CHAPTER – IV

ANALYSIS OF DATA AND INTERPRETATION OF RESULTS

4.0 Introduction

The next step in the process of research, after the collection of data, is the organization, analysis and interpretation of data and formulation of conclusions and generalizations to get a meaningful picture out of the raw data collected. The analysis and interpretation of data involve the objective material in the processing of the investigator and his objective reactions and desires to be derived from the data, the inherent meanings in their relation to the problem.

After the data collection was completed, it was analyzed keeping in view the objectives and hypotheses of the present study. The hypotheses formulated were statistically tested and accordingly there were accepted or rejected.

The mean scores were used to identify the self-confidence, mental health and emotional intelligence of college students. To test the hypotheses different statistical techniques like Means, S.Ds, Critical ratios, Correlation, fishers ‘Z’ function; Percentage and Multiple correlations were used.
4.1. Organization

The mass of data collected through the use of various tools however reliable valid and adequate it may be, is yet but raw. It needs to be systematized and organized, i.e., edited, classified and tabulated before it can serve any worthwhile purpose. The importance of proper arrangement of the acquired data has been described by Sukhia, S.P. (1974) as “Editing implies the checking of gathered data for accuracy, utility and completeness, classifying refers to the dividing of the information into different categories, classes or heads for use. Tabulating denotes the recording of the classified materials in accurate mathematical terms.”

Tabulation of data includes marking and counting frequency tallies for different items on which information is gathered. Before tabulating, all raw data should be tested on the basis of the purpose for which they are gathered and only the useful and usable data should be tabulated.

Aggarwal, J.C. has also stressed the importance of proper treatment of data as “However valid, reliable and adequate the data may be, it does not serve any worthwhile purpose unless it is carefully edited, systematically classified and tabulated, scientifically analyzed, intelligently interpreted and rationally concluded.”
4.2. Analysis

Analysis of data means studying the tabulated material in order to determine inherent facts and meanings. It involves breaking down existing complex factors into simpler parts and putting the parts together in the new arrangements for purposes of interpretation.

"Analysis as a process enters into research in one form or the other form, from the very beginning in the selection of the problem in the determination of methods and in interpreting and drawing conclusions from data gathered."

.......... Sukhis, S.P.,,Mehrotra, P.V., and Mehrotra, R.N.

A plan of analysis can and should be prepared in advance before the actual collecting of material. The process of analysis requires an alert, flexible and open minded planning. Caution is necessary at every step. No similarities, difference, trends and outstanding factors should go un-noticed. Larger divisions of materials should be broken down into smaller units and rearranged in new combinations to discover new factors and relationship. Data should be studied from as many angles as possible to find out new and newer facts.

Simple statistical calculations find a place in almost any research study dealing with large or even small groups of individuals, while complex statistical computations form the basis of many types of research. While
analyzing the data, investigators usually make use of as any of the above
simple statistical devices necessary for the purpose of their study.

4.3. Interpretation

“The process of interpretation is essentially of stating what the results
(findings) show? What do they mean? What is their significance? What is
the answer to the original problem?”

…Good C.V., Barr A.S., and Scates D.E.

The analysis and interpretation of data represent the application of
deductive and inductive logic to the research process. Interpretation calls for
a critical approach to all the limitations of his data-gathering and his
subjective attitude. Interpretation – a most important step in the total
procedure of research is purely subjective and many errors are made at this
stage. An adequate knowledge of not only techniques of research, but also of
one’s field of study and a capacity to do careful and critical thinking are very
essential to safeguard against misinterpretation.

It is only after applying the suitable statistical formula that the investigator
can say at what levels of significance the results can be relied on or in other
words, what extent of the play of chance factors is in the observed results.

The obtained data was tabulated and necessary statistical measures
were applied to test the hypotheses formulated. In the foregoing pages the
testing of hypotheses one after the other along with required tables, interpretation, corroborating with the previous findings, is presented.

4.4 Testing of hypotheses

**Hypothesis: 1.** College students do not differ in their levels of self-confidence.

To test this hypothesis, the following procedure is adopted. Mean and standard deviation of the whole group on the scores pertaining to the self-confidence by the college students have been computed groups.

The calculated values of mean and standard deviation are 16 and 4 respectively. On the basis of the Mean (M) and standard deviation (SD) calculated, the total sample was further classified into high (above M + 1SD), moderate (between M − 1SD and M + ISD) and low levels of (below M − 1SD) self-confidence groups.

The respondents whose scores are less than [Mean -1 SD=16 - 4] 12 are considered as having high self-confidence group. Their number is 102 i.e., 17%. The respondents whose scores are above [Mean +1 SD=16 + 4] 20 are considered as having low self-confidence group. Their number is 104 i.e., 17.3% and the remaining 65.7% have moderated self-confidence.
Figure 1: Levels of self-confidence in the total sample

The data pertaining to the above three categories along with their verbal description is presented in table No.6

Table - 6

Classification of the total sample on self-confidence

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Score</th>
<th>N</th>
<th>%</th>
<th>Verbal description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Below 12 score</td>
<td>102</td>
<td>17</td>
<td>High</td>
</tr>
<tr>
<td>2.</td>
<td>Between 12 and 20 scores</td>
<td>394</td>
<td>65.7</td>
<td>Moderate</td>
</tr>
<tr>
<td>3.</td>
<td>Above 20 score</td>
<td>104</td>
<td>17.3</td>
<td>Low</td>
</tr>
</tbody>
</table>
From table No.6, it can be seen that nearly 17% of the sample have low self-confidence. 66% of the sample has moderate self-confidence and remaining 17% of the sample has high self-confidence.

This finding clearly shows that college students differ in their levels of self-confidence.

Hypothesis: 2. College students do not differ in their levels of mental health.

To test this hypothesis, the following procedure is adopted. Mean and standard deviation of the whole group on the scores pertaining to the mental health by the college students have been computed.

The calculated values of mean and standard deviation are 128.6 and 13.1 respectively. On the basis of the Mean (M) and standard deviation (SD) calculated, the total sample was further classified into high (above M + 1 SD), moderate (between M – 1 SD and M + ISD) and low (below M – 1 SD) self-confidence.

The value of M-1SD= 128.6-13.1=115.5. The respondents whose scores are less than [Mean -1 SD] 115.5 are considered as having low mental health. Their number is 103 i.e., 17.17%. The respondents whose scores are above [Mean +1 SD=128.6 + 13.1] 141.7 are considered as having high mental health. Their number is 104 i.e., 16.8% and the remaining 66% have moderated mental health.
Figure 2: levels of mental health in the total sample

The data pertaining to the above three categories along with their verbal description is presented in table No.7.

**Table - 7**

*Classification of the total sample on mental health*

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Score</th>
<th>N</th>
<th>%</th>
<th>Verbal description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Below 115.5 score</td>
<td>103</td>
<td>17.17</td>
<td>Low</td>
</tr>
<tr>
<td>2.</td>
<td>Between 115.5 and 141.7 scores</td>
<td>396</td>
<td>66.00</td>
<td>Moderate</td>
</tr>
<tr>
<td>3.</td>
<td>Above 141.7 score</td>
<td>101</td>
<td>16.83</td>
<td>High</td>
</tr>
</tbody>
</table>
From table No.7, it can be seen that nearly 17% of the sample college students have low mental health. 16% of the sample has moderate mental health and remaining 17% of the sample has high mental health.

This finding clearly shows that college students differ in their levels of mental health.

**Hypothesis: 3.** College students do not differ in their levels of emotional intelligence.

To test this hypothesis, the following procedure is adopted. Mean and standard deviation of the whole group on the scores pertaining to the emotional intelligence by the college students have been computed.

The calculated values of mean and standard deviation are 129 and 12 respectively. On the basis of the mean (M) and standard deviation (SD) calculated, the total sample was further classified into high (above M + 1 SD), moderate (between M – 1 SD and M + ISD) and low (below M – 1 SD) emotional intelligence.

The respondents whose scores are less than [Mean -1 SD=129 - 12] 117 are considered as having low emotional intelligence. Their number is 99 i.e., 16.5%. The respondents whose scores are above [Mean +1 SD=129 + 12] 141 are considered as having high emotional intelligence. Their number is 109 i.e., 18.17% and the remaining 65.3% have moderate emotional intelligence.
Figure 3: Levels of emotional intelligence in the total sample

The data pertaining to the above three categories along with their verbal description is presented in table No.8.

Table -8

*Classification of the total sample on emotional intelligence*

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Score</th>
<th>N</th>
<th>%</th>
<th>Verbal description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Below 117 score</td>
<td>99</td>
<td>16.50</td>
<td>Low</td>
</tr>
<tr>
<td>2.</td>
<td>Between 141 and 117 scores</td>
<td>392</td>
<td>65.30</td>
<td>Moderate</td>
</tr>
<tr>
<td>3.</td>
<td>Above 141 score</td>
<td>109</td>
<td>18.17</td>
<td>High</td>
</tr>
</tbody>
</table>
From table No.8, it can be seen that nearly 17% of the sample college students have low emotional intelligence. 16% of the sample has moderate emotional intelligence and remaining 18% of the sample has high emotional intelligence.

This finding clearly shows that college students differ in their levels of emotional intelligence.

**Hypothesis: 4.** The following variables does not make significant influence in the self-confidence of college students.

(1) Gender (2) Course of study (3) Locality

**Testing of sub-hypothesis**

**Hypothesis: 4.1.** Gender of college students does not make significant influence in their self-confidence.

To test this hypothesis, the following procedure is adopted. Means and SDs for the two sub groups (male and female) have been computed considering the scores on tool which measured self-confidence. From these the standard error of difference between the means was computed and finally critical ratio. The data is presented in table No.9.
Table - 9

Self-confidence – gender – Mean, S.D. and C.R.

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>D</th>
<th>$\sigma_D$</th>
<th>C.R.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>300</td>
<td>16.005</td>
<td>3.736</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>300</td>
<td>16.052</td>
<td>3.727</td>
<td>0.047</td>
<td>0.303</td>
<td>0.154 @</td>
</tr>
</tbody>
</table>

@Not significant at 0.05 level

The obtained C.R. Value (0.154) is less than the table value 1.96. Therefore it is not significant at 0.05 levels. The null hypothesis is retained. In other words gender of the college students does not make any significant influence in their self-confidence. The mean difference (0.047) is in favour of female college students.

Hence it can be inferred that male college students have more self-confidence when compared to their female counterparts, though not statistically significant.

The present findings is in agreement with the findings of Dipika B. Shah, M.Manivannan, 2003; P.K.Subramnaniam, Leena Mathew, 2004; and differed with the findings of Hripsime, A. Kalaian, Donald J. Freeman (1994); Geeta S. Pasteyand Vijayalaxmi A. Aminbhavi, (2006); Tirath Singh and Parminder Kaur (2008); Parvathamma G.H. and Sharanamma R (2010); All Haydarsar, Ramazan Avcu, Abdullah Isiklar (2010).
**Hypothesis: 4.2.** Course of the college students does not make significant influence in their self-confidence.

To test this hypothesis, the following procedure is adopted. Means and SDs for the two sub groups (professional and non professional) have been computed considering the scores on tool which measured self-confidence. From these the standard error of difference between the means was computed and finally critical ratio. The data is presented in table No.10.

**Table - 10**

*Self-confidence – course of study – Mean, S.D. and C.R.*

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>D</th>
<th>$\sigma_D$</th>
<th>C.R.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional</td>
<td>300</td>
<td>16.025</td>
<td>3.743</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non Professional</td>
<td>300</td>
<td>15.9</td>
<td>3.385</td>
<td>0.125</td>
<td>0.291</td>
<td>0.429@</td>
</tr>
</tbody>
</table>

@Not significant at 0.05 level

The obtained C.R. Value (0.429) is less than the table value 1.96. Therefore it is not significant at 0.05 levels. The null hypothesis is retained. In other words course of the college students does not make any significant influence in their self-confidence. The mean difference (0.125) is in favour of professional college students.
Hence it can be inferred that non-professional college students have more self-confidence when compared to their professional counterparts, though not statistically significant.

**Hypothesis: 4.3.** Locality of the college students does not make significant influence in their self-confidence.

To test this hypothesis, the following procedure is adopted. Means and SDs for the two sub groups (rural and urban) have been completed considering the scores on tool which measured self-confidence. From these the standard error of difference between the means was computed and finally critical ratio.

The data is presented in table No.11.

**Table - 11**

**Self-confidence – locality – Mean, S.D. and C.R.**

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>D</th>
<th>(\alpha)D</th>
<th>C.R.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>300</td>
<td>15.964</td>
<td>3.673</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>300</td>
<td>16.025</td>
<td>3.743</td>
<td>0.061</td>
<td>0.301</td>
<td>0.202@</td>
</tr>
</tbody>
</table>

@Not significant at 0.05 level
The obtained C.R. Value (0.202) is less than the table value 1.96. Therefore it is not significant at 0.05 levels. The null hypothesis is retained. In other words locality of the college students does not make any significant influence in their self-confidence. The mean difference (0.061) is in favour of urban college student.

Hence it can be inferred that rural college students have more self-confidence when compared to their urban counterparts, though not statistically significant.

**Hypothesis: 5.** the following variables do not make significant influence in the mental health of college students.

(1) Gender  (2) Course of study  (3) Locality

**Hypothesis: 5.1.** Gender of the college students does not make significant influence in their mental health.

To test this hypothesis, the following procedure is adopted. Means and SDs for the two sub groups (male and female) have been computed considering the scores on tool which measured mental health. From these the standard error of difference between the means was computed and finally critical ratio. The data is presented in table No.12.
Table - 12

*Mental health – gender – Mean, S.D. and C.R.*

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>D</th>
<th>$\alpha_D$</th>
<th>C.R.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>300</td>
<td>128.64</td>
<td>13.115</td>
<td>0.33</td>
<td>1.071</td>
<td>0.308*</td>
</tr>
<tr>
<td>Female</td>
<td>300</td>
<td>128.31</td>
<td>13.145</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

@Not significant at 0.05 level

The obtained C.R. Value (0.308) is less than the table value 1.96. Therefore it is not significant at 0.05 levels. The null hypothesis is retained. In other words gender of the college students does not make any significant influence in their mental health. The mean difference (0.33) is in favour of male college students.

