CHAPTER - IV
RESULTS

In the previous chapter certain hypotheses have been formulated with the help of the data calculated during the investigation. In this chapter an attempt has been made to analyse the obtained data. The purpose of the present research was to study the emotional intelligence and job satisfaction among doctors and nurses. The present research comprises three independent variables. The first independent variable profession has been symbolized as 'A' having two levels as A_1 and A_2. The second independent variable type of hospital symbolized as 'B' which has been also varied at two levels. They are symbolized as B_1 and B_2 respectively. The third independent variable, length of service, symbolized as 'C' having three distinct categories as C_1, C_2 and C_3 respectively.

The raw data have been obtained from all 300 subjects by using emotional intelligence and job satisfaction scales. To analyse the data, three-way Analysis of Variance is used. From the result reported in Analysis of Variance summary table, it is evident that there are significant differences among them. More specific comparisons have been made among the means by using Newman-Keuls Test. Furthermore, mean values for different levels of three variables as

well as for different cells involved in significant interaction effects have been calculated. The computed means are given in different tables. Main effects and interaction effects have also been presented graphically.

The present research was framed to find out the effect of some independent variables on emotional intelligence and job satisfaction. Therefore, after tabulating the data for its statistical analysis and interpretation, this chapter has been divided into two sections; 'A' the first section deals with results related to emotional intelligence. 'B' the second section deals with results related to job satisfaction.

RESULTS RELATED TO EMOTIONAL INTELLIGENCE:

In the first section of the present research, the three independent variables namely profession, type of hospital and length of service are selected to find out their effects on emotional intelligence.

Results of 2×2×3 Analysis of Variance for emotional intelligence scores are summarized in table 4.1.

Table – 4.1

Summary Table of Analysis of Variance for Emotional Intelligence

Source of Variance	SS	df	MS	F
A (Profession)	23056.34	1	23056.34	36.49**
B (Type of Hospital)	27113.02	1	27113.02	42.91**
C (Length of Service)	86641.33	2	43320.67	68.56**
A×B	2652.19	1	2652.19	4.20*
A×C	2922.73	2	1461.37	2.31
B×C	8831.25	2	4415.63	6.99**
A×B×C	16071.18	2	8035.59	12.72**
Within treatment (error)	181973.68	288	631.85	—
Total	**349261.72**	**299**		

** Denotes significant at .01 level of confidence

* Denotes significant at .05 level of confidence

INTERPRETATION OF THE RESULTS:

Main Effects:

(i) Effect of Profession (Factor A):

In the present investigation, first factor profession is varied at two levels that are doctors and nurses, they are symbolized as A_1 and A_2. Table 4.1 reveals that the F value for factor 'A' is (1,288)= 36.49, $p<.01$. It means that 'F' ratio for factor 'A' is significant at .01 level of confidence. The significant F value leads to conclude that different categories of profession are influential factor on the degree of

emotional intelligence. It is asserted that differences in emotional intelligence of subjects of different professions are not due to chance, but due to independent variable (Profession). Thus, the hypothesis that there will be significant effect of profession on emotional intelligence is accepted.

In order to know which group has the maximum score of emotional intelligence and which has the minimum score the obtained mean scores of each profession in terms of emotional intelligence are given in table 4.2.

Table 4.2

Mean Scores of Emotional Intelligence for Factor 'A'

(Doctors and Nurses)

A (Profession)	N	Total	Mean
A_1 (Doctors)	150	15374	102.49
A_2 (Nurses)	150	18004	120.03

Table 4.2 indicates that nurses have scored higher on emotional intelligence in comparison to the doctors. The mean score of emotional intelligence for nurses is greater than the mean score of emotional intelligence for doctors. It signifies that doctors have lower emotional intelligence than nurses. The characteristics of data become more clear when mean values are presented graphically in form of bar diagram. Figure 4.1 shows the both levels of profession (Factor A) along the X-axis and mean scores of emotional intelligence on Y-axis.

An inspection of the bar diagram (Figure 4.1) makes it evident, that there is a significant difference in the degree of emotional intelligence of doctors and nurses.

(ii) Effect of Type of Hospital (Factor B):

The second independent variable of this research is type of hospital (factor B), it has also been varied at two levels, Government and Private. They are symbolized as B_1 and B_2. Table 4.1 indicates that F value for factor 'B' is (1, 288)=42.91, p<.01, which is significant at .01 level of confidence. It indicates that there is significant difference in the degree of emotional intelligence of doctors and nurses of government and private hospital. Now it may be said that type of hospital is a significant influencing factor for emotional intelligence. Thus the hypothesis that there will be significant effect of type of hospital on emotional intelligence is accepted.

For knowing this significant difference, obtained mean values are given in table 4.3.

Table 4.3

Mean Scores of Emotional Intelligence for Factor 'B'

(Government and Private Hospitals)

B (Type of Hospital)	N	Total	Mean
B_1 (Government)	150	15263	101.75
B_2 (Private)	150	18115	120.77

A close look of table 4.3 specifies that the degree of emotional intelligence in doctors and nurses of private hospitals is more than the doctors and nurses of government hospitals. Mean scores of table 4.3 are also presented in a graphic form in figure 4.2. The X-axis contains two levels of factor 'B' and Y-axis contains the mean scores of emotional intelligence. The bar diagram (Figure 4.2) makes a clear picture of significant difference in the degree of emotional intelligence of doctors and nurses of government and private hospitals.

