

CHAPTER IV

RESULTS AND DISCUSSIONS

4.1 OVERVIEW

This chapter deals with the analysis of data collected from the subjects under study. The two groups of experimental group and one group of control group were analyzed for the differences in physiological, bio-chemical and psychological and variables in relation to pre-test and post-test.

In this study 90 traffic police men were taken as subjects and their age was ranged between 40-50 years. It was to find out the effect of Group I and Group II Yogic practices on Pulse rate, vital capacity, blood pressure, blood sugar, cholesterol, liver function test, Job involvement, stress and organizational climate. The three groups namely Experimental group A- Experimental group B- and Group C – control group were analyzed with the differences in the mean values of pre and post test scores on selected physiological, bio-chemical and psychological variables.

The subjects were selected at random and the groups were equated in relation to factors to be examined. The difference between the means of the three groups in the pre test had been taken into account during the analysis of the post test difference between the means. To achieve the purpose of study the final means when adjusted for differences with the initial means and the adjusted means were derived and tested at 0.05 level of confidence. To test the significance of changes between the means, ANCOVA test was applied. Thus the obtained

results were interpreted with earlier studies and presented in this chapter well along with tables and graphical applications.

4.2 Test of significance

This is the important portion of the thesis in arriving at the conclusion by examining the hypothesis. This procedure of testing the hypothesis was done by accepting the hypothesis or rejecting the same in accordance with the results in relation to the level of confidence fixed at 0.05. If the obtained value is greater than the table value, hypothesis were accepted to the effect that there existed significant difference among the means of the groups compared and if the obtained values were lesser, than there exists no significant difference between the means.

4.3 Level of significance

The probability level below which the hypothesis is rejected is termed as the level of significance. The 'F' ratio obtained by analysis of covariance needed 3.10 for significant at 0.05 level. In addition to that the significant difference between the paired adjusted means were tested by computing the confidence interval value utilizing the Scheffe's post hoc test, in which the obtained means difference value needed to be greater than the Scheffe's confidence interval value for significance

4.4. COMPUTATION OF ANALYSIS OF CO VARIANCE AND POST HOC TEST

4.4.1. RESULTS ON PULSE RATE

The pre and post test scores of the Physiological variable, Pulse rate were measured and subjected to statistical treatment. The results on the effect of twelve weeks training of group I and group II Yogic practices on traffic policemen is presented in the table XXVI

TABLE XXVI
ANALYSIS OF CO-VARIANCE OF THE MEAN S OF TWO
EXPERIMENTAL GROUPS AND THE CONTROL GROUP IN PULSE
RATE

	Group-A	Group-B	Control Group	Source of Variance	Sum of Squares	Df	Mean Squares	Obtained F-ratio
Pre Test Mean	87.50	87.53	83.63	Between	301.62	2	150.81	2.61
				Within	5011.93	87	57.60	
Post Test Mean	75.60	82.03	86.53	Between	1811.76	2	905.87	22.09*
				Within	3567.63	87	41.00	
Adjusted Post Test Mean	74.63	81.04	88.49	Between	2759.90	2	1379.95	171.48*
				Within	692.06	86	8.04	
Mean Difference	11.90	5.50	2.90					

* **Significant at 0.05 level of confidence. (The table value for Significance at 0.05 level of confidence with df 2 and 87, and df 2 and 86 are 3.10 and 3.10).**

The obtained F value on pre test scores 2.61 was lesser than the required F value of 3.10 to be significant at 0.05 level. This proved there was no significant difference between the groups a pre test and post test and the randomization at the pre test was equal.

The post test scores analysis proved that there was a significant difference between the groups as the obtained F value 22.09 was greater than the required F value of 3.10 .This proved that the difference between the post test means of the subjects were significant.

Taking into consideration the pre test and post test scores among the groups adjusted mean scores were calculated and subjected to statistical treatment. The F value of 171.48 was greater than the required F value of 3.10. This proved that there was a significant difference among the means due to Group I and Group II Yogic practices on physiological variable Pulse rate.

Since significant improvements were recorded the results were subjected to post hoc analysis using Scheffe’s Confidence Interval test .The results were presented in table XXVII.

TABLE XXVII
SCHEFFE’S POST-HOC TEST FOR THE DIFFERENCES BETWEEN
THE ADJUSTED TESTED AND POST- TEST PAIRED MEANS OF
PULSE RATE

MEANS			Mean difference	Required C.I
GROUP-A	GROUP-B	CONTROL		
74.63	81.04		6.40*	2.12
74.63		88.49	13.86*	2.12
	81.04	88.49	7.45*	2.12

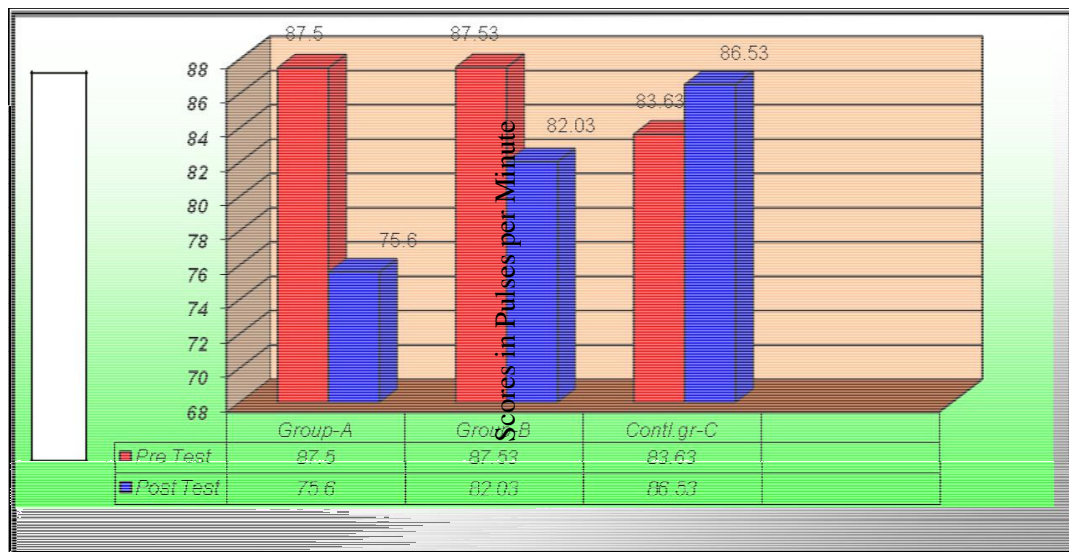
* Significant at 0.05 level of confidence.

The multiple mean comparisons shown in table XXVII proved that there existed significant differences between adjusted means of group I and group II and control group. There was significant difference between cultural asanas group I and Suryanamaskar group II

The ordered adjusted means on pulse rate were presented through bar diagram for better understanding of the results of this study in Figure XXVIII.

BAR DIAGRAM OF PRE, POST AND ORDERED ADJUSTED POST-TEST MEANS ON PULSE RATE OF EXPERIMENTAL AND CONTROL GROUPS.

FIG XXVIII



4.4.1.1 DISCUSSIONS ON THE FINDINGS OF PULSE RATE

The table XXVII shows that Scheffe’s confidence values of pulse rate among group I and group II and control group of traffic policemen,

From table XXVII it is clear that the mean values group I and group II and control group of traffic policemen, mean were 74.63, 81.04 and 88.49 respectively.

The mean differences between group I and group II group I and control group and group II and control group were 6.40, 13.86 and 7.45 respectively. The required Scheffe's confidence interval to be significant at 0.05 level was 2.12 and the difference between group I and control group and group II and control group .of traffic policemen were greater than required confidence interval and hence it is significant at 0.05 level of confidence.

The findings of this study are in agreement with the findings of **Adhana R, et.al. (2013) and Sharma VK, et.al. (2013)** who have found that group I and group II yogic practices decreased significantly on physiological variable pulse rate on traffic policemen.

4.4.2. RESULTS ON VITAL CAPACITY

The pre and post test scores of the Physiological variable, Vital capacity were measured and subjected to statistical treatment. The results on the effect of twelve weeks training of group I and group II on traffic policemen is presented in the table XXVIII

TABLE XXVIII

**ANALYSIS OF CO VARIANCE OF THE MEANS OF TWO
EXPERIMENTAL GROUPS AND THE CONTROL GROUP IN VITAL
CAPACITY**

	Group-A	Group-B	Control Group	Source of Variance	Sum of Squares	Df	Mean Squares	Obtained F-ratio
Pre Test Mean	3272.50	3281.83	3367.66	Between	165111.7	2	82555.83	3.05
				Within	2349298	87	27003.43	
Post Test Mean	3847.83	3636.33	3240.33	Between	5706046	2	2853023	81.75*
				Within	3036227.7	87	34899.17	
Adjusted Post Test Mean	3878.42	3658.72	3187.36	Between	7013884	2	3506942	246.19*
				Within	1225053	86	14244.8	
Mean Difference	576.33	354.50	127.33					

*** Significant at 0.05 level of confidence.(The table value for Significance at 0.5 level of confidence with df 2 and 87, and df 2 and 86 are 3.10 and 3.10).**

The obtained F value on pre test scores 3.05 was lesser than the required F value of 3.10 to be significant at 0.05 level. This proved there was no significant difference between the groups a pre test and post test and the randomization at the pre test was equal.

The post test scores analysis proved that there was a significant difference between the groups as the obtained F value 81.75 was greater than the required F value of 3.10. This proved that the difference between the post test means of the subjects were significant.

Taking into consideration the pre test and post test scores among the groups adjusted mean scores were calculated and subjected to statistical treatment. The F value of 246.19 was greater than the required F value of 3.10. This proved that there was a significant difference among the means due to Group I and Group II yogic practices on physiological variable Vital capacity.

Since significant improvements were recorded the results were subjected to post hoc analysis using Scheffe's Confidence Interval test .The results were presented in table XXIX

TABLE XXIX
SCHEFFE'S POST-HOC TEST FOR THE DIFFERENCES BETWEEN
THE ADJUSTED TESTED AND POST TEST PAIRED MEANS OF
VITALCAPACITY

MEANS			Mean difference	Required C.I
GROUP-A	GROUP-B	CONTROL		
3878.42	3658.72		219.69*	89.42
3878.42		3187.36	691.06*	89.42
	3658.72	3187.36	471.36*	89.42

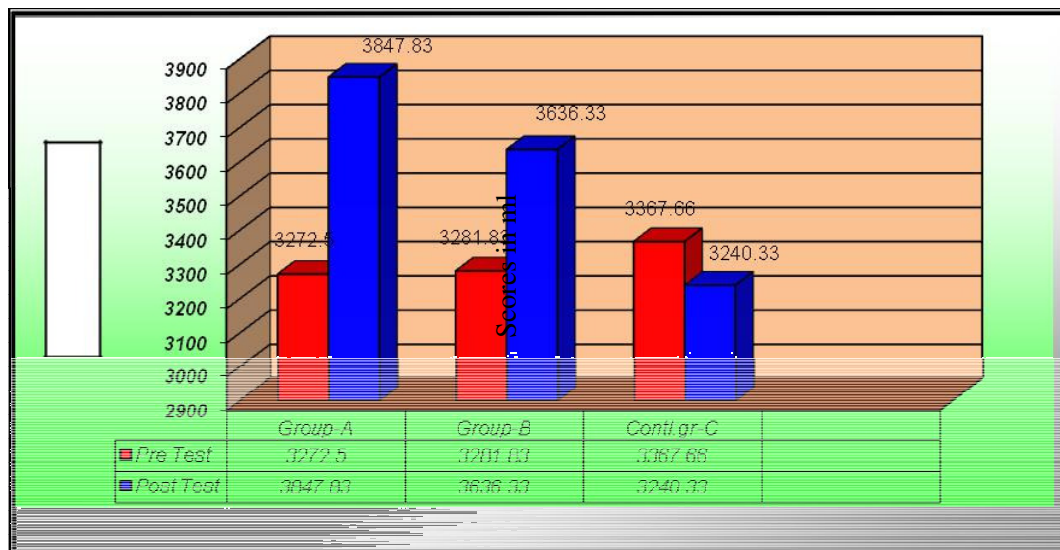
* Significant at 0.05 level of confidence.

The multiple mean comparison shown in table XXIX proved that there existed significant differences between adjusted means of group I and control group, group II and control group. There was significant difference between group I and group II Yogic practices.

The ordered adjusted means on vital capacity were presented through bar diagram for better understanding of the results of this study in figureXXIX -

BAR DIAGRAM OF PRE, POST AND ORDERED ADJUSTED POST-TEST MEANS ON VITAL CAPACITY OF EXPERIMENTAL AND CONTROL GROUPS

FIG XXIX



4.4.2.1 DISCUSSIONS ON THE FINDINGS OF VITAL CAPACITY

The table XXIX shows that Scheffe’s confidence values of vital capacity among group I and group II and control group of traffic policemen.

From table XXIX it is clear that the mean values group I and group II and control group of traffic policemen were 3878.42, 3658.72 and 3187.36 respectively.

The mean differences between group I and group II, group I and control group and group II and control group were 219.69, 691.06 and 471.36 respectively. The required Scheffe’s confidence interval to be significant at 0.05 level was 89.42 and the difference between group I and control group and group II

and control group .of traffic policemen were greater than required confidence interval and hence it is significant.

The findings of this study are in agreement with the findings of **Williams JS, et.al. (2013) and Edgren L, et.al. (2000)** who have found that group I and group II yogic practices increased significantly on physiological variable vital capacity on traffic policemen.

4.4.3. RESULTS ON SYSTOLIC BLOOD PRESSURE

The pre and post test scores of the Physiological variable, systolic blood pressure were measured and subjected to statistical treatment. The results on the effect of twelve weeks training of group I and group II Yogic practices on traffic policemen is presented in the table XXX.

TABLE XXX
ANALYSIS OF CO VARIANCE OF THE MEANS OF TWO
EXPERIMENTAL GROUPS AND THE CONTROL GROUP IN SYSTOLIC
BLOOD PRESSURE

	Group- A	Group- B	Control Group	Source of Variance	Sum of Squares	Df	Mean Squares	Obtained F-ratio
Pre Test Mean	121.60	123.73	119.40	Between	281.68	2	140.84	1.60
				Within	7626.26	87	87.65	
Post Test Mean	102.60	115.26	127.33	Between	9177.87	2	4588.93	60.71*
				Within	6575.73	87	75.58	
Adjusted Post Test Mean	102.58	113.47	129.15	Between	10570.61	2	5285.30	361.84*
				Within	1256.17	86	14.60	
Mean Difference	19.00	8.47	7.93					

* **Significant at 0.05 level of confidence. (The table value for Significance at 0.05 level of confidence with df 2 and 87, and df 2 and 86 are 3.10 and 3.10).**

The obtained F value on pre test scores 1.60 was lesser than the required F value of 3.10 to be significant at 0.05 level. This proved there was no significant difference between the groups a pre test and post test and the randomization at the pre test was equal.

The post test scores analysis proved that there was a significant difference between the groups as the obtained F value 60.71 was greater than the required F value of 3.10. This proved that the difference between the post test means of the subjects were significant.

Taking into consideration the pre test and post test scores among the groups adjusted mean scores were calculated and subjected to statistical treatment. The F value of 361.84 was greater than the required F value of 3.10. This proved that there was a significant difference among the means due to Group I and Group II yogic practices on physiological variable Systolic blood pressure.

Since significant differences were recorded the results were subjected to post hoc analysis using Scheffe's Confidence Interval test .The results were presented in table XXXI.

TABLE XXXI
SCHEFFE'S POST-HOC TEST FOR THE DIFFERENCES BETWEEN
THE ADJUSTED TESTED AND POST- TEST PAIRED MEANS OF
SYSTOLIC BLOOD PRESSURE

MEANS			Mean difference	Required C.I
GROUP-A	GROUP-B	CONTROL		
102.58	113.47		10.88	2.86
102.58		129.15	26.57	2.86
	113.47	129.15	15.68	2.86

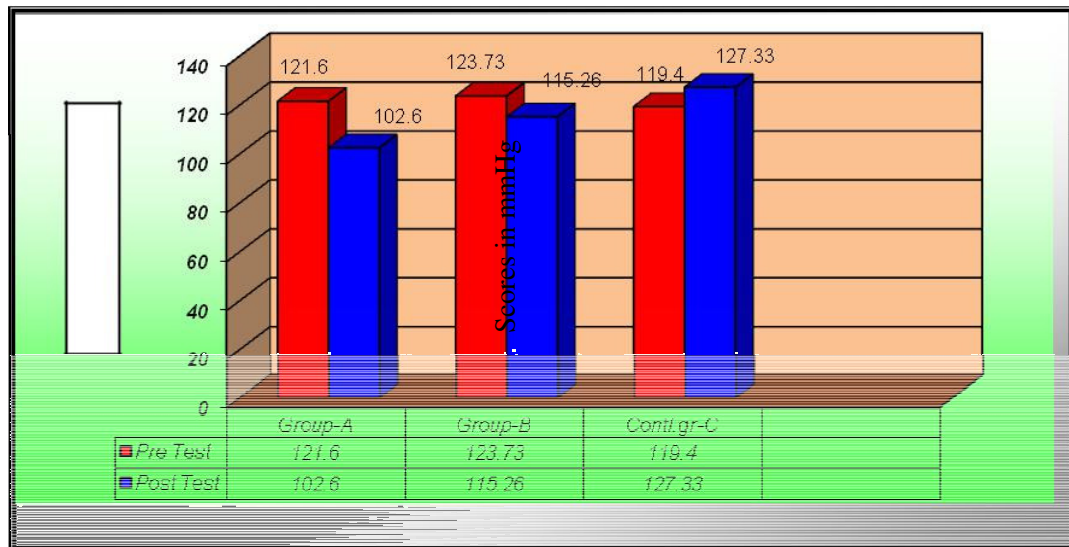
* Significant at 0.05 level of confidence.

The multiple mean comparisons shown in table XXXI proved that there existed significant differences between adjusted means of group I and control group, group II and control group. There was significant difference between group I and group II.

The ordered adjusted means on physiological variable systolic blood pressure were presented through bar diagram for better understanding of the results of this study in Figure XXX

BAR DIAGRAM OF PRE, POST AND ORDERED ADJUSTED POST TEST MEANS ON SYSTOLIC BLOOD PRESSURE OF EXPERIMENTAL AND CONTROL GROUPS.

FIG XXX



4.4.3.1 DISCUSSIONS ON THE FINDINGS OF SYSTOLIC BLOOD PRESSURE

The table XXXI shows that Scheffe’s confidence values of systolic blood pressure among group I and group II and control group of traffic policemen.

From table31 it is clear that the mean values groupI and group II and control group of traffic policemen, mean were 102.58, 113.47 and 129.15 respectively.

The mean differences between group I and group II, group I and control group and group II and control group were 10.88, 26.57 and 15.68 respectively. The required Scheffe's confidence interval to be significant at 0.05 level was 2.86 and the difference between group I and control group and group II and control group .of traffic policemen were greater than required confidence interval and hence it is significant.

The findings of this study are in agreement with the findings of **Adhana R, et.al. (2013) and Sharma VK, et.al. (2013)** who have found that group I, group II decreased significantly on physiological variable systolic blood pressure on traffic policemen.

4.4.4. RESULTS ON DIASTOLIC BLOOD PRESSURE

The pre and post test scores of the Physiological variable, diastolic blood pressure were measured and subjected to statistical treatment. The results on the effect of twelve weeks training of group I and Group II on traffic policemen is presented in the TABLE XXXII

TABLE XXXII

**ANALYSIS OF CO VARIANCE OF THE MEANS OF TWO
EXPERIMENTAL GROUPS AND THE CONTROL GROUP IN
DIASTOLIC BLOOD PRESSURE**

	Group- A	Group- B	Control Group	Source of Variance	Sum of Squares	Df	Mean Squares	Obtained F-ratio
Pre Test Mean	92.73	91.26	89.93	Between	117.68	2	58.84	2.99
				Within	1707.6	87	19.62	
Post Test Mean	85.33	86.13	92.60	Between	952.62	2	476.31	20.44*
				Within	2027.33	87	23.30	
Adjusted Post Test Mean	84.36	86.16	93.54	Between	1339.61	2	669.80	46.82*
				Within	1230.06	86	14.30	
Mean Difference	7.40	5.13	2.67					

* Significant at 0.05 level of confidence. (The table value for Significance at 0.05 level of confidence with df 2 and 87, and df 2 and 86 are 3.10 and 3.10).

The obtained F value on pre test scores 2.99 was lesser than the required F value of 3.10 to be significant at 0.05 level. This proved there was no significant difference between the groups a pre test and post test and the randomization at the pre test was equal.

The post test scores analysis proved that there was a significant difference between the groups as the obtained F value 20.44 was greater than the required F value of 3.10. This proved that the difference between the post test means of the subjects were significant.

Taking into consideration the pre test and post test scores among the groups adjusted mean scores were calculated and subjected to statistical treatment. The F value of 46.82 was greater than the required F value of 3.10. This proved that there was a significant difference among the means due to Group I and Group II yogic practices on physiological variable diastolic blood pressure.

Since significant differences were recorded the results were subjected to post hoc analysis using Scheffe's Confidence Interval test .The results were presented in table XXXIII

TABLE XXXIII
SCHEFFE'S POST-HOC TEST FOR THE DIFFERENCES
BETWEENTHEADJUSTED TESTED AND POST- TEST PAIRED MEANS
OF DIASTOLIC BLOOD PRESSURE

MEANS			Mean difference	Required C.I
GROUP-A	GROUP-B	CONTROL		
84.36	86.16		1.80	2.83
84.36		93.54	9.18*	2.83
	86.16	93.54	7.37*	2.83

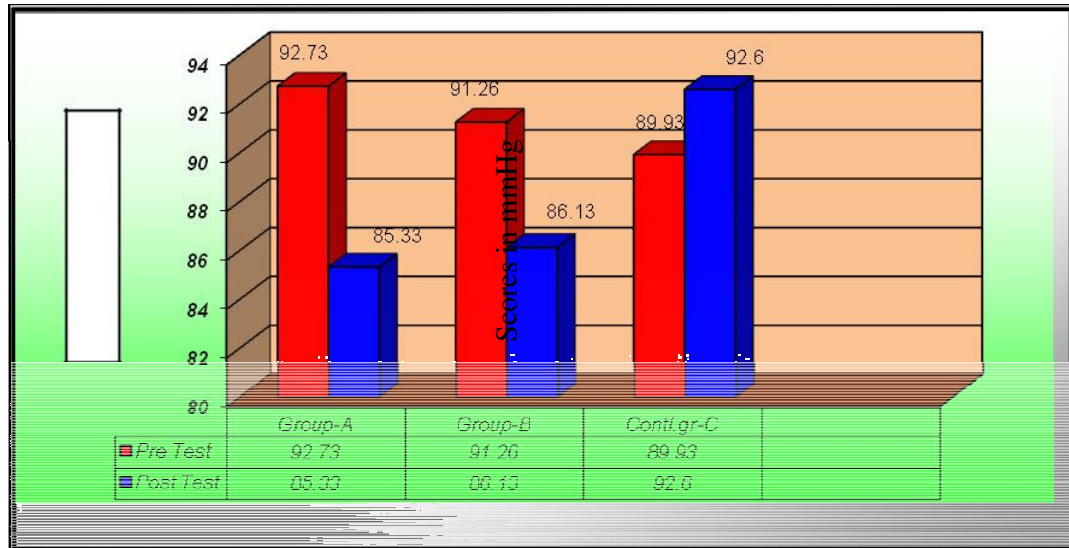
* Significant at 0.05 level of confidence.

The multiple mean comparison shown in table XXXIII proved that there existed significant differences between adjusted means of group I and control group, group II and control group . There was significant difference between group I and group II.

The ordered adjusted means on physiological variable diastolic blood pressure were presented through bar diagram for better understanding of the results of this study in figure XXXI

**BAR DIAGRAM OF PRE, POST AND ORDERED ADJUSTED POST
TEST MEANS ON DIASTOLIC BLOOD PRESSURE OF
EXPERIMENTAL AND CONTROL GROUPS.**

FIG XXXI



4.4.4.1 DISCUSSIONS ON THE FINDINGS OF DIASTOLIC BLOOD PRESSURE

The table XXXIII shows that Scheffe's confidence values of diastolic blood pressure among group I and group II and control group of traffic policemen,

From table XXXIII it is clear that the mean values group I and group II and control group of traffic policemen were 84.36, 86.16 and 93.54 respectively.

The mean differences between group I and group II, group I and control group and, group II and control group were 1.80, 9.18 and 7.37 respectively. The required Scheffe's confidence interval to be significant at 0.05 level was 2.83 and the difference between group I and control group and, group II and control group

.of traffic policemen were greater than required confidence interval and hence it is significant at 0.05 level of confidence.

The findings of this study are in agreement with the findings of **Adhana R, et.al. (2013) and Sharma VK, et.al. (2013)** who have found that group I, group II decreased significantly on physiological variable diastolic blood pressure on traffic policemen.

4.4.5 RESULTS ON TOTAL CHOLESTEROL

The pre and post test scores of the Bio-chemical variable, total cholesterol were measured and subjected to statistical treatment. The results on the effect of twelve weeks training of group I and group II on traffic policemen is presented in the table XXXIV

TABLE XXXIV

**ANALYSIS OF CO VARIANCE OF THE MEANS OF TWO
EXPERIMENTAL GROUPS AND THE CONTROL GROUP IN TOTAL
CHOLESTEROL**

	Group -A	Group -B	Contro l Group	Source of Varianc e	Sum of Squares	Df	Mean Squares	Obtaine d F-ratio
Pre Test Mean	229.0 6	224.5 0	207.6 3	Between	7647.26	2	3823.63	2.60
				Within	127840.3	7	1469.42	
Post Test Mean	200.6 0	202.1 3	231.2 0	Between	17835.82	2	8917.91	6.13*
				Within	126543.5 0	8 7	1454.52	
Adjusted Post Test Mean	192.6 1	198.3 5	242.9 7	Between	43057.49	2	21528.7 5	103.84 *
				Within	17829.33	8 6	207.31	
Mean Differenc e	28.47	22.37	23.57					

* Significant at 0.05 level of confidence. (The table value for Significance at 0.05 level of confidence with df 2 and 87, and df 2 and 86 are 3.10 and 3.10).

The obtained F value on pre test scores 2.60 was lesser than the required F value of 3.10 to be significant at 0.05 level. This proved there was no significant difference between the groups a pre test and post test and the randomization at the pre test was equal.

The post test scores analysis proved that there was a significant difference between the groups as the obtained F value 6.13 was greater than the required F value of 3.10. This proved that the difference between the post test means of the subjects were significant.

Taking into consideration the pre test and post test scores among the groups adjusted mean scores were calculated and subjected to statistical treatment. The F value of 103.84 was greater than the required F value of 3.10. This proved that there was a significant difference among the means due to Group I and Group II yogic practices on bio-chemical variable total cholesterol

Since significant improvements were recorded the results were subjected to post hoc analysis using Scheffe's Confidence Interval test .The results were presented in table XXXV

TABLE XXXV
SCHEFFE'S POST-HOC TEST FOR THE DIFFERENCES
BETWEENTHEADJUSTED TESTED AND POST- TEST PAIRED MEANS
OF TOTAL CHOLESTEROL

MEANS			Mean difference	Required C.I
GROUP-A	GROUP-B	CONTROL		
192.61	198.35		5.74	10.78
192.61		242.97	50.36*	10.78
	198.35	242.97	44.62*	10.78

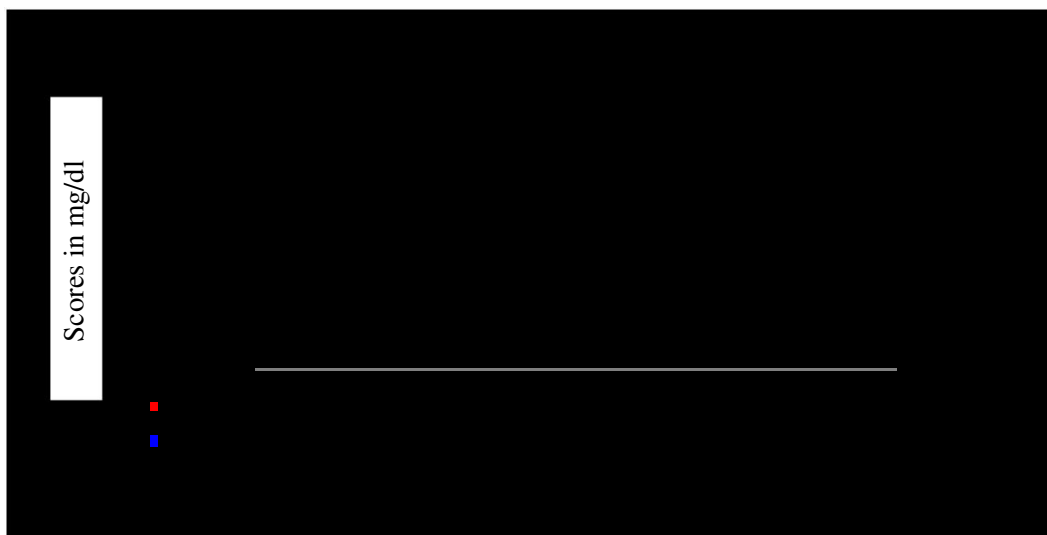
* Significant at 0.05 level of confidence.

The multiple mean comparisons shown in table XXXV proved that there existed significant differences between adjusted means of group I and control group, group II and control group. There was significant difference between group I and group II

The ordered adjusted means on bio-chemical variable total cholesterol were presented through bar diagram for better understanding of the results of this study in figure XXXII

**BAR DIAGRAM OF PRE, POST AND ORDERED ADJUSTED POST-
TEST MEANS ON TOTAL CHOLESTEROL OF EXPERIMENTAL AND
CONTROL GROUPS.**

FIGURE XXXII



4.4.5.1 DISCUSSIONS ON THE FINDINGS OF TOTAL CHOLESTEROL

The table XXXV shows that Scheffe's confidence values of bio-chemical variable total cholesterol among group I and group II and control group of traffic policemen,

From table XXXV it is clear that the mean values cultural asanas group I and group II and control group of traffic policemen were 192.61, 198.35 and 242.97 respectively.

The mean differences between group I and group II, group I and control group and group II and control group were 5.74, 50.36 and 44.62 respectively. The required Scheffe's confidence interval to be significant at 0.05 level was 10.78 and the difference between group I and control group and, group II and

control group .of traffic policemen were greater than required confidence interval and hence it is significant.

The findings of this study are in agreement with the findings of **Gordon L, et.al. (2012) and Gupta V, et.al. (2005)** who have found that groupI , group II decreased significantly on bio-chemical variable total cholesterol on traffic policemen.

4.4.6 RESULTS ON BLOOD SUGAR-FASTING

The pre and post test scores of the Bio-chemical variable,blood sugar - fasting were measured and subjected to statistical treatment. The results on the effect of twelve weeks training of group I and group II on traffic policemen is presented in the TABLE XXXVI

TABLE XXXVI
ANALYSIS OF CO VARIANCE OF THE MEANS OF TWO
EXPERIMENTAL GROUPS AND THE CONTROL GROUP IN RESULTS
ON BLOOD SUGAR-FASTING

	Group- A	Group- B	Control Group	Source of Variance	Sum of Squares	Df	Mean Squares	Obtained F-ratio
Pre Test Mean	113.73	117.00	114.00	Between	197.42	2	98.71	1.18
				Within	7257.86	87	83.42	
Post Test Mean	97.93	108.03	118.93	Between	6618.20	2	3309.1	49.92*
				Within	5766.70	87	66.28	
Adjusted Post Test Mean	98.81	106.48	119.61	Between	6638.71	2	3319.35	163.00*
				Within	1751.27	86	20.36	
Mean Difference	15.80	8.97	4.93					

* **Significant at 0.05 level of confidence. (The table value for Significance at 0.05 level of confidence with df 2 and 87, and df 2 and 86 are 3.10 and 3.10).**

The obtained F value on pre test scores 1.18 was lesser than the required F value of 3.10 to be significant at 0.05 level. This proved there was no significant difference between the groups a pre test and post test and the randomization at the pre test was equal.

The post test scores analysis proved that there was a significant difference between the groups as the obtained F value 49.92 was greater than the required F value of 3.10 .This proved that the difference between the post test means of the subjects were significant.

Taking into consideration the pre test and post test scores among the groups adjusted mean scores were calculated and subjected to statistical treatment. The F value of 163.00 was greater than the required F value of 3.10. This proved that there was a significant difference among the means due to Group I and group II yogic practices on Bio-chemical variable, blood sugar fasting.

Since significant improvements were recorded the results were subjected to post hoc analysis using Scheffe's Confidence Interval test .The results were presented in table XXXVII

TABLE XXXVII
SCHEFFE'S POST-HOC TEST FOR THE DIFFERENCES
BETWEENTHEADJUSTED TESTED AND POST- TEST PAIRED MEANS
OF BLOOD SUGAR-FASTING

MEANS			Mean difference	Required C.I
GROUP-A	GROUP-B	CONTROL		
98.81	106.48		7.67*	3.38
98.81		119.61	20.80*	3.38
	106.48	119.61	13.13*	3.38

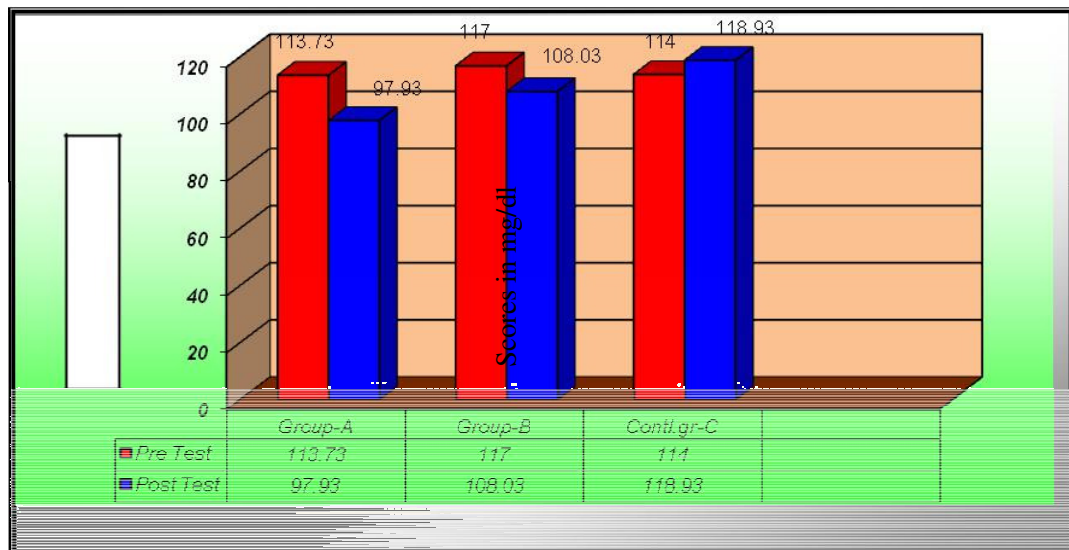
* Significant at 0.05 level of confidence.

The multiple mean comparisons shown in tableXXXVII proved that there existed significant differences between adjusted means of group I and control group, group II and control group. There was significant difference between groupI and group II

The ordered adjusted means on Bio-chemical variable blood sugar fasting were presented through bar diagram for better understanding of the results of this study in figure XXXIII

BAR DIAGRAM OF PRE, POST AND ORDERED ADJUSTED POST-TEST MEANS ON BLOOD SUGAR-FASTING OF EXPERIMENTAL AND CONTROL GROUPS.

FIGURE XXXIII



4.4.6.1 DISCUSSIONS ON THE FINDINGS OF BLOOD SUGAR-FASTING

The table XXXVII shows that Scheffe’s confidence values of Bio-chemical variable, blood sugar fasting among groupI and group II and control group of traffic policemen,

From table XXXVII it is clear that the mean values group I and group II and control group of traffic policemen were 98.81, 106.48 and 119.61 respectively.

The mean differences between group I and group II, group I and control group and group II and control group were 7.67, 20.80 and 13.13 respectively. The required Scheffe's confidence interval to be significant at 0.05 level was 3.38 and the difference between group I and control group and group II and control group of traffic policemen were greater than required confidence interval and hence it is significant at 0.05 level of confidence.

The findings of this study are in agreement with the findings of **Madanmohan, et.al. (2012) and Gordon LA, et.al. (2008)** who have found that group I, group II decreased significantly on Bio-chemical variable, blood sugar fasting on traffic policemen.

4.4.7 RESULTS ON BLOOD SUGAR-POST PRANDIAL

The pre and post test scores of the Bio-chemical variable, blood sugar – post prandial were measured and subjected to statistical treatment. The results on the effect of twelve weeks training of group I and group II on traffic policemen is presented in the TABLE XXXVIII

TABLE XXXVIII

**ANALYSIS OF CO-VARIANCE OF THE MEANS OF TWO
EXPERIMENTAL GROUPS AND THE CONTROL GROUP IN POST
PRANDIAL BLOOD SUGAR**

	Group- A	Group- B	Contro l Group	Source of Varianc e	Sum of Squares	Df	Mean Squares	Obtaine d F-ratio
Pre Test Mean	178.5	178.7	176.1	Between	127.08	2	63.54	1.70
	3	0	0	Within	3244.4 6	8 7	37.29	
Post Test Mