
   (c) males
   (d) females

To verify these hypotheses, correlations were calculated between scores of teacher trainees on the variables of stress with their mental health, home environment and emotional intelligence. The values of correlations are given in table 4.13, 4.14 and 4.15.
#### Table 4.13

**Showing relationship of stress with mental health of different groups of teacher trainees**

<table>
<thead>
<tr>
<th>Group</th>
<th>$r$</th>
<th>Inference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural Teacher Trainees</td>
<td>-0.234</td>
<td>Significant at 0.01 level</td>
</tr>
<tr>
<td>Urban Teacher Trainees</td>
<td>-0.205</td>
<td>Significant at 0.01 level</td>
</tr>
<tr>
<td>Male Teacher Trainees</td>
<td>-0.219</td>
<td>Significant at 0.01 level</td>
</tr>
<tr>
<td>Female Teacher Trainees</td>
<td>-0.239</td>
<td>Significant at 0.01 level</td>
</tr>
</tbody>
</table>

**Fig. 4.20**
Correlation Analysis

To verify hypothesis 5 (a), which states, “There exists significant relationship between stress and mental health of teacher trainees with respect to rural areas.” The correlation was calculated between stress and mental health of teacher trainees of rural areas.

Table 4.13 and fig. 4.20 depicts the co-efficient of correlation between stress and mental health of teacher trainees of rural areas. The value of co-efficient of correlation is -0.234 which shows that relationship of stress of rural teacher trainees with mental health is negative and significant at 0.01 level of significance. Meaning thereby, if mental health of rural teacher trainees increase, stress decrease.

It may be due to the reason that mentally healthy individuals can take suitable decisions and easily cope up with the adverse situations of life so that they can be less stressed in odd situations also.

Thus from the above discussion, it becomes clear that hypothesis 5 (a), which states, “There exists significant relationship between stress and mental health of teacher trainees with respect to rural areas” stands accepted.

This result is well supported by the studies conducted by Sarkar (1979), Abraham & Prasanna (1982) and Warr (1990) who pointed out that if a person is mentally healthy, he can adjust himself so as to avoid undue conflicts, stresses and strains and he can adjust to the world of people, things and events. So better the mental health, lesser the stress occur.

The study is in contrast with the study conducted by Chakraboraty (1990) who concluded that mental health effect has a positive correlation with stress, anxiety and frustration, etc.

To verify hypothesis 5 (b), which states, “There exists significant relationship between stress and mental health of teacher trainees with respect to urban areas.” The correlation was calculated between stress and mental health of urban teacher trainees.

Table 4.13 indicates the co-efficient of correlation between stress and mental health of teacher trainees of urban areas. The value of co-efficient of correlation is 0.205 and significant at 0.01 level of significance.
It reveals that greater the mental health scores of urban area teacher trainees, lesser are the stress scores. This implies that there is less stress in mentally healthy person as they can handle the difficult situations properly. So whenever mentally healthy person is under stress; he uses his intellect for solving the problems.

Above discussion, leads to acceptance of hypothesis 5 (b), which states, “There exists significant relationship between stress and mental health of teacher trainees with respect to urban areas”.

The result is also supported by the results of Abraham and Prasanna (1982) who found out that educated, employed, etc. persons are more adjusted and mentally healthy, hence become less stressed so patterns of stress and mental health relationship has found reversed.

This result is not matching with the study conducted by Chakraboraty (1990) and King and King (1990) who found that mental health has a positive correlation with stress and stress producing environment conditions caused negligible effect on the psychological well-being of the individuals.

To verify hypothesis 5 (c) which states, “There exists significant relationship between stress and mental health of male teacher trainees.” The correlation was calculated between stress and mental health of male teacher trainees.

Entries in the table 4.13 indicate that value of co-efficient of correlation between stress and mental health of male teacher trainees is -0.219. This value shows that relationship is negative as well as significant at 0.01 level of significance. Meaning thereby, if there is increase in scores of mental health of male teacher trainees, there is decrease in their stress scores.

The reason may be that with the help of sound mental health male teacher trainees can solve their problems of life effectively and can remove stress from their life by various ways. So they remain less stressed as compared to the individuals who are mentally unhealthy.

Thus from the above discussion, it becomes clear that hypothesis 5 (c), which states, “There exists significant relationship between stress and mental health of male teacher trainees”, stands accepted.
This result is similar to the result of the studies conducted by Kim (1990) and Archana (2004) who pointed out that stress and health were found to be correlated, i.e., when stress increase among adolescents, their mental deteriorate as they viewed mental illness as deficiencies in mental functioning caused by life stress.

The result is not in line with the study of Singh (2004) who concluded that there exists no significant in male and female teachers with respect to anxiety as well as mental health.

To test hypothesis 5 (d), which states, “There exists significant relationship between stress and mental health of female teacher trainees.” The correlation is calculated between stress and mental health of female teacher trainees.

Table 4.13 and fig. 4.20 shows the co-efficient of correlation between stress and mental health of female teacher trainees. This value reveals that the co-efficient of correlation between stress and mental health of female teacher trainees is -0.239 which is negative and significant at 0.01 level of significance.

This may be due to the reason that mental health affects a lot in different situations of life. Female teacher trainees who are mentally healthy can overcome their problems of life with significance and could remain less stressed as compared to other female teacher trainees who are not mentally healthy. So, good mental health affects the scores of stress of female teacher trainees.

The result of the present study was similar to the study of Rastogi and Kashyap (2001), Archana (2004) and Poonamdeep (2004) who concluded that stress does affect the mental health of the adolescents. A significant negative relationship between occupational stress and mental health was observed among women employed in different professions.

The result is not in line with the study of Singh (2004) who found no significant relationship between anxiety and mental health especially gender wise.

Thus from the above discussion, it becomes clear that hypothesis 5 (d), which states, “There exists significant relationship between stress and mental health of female teacher trainees”, stands accepted.
Table 4.14

Showing relationship of stress with home environment of different groups of teacher trainees

<table>
<thead>
<tr>
<th>Group</th>
<th>r</th>
<th>Inference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural Teacher Trainees</td>
<td>-0.1</td>
<td>Significant at 0.05 level</td>
</tr>
<tr>
<td>Urban Teacher Trainees</td>
<td>-0.317</td>
<td>Significant at 0.01 level</td>
</tr>
<tr>
<td>Male Teacher Trainees</td>
<td>-0.174</td>
<td>Significant at 0.01 level</td>
</tr>
<tr>
<td>Female Teacher Trainees</td>
<td>-0.249</td>
<td>Significant at 0.01 level</td>
</tr>
</tbody>
</table>

Fig. 4.21
Correlation Analysis

To test hypothesis 6 (a), which states, “There exists significant relationship between stress and home environment of teacher trainees with respect to rural areas.”

Table 4.14 shows the value of co-efficient of correlation between stress and home environment of rural teacher trainees, i.e., -0.1 which is negative and not significant. This means that there exist no relationship between stress and home environment of teacher trainees of rural areas.

This may be due to the fact that rural area teacher trainees’ home atmosphere is smoother and congenial as mostly in rural areas females are housewives and the burden of home is mainly on them. So if males are more or less stressed, it is not due to home environment. There may be many other reasons to affect their scores of stress.

The result of the present study was not similar to the study of Baldwin (1949), Marrow and William (1961) and Reddy (1978) who found that home environment has its impact on child. There is a significant relationship between the level of adjustment of child, education of parents and level of frustration in children. More congenial home environment, lower parental domination has lead to lesser frustration.

Thus from the above discussion it becomes clear that hypothesis 6 (a), which states, “There exists significant relationship between stress and home environment of teacher trainees with respect to rural areas”, stands rejected.

To test hypotheses 6 (b), which states, “There exists significant relationship between stress and home environment of teacher trainees with respect to urban areas.”

The table 4.14 reveals that the co-efficient of correlation between stress and home environment of urban teacher trainees is -0.317. The value of co-efficient of correlation is significant at 0.01 level of significance and negative. It shows that if the home environment of urban teacher trainees is not good, then they become more stressed.

This may be due to the reason that in urban areas home environment is not very smooth as life is becoming more complicated and competitive. The nature of work is also becoming difficult in both the areas, i.e., job and home as in urban areas both males and females are working and they can not devote much time to their...
family. So home environment is an important factor in teacher trainees of urban area and it affects their stress scores.

The result of the present study was in line to the study of Baldwin (1949), Sailer, Schlacter and Edwards (1982), Benzies (2001) and Rani (2003) who concluded that stress can arise from many sources, viz., family, home, individual, social environmental conditions etc. There is significantly negative correlation between stress and home environment of students.

On the basis of the result, it becomes clear that hypothesis 6 (b), which states, “There exists significant relationship between stress and home environment of teacher trainees with respect to urban areas”, stands accepted.

To test hypothesis 6 (c), which states, “There exists significant relationship between stress and home environment of male teacher trainees.” For this purpose, the correlation was calculated between stress and home environment of teacher trainees of urban areas.

The value in the table 4.14 and fig. 4.21 reveals that the co-efficient of correlation between stress and home environment of male teacher trainees is -0.174. This value of co-efficient of correlation is significant at 0.01 levels of significance as well as negative.

The reason may be that male teacher trainees are working hard for themselves and their family. When they come back to their home, they are fully exhausted. This affects their home environment. When home environment of male teacher trainees is not congenial, they become stressed.

The result was similar to the results of the studies conducted by Baldwin (1949), Sailer, Schlacter and Edwards (1982), Padmasri (1992) and Rani (2003) who observed that factors which yielded significant correlation are sex and family support, stress and family support etc. So there is significant relationship between stress and home environment.

Thus from the above discussion, it becomes clear that hypothesis 6 (c), which states, “There exists significant relationship between stress and home environment of male teacher trainees”, stands accepted.

To test hypothesis 6 (d), which states, “There exists significant relationship between stress and home environment of female teacher trainees.”

Table 4.14 and fig. 4.21 shows the co-efficient of correlation between stress
and home environment of female teacher trainees. The value of co-efficient of correlation is 0.249 which is negative and significant at 0.01 level of significance.

This may be due to that female teacher trainees are also working in present era. They got frustrated from their outside work. When they come back to their home, they are fully exhausted. On the other hand, their home environment is also not good as they have to play dual role for satisfying their boss as well as their family. So this affects their stress scores.

The result was similar to the result of the studies conducted by Bhatia (1984), Singh and Broota (1992) and Rani (2003) who concluded that in case of females home atmosphere does affect. For the girls mainly atmosphere is tense, unhappy, anxious and worrisome.

The result is not similar with the study of Padmasri (1992) who found that stress among boys and girls differed significantly, boys being higher on the mean stress scores.

Thus from the above discussion it becomes clear that hypothesis 6 (d), which states, “There exists significant relationship between stress and home environment of female teacher trainees”, stands accepted.

Table 4.15

<table>
<thead>
<tr>
<th>Group</th>
<th>r</th>
<th>Inference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural Teacher Trainees</td>
<td>-0.318</td>
<td>Significant at 0.05 level</td>
</tr>
<tr>
<td>Urban Teacher Trainees</td>
<td>-0.155</td>
<td>Significant at 0.01 level</td>
</tr>
<tr>
<td>Male Teacher Trainees</td>
<td>-0.146</td>
<td>Significant at 0.05 level</td>
</tr>
<tr>
<td>Female Teacher Trainees</td>
<td>-0.160</td>
<td>Significant at 0.01 level</td>
</tr>
</tbody>
</table>
Correlation Analysis

Showing relationship of stress with emotional intelligence of different
groups of teacher trainees

![Bar graph showing correlation between stress and emotional intelligence for different groups]

Fig. 4.22

To test hypothesis 7 (a), which states, “There exists significant relationship between stress and emotional intelligence of teacher trainees with respect to rural areas.”

Entries in the table 4.15 and fig. 4.22 indicate that co-efficient of correlation between stress and emotional intelligence of teacher trainees of rural areas is -0.138. The value of co-efficient of correlation is negative and significant at 0.05 level of significant. This shows that the scores of emotional intelligence of teacher trainees of rural areas affect their scores of stress.

The probable reason for this is that as generally we observe rural teacher trainees are less manipulative. They express their emotions well in real form. So they remain less stressed.

The result of the present study was in line with the result of the study investigated by Delongie (1985), Arora (1992) and Kamau (1992) who found that unfulfilled emotions, tension, frustration, anxiety were the main cause of drug
Correlation Analysis

dependence and ultimately cause stress. Rural area teachers are more unsatisfied, less internally controlled than their counterparts.

Thus from the above discussion, it becomes clear that hypothesis 7 (a), which states, “There exists significant relationship between stress and emotional intelligence of teacher trainees with respect to rural areas”, stands accepted.

To test hypotheses 7 (b), which states, “There exists significant relationship between stress and emotional intelligence of teacher trainees with respect to urban areas.” The values of relationship were calculated and are shown in table 4.15.

This table indicates that co-efficient of correlation between stress and emotional intelligence of teacher trainees of urban areas is -0.155. The value is significant at 0.01 level of significance. This also shows that there is a negative relationship between stress and emotional intelligence of teacher trainees of urban areas.