(iii) Effect of Length of Service (Factor-C):

The third independent variable which has been investigated, as length of service, varied at three levels that are 1-3 years, 5-7 years and above 9 years. They are symbolized as C_1, C_2 and C_3. A glance at the Analysis of Variance table 4.1 indicates that the computed F value for factor 'C' is (2, 288)=68.56, $p<.01$. It reveals that length of service of doctors and nurses of government and private hospitals significantly affects the degree of emotional intelligence at .01 level of confidence. So the hypothesis that there will be significant effect of length of service on emotional intelligence is accepted.

Mean while, the fact reveals that length of service significantly affects the level of emotional intelligence. It is also signified by the mean of each group, which stand apart. In order to know which group has high emotional intelligence and which has low emotional

intelligence, mean scores for each group of length of service are given in table 4.4.

Table 4.4

Mean Scores of Emotional Intelligence for Factor 'C'

(Length of Service)

C (Length of Service)	N	Total	Mean
C_1 (1-3 years)	100	9960	99.60
C_2 (5-7 years)	100	9889	98.89
C_3 (above 9 years)	100	13529	135.29

The table 4.4 indicates that the doctors and nurses who have above 9 years length of service scored higher on emotional intelligence scale in comparison to other two groups. Thus, the doctors and nurses who have above 9 years length of service have the highest degree of emotional intelligence, while the doctors and nurses who have 5-7 years length of service have lowest degree of emotional intelligence and the doctors and nurses who have 1-3 years length of service are in the middle range. The characteristics of the data become quite clear, when mean values are represented graphically in the form of bar diagram, which shows different length of service along the X-axis and emotional intelligence mean scores along the Y-axis in figure 4.3.

To test the significance of mean difference, Newman-Keuls (1939) test has been used. The summary of the results is given in table 4.5.

Table 4.5

Summary of Newman-Keuls Comparison Test for Main Effect of Length of Service (C) on Emotional Intelligence

Ordered Means	Ordered Means		
	C_2 98.89	**C_1 99.60**	**C_3 135.29**
C_2 98.89		0.71	36.40**
C_1 99.60			35.69**

** Denotes significant at 0.01 level of confidence.

The inspection of the table indicates that among all the three comparisons only two comparisons are found significant at .01 level. These significant comparisons are found between C_2 & C_3 and C_1 & C_3. The other comparison between C_2 & C_1 have failed to touch any significant level. So it may be stated that doctors and nurses who have 5-7 years and above 9 years length of service and doctors and nurses who have 1-3 years and above 9 years length of service are significantly differ in regard to their degree of emotional intelligence.

Interaction Effects:

In addition to the main effects of three independent variables, the interaction effects between the various combinations of these variables have been computed. These interactions are summarized in table 4.1.

Two Factor Interaction Effects:

Since 2×2×3 factorial design has been used, there are only three possible two-factor interactions. All these interactions have been discussed below:

(i) Interaction Effect of Profession and Type of Hospital (A×B):

The interaction effect between profession and type of hospital is found significant. The F-ratio for A×B interaction is (1,288)=4.20, $p<.05$. This significant interaction between profession and type of hospital shows that these two variables are dependent on each other. Thus the hypothesis that there will be significant interaction effect between profession and type of hospital on emotional intelligence is accepted.

For showing the interaction of variables, mean scores are given in table 4.6.

Table 4.6

Mean Scores of Emotional Intelligence for A×B interaction (Profession × Type of Hospital)

A (Profession)	B (Type of Hospital)					
	B_1 (Government)			B_2 (Private)		
	Total	N	Mean	Total	N	Mean
A_1 (Doctors)	7197	75	95.96	8177	75	109.03
A_2 (Nurses)	8066	75	107.55	9938	75	132.51

An inspection of table 4.6 reveals that the mean value of A_1B_2 (M=109.03) is higher than the mean value of A_1B_1 (M=95.96). So it may be said that doctors of private hospitals have more emotional intelligence as compared to the doctors of government hospitals. Further, the table indicates that the mean value of A_2B_2 (M=132.51) is higher than the mean value of A_2B_1 (M=107.55). So it may be concluded that nurses of private hospitals have more emotional intelligence as compared to the nurses of government hospitals.

Mean scores of emotional intelligence for A×B interaction are also presented graphically in figure 4.4, showing both profession along the X-axis and mean scores of emotional intelligence along the Y-axis. It can be seen in figure 4.4 that the lines are not parallel so it may be concluded that the both levels of factor B are influencing the factor A in different manner so the interaction between A×B have been found significant.

(ii) Interaction Effect of Profession and Length of Service (A×C):

A close look of Analysis of Variance table (table 4.1) indicates that the F value of A×C interaction is (2, 288)=2.31, p>.05. It has not been found statistically significant. It means, the difference between two means of Factor 'A' is not significantly differ for the three means of factor 'C'. So these two variables do not depend on each other. Thus the hypothesis that there will be significant interaction effect between profession and length of service on emotional intelligence is rejected.

The obtained mean scores of emotional intelligence in terms of profession and length of service are given in table 4.7.

Table 4.7

Mean Scores of Emotional Intelligence for A×C interaction

(Profession × Length of Service)

C (Length of Service)	A (Profession)					
	A_1 (Doctors)			A_2 (Nurses)		
	Total	N	Mean	Total	N	Mean
C_1 (1-3 years)	4402	50	88.04	5558	50	111.16
C_2 (5-7 years)	4724	50	94.48	5165	50	103.30
C_3 (above 9 years)	6248	50	124.96	7281	50	145.62

The table indicates that the mean value is higher in the group A_2C_1 (M=111.16) as compared to the mean value of A_1C_1 (M=88.04). These value reveals that the nurses who have 1-3 years length of service have more emotional intelligence than the doctors of this group. Further the table shows that the mean value of A_2C_2 (M=103.3) is higher than A_1C_2 (M=94.48). It shows that the nurses who have 5-7 years of service have higher degree of emotional intelligence than doctors of this group. The mean value of group A_2C_3 (M=145.62) is also higher than the group A_1C_3 (M=124.96). It shows that the nurses who have above 9 years length of service have more emotional intelligence than the doctors of this group. On the every level of Factor 'C' nurses have higher degree of emotional intelligence than

doctors. The mean scores of interaction (A×C) are also presented in figure 4.5, showing different level of length of service along the X-axis and mean scores of emotional intelligence along to Y-axis. This figure also indicates that the nurses have higher emotional intelligence than the doctors at every level of factor C.

(iii) Interaction Effect of Type of Hospital and Length of Service (B×C):

By the inspection of the table 4.1, it may be said that the interaction between type of hospital and length of service has been found significant. The F value for B×C is (2, 288)=6.99, $p<.01$. It means 'F' ratio for B×C is significant at .01 level of confidence. Now, it may be summarized that type of hospital and length of service influences to each other, so they are interdependent. Thus, the hypothesis that there will be significant interaction effect between type of hospital and length of service on emotional intelligence is accepted.

In order to know the pattern of the difference, the mean scores of emotional intelligence of doctors and nurses related to government and private hospitals at each level of length of service are given in the table 4.8.

Table 4.8

Mean Scores of Emotional Intelligence for B×C interaction

(Type of Hospital × Length of Service)

C (Length of Service)	B (Type of Hospital)					
	B_1 (Government)			B_2 (Private)		
	Total	N	Mean	Total	N	Mean
C_1 (1-3 years)	4172	50	83.44	5788	50	115.76
C_2 (5-7 years)	4801	50	96.02	5088	50	101.76
C_3 (above 9 years)	6290	50	125.8	7239	50	144.78

The mean values of table indicate that there are significant interaction effects in the variables. The mean value of the group B_1C_3 (M=125.8) is higher than the mean value of the B_1C_1 (M=83.44) and B_1C_2 (M=96.02). It shows that the doctors and nurses of government hospitals who have above 9 years length of service have highest emotional intelligence. While the doctors and nurses who have 1-3 years length of service have lowest degree of emotional intelligence.

Further the table shows that the mean value of the group B_2C_3 (M=144-78) is higher than the mean value of the B_2C_1 (M=115.76) and B_2C_2 (M=101.76). It indicates that the doctors and nurses of private hospitals who have above 9 years length of service have highest degree of emotional intelligence, the doctors and nurses who have 5-7 years length of service have lowest level of emotional intelligence. So it may be inferred that type of hospital and length of service are interdependent.

This significant interaction of factors B×C have also been further highlighted by its graphical representation taking length of service on X-axis and mean scores of emotional intelligence along to Y axis, as shown in figure 4.6. The figure demonstrates the interaction pattern of the mean scores of doctors and nurses of government and private hospitals at three levels of length of service.

For the detailed interpretation of the results the difference between means, computed with the help of Newman-Keuls test, which has been shown in table 4.9.

Table 4.9

Summary of Newman-Keuls Test for B×C interaction (Type of Hospital × Length of Service) on Emotional Intelligence

Ordered Means	**Ordered Means**					
	B_1C_1 83.44	**B_1C_2 96.02**	**B_2C_2 101.76**	**B_2C_1 115.76**	**B_1C_3 125.8**	**B_2C_3 144.78**
B_1C_1 83.44		12.58*	18.32**	32.32**	42.36**	61.34**
B_1C_2 96.02			5.74	19.74**	29.78**	48.76**
B_2C_2 101.76				14.00**	24.04**	43.02**
B_2C_1 115.76					10.04*	29.02**
B_1C_3 125.8						18.98**

** Denotes significant at .01 level of confidence.

* Denotes significant at .05 level of confidence.

A close look at table 4.9 specifies that out of fifteen comparisons, twelve comparisons are significant at .01 level of confidence and two comparisons are significant at .05 level of confidence. These significant comparisons are between B_1C_1 & B_1C_2, B_1C_1 & B_2C_2, B_1C_1 & B_2C_1, B_1C_1 & B_1C_3, B_1C_1 & B_2C_3, B_1C_2 & B_2C_1, B_1C_2 & B_1C_3, B_1C_2 & B_2C_3, B_2C_2 & B_2C_1, B_2C_2 & B_1C_3, B_2C_2 & B_2C_3, B_2C_1 & B_1C_3, B_2C_1 & B_2C_3, B_1C_3 & B_2C_3. Only one comparison is found to be insignificant.

Three Factors Interaction Effect:

Finally, a three-factor interaction effect of the variables has been calculated and is mentioned in summary table of Analysis of Variance (Table 4.1). An interpretation of this effect is given below:

Interaction Effect of Profession, Type of Hospital and Length of Service (A×B×C):

Since 2×2×3 factorial design has been used, so there is a single three-way interaction (A×B×C). The F value (2,288)=12.72, $p<.01$ shows that this three way interaction effect is significant. It is concluded that profession, type of hospital and length of service are not affecting emotional intelligence independently, but these factors work together to influence emotional intelligence. Thus, the hypothesis that there will be significant interaction effect among profession, type of hospital and length of service on emotional intelligence is accepted. In order to know the interdependence of

profession, type of hospital and length of service the mean scores of these three variables are computed and presented in table 4.10.

Table – 4.10

Mean Scores of Emotional Intelligence for A×B×C Interaction (Profession × Type of Hospital × Length of Service)

C (Length of Service)	A (Profession)											
	A_1(Doctors)						A_2 (Nurses)					
	B (Type of Hospital)											
	B_1 (Government)			B_2 (Private)			B_1 (Government)			B_2 (Private)		
	Total	N	Mean	Total	N	Mean	Total	N	Mean	Total	N	Mean
C_1 (1-3 Years)	2048	25	81.92	2354	25	94.16	2124	25	84.96	3434	25	137.36
C_2 (5-7 Years)	2440	25	97.60	2284	25	91.36	2361	25	94.44	2804	25	112.16
C_3 (Above 9 Years)	2709	25	108.36	3539	25	141.56	3581	25	143.24	3700	25	148.00

An inspection of table 4.10 reveals that the mean value of $A_1B_2C_1$ (M=94.16) is higher than the mean value of $A_1B_1C_1$ (M=81.92). So it may be said that the doctors of private hospitals who have 1-3 years length of service have more emotional intelligence than the doctors of government hospitals of this group. The table shows that the mean value of $A_1B_1C_2$ (M=97.60) is higher than the mean value of $A_1B_2C_2$ (M=91.36). This value indicates that the doctors of government hospitals who have 5-7 years length of service have higher degree of emotional intelligence than the doctors of private hospitals of this group. The next value of the table shows that $A_1B_2C_3$ (M=141.56) is higher than the value of $A_1B_1C_3$ (M=108.36). So it may

be concluded that the doctors of private hospitals who have above 9 years length of service have higher emotional intelligence than the doctors of government hospitals of this group. The mean value of $A_2B_2C_1$ (M=137.36) is higher than the value of $A_2B_1C_1$ (M=84.96). This value indicates that the nurses of private hospitals who have 1-3 years length of service have more emotional intelligence than the nurses of government hospitals of this group. The next value of table 4.10 shows that group $A_2B_2C_2$ (M=112.16) is higher than the value of $A_2B_1C_2$ (M=94.44). So the nurses of private hospitals who have 5-7 years length of service have more emotional intelligence than the nurses of government hospitals of this group. The last table value of $A_2B_2C_3$ (M=148.0) is higher than the value of $A_2B_1C_3$ (M=143.24). So it may be said that the nurses of private hospitals who have above 9 years length of service have higher degree of emotional intelligence than the nurses of government hospitals of this group. So finally it may be concluded that each level of the variables (A×B×C) is dependent on each other, and it may be inferred that profession, type of hospital and length of service affects the level of emotional intelligence.

The data have further been represented graphically to highlight the exact pattern of the interaction effect of these three factors in figure 4.7. It shows the mean scores of emotional intelligence of doctors and nurses against the two levels of type of hospital for three different levels of length of service.

Thus, the graph makes it clear that the doctors of government hospitals above 9 years length of service have highest degree of emotional intelligence as compared to 5-7 years and 1-3 years length of service. On the other hand doctors who have 1-3 years length of service have low emotional intelligence than other two groups. Figure 4.7 also highlighted that the doctors of private hospitals who have above 9 years length of service have more emotional intelligence than 5-7 years and 1-3 years length of service. The doctors who have 5-7 years length of service have lowest degree of emotional intelligence than other two groups.

The graph also highlights that the nurses of Govt. hospitals above 9 years length of service have highest degree of emotional intelligence than 5-7 years and 1-3 years length of service and nurses of government hospitals who have 1-3 years length of service have less emotional intelligence than other two groups.

While nurses of private hospital above 9 years length of service have highest level of emotional intelligence than other two groups. Nurses of private hospitals 5-7 years length of service have lower level of emotional intelligence than other two groups so it may be inferred that because of these results interaction among profession, type of hospital and length of service are found significant. Now it may be concluded that these three factors are interdependent. Figure also shows that four lines of doctors and nurses of government and

private hospitals related to their different length of service are not parallel to each other but some of them are also crossing each other. This pattern of lines show significant interaction between the factors.