Hence, it can be inferred that male college students have more mental health when compared to their female counterparts, though not statistically significant.


**Hypothesis: 5.2.** Course of study of the college students does not make significant influence in their mental health.

To test this hypothesis, the following procedure is adopted. Means and SDs for the two sub groups (professional and non-professional) have been computed considering the scores on tool which measured mental health. From these the standard error of difference between the means was computed and finally critical ratio. The data is presented in table No.13.

**Table - 13**

*Mental health – course of study – Mean, S.D. and C.R.*

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>D</th>
<th>( \sigma_D )</th>
<th>C.R.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional</td>
<td>300</td>
<td>128.616</td>
<td>13.139</td>
<td>1.822</td>
<td>1.046</td>
<td>1.741@</td>
</tr>
<tr>
<td>Non Professional</td>
<td>300</td>
<td>126.794</td>
<td>12.511</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

@Not significant at 0.05 level
The obtained C.R. Value (1.741) is less than the table value 1.96. Therefore, it is not significant at 0.05 levels. The null hypothesis is retained. In other words, course of the college students does not make any significant influence in their mental health. The mean difference (1.822) is in favour of professional college students.

Hence it can be inferred that professional college students have more mental health when compared to their non professional counterparts, though not statistically significant.

**Hypothesis: 5.3.** Locality of the college students does not make significant influence in their mental health.

To test this hypothesis, the following procedure is adopted. Means and SDs for the two sub groups (rural and urban) have been computed considering the scores on tool which measured mental health. From these the standard error of difference between the means was computed and finally critical ratio. The data is presented in table No.14.

**Table - 14**

*Mental health – locality – Mean, S.D. and C.R.*

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>D</th>
<th>$\sigma_D$</th>
<th>C.R.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>300</td>
<td>128.10</td>
<td>13.03</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>300</td>
<td>128.61</td>
<td>13.13</td>
<td>0.51</td>
<td>1.067</td>
<td>0.477@</td>
</tr>
</tbody>
</table>

@Not significant at 0.05 level
The obtained C.R. Value (0.477) is less than the table value 1.96. Therefore it is not significant at 0.05 levels. The null hypothesis is retained. In other words Locality of the college students does not make any significant influence in their mental health. The mean difference (0.51) is in favour of urban college students.

Hence it can be inferred that urban college students have more mental health when compared to their rural counterparts, though not statistically significant.

The present finding is in agreement with the findings of Pathak R.P. and Rai V.K. (1993); Singh (2008); and not in agreement with the findings of Sarah Basu (2009); Kamau, Catherine Wanjiku., (1992).

**Hypotheses: 6.** The following variables does not make significant influence in the emotional intelligence of college students.

(1) Gender   (2) Course of study   (3) Locality

**Hypothesis: 6.1.** Gender of the college students does not make significant influence in their emotional intelligence.

To test this hypothesis, the following procedure is adopted. Means and SDs for the two sub groups (male and female) have been computed considering the scores on tool which measured emotional intelligence. From these the standard error of difference between the means was computed and finally critical ratio. The data is presented in table No.15.
Table - 15

*Emotional intelligence – gender – Mean, S.D. and C.R.*

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>D</th>
<th>$\sigma_D$</th>
<th>C.R.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>300</td>
<td>129.01</td>
<td>11.59</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>300</td>
<td>129.16</td>
<td>11.68</td>
<td>0.15</td>
<td>0.949</td>
<td>0.157 @</td>
</tr>
</tbody>
</table>

@ Not significant at 0.05 level

The obtained C.R. Value (0.157) is less than the table value 1.96. Therefore it is not significant at 0.05 levels. The null hypothesis is retained. In other words gender of the college students does not make any significant influence in their emotional intelligence. The mean difference (0.15) is in favour of female college students.

Hence it can be inferred that female college students have more emotional intelligence when compared to their male counterparts, though not statistically significant.

the findings of Nutankumar Thingujam And Usha Ram (2000); Shanwal. V.K.
Ghulan Dastgir (2003); Amudha asaph (2006); Deepika Gupta, Neeta
Badiei (2007); Adeyemo.D.A (2008); Sridevi.K.V. & Parveen (2008); Gakhar

**Hypothesis: 6.2.** Course of study of the college students does not make
significant influence in their emotional intelligence.

To test this hypothesis, the following procedure is adopted. Means and
SDs for the two sub groups (professional and non-professional) have been
computed considering the scores on tool which measured emotional
intelligence. From these the standard error of difference between the means
was computed and finally critical ratio. The data is presented in table No.16.

**Table - 16**

*Emotional intelligence – course of study – Mean, S.D. and C.R.*

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>D</th>
<th>$\sigma_D$</th>
<th>C.R.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional</td>
<td>300</td>
<td>129.07</td>
<td>11.67</td>
<td>1.3</td>
<td>0.948</td>
<td>1.371@</td>
</tr>
<tr>
<td>Non Professional</td>
<td>300</td>
<td>127.77</td>
<td>11.58</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

@ Not significant at 0.05 level

The obtained C.R. Value (1.371) is less than the table value 1.96.
Therefore it is not significant at 0.05 levels. The null Hypothesis is retained.
In other words course of the college students does not make any significant difference in their emotional intelligence. The mean difference (1.3) is in favour of professional college students.

Hence, it can be inferred that professional college students have more emotional intelligence when compared to their non professional counterparts, though not statistically significant.

**Hypothesis: 6.3.** Locality of the college students does not make significant influence in their emotional intelligence.

To test this hypothesis, the following procedure is adopted. Means and SDs for the two sub groups (rural and urban) have been computed considering the scores on tool which measured emotional intelligence. From these the standard error of difference between the means was computed and finally critical ratio. The data is presented in table No.17.

**Table - 17**

*Emotional intelligence – locality – Mean, S.D. and C.R.*

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>D</th>
<th>$\sigma_D$</th>
<th>C.R.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>300</td>
<td>128.80</td>
<td>11.57</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>300</td>
<td>129.07</td>
<td>11.67</td>
<td>0.27</td>
<td>0.948</td>
<td>0.284@</td>
</tr>
</tbody>
</table>

@Not significant at 0.05 level
The obtained C.R. Value (0.284) is less than the table value 1.96. Therefore it is not significant at 0.05 levels. The null hypothesis is retained. In other words locality of the college students does not make any significant influence in their emotional intelligence. The mean difference (0.27) is in favour of urban college students.

Hence it can be inferred that urban college students have more emotional intelligence when compared to their rural counterparts.

The present finding is in agreement with the findings of Sumanta Kumar Panndda(2009); and differed with the findings of Shanwal. V.K. Ghulan Dastgir (2003); Amudha asaph (2006); Manhas.H.D., &Gakhar.S.C.,(2006); Darsana. M., (2007).

**Hypothesis: 7.** there is no significant relationship between self-confidence and mental health of college students.

To test the hypothesis, the coefficient of correlation between the scores of self-confidence and mental health is computed. The obtained value is 0.510. It is presented in table No.18.

**Table - 18**

*Correlation between self-confidence and mental health*

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-confidence</td>
<td>600</td>
<td></td>
</tr>
<tr>
<td>Mental health</td>
<td>600</td>
<td>0.510</td>
</tr>
</tbody>
</table>
The significance of the obtained coefficient of correlation is verified basing on the procedure suggested by Garrett H.E. The obtained value is 0.510. It is greater than the table value (0.0115) for 500 deference at 0.01 level. Therefore, there exists a significant positive correlation between self-confidence and mental health of college students.

**Hypothesis: 8.** the following variables do not make significant influence in the self-confidence and mental health of college students.

(1) Gender     (2) Course of study     (3) Locality

**Hypothesis: 8.1.** Gender of college students does not make significant influence on the relationship between self-confidence and mental health.

To test this sub hypothesis the following procedure is adopted. The coefficients of correlation between the scores on self-confidence and mental health have been computed separately for the two sub groups (male and female) of the whole group. These ‘r’s are converted into Fisher Z coefficient (Tables in Page No. 460 of statistics in psychology and education by Garett H.E.). The standard error between ‘Z’s is obtained as per the procedure suggested by Garett H.E. (copy of the worked out example is presented in Appendix-). The data is presented in table No.19.
As it is obvious from table-19, that the obtained C.R. value (0.04) is less than the table value 1.96. Hence it is not significant at 0.05 levels. Therefore, the null hypothesis is accepted.

It can be inferred that gender of college students do not make significant influence on the relationship of self-confidence and mental health.

The present finding is in agreement with the findings of Subramaniam.P.K., Leena Mathew,(2004).

**Hypothesis: 8.2.** Course of study of college students does not make significant influence on the relationship between self-confidence and mental health.

To test this sub hypotheses the following procedure is adopted. The coefficients of correlation between the scores on self-confidence and mental health have been computed separately for the two sub groups (professional and non professional) of the whole group. These ‘r’s are converted into Fisher Z coefficient (Tables in page No. 460 of statistics in psychology and
education by Garett H.E.) The standard error between ‘Z’s is obtained as per
the procedure suggested by Garett H.E. The data is presented in table No.20.

**Table - 20**

*Self-confidence and mental health – course of study – rs – C.R.*

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>r</th>
<th>Z</th>
<th>D</th>
<th>$\sigma_{DZ}$</th>
<th>C.R.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional</td>
<td>300</td>
<td>0.509</td>
<td>0.55</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non Professional</td>
<td>300</td>
<td>0.572</td>
<td>0.56</td>
<td>0.01</td>
<td>.08</td>
<td>0.07@</td>
</tr>
</tbody>
</table>

@Not significant at 0.05 level

As it is obvious from table 20, that the obtained C.R. value (0.07) is less
than the table value 1.96. Hence it is not significant at 0.05 levels. Therefore
the null hypothesis is accepted.

It can be inferred that course of college students do not make significant
influence on the relationship of self-confidence and mental health.

**Hypothesis: 8.3.** Locality of college students does not make significant
influence on the relationship between self-confidence and mental health.

To test this sub hypotheses the following procedure is adopted. The
coefficients of correlation between the scores on self-confidence and mental
health have been computed separately for the two sub groups (rural and
urban) of the whole group. These ‘r’s are converted into Fisher Z coefficient
(Tables in Page No. 460 of statistics in psychology and education by Garett
H.E.) The standard error between ‘Z’s is obtained as per the procedure
suggested by Garett H.E. The data is presented in table No.21.

Table - 21

Self-confidence and mental health – locality – rs – C.R.

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>r</th>
<th>Z</th>
<th>D</th>
<th>σ_DZ</th>
<th>C.R.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>300</td>
<td>0.504</td>
<td>0.55</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>300</td>
<td>0.509</td>
<td>0.56</td>
<td>0.01</td>
<td>0.08</td>
<td>0.07@</td>
</tr>
</tbody>
</table>

@Not significant at 0.05 level

As it is obvious from table 21, that the obtained C.R. value (0.07) is less
than the table value 1.96. Hence it is not significant at 0.05 levels. Therefore
the null hypothesis is accepted.

It can be inferred that locality of college students do not make significant
influence on the relationship of self-confidence and mental health.

**Hypothesis: 9.** there is no significant relationship between self-confidence
and emotional intelligence of college students.
To test the hypothesis the coefficient of correlation between the scores of self-confidence and emotional intelligence is computed. The obtained value is 0.270. It is presented in table No.22

**Table – 22**

*Correlation between Self-confidence and emotional intelligence*

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-confidence</td>
<td>600</td>
<td></td>
</tr>
<tr>
<td>Emotional intelligence</td>
<td>600</td>
<td>0.270</td>
</tr>
</tbody>
</table>

The significance of the obtained coefficient of correlation is verified basing on the procedure suggested by Garrett H.E. The obtained value is 0.270. It is greater than the table value (0.0115) for 500 difference at 0.01 level. Therefore there exists a significant positive correlation between self-confidence and emotional intelligence of college students.

**Hypothesis: 10.** The following variables do not make significant influence on the relationship between self-confidence and emotional intelligence of college students.

1. Gender  
2. Course of study  
3. Locality

**Hypotheses: 10.1.** Gender of college students does not make significant influence on the relationship between self-confidence and emotional intelligence.
To test this sub hypothesis the following procedure is adopted. The coefficients of correlation between the scores on self-confidence and emotional intelligence have been computed separately for the two sub groups (male and female) of the whole group. These ‘r’s are converted into Fisher Z coefficient (Tables in Page No. 460 of statistics in psychology and education by Garrett H.E.) the standard error between ‘Z’s is obtained as per the procedure suggested by Garrett H.E. The data is presented in table No.23.

Table - 23

**Self-confidence and emotional intelligence – gender – rs – C.R.**

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>r</th>
<th>Z</th>
<th>D</th>
<th>(\sigma_{DZ})</th>
<th>C.R.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>300</td>
<td>0.266</td>
<td>0.28</td>
<td>0.01</td>
<td>0.08</td>
<td>0.07@</td>
</tr>
<tr>
<td>Female</td>
<td>300</td>
<td>0.258</td>
<td>0.27</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

@Not significant at 0.05 level

As it is obvious from table 23, that the obtained C.R. value (0.07) is less than the table value 1.96. Hence it is not significant at 0.05 levels. Therefore the null hypothesis is accepted.

It can be inferred that gender of college students do not make significant influence on the relationship of self-confidence and emotional intelligence.
**Hypothesis: 10.2.** Course of study of college students does not make significant influence on the relationship between self-confidence and emotional intelligence.

To test this sub hypothesis the following procedure is adopted. The coefficients of correlation between the scores on self-confidence and emotional intelligence have been computed separately for the two sub groups (professional and non professional) of the whole group. These ‘r’s are converted into Fisher Z coefficient (Tables in Page No. 460 of statistics in psychology and education by Garett H.E.) the standard error between ‘Z’s is obtained as per the procedure suggested by Garett H.E. The data is presented in table No.24.

**Table - 24**

*Self-confidence and emotional intelligence – course of study – rs – C.R.*

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>r</th>
<th>Z</th>
<th>D</th>
<th>0.DZ</th>
<th>C.R.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional</td>
<td>300</td>
<td>0.270</td>
<td>0.28</td>
<td>0.06</td>
<td>0.08</td>
<td>0.75@</td>
</tr>
<tr>
<td>Non Professional</td>
<td>300</td>
<td>0.222</td>
<td>0.22</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

@Not significant at 0.05 level

As it is obvious from table 24, that the obtained C.R. value (0.75) is less than the table value 1.96. Hence it is not significant at 0.05 levels. Therefore the null hypothesis is accepted.
It can be inferred that course of college students do not make significant influence on the relationship of self-confidence and emotional intelligence.

Hypothesis: 10.3. Locality of college students does not make significant influence on the relationship between self-confidence and emotional intelligence.

To test this sub hypothesis the following procedure is adopted. The coefficients of correlation between the scores on self-confidence and emotional intelligence have been computed separately for the two sub groups (rural and urban) of the whole group. These ‘r’s are converted into Fisher Z coefficient (Tables in Page No. 460 of statistics in psychology and education by Garett H.E.). The standard error between ‘Z’s is obtained as per the procedure suggested by Garett H.E. The data is presented in table No.25.

Table - 25

*Self-confidence and emotional intelligence – locality – rs – C.R.*

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>r</th>
<th>Z</th>
<th>D</th>
<th>σDZ</th>
<th>C.R.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>300</td>
<td>0.244</td>
<td>0.24</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>300</td>
<td>0.270</td>
<td>0.28</td>
<td>0.04</td>
<td>0.08</td>
<td>0.05@</td>
</tr>
</tbody>
</table>

@Not significant at 0.05 level
As it is obvious from table 25, that the obtained C.R. value (0.05) is less than the table value 1.96. Hence it is not significant at 0.05 levels. Therefore the null hypothesis is accepted.

It can be inferred that locality of college students do not make significant influence on the relationship of self-confidence and emotional intelligence.

**Hypothesis: 11.** There is no significant relationship between mental health and emotional intelligence of college students.

To test the hypothesis, the coefficient of correlation between the scores of mental health and emotional intelligence is computed. The obtained value is 0.198. It is presented in table No.26.

**Table - 26**

*Correlation between mental health and emotional intelligence*

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mental health</td>
<td>600</td>
<td></td>
</tr>
<tr>
<td>Emotional intelligence</td>
<td>600</td>
<td>0.198</td>
</tr>
</tbody>
</table>

The significance of the obtained coefficient of correlation is verified basing on the procedure suggested by Garrett H.E. The obtained value is
0.198. It is greater than the table value (0.0115) for 500 df at 0.01 level. Therefore, there exists a significant positive correlation between mental health and emotional intelligence of college students.

**Hypothesis: 12.** The following variables do not make significant influence on the relationship between mental health and emotional intelligence of college students.

(1) Gender    (2) Course of study    (3) Locality

**Hypothesis: 12.1.** Gender of college students does not make significant influence on the relationship between mental health and emotional intelligence.

To test this sub hypothesis the following procedure is adopted. The coefficients of correlation between the scores on mental health and emotional intelligence have been computed separately for the two sub groups (male and female) of the whole group. These ‘r’s are converted into Fisher Z coefficient (Tables in Page No. 460 of statistics in psychology and education by Garett H.E.) The standard error between ‘Z’s is obtained as per the procedure suggested by Garett H.E. The data is presented in table No. 27.
As it is obvious from table 25, that the obtained C.R. value (0.00) is less than the table value 1.96. Hence it is not significant at 0.05 levels. Therefore the null hypothesis is accepted.

It can be inferred that gender of college students do not make significant influence on the relationship of mental health and emotional intelligence.

The present finding is disagreement with the finding of Kedrnath.B.J., (2003).

**Hypothesis: 12.2.** Course of study of college students does not make significant influence on the relationship between mental health and emotional intelligence.

To test this sub hypothesis the following procedure is adopted. The coefficients of correlation between the scores on mental health and emotional intelligence.
intelligence have been computed separately for the two sub groups (professional and non professional) of the whole group. These ‘r’s are converted into Fisher Z coefficient (Tables in Page No. 460 of statistics in psychology and education by Garett H.E.) the standard error between ‘Z’s is obtained as per the procedure suggested by Garett H.E. The data is presented in table No.28.

Table - 28

Mental health and emotional intelligence – course of study – rs – C.R.

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>r</th>
<th>Z</th>
<th>D</th>
<th>( \sigma_{DZ} )</th>
<th>C.R.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional</td>
<td>300</td>
<td>0.19</td>
<td>0.19</td>
<td>0.05</td>
<td>0.08</td>
<td>0.06@</td>
</tr>
<tr>
<td>Non Professional</td>
<td>300</td>
<td>0.14</td>
<td>0.14</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

@Not significant at 0.05 level

As it is obvious from table 28, that the obtained C.R. value (0.06) is less than the table value 1.96. Hence it is not significant at 0.05 levels. Therefore, the null hypothesis is accepted.

It can be inferred that course of college students do not make significant influence on the relationship of mental health and emotional intelligence.
**Hypothesis: 12.3.** Locality of college students does not make significant influence on the relationship between mental health and emotional intelligence.

To test this sub hypothesis the following procedure is adopted. The coefficients of correlation between the scores on mental health and emotional intelligence have been computed separately for the two sub groups (rural and urban) of the whole group. These ‘r’s are converted into Fisher Z coefficient (Tables in Page No. 460 of statistics in psychology and education by Garett H.E.). The standard error between ‘Z’ s is obtained as per the procedure suggested by Garett H.E. The data is presented in table No.29.

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>R</th>
<th>Z</th>
<th>D</th>
<th>$\sigma_{DZ}$</th>
<th>C.R.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>300</td>
<td>0.157</td>
<td>0.16</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>300</td>
<td>0.198</td>
<td>0.20</td>
<td>0.04</td>
<td>0.08</td>
<td>0.05@</td>
</tr>
</tbody>
</table>

@Not significant at 0.05 level
As it is obvious from table 29, that the obtained C.R. value (0.05) is less than the table value 1.96. Hence it is not significant at 0.05 levels. Therefore, the null hypothesis is accepted.

It can be inferred that locality of college students do not make significant influence on the relationship of mental health and emotional intelligence.

**Hypothesis: 13.** There is no significant relationship among self-confidence, mental health and emotional intelligence of college students.

To test this hypothesis, R (coefficient of Multiple Correlation) has been computed as per the procedure suggested by Garrett H.E.

The obtained value \( R_{1.23} = 0.720 \).

‘The coefficient of correlation between observed scores on some trait and scores predicted for that trait by a multiple regression equation is called a coefficient of multiple correlation coefficient” walker and lew.

The multiple correlation coefficient is determined as the Pearson’s product moment correlation coefficient between observed values of a variable \( X_1 \) and the theoretical values given by the equation of linear regression of \( X_1 \) on or two more other variables \( X_2, X_3 \ldots \ X_K \). This coefficient of joint correlation could always be obtained by finding the theoretical score \( X_1 \) by using the appropriate regression equation and correlating these with the observed scores. The Pearson’s rs are the basic elements of this technique.
The coefficient of multiple correlation of $X_1$ with $X_2$ and $X_3$ which is usually denoted by the symbol $R_{1.23}$. The multiple correlation $R$ is related to the inter correlation of independent variables as well as to their correlation with dependent variable. Here the computed coefficient of correlation value (Multiple $R=0.720$) is for three variables of self-confidence, mental health, emotional intelligence of college students.

Significance of multiple correlations ($R$)

The statistical inferences are drawn after testing the significance of $R$ value. The interpretation may be valid testing the significance of calculated value of $R$. The $F$-test is applied for this purpose and the following formula is used (Sharma, R.A., P.P.No.410).

$$ F = \frac{R^2}{1 - R^2} \frac{N - K - 1}{K} $$

$df$ for $F$ value $df1 = K$, $df2 = (N-K-1)$

$R = $ Multiple determination.

$N = $ Size of the sample.

$K = $ Number of variables.

$F$-Value (161.31) for df 3 and 908 is greater than the table value (3.80). Therefore it is significant at 0.01 levels. Hence the null hypothesis is rejected. It may be stated that $R$ is highly significant.
4.5. Major findings

1. 17% of the sample college students have low self-confidence. 66% of the sample has moderate self-confidence and remaining 17% have high Self-confidence.

2. 17% of the sample college students have low mental health. 66% of the sample has moderate mental health and remaining 17% have high mental health.

3. 17% of the sample college students have low emotional intelligence. 65% of the sample has moderate emotional intelligence and remaining 18% have high emotional intelligence.

4. The self-confidence of male college students is found to be more than the self-confidence of female college students.

5. The self-confidence of non-professional college students is found to be more than the self-confidence of professional college students.

6. The self-confidence of rural college students is found to be more than the self-confidence of urban college students.

7. The mental health of male college students is found to be more than the mental health of female college students.

8. The mental health of professional college students is found to be more than the mental health of non-professional college students.
9. The mental health of urban college students is found to be more than the mental health of rural college students.

10. The emotional intelligence of female college students is found to be more than the emotional intelligence of male college students.

11. The emotional intelligence of professional college students is found to be more than the emotional intelligence of non-professional college students.

12. The emotional intelligence of urban college students is found to be more than the emotional intelligence of rural college students.

13. There is a significant relationship between self-confidence and mental health of college students.

14. Gender, course of study and locality do not make any significant influence on the relationship between self-confidence and mental health of the sample college students.

15. There is a significant relationship between self-confidence and emotional intelligence of college students.

16. Gender, course of study and locality do not make any significant influence on the relationship between self-confidence and emotional intelligence of the sample college students.
17. There is a significant relationship between mental health and emotional intelligence of college students.

18. Gender, course of study and locality do not make any significant influence on the relationship between mental health and emotional intelligence of the sample college students.

19. There is a highly significant positive correlation among self-confidence, mental health and emotional intelligence.