The probable reason for this result is that teacher trainees of urban areas express their emotions according to need of the situations. They change their emotions according to their conditions. They are emotionally intelligent persons so become less stressed as they can handle the situations properly.

The result of the study is matching with the results of Arora (1992) and Kamau (1992) who concluded that urban high school teachers are less satisfied hence more anxious and stressed than rural teachers.

The study is not in line with the work done by Young (2006) who found that gifted students had higher scores on adaptability but low scores on stress management.

Thus from the above discussion, it becomes clear that hypothesis 7 (b), which states, “There exists significant relationship between stress and emotional intelligence of teacher trainees with respect to urban areas”, stands accepted.

To test hypothesis 7 (c), which states, “There exists significant relationship between stress and emotional intelligence of male teacher trainees.” The values of relationship were calculated and are shown in table 4.15.

Entries made in the table indicate that co-efficient of correlation between stress and emotional intelligence of male teacher trainees is -0.146 which is
Correlation Analysis

significant. This shows that there is a negative relationship between stress and emotional intelligence of male teacher trainees. According to this result, if male teacher trainees are emotionally intelligent, they are less stressed.

This may be due to the reason that male teacher trainees are emotionally stronger and have good control on their emotions. They are not easily disturbed by difficult situations and can handle the obstacles of life easily, so they became less stressed. In this way, the scores of emotional intelligence has little affect on the scores of stress of male teacher trainees.

The result was matching with the results of the study conducted by Kamau (1992) and Jain and Singh (2006) who found that male teachers who are emotionally over extended, exhausted are more stressed and anxiety ridden and found significant effect of emotional intelligence and personality type on role stress.

Thus from the above discussion, it becomes clear that hypothesis 7 (c), which states, “There exists significant relationship between stress and emotional intelligence of male teacher trainees”, stands accepted.

To test hypotheses 7 (d), which states, “There exists significant relationship between stress and emotional intelligence of female teacher trainees.” For this purpose, correlation was calculated between stress and emotional intelligence of female teacher trainees.

Table 4.15 indicates the co-efficient of correlation between stress and emotional intelligence of female teacher trainees. The value of co-efficient of correlation is -0.160 which is negative and significant at 0.01 level of significance. This shows that more the person is emotionally intelligent, lesser are the stress scores.

The empirical reason for this result is that in present era most of the females are educated so they become emotionally intelligent and could behave properly even in adverse situations of life. They could well integrate their thoughts and motivate themselves in adverse situations of life and become less stressed.

The result was matching with the results of the study conducted by Harris (1985), Jain and Singh (2006) and Fernandez (2006) who concluded that stress may effect the emotional well-being of teachers and his/her family, school etc. and found that emotional abilities are contributed to psychological adjustments.

Thus from the above discussion it becomes clear that hypothesis 7 (d), which states, “There exists significant relationship between stress and emotional intelligence of female teacher trainees”, stands accepted.
CONCLUSIONS

1. There is a significant and negative relationship between stress and mental health of teacher trainees of rural/urban areas.

2. A significant and negative relationship exists between stress and mental health of male/female teacher trainees.

3. There is significant and negative relationship between stress and home environment of teacher trainees of rural/urban areas.

4. There exists a significant and negative relationship between stress and home environment of male/female teacher trainees.

5. There is significant as well as negative relationship between stress and emotional intelligence of teacher trainees of rural/urban areas.

6. There is significant and negative relationship between stress and emotional intelligence of male/female teacher trainees.
The IX objective of the study is to find out predictors of stress of teacher trainees from among the independent variables of mental health, home environment and emotional intelligence. To achieve this objective, following hypotheses were formulated.

HYPOTHESES

8 The independent variables of mental health, home environment and emotional intelligence are differentially predict stress among teacher trainees.

(a) Significant variance towards stress among rural teacher trainees is contributed by major correlates such as mental health, home environment and emotional intelligence.

(b) Significant variance towards stress among urban teacher trainees is contributed by major correlates such as mental health, home environment and emotional intelligence.

(c) Significant variance towards stress among male teacher trainees is contributed by major correlates such as mental health, home environment and emotional intelligence.

(d) Significant variance towards stress among female teacher trainees is contributed by major correlates such as mental health, home environment and emotional intelligence.
To verify this hypothesis, step-up- regression equation is employed. The square of multiple correlations ($R^2$) called the coefficient of determination is determined to show the proportion of variance of the criterion accounted by different predictors. Step wise multiple regression analysis enable to know the most relevant variables out of mental health, home environment and emotional intelligence which account for maximum variance in the criterion variable i.e., stress of teacher trainees.

For the convenience of above cited purpose, symbols have been given to various variables. Table 4.16 shows the different symbols allotted to various variables.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Variable Name</th>
<th>Symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Stress</td>
<td>$Y$</td>
</tr>
<tr>
<td>2.</td>
<td>Mental Health</td>
<td>$X_1$</td>
</tr>
<tr>
<td>3.</td>
<td>Home Environment</td>
<td>$X_2$</td>
</tr>
<tr>
<td>4.</td>
<td>Emotional Intelligence</td>
<td>$X_3$</td>
</tr>
</tbody>
</table>

To test hypothesis 8 (a) which states, “Significant variance towards stress among rural teacher trainees would be contributed by major correlates such as mental health, home environment and emotional intelligence”, the values of multiple-R and F- ratios were calculated and entered in table 4.17. The pictorial form of respective table has been shown in fig. 4.23.
**Step-up Regression Equation**

**Table 4.17**

*Showing conjoint effect of mental health, home environment and emotional intelligence on stress of rural teacher trainees*

**Model I**

<table>
<thead>
<tr>
<th>Predictor Variable/s</th>
<th>Degree of Freedom</th>
<th>$R^2$</th>
<th>R</th>
<th>F</th>
<th>Inference</th>
<th>Step-up regression equation</th>
</tr>
</thead>
<tbody>
<tr>
<td>$YX_1$</td>
<td>1, 298</td>
<td>0.055</td>
<td>0.234</td>
<td>18.425</td>
<td>Significant at 0.01 level</td>
<td>$Y=11413.05 - 17.893X_1$</td>
</tr>
<tr>
<td>$YX_1X_3$</td>
<td>2, 297</td>
<td>0.074</td>
<td>0.272</td>
<td>9.487</td>
<td>Significant at 0.01 level</td>
<td>$Y=1186.194 - 16.370X_1 - 0.229X_3$</td>
</tr>
<tr>
<td>$YX_1X_2X_3$</td>
<td>3, 296</td>
<td>0.084</td>
<td>0.290</td>
<td>6.802</td>
<td>Significant at 0.05 level</td>
<td>$Y=1302.781 - 16.506X_1 - 0.122X_3 - 8.045X_2$</td>
</tr>
</tbody>
</table>