In order to test the significance of difference between all the pairs of means involved in profession, type of hospital and length of service, Newman-Keuls test has been applied and summary is presented in table 4.11.

The table-4.11 illustrates that out of 66 possible mean comparisons, only thirty-six are significant. Among them thirty five mean comparisons are significant at .01 level of confidence. Only one comparison is significant at .05 level of confidence. The significant groups are $A_1B_1C_1$ & $A_1B_1C_3$, $A_1B_1C_1$ & $A_2B_2C_2$, $A_1B_1C_1$ & $A_2B_2C_1$, $A_1B_1C_1$ & $A_1B_2C_3$, $A_1B_1C_1$ & $A_2B_1C_3$, $A_1B_1C_1$ & $A_2B_2C_3$, $A_2B_1C_1$ & $A_1B_1C_3$, $A_2B_1C_1$ & $A_2B_2C_2$, $A_2B_1C_1$ & $A_2B_2C_1$, $A_2B_1C_1$ & $A_1B_2C_3$, $A_2B_1C_1$ & $A_2B_1C_3$, $A_2B_1C_1$ & $A_2B_2C_3$, $A_1B_2C_2$ & $A_2B_2C_1$, $A_1B_2C_2$ & $A_1B_2C_3$, $A_1B_2C_2$ & $A_2B_1C_3$, $A_1B_2C_2$ & $A_2B_2C_3$, $A_1B_2C_1$ & $A_2B_2C_1$, $A_1B_2C_1$ & $A_1B_2C_3$, $A_1B_2C_1$ & $A_2B_1C_3$, $A_1B_2C_1$ & $A_2B_2C_3$, $A_2B_1C_2$ & $A_2B_2C_1$, $A_2B_1C_2$ & $A_1B_2C_3$, $A_2B_1C_2$ & $A_2B_1C_3$, $A_2B_1C_2$ & $A_2B_2C_3$, $A_1B_1C_2$ & $A_2B_2C_1$, $A_1B_1C_2$ & $A_1B_2C_3$, $A_1B_1C_2$ & $A_2B_1C_3$, $A_1B_1C_2$ & $A_2B_2C_3$, $A_1B_1C_3$ & $A_2B_2C_1$, $A_1B_1C_3$ & $A_1B_2C_3$, $A_1B_1C_3$ & $A_2B_1C_3$, $A_1B_1C_3$ & $A_2B_2C_3$, $A_2B_2C_2$ & $A_2B_2C_1$, $A_2B_2C_2$ & $A_1B_2C_3$, $A_2B_2C_2$ & $A_2B_1C_3$ and $A_2B_2C_2$ & $A_2B_2C_3$. All other groups are found to be insignificant.

RESULTS RELATED TO JOB SATISFACTION:

In the second section of the present research, the three independent variables namely profession, type of hospital and length of service are again selected to find out their effects on job satisfaction.

Results of 2×2×3 Analysis of Variance for job satisfaction scores are summarized in table 4.12.

Table – 4.12

Summary Table of Analysis of Variance for Job satisfaction

Source of Variance	SS	df	MS	F
A (Profession)	2699.99	1	2699.99	5.60*
B (Type of Hospital)	3021.013	1	3021.013	6.26*
C (Length of Service)	126281.73	2	63140.86	130.88**
A×B	0.654	1	0.654	0.001
A×C	1623.007	2	811.50	1.68
B×C	400.39	2	200.20	0.414
A×B×C	1898.33	2	949.16	1.97
Within treatment (error)	138945.28	288	482.45	—
Total	**274870.39**	**299**		

** Denotes significant at .01 level of confidence

* Denotes significant at .05 level of confidence

INTERPRETATION OF THE RESULTS:

Main Effects:

(i) Effect of Profession (Factor A):

In the present investigation, first factor profession is varied at two levels that are doctors and nurses. They are symbolized as A_1 and A_2. Table 4.12 reveals that the 'F' value for factor A is (1,288)= 5.60, $p<.05$. It means that F ratio for factor 'A' is significant at .05 level of confidence. The significant F value leads us to conclude that both groups of profession are influential factor on the degree of job satisfaction. It is asserted that differences in job satisfaction scores of the subjects are not due to chance, but due to independent variable (Profession). Thus the hypothesis that there will be significant effect of profession on job satisfaction is accepted.

In order to know which category has the maximum score of job satisfaction and which has the minimum score, the obtained mean scores of both profession in terms of job satisfaction are given in table 4.13.

Table 4.13

Mean Scores of Job satisfaction for Factor 'A'

(Doctors and Nurses)

A (Profession)	N	Total	Mean
A_1 (Doctors)	150	11111	74.07
A_2 (Nurses)	150	10211	68.07

Table 4.13 indicates that doctors have scored higher on job satisfaction as compared to nurses. The mean score of job satisfaction for doctors is greater than the mean score for nurses. The characteristics of data become more clear, when mean values are presented graphically in the form of bar diagram. Figure 4.8 shows the level of profession (Factor A) along the X-axis and mean scores of job satisfaction on Y-axis.

An inspection of the bar diagram (Figure 4.8) makes it evident, that there is a significant difference in the degree of job satisfaction of doctors and nurses.

(ii) Effect of Type of Hospital (Factor B):

The second independent variable of this research type of hospital (factor B), it has also been varied at two levels (Government and Private). They are symbolized as B_1 and B_2. Table 4.12 indicates that F value for factor 'B' is (1, 288)=6.26, $p<.05$, which is significant at .05 level of confidence. It indicates that there is significant difference in the degree of job satisfaction of doctors and nurses of government and private hospital. Now it may be said that type of hospital is a significant influencing factor for job satisfaction. Thus, the hypothesis that there will be significant effect of type of hospital on job satisfaction is accepted.

For knowing this significant difference, obtained mean values are given in table 4.14.

Table 4.14

Mean Scores of Job satisfaction for Factor 'B'

(Government and Private Hospitals)

B (Type of Hospital)	N	Total	Mean
B_1 (Government)	150	10185	67.90
B_2 (Private)	150	11137	74.25

A close look of table 4.14 specifies that doctors and nurses of private hospitals have more job satisfaction than the doctors and nurses of government hospitals. Mean scores of table 4.14 are also presented in a graphic form in figure 4.9. The X-axis contains two levels of factor 'B' and Y-axis contains mean scores of job satisfaction.

The bar diagram (Figure 4.9) makes a clear significant difference in the degree of job satisfaction of doctors and nurses of government and private hospitals.

(iii) Effect of Length of Service (C):

The third independent variable which has been investigated is length of service, varied at three levels that are 1-3 years, 5-7 years and above 9 years. They are symbolized as C_1, C_2 and C_3. A glance at the summary table of Analysis of Variance 4.12 indicates that the computed F value for factor 'C' is $(2, 288)=130.88$, $p<.01$. It reveals that length of service of doctors and nurses of government and private hospitals significantly affects the degree of job satisfaction at .01 level

of confidence. So the hypothesis that there will be significant effect of length of service on job satisfaction is accepted.

Mean while, the fact reveals that length of service highly affect the level of job satisfaction. It is also signified by the mean of each group, which stand apart. In order to know which group is highly satisfied with their job and which has lower level of job satisfaction, mean scores for each group of length of service are given in table 4.15.

Table 4.15

Mean Scores of Job satisfaction for Factor 'C'

(Length of Service)

C (Length of Service)	N	Total	Mean
C_1 (1-3 years)	100	4910	49.10
C_2 (5-7 years)	100	6565	65.65
C_3 (above 9 years)	100	9847	98.47

The table 4.15 shows that the doctors and nurses who have above 9 years length of service scored higher on job satisfaction scale as compared to the other two groups. Thus, the doctors and nurses who have above 9 years length of service have the highest degree of job satisfaction, while the doctors and nurses who have 1-3 years length of service have lowest degree of job satisfaction and the doctors and nurses who have 5-7 years length of service are in the middle

range. The characteristics of the data become more clear, when mean values are represented graphically, which shows different length of service along the X-axis and job satisfaction mean scores along the Y-axis in figure 4.10.

For the detailed interpretation of the results the difference between means, computed with the help of Newman-Keuls test, which has been shown in table 4.16.

Table 4.16

Summary of Newman-Keuls Comparison Test for Main Effect of Length of Service (C) on Job Satisfaction

Order Means	**Order Means**		
	C_1 49.10	**C_2 65.65**	**C_3 98.47**
C_1 49.10		16.55**	49.37**
C_2 65.65			32.82**

** Denotes significant at .01 level of confidence.

The inspection of the table indicates that all the three comparisons are significant at .01 level. These significant comparisons are found between C_1 & C_2, C_1 & C_3 and C_2 & C_3. So it may be said that the doctors and nurses who have 1-3 years length of service are significantly differ from the doctors and nurses who have 5-7 years length of service in regard to their level of job satisfaction. Likewise the doctors and nurses who have 1-3 years length of service also

significantly differ form the doctors and nurses who have above 9 years length of service on the scale of job satisfaction. At last doctors and nurses who have 5-7 years length of service have significant difference from the doctors and nurses who have above 9 years length of service in regard to their degree of job satisfaction.

Interaction Effects:

As well as the main effects of three independent variables, the interaction effects between the various combinations of these variables have been computed. These interactions are summarized in table 4.12.

Two Factor Interaction Effects:

Since 2×2×3 factorial design has been calculated, there are only three possible two-factor interactions. Among these interactions, all the factors are insignificant (A×B, A×C and B×C).

(i) Interaction Effect of Profession and Type of Hospital (A×B):

The interaction effect between profession and type of hospital is found insignificant. The 'F' ratio for A×B interaction is (1,288)=0.001, $p<.05$. This non-significant interaction indicates that these two factors are influencing the degree of job satisfaction independently. So the hypothesis that there will be significant interaction effect between profession and type of hospital on job satisfaction is rejected.

For showing the difference of variables, mean scores are given in table 4.17.

Table 4.17

Mean Scores of Job satisfaction for A×B interaction (Profession × Type of Hospital)

A (Profession)	B (Type of Hospital)					
	B_1 (Government)			B_2 (Private)		
	Total	N	Mean	Total	N	Mean
A_1 (Doctors)	5314	75	70.85	5797	75	77.29
A_2 (Nurses)	4871	75	64.95	5340	75	71.20

An inspection of table reveals that the mean value of A_1B_1 (M=70.85) is lower than the mean value of A_1B_2 (M=77.29). So it may be stated that doctors of government hospitals have lower degree of job satisfaction as compared to the doctors of private hospitals. Secondly the table shows that the mean value of A_2B_2 (M=71.20) is higher than the mean value of A_2B_1 (M=64.95). It means that the nurses of private hospitals have more job satisfaction in comparison to the nurses of government hospitals. However, the difference between A_1B_1 & A_1B_2 and A_2B_1 & A_2B_2 has not been found significant.

The data is further represented graphically to highlight the exact pattern of insignificant interaction of these two factors. The figure 4.11, showing level of profession along the X-axis and the mean scores of job satisfaction along to Y-axis.

(ii) Interaction Effect of Profession and Length of Service (A×C):

From the table 4.12 it may further be noted that interaction between profession and length of service has yielded insignificant effect. The F value of A×C is (2, 288)=1.68, p>.05. This insignificant interaction indicates that these two factors also affect the degree of job satisfaction independently. So, the hypothesis that there will be significant interaction effect between profession and length of service is rejected.

The obtained mean scores of job satisfaction in terms of profession and length of service are given in table 4.18.

Table 4.18

Mean Scores of Job satisfaction for A×C interaction (Profession × Length of Service)

C (Length of Service)	A (Profession)					
	A_1 (Doctors)			A_2 (Nurses)		
	Total	N	Mean	Total	N	Mean
C_1 (1-3 years)	2684	50	53.68	2226	50	44.52
C_2 (5-7 years)	3411	50	68.22	3154	50	63.08
C_3 (above 9 years)	5016	50	100.32	4831	50	96.62

The table 4.18 indicates that the mean value of A_1C_1 (M=53.68) is higher than the value of A_2C_1 (Mean=44.52). These value reveals that doctors who have 1-3 years length of service have higher job satisfaction than the nurses of this group. Further the table shows that

the mean value of A_1C_2 (M=68.22) is higher than the mean value of A_2C_2 (M=63.08). It means that the doctors who have 5-7 years length of service have greater job satisfaction than the nurses of this, group. At last the mean value of A_2C_3 (M=96.62) is slightly lower than the mean value of A_1C_3 (M=100.32). It shows that the nurses who have above 9 years length of service have lower degree of job satisfaction than the doctors of this group. However, these differences are not significant at any acceptable level of confidence. The mean scores of interaction (A×C) are also presented in figure 4.12, which shows the different level of length of service on X-axis and mean scores of job satisfaction on Y-axis. This figure also shows the insignificant interaction effect between two factors (A×C).

(iii) Interaction Effect of Type of Hospital and Length of Service (B×C):

A close look of the table 4.12 indicates that the interaction between type of hospital and length of service (B×C) is (2, 288)=0.414, p>.05. It is also insignificant. It means that these factors are not interdependent and they affect the level of job satisfaction independently. So, the hypothesis that there will be significant interaction effect between type of hospital and length of service on job satisfaction is rejected.

To know the difference, the mean scores of job satisfaction of doctors and nurses related to government and private hospitals at every level of factor C are given in the table 4.19.

Table 4.19

Mean Scores of Job satisfaction for B×C interaction

(Type of Hospital × Length of Service)

C (Length of Service)	B (Type of Hospital)					
	B_1 (Government)			B_2 (Private)		
	Total	N	Mean	Total	N	Mean
C_1 (1-3 years)	2139	50	42.78	2771	50	52.42
C_2 (5-7 years)	3244	50	64.88	3321	50	66.42
C_3 (above 9 years)	4802	50	96.04	5045	50	100.9

An inspection of table 4.19 reveals that the mean value of B_2C_1 (M=55.42) is more than the mean value of B_1C_1 (M=42.78). It shows that the doctors and nurses of private hospitals who have 1-3 years length of service have higher job satisfaction than the doctors and nurses of government hospitals of this group. After that the table indicates the mean value of B_2C_2 (M=66.42) is slightly higher than the value of B_1C_2 (M=64.88). It means that the doctors and nurses of private hospitals who have 5-7 years length of service have more degree of job satisfaction as compared to the doctors and nurses of government hospitals of this group. Finally the mean value of B_2C_3 (M=100.9) is higher than the mean value of B_1C_3 (M=96.04). It shows

that the doctors and nurses of private hospital who have above 9 years length of service have higher level of job satisfaction than the doctors and nurses of government hospitals of the same group. All three groups have slightly difference in their means, so these differences are not significant.

For showing the difference of variables, mean scores are presented through graph, which shows different level of length of service on X-axis and mean score of job satisfaction on Y-axis in figure 4.13. Figure 4.13 also indicates that there is slight difference between the means.

Three Factor Interaction Effect:

Finally, a three-factor interaction effect of the variables has been calculated and is mentioned in summary table of Analysis of Variance (Table 4.12). The interpretation of this effect is given below:

Interaction Effect of Profession, Type of Hospital and Length of Service (A×B×C):

In this section of the research, there is also 2×2×3 factorial design has been used, so there is a single three-way factor interaction (A×B×C). The F ratio (2,288)=1.97,p>.05 indicates that the interaction (A×B×C) effect has also been found insignificant. Therefore, no further analysis has been done. It means that these three variables influenced the level of job satisfaction independently. Thus, the

hypothesis that there will be significant interaction effect among profession, type of hospital and length of service on job satisfaction is rejected.

In order to know the independence of the variables (profession, type of hospital and length of service) the mean scores of these three variables are computed and presented in table 4.20.

Table – 4.20

Mean Scores of Job satisfaction for A×B×C Interaction

(Profession × Type of Hospital × Length of Service)

C (Length of Service)	A (Profession)											
	A_1(Doctors)						A_2 (Nurses)					
	B (Type of Hospital)											
	B_1 (Government)			B_2 (Private)			B_1 (Government)			B_2 (Private)		
	Total	N	Mean	Total	N	Mean	Total	N	Mean	Total	N	Mean
C_1 (1-3 Years)	1140	25	45.60	1544	25	61.76	999	25	39.96	1227	25	49.08
C_2 (5-7 Years)	1774	25	70.96	1637	25	66.48	1470	25	58.80	1684	25	67.36
C_3 (Above 9 Years)	2400	25	96.00	2616	25	104.64	2402	25	96.08	2429	25	97.16

An inspection of table 4.20 reveals that the mean value of $A_1B_2C_1$ (M=61.76) is higher than the mean value of $A_1B_1C_1$ (M=45.60). It means that the doctors of private hospitals who have 1-3 years length of service have more level of job satisfaction than the doctors of government hospitals of this group. The table indicates that the mean value of $A_1B_1C_2$ (M=70.96) is higher than the mean value of

$A_1B_2C_2$ (M=66.48). This value shows that the doctors of government hospitals who have 5-7 years length of service have higher level of job satisfaction than the doctors of private hospitals of this group. The next value of the table shows that $A_1B_2C_3$ (M=104.64) is higher than the mean value of $A_1B_1C_3$ (M=96.0). So it may be said that the doctors of private hospitals who have above 9 years length of service have higher job satisfaction than the doctors of government hospitals of this group. The mean value of $A_2B_2C_1$ (M=49.08) is higher than the mean value of $A_2B_1C_1$ (M=39.96). This value shows that the nurses of private hospitals who have 1-3 years length of service have more job satisfaction than the nurses of government hospitals of this group. The next value of table shows that the group $A_2B_2C_2$ (M=67.36) is higher than the mean value of $A_2B_1C_2$ (M=58.80). So, the nurses of private hospitals who have 5-7 years length of service have higher degree of job satisfaction than the nurses of government hospitals of this group. The last value of table is $A_2B_2C_3$ (M=97.16) is higher than the value of $A_2B_1C_3$ (M=96.08). So it may be stated that the nurses of private hospitals who have above 9 years length of service have higher degree of job satisfaction than the nurses of government hospitals of the same group. Finally it may be concluded that because of slightly difference among the mean values of the groups, three factor interaction (A×B×C) is not significant.

The data have further been represented through graph to highlight the exact pattern of the insignificant interaction effect of these three factors in figure 4.14. Thus the graph makes it clear that all the three factors that are profession, type of hospital and length of service have worked independently from each other on the level of job satisfaction.

SUMMARY

In the light of the above interpretation of results in the present chapter, we may summarize our findings as follows:

1. The effect of profession on emotional intelligence has been found significant at .01 level of confidence.
2. The effect of type of hospital on emotional intelligence has been found significant at .01 level of confidence.
3. The effect of length of service on emotional intelligence has been found significant at .01 level of confidence.
4. The interaction effect of profession and type of hospital (A×B) on emotional intelligence has been found significant at .05 level of confidence.
5. The interaction effect of profession and length of service (A×C) on emotional intelligence has not been found significant.

6. The interaction effect of type of hospital and length of service (B×C) on emotional intelligence has been found significant at .01 level of confidence.
7. The interaction effect of profession, type of hospital and length of service (A×B×C) on emotional intelligence has also been found significant at .01 level of confidence. It means that these all factors are interdependent.
8. The effect of profession on job satisfaction has been found significant at .05 level of confidence.
9. The effect of type of hospital on job satisfaction has also been found significant at .05 level of confidence.
10. The effect of length of service on job satisfaction has been found significant at .01 level of confidence.
11. The interaction effect of profession and type of hospital (A×B) on job satisfaction has not been found significant.
12. The interaction effect of profession and length of service (A×C) on job satisfaction has also not been found significant.
13. The interaction effect of type of hospital and length of service (B×C) on job satisfaction has been found insignificant.
14. The interaction effect of profession, type of hospital and length of service (A×B×C) on job satisfaction has also been found insignificant.