**Model II**

<table>
<thead>
<tr>
<th>Predictor Variable/s</th>
<th>Degree of Freedom</th>
<th>$R^2$</th>
<th>R</th>
<th>F</th>
<th>Inference</th>
<th>Step-up regression equation</th>
</tr>
</thead>
<tbody>
<tr>
<td>$YX_2$</td>
<td>1, 298</td>
<td>0.010</td>
<td>0.099</td>
<td>3.175</td>
<td>Not Significant</td>
<td>$Y=1642.349 - 11.768X_2$</td>
</tr>
<tr>
<td>$YX_1X_2$</td>
<td>2, 297</td>
<td>0.065</td>
<td>0.255</td>
<td>10.156</td>
<td>Significant at 0.01 level</td>
<td>$Y=1278.029 - 17.261X_1 - 8.796X_2$</td>
</tr>
<tr>
<td>$YX_1X_2X_3$</td>
<td>3, 296</td>
<td>0.084</td>
<td>0.290</td>
<td>6.802</td>
<td>Significant at 0.05 level</td>
<td>$Y=1302.781 - 16.506X_1 - 0.122X_3 - 8.045X_2$</td>
</tr>
</tbody>
</table>

**Model III**

<table>
<thead>
<tr>
<th>Predictor Variable/s</th>
<th>Degree of Freedom</th>
<th>$R^2$</th>
<th>R</th>
<th>F</th>
<th>Inference</th>
<th>Step-up regression equation</th>
</tr>
</thead>
<tbody>
<tr>
<td>$YX_3$</td>
<td>1, 298</td>
<td>0.019</td>
<td>0.139</td>
<td>6.251</td>
<td>Significant at 0.05 level</td>
<td>$Y=1574.790 - 0.693X_3$</td>
</tr>
<tr>
<td>$YX_2X_3$</td>
<td>2, 297</td>
<td>0.029</td>
<td>0.170</td>
<td>3.709</td>
<td>Not Significant</td>
<td>$Y=1685.672 - 0.597X_3 - 7.444X_2$</td>
</tr>
<tr>
<td>$YX_1X_2X_3$</td>
<td>3, 296</td>
<td>0.084</td>
<td>0.290</td>
<td>6.802</td>
<td>Significant at 0.05 level</td>
<td>$Y=1302.781 - 16.506X_1 - 0.122X_3 - 8.045X_2$</td>
</tr>
</tbody>
</table>

226
In the first trial, the effect of first independent variable, mental health is seen on stress and $R^2$ is 0.055. The contribution of stress is significant at 0.01 level of significance. The computed value of $R^2$ of stress and mental health ($Y X_1$) is 0.055 which indicates a variance of 5.5%. The contribution of mental health is 5.5% in causing stress among rural teacher trainees.

In the second trial, the effect of second independent variable emotional intelligence of rural teacher trainees is seen on stress. $R^2$ is 0.074. The contribution of both mental health and emotional intelligence is significant at 0.01 level of significance. The computed value of $R^2$ of stress and mental health, emotional intelligence ($Y X_1 X_3$) is 0.074. This value indicates a variance of 7.4%. This increase indicates the contribution of emotional intelligence to stress among rural teacher trainees.

The final run equation effect of all the three independent variables i.e.,
mental health, home environment and emotional intelligence is seen on stress of rural teacher trainees. The value of $R^2$ of stress and mental health, home environment, emotional intelligence ($Y X_1 X_2 X_3$) is 0.084 which is significant at 0.05 level of significance. This value indicates a variance of 8.4% which revealed the contribution of all the three independent variables, i.e., mental health, home environment and emotional intelligence on stress among rural teacher trainees.

Model- II

In the first trial, the effect of independent variable, home environment of rural teacher trainees is seen on stress ($Y X_2$) $R^2$ is 0.010, which is not significant. This value indicates a variance of 1.0%, i.e., the contribution of home environment in causing stress among rural teacher trainees is 1.0%.

In the second trial, the effect of mental health is seen on stress of rural teacher tyrannies. $R^2$ is 0.065, which is significant at 0.01 level of significance. The computed value of $R^2$ of stress and mental health, home environment ($Y X_1 X_2$) is 0.065. This value indicates a variance of 6.5%. Increase in value of $R^2$ with addition of a variable, i.e. mental health, is found to be 0.065. This increase indicates the contribution of mental health and home environment to stress among rural teacher trainees.

The final run equation effect of all the three independent variables, i.e., mental health, home environment and emotional intelligence is seen on stress of urban teacher trainees. The value of $R^2$ of stress and mental health, home environment, emotional intelligence ($Y X_1 X_2 X_3$) is 0.084. The contribution of all the three variables is significant at 0.05 level of significance. This value revealed the contribution of all the three independent variables to stress among rural teacher trainees.

Model- III

The effect of emotional intelligence of rural teacher trainees is seen on stress in the first trial $R^2$ is 0.019, which is significant at 0.05 level of significance. The computed value of $R^2$ of stress and emotional intelligence ($Y X_3$) is 0.019. This value indicates a variance of 1.9%, i.e., the contribution of emotional intelligence in causing stress among rural teacher trainees is 1.9%.

The effect of second independent variable (home environment) of rural teacher trainees is also seen on stress and $R^2$ became 0.029. The contribution of both emotional intelligence and home environment is not significant. The computed value
of $R^2$ of stress and home environment, emotional intelligence ($Y \times X_2 \times X_3$) is 0.029. Increase in value of $R^2$ with addition of a variable (home environment) is found to be 0.029 which indicates the contribution of home environment to stress among rural teacher trainees.

The final run equation effect of all the three independent variables, i.e., mental health, home environment and emotional intelligence is seen on stress of rural teacher trainees. The value of $R^2$ of stress and mental health, home environment, emotional intelligence ($Y \times X_1 \times X_2 \times X_3$) is 0.084, which is significant at 0.05 level of significance. This value indicates a variance of 8.4%, which reveal the contribution of all the three independent variables to stress among rural teacher trainees.

**Discussion of results:**

Model I, II and III of table 4.23 reveals that for rural teacher trainees, values of $R$ of mental health, home environment and emotional intelligence are 0.055, 0.010 and 0.019 respectively. 5.5% of stress is thus predicted by mental health, 1.0% by home environment and 1.9% by emotional intelligence. The value of $R^2$ for mental health, home environment and emotional intelligence taken together is 0.084, thus 8.4% of stress is predicted by mental health, home environment and emotional intelligence taken together. The F-value for the conjoint $R^2$ is 6.802 which is significant at 0.05 level of significance. This leads to the conclusion that mental health, home environment and emotional intelligence conjointly predict stress among rural teacher trainees. It means 91.6% stress among rural teacher trainees is predicted by the variables not included in this study.

From the result of multivariate analysis, it can be concluded that stress among rural teacher trainees is significantly contributed by mental health, home environment and emotional intelligence.

Thus, hypothesis 8 (a), “Significant variance towards stress among rural teacher trainees would be contributed by major correlates such as mental health, home environment and emotional intelligence”, stands accepted.

To test hypothesis 8 (b) which states, “Significant variance towards stress among urban teacher trainees would be contributed by major correlates such as mental health, home environment and emotional intelligence”, the values of multiple-R and F-ratios were calculated and entered in table 4.18. The pictorial form of respective table has been shown in fig. 4.24.

229
**Step-up Regression Equation**

### Table 4.18
Showing conjoint effect of mental health, home environment and emotional intelligence on stress of urban teacher trainees

#### Model I

<table>
<thead>
<tr>
<th>Predictor Variable/s</th>
<th>Degree of Freedom</th>
<th>$R^2$</th>
<th>$R$</th>
<th>$F$</th>
<th>Inference</th>
<th>Step-up regression equation</th>
</tr>
</thead>
<tbody>
<tr>
<td>$YX_1$</td>
<td>1, 298</td>
<td>0.052</td>
<td>0.227</td>
<td>17.272</td>
<td>Significant at 0.01 level</td>
<td>$Y=1055.066-20.217X_1$</td>
</tr>
<tr>
<td>$YX_1X_3$</td>
<td>2, 297</td>
<td>0.081</td>
<td>0.285</td>
<td>10.717</td>
<td>Significant at 0.01 level</td>
<td>$Y=1253.33-17.323X_1-0.693X_3$</td>
</tr>
<tr>
<td>$YX_1X_2X_3$</td>
<td>3, 296</td>
<td>0.172</td>
<td>0.415</td>
<td>16.006</td>
<td>Significant at 0.01 level</td>
<td>$Y=1745.292-16.908X_1-0.237X_3-33.951X_2$</td>
</tr>
</tbody>
</table>

#### Model II

<table>
<thead>
<tr>
<th>Predictor Variable/s</th>
<th>Degree of Freedom</th>
<th>$R^2$</th>
<th>$R$</th>
<th>$F$</th>
<th>Inference</th>
<th>Step-up regression equation</th>
</tr>
</thead>
<tbody>
<tr>
<td>$YX_2$</td>
<td>1, 298</td>
<td>0.091</td>
<td>0.302</td>
<td>31.834</td>
<td>Significant at 0.01 level</td>
<td>$Y=2072.417-37.553X_2$</td>
</tr>
<tr>
<td>$YX_1X_2$</td>
<td>2, 297</td>
<td>0.143</td>
<td>0.378</td>
<td>23.815</td>
<td>Significant at 0.01 level</td>
<td>$Y=1700.021-17.813X_1-35.175X_2$</td>
</tr>
<tr>
<td>$YX_1X_2X_3$</td>
<td>3, 296</td>
<td>0.172</td>
<td>0.415</td>
<td>16.006</td>
<td>Significant at 0.01 level</td>
<td>$Y=1745.292-16.908X_1-0.237X_3-33.951X_2$</td>
</tr>
</tbody>
</table>

#### Model III

<table>
<thead>
<tr>
<th>Predictor Variable/s</th>
<th>Degree of Freedom</th>
<th>$R^2$</th>
<th>$R$</th>
<th>$F$</th>
<th>Inference</th>
<th>Step-up regression equation</th>
</tr>
</thead>
<tbody>
<tr>
<td>$YX_3$</td>
<td>1, 298</td>
<td>0.029</td>
<td>0.169</td>
<td>9.367</td>
<td>Significant at 0.01 level</td>
<td>$Y=1646.875-1.034X_3$</td>
</tr>
<tr>
<td>$YX_2X_3$</td>
<td>2, 297</td>
<td>0.120</td>
<td>0.346</td>
<td>17.384</td>
<td>Significant at 0.01 level</td>
<td>$Y=2135.122-0.563X_3-0.343X_2$</td>
</tr>
<tr>
<td>$YX_1X_2X_3$</td>
<td>3, 296</td>
<td>0.172</td>
<td>0.415</td>
<td>16.006</td>
<td>Significant at 0.01 level</td>
<td>$Y=1745.292-16.908X_1-0.237X_3-33.951X_2$</td>
</tr>
</tbody>
</table>
In the first trial, the effect of first independent variable, mental health is seen on stress and $R^2$ is 0.052. The contribution of stress is significant at 0.01 level of significance. The computed value of $R^2$ of stress and mental health ($Y X_1$) is 0.052. This value indicates a variance of 5.2%. This reveals that the contribution of mental health in causing stress among urban teacher trainees is 5.2%.

In the second trial, the effect of second independent variable, emotional intelligence of urban teacher trainees is seen on stress. The computed value of $R^2$ of stress and mental health, emotional intelligence ($Y X_1 X_3$) is 0.081. This value indicates a variance of 8.1%. The contribution of both mental health and emotional intelligence is significant at 0.01 level of significance. This increase indicates the contribution of emotional intelligence to stress among urban teacher trainees.

The final run equation effect of all the three independent variables, i.e., mental health, home environment and emotional intelligence is seen on stress of urban teacher trainees. The value of $R^2$ of stress and mental health, home environment,
Step-up Regression Equation

emotional intelligence \((Y X_1 X_2 X_3)\) is 0.172. The contribution of all the three variables is significant at 0.01 level of significance. This value indicates a variance of 17.2%, which revealed the contribution of all the three independent variables, i.e., mental health, home environment and emotional intelligence on stress among urban teacher trainees.

**Model- II**

In the first trial, the effect of home environment of urban teacher trainees is seen on stress. The computed value of \(R^2\) of stress and home environment \((Y X_2)\) is 0.091 which is significant at 0.01 level of significance. This value indicates a variance of 9.1%. This reveals the contribution of home environment in causing stress among urban teacher trainees is 9.1%.

The effect of independent variable (mental health) of urban teacher trainees is seen on stress. \(R^2\) is 0.143, which is again significant at 0.01 level of significance. The computed value of \(R^2\) of stress and mental health, home environment \((Y X_1 X_2)\) is 0.143. This value indicates a variance of 14.3%. This increase indicates the contribution of mental health and home environment to stress among urban teacher trainees.

The final run equation effect of all the three independent variables, i.e., mental health, home environment and emotional intelligence is seen on stress of urban teacher trainees. The value of \(R^2\) of stress and mental health, home environment, emotional intelligence \((Y X_1 X_2 X_3)\) is 0.172, i.e. significant at 0.01 level of significance. This value indicates a variance of 17.2%, which reveals the contribution of all the three independent variables, i.e., mental health, home environment and emotional intelligence on stress of urban teacher trainees.

**Model- III**

The effect of emotional intelligence of urban teacher trainees is seen on stress in the first trial. The computed value of \(R^2\) of stress and emotional intelligence \((Y X_3)\) is 0.029, which is significant at 0.01 level of significance. This value indicates a variance of 2.9%. This reveals the contribution of emotional intelligence in causing stress among urban teacher trainees is 2.9%.

The effect of second independent variable (home environment) of urban teacher trainees is also seen on stress and \(R^2\) of stress and home environment, emotional intelligence \((Y X_2 X_3)\) became 0.120. The contribution of both emotional
intelligence and home environment is significant at 0.01 level of significance. This value indicates a variance of 12%. Increase in value of $R^2$ with addition of a variable, home environment, is found to be 0.120.

The final run equation effect of all the three independent variables, i.e., mental health, home environment and emotional intelligence is seen on stress of urban teacher trainees. $R^2$ is 0.172. The contribution of all the three variables is significant at 0.01 level of significance. The value of $R^2$ of stress and mental health, home environment, emotional intelligence ($Y = X_1 X_2 X_3$) is 0.172 which indicates a variance of 17.2% that reveals the contribution of mental health, home environment and emotional intelligence on stress among urban teacher trainees.

**Discussion of results:**

Model I, II and III of table 4.18 reveals that for urban teacher trainees, values of $R^2$ of mental health, home environment and emotional intelligence are 0.052, 0.091 and 0.029 respectively. 5.2% of stress is thus predicted by mental health, 9.1% by home environment and 2.9% by emotional intelligence. The value of $R^2$ for mental health, home environment and emotional intelligence taken together is 0.172, thus 17.2% of stress is predicted by mental health, emotional intelligence and home environment taken together. The F-value for the conjoint $R^2$ is 16.006 which is significant at 0.01 level of significance. This leads to the conclusion that mental health, home environment and emotional intelligence conjointly predict stress among urban teacher trainees. It means 82.8% stress among urban teacher trainees is predicted by the variables not included in this study.

From the result of multivariate analysis, it can be concluded that stress among urban teacher trainees is significantly contributed by mental health, home environment and emotional intelligence.

Thus, hypothesis 8 (b), “Significant variance towards stress among urban teacher trainees would be contributed by major correlates such as mental health, home environment and emotional intelligence”, stands accepted.

To test hypothesis 8 (c) which states, “Significant variance towards stress among male teacher trainees would be contributed by major correlates such as mental health, home environment and emotional intelligence”, the values of multiple-R and F-ratios were calculated and entered in table 4.19. The pictorial form of respective table has been shown in fig. 4.25.
### Table 4.19

Showing conjoint effects of mental health, home environment and emotional intelligence on stress of male teacher trainees

#### Model I

<table>
<thead>
<tr>
<th>Predictor Variable/s</th>
<th>Degree of Freedom</th>
<th>R^2</th>
<th>R</th>
<th>F</th>
<th>Inference</th>
<th>Step-up regression equation</th>
</tr>
</thead>
<tbody>
<tr>
<td>YX_1</td>
<td>1, 298</td>
<td>0.048</td>
<td>0.220</td>
<td>16.150</td>
<td>Significant at 0.01 level</td>
<td>Y=1087.702-18.602 X_1</td>
</tr>
<tr>
<td>YX_1X_3</td>
<td>2, 297</td>
<td>0.07</td>
<td>0.265</td>
<td>9.160</td>
<td>Significant at 0.01 level</td>
<td>Y=1231.123-16.286 X_1-0.486X_3</td>
</tr>
<tr>
<td>YX_1X_2X_3</td>
<td>3, 296</td>
<td>0.101</td>
<td>0.318</td>
<td>7.855</td>
<td>Significant at 0.01 level</td>
<td>Y=1486.812-15.201 X_1-0.302X_3-16.120 X_2</td>
</tr>
</tbody>
</table>

#### Model II

<table>
<thead>
<tr>
<th>Predictor Variable/s</th>
<th>Degree of Freedom</th>
<th>R^2</th>
<th>R</th>
<th>F</th>
<th>Inference</th>
<th>Step-up regression equation</th>
</tr>
</thead>
<tbody>
<tr>
<td>YX_2</td>
<td>1, 298</td>
<td>0.031</td>
<td>0.175</td>
<td>10.018</td>
<td>Significant at 0.01 level</td>
<td>Y=1807.215-22.132 X_2</td>
</tr>
<tr>
<td>YX_1X_2</td>
<td>2, 297</td>
<td>0.079</td>
<td>0.281</td>
<td>11.401</td>
<td>Significant at 0.01 level</td>
<td>Y=1427.033-16.455 X_1-17.646X_2</td>
</tr>
<tr>
<td>YX_1X_2X_3</td>
<td>3, 296</td>
<td>0.101</td>
<td>0.318</td>
<td>7.855</td>
<td>Significant at 0.01 level</td>
<td>Y=1486.812-15.201 X_1-0.302X_3-16.120 X_2</td>
</tr>
</tbody>
</table>

#### Model III

<table>
<thead>
<tr>
<th>Predictor Variable/s</th>
<th>Degree of Freedom</th>
<th>R^2</th>
<th>R</th>
<th>F</th>
<th>Inference</th>
<th>Step-up regression equation</th>
</tr>
</thead>
<tbody>
<tr>
<td>YX_3</td>
<td>1, 298</td>
<td>0.022</td>
<td>0.147</td>
<td>6.997</td>
<td>Significant at 0.05 level</td>
<td>Y=1607.169-0.849 X_3</td>
</tr>
<tr>
<td>YX_2X_3</td>
<td>2, 297</td>
<td>0.053</td>
<td>0.230</td>
<td>6.749</td>
<td>Significant at 0.05 level</td>
<td>Y=1869.656-0.612 X_3-18.346X_2</td>
</tr>
<tr>
<td>YX_1X_2X_3</td>
<td>3, 296</td>
<td>0.101</td>
<td>0.318</td>
<td>7.855</td>
<td>Significant at 0.01 level</td>
<td>Y=1486.812-15.201 X_1-0.302X_3-16.120 X_2</td>
</tr>
</tbody>
</table>

234
In the first trial, the effect of first independent variable, mental health is seen on stress. The contribution of stress came to be significant at 0.01 level of significance. The computed value of $R^2$ of stress and mental health ($Y_{X_1}$) is 0.048. This value indicates a variance of 4.8%. The contribution of mental health on stress among male teacher trainees is 4.8%.

The effect of second independent variable, emotional intelligence of male teacher trainees is seen on stress. The computed value of $R^2$ of stress and mental health, emotional intelligence ($Y_{X_1 X_3}$) is 0.07 which is again significant at 0.01 level of significance. This value indicates a variance of 0.7%. The increase indicates the contribution of emotional intelligence on stress among male teacher trainees.

The final run equation effect of all the three independent variables, i.e., mental health, home environment and emotional intelligence is seen on stress of male teacher trainees. The value of $R^2$ of stress and mental health, home environment, emotional intelligence ($Y_{X_1 X_2 X_3}$) is 0.101. The contribution of all the three variables is
Step-up Regression Equation

significant at 0.01 level of significance. This value indicates a variance of 10.1%
which reveals the contribution of all the three independent variables, i.e., mental
health, home environment and emotional intelligence on stress among male teacher
trainees.

Model- II

The effect of independent variable (home environment) of male teacher
trainees is seen on stress in the first trial. $R^2$ of stress and home environment ($Y X_2$) is
0.031, which is significant at 0.01 level of significance. This value indicates a
variance of 3.1% which reveals the contribution of home environment on stress
among male teacher trainees is 3.1%.

In the second trial, the effect of mental health of male teacher trainees is
seen on stress. $R^2$ of stress and mental health, home environment ($Y X_1 X_2$) is 0.079,
which is again significant at 0.01 level of significance. This value indicates a
variance of 7.9%. Increase in value of $R^2$ with addition of a variable (mental health) is found to
be 0.079.

The final run equation effect of all the three independent variables, i.e.,
mental health, home environment and emotional intelligence is seen on stress of male
teacher trainees. $R^2$ is 0.101. The contribution of all the three variables is significant
at 0.01 level of significance. The value of $R^2$ of stress and mental health, home
environment, emotional intelligence ($Y X_1 X_2 X_3$) is 0.101. This value indicates a
variance of 10.1% which reveals the contribution of all the three independent
variables, i.e., mental health, home environment and emotional intelligence to stress
among male teacher trainees.

Model- III

The effect of emotional intelligence of male teacher trainees is seen on stress
in the first trial. The computed value of $R^2$ of stress and emotional intelligence ($Y X_3$)
is 0.022, which is significant at 0.05 level of significance. This value indicates a
variance of 2.2%.

In the second trial, the effect of second independent variable, home
environment of male teacher trainees is also seen on stress and $R^2$ of stress and home
environment, emotional intelligence ($Y X_2 X_3$) became 0.053. The contribution of
both emotional intelligence and home environment is significant at 0.05 level of
significance. This value indicates a variance of 5.3%. Increase in value of $R^2$ with
addition of a variable (home environment) is found to be 0.053.

The final run equation effect of all the three independent variables, i.e., mental health, home environment and emotional intelligence is seen on stress of male teacher trainees. The value of $R^2$ of stress and mental health, home environment, emotional intelligence ($Y X_1 X_2 X_3$) is 0.101 and this contribution of all the three variables is significant at 0.01 level of significance. This value indicates a variance of 10.1% that reveal the contribution of all the three independent variables to stress among male teacher trainees.

**Discussion of results:**

Model I, II and III of table 4.19 reveals that for male teacher trainees, values of $R^2$ of mental health, home environment and emotional intelligence are 0.048, 0.031 and 0.022 respectively. 4.8% of stress is thus predicted by mental health, 3.1% by home environment and 2.2% by emotional intelligence. The value of $R^2$ for mental health, home environment and emotional intelligence taken together is 0.101, thus 10.1% of Stress is predicted by mental health, emotional intelligence and home environment taken together. The F-value for the conjoint $R^2$ is 7.855 which is significant at 0.01 level of significance. This leads to the conclusion that mental health, home environment and emotional intelligence conjointly predict stress among male teacher trainees more as compared to their separate prediction. It means 89.9% stress among male teacher trainees is predicted by the variables not included in this study.

From the result of multivariate analysis, it can be concluded that stress among male teacher trainees is significantly contributed by mental health, home environment and emotional intelligence.

Thus, hypothesis 8 (c), “Significant variance towards stress among male teacher trainees would be contributed by major correlates such as mental health, home environment and emotional intelligence”, stands accepted.

To test hypothesis 8 (d) which states, “Significant variance towards stress among female teacher trainees would be contributed by major correlates such as mental health, home environment and emotional intelligence”, the values of multiple-$R$ were calculated and entered in table 4.20. The pictorial form of respective table has been shown in fig. 4.26.
**Step-up Regression Equation**

Table 4.20  
Showing conjoint effects of mental health, home environment and emotional intelligence on stress of female teacher trainees

**Model I**

<table>
<thead>
<tr>
<th>Predictor Variable/s</th>
<th>Degree of Freedom</th>
<th>$R^2$</th>
<th>$R$</th>
<th>$F$</th>
<th>Inference</th>
<th>Step-up regression equation</th>
</tr>
</thead>
<tbody>
<tr>
<td>$YX_1$</td>
<td>1,298</td>
<td>0.057</td>
<td>0.240</td>
<td>19.385</td>
<td>Significant at 0.01 level</td>
<td>$Y=1085.546-19.266X_1$</td>
</tr>
<tr>
<td>$YX_1X_3$</td>
<td>2,297</td>
<td>0.083</td>
<td>0.288</td>
<td>10.586</td>
<td>Significant at 0.01 level</td>
<td>$Y=1213.007-16.777X_1-0.410X_3$</td>
</tr>
<tr>
<td>$YX_1X_2X_3$</td>
<td>3,296</td>
<td>0.145</td>
<td>0.381</td>
<td>13.98</td>
<td>Significant at 0.01 level</td>
<td>$Y=1587.929-19.024X_1-3.754X_3-28.823X_2$</td>
</tr>
</tbody>
</table>

**Model II**

<table>
<thead>
<tr>
<th>Predictor Variable/s</th>
<th>Degree of Freedom</th>
<th>$R^2$</th>
<th>$R$</th>
<th>$F$</th>
<th>Inference</th>
<th>Step-up regression equation</th>
</tr>
</thead>
<tbody>
<tr>
<td>$YX_2$</td>
<td>1,298</td>
<td>0.062</td>
<td>0.250</td>
<td>21.181</td>
<td>Significant at 0.01 level</td>
<td>$Y=1949.787-29.228X_2$</td>
</tr>
<tr>
<td>$YX_1X_2$</td>
<td>2,297</td>
<td>0.119</td>
<td>0.345</td>
<td>21.028</td>
<td>Significant at 0.01 level</td>
<td>$Y=1595.250-18.800X_1-28.579X_2$</td>
</tr>
<tr>
<td>$YX_1X_2X_3$</td>
<td>3,296</td>
<td>0.145</td>
<td>0.381</td>
<td>13.98</td>
<td>Significant at 0.01 level</td>
<td>$Y=1587.929-19.024X_1-3.754X_3-28.823X_2$</td>
</tr>
</tbody>
</table>

**Model III**

<table>
<thead>
<tr>
<th>Predictor Variable/s</th>
<th>Degree of Freedom</th>
<th>$R^2$</th>
<th>$R$</th>
<th>$F$</th>
<th>Inference</th>
<th>Step-up regression equation</th>
</tr>
</thead>
<tbody>
<tr>
<td>$YX_3$</td>
<td>1,298</td>
<td>0.026</td>
<td>0.161</td>
<td>8.447</td>
<td>Significant at 0.05 level</td>
<td>$Y=1606.063-0.843X_3$</td>
</tr>
<tr>
<td>$YX_2X_3$</td>
<td>2,297</td>
<td>0.088</td>
<td>0.297</td>
<td>12.022</td>
<td>Significant at 0.01 level</td>
<td>$Y=1990.436-0.493X_3-25.912X_2$</td>
</tr>
<tr>
<td>$YX_1X_2X_3$</td>
<td>3,296</td>
<td>0.145</td>
<td>0.381</td>
<td>13.98</td>
<td>Significant at 0.01 level</td>
<td>$Y=1587.929-19.024X_1-3.754X_3-28.823X_2$</td>
</tr>
</tbody>
</table>
In the first trial, the effect of first independent variable, mental health is seen on stress and $R^2$ is 0.057 which is significant at 0.01 level of significance. The computed value of $R^2$ of stress and mental health ($Y_{X1}$) is 0.057. This value indicates a variance of 5.7%. The contribution of mental health in causing stress among female teacher trainees is 5.7%.

In the second trial, the effect of second independent variable, emotional intelligence of female teacher trainees is seen on stress. The computed value of $R^2$ of stress and mental health, emotional intelligence ($Y_{X1} X_3$) is 0.083. The contribution of both mental health and emotional intelligence is significant at 0.01 level of significance. This value indicates a variance of 8.3%. Increase in value of $R^2$ with addition of a variable (emotional intelligence) is found to be 0.083. This increase indicates the contribution of emotional intelligence on stress among female teacher trainees.
Step-up Regression Equation

The final run equation effect of all the three independent variables is seen on stress of female teacher trainees. The value of $R^2$ of stress and mental health, home environment, emotional intelligence ($Y \ X_1 \ X_2 \ X_3$) is 0.145. The contribution of all the three variables is significant at 0.01 level of significance. This value indicates a variance of 14.5%. As the value of $R^2$ is 0.145, it reveals the contribution of all the three independent variables on stress among female teacher trainees.

Model- II

In the first trial, the effect of independent variable (home environment) of female teacher trainees is seen on stress. $R^2$ of stress and home environment ($Y \ X_2$) is 0.062, which is significant at 0.01 level of significance. This value indicates a variance of 6.2%. The contribution of home environment in causing stress among urban teacher trainees is 6.2%.

In the second trial, the effect of independent variable, mental health of female teacher trainees is seen on stress. $R^2$ of stress and mental health, home environment ($Y \ X_1 \ X_2$) is 0.119, which is again significant at 0.01 level of significance. This value indicates a variance of 11.9%. Increase in value of $R^2$ with addition of a variable, mental health, is found to be 0.119 that increase indicates the contribution of mental health and home environment on stress among female teacher trainees.

The final run equation effect of all the three independent variables is seen on stress of female teacher trainees. The value of $R^2$ of stress and mental health, home environment, emotional intelligence ($Y \ X_1 \ X_2 \ X_3$) is 0.145 which is significant at 0.01 level of significance. The contribution of all the three independent variables to stress among female teacher trainees is 14.5%.

Model- III

The effect of first independent variable, emotional intelligence of female teacher trainees is seen on stress in the first trial. $R^2$ is 0.026, which is significant at 0.05 level of significance. The computed value of $R^2$ of stress and emotional intelligence ($Y \ X_3$) is 0.026. This value indicates a variance of 2.6%. This reveals the contribution of emotional intelligence in causing stress among female teacher trainees.
In the second trial, the effect of second independent variable, home environment of female teacher trainees is also seen on stress and $R^2$ of stress and home environment, emotional intelligence ($Y X_2 X_3$) became 0.088, which is again significant at 0.01 level of significance. This value indicates a variance of 8.8%. Increase in value of $R^2$ with addition of a variable, home environment, is found to be 0.088 which indicates the contribution of home environment on stress of female teacher trainees.

The final run equation effect of all the three independent variables is seen on stress of female teacher trainees. $R$ is 0.145. The contribution of all the three variables is significant at 0.01 level of significance. The value of $R^2$ of stress and mental health, home environment, emotional intelligence ($Y X_1 X_2 X_3$) is 0.145. This value indicates a variance of 14.5% which reveal the contribution of all the three independent variables to stress among female teacher trainees.

**Discussion of results:**

Model I, II and III of table 4.20 reveals that for female teacher trainees, values of $R^2$ of mental health, home environment and emotional intelligence are 0.057, 0.062 and 0.026 respectively. 5.7% of stress is thus predicted by mental health, 6.2% by home environment and 2.6% by emotional intelligence. The value of $R^2$ for mental health, home environment and emotional intelligence taken together is 0.145, thus 14.5% of stress is predicted by mental health, home environment and emotional intelligence taken together. The F-value for the conjoint $R^2$ is 13.98 which is significant at 0.01 level of significance. This leads to the conclusion that mental health, home environment and emotional intelligence conjointly predict stress among female teacher trainees. It means 85.5% stress among female teacher trainees is predicted by the variables not included in this study.

From the result of multivariate analysis, it can be concluded that stress among female teacher trainees is significantly contributed by mental health, home environment and emotional intelligence.

Thus, hypothesis 8 (d), “Significant variance towards stress among female teacher trainees would be contributed by major correlates such as mental health, home environment and emotional intelligence”, stands accepted.
CONCLUSIONS

1. Mental health, home environment and emotional intelligence cause 8% in the variance of stress among rural teacher trainees.

2. Mental health, home environment and emotional intelligence significantly contribute towards stress among urban teacher trainees.

3. Mental health, home environment and emotional intelligence are the causal factors in the variance of stress among male teacher trainees.

4. Stress among female teacher trainees is significantly contributed by mental health, home environment and emotional intelligence.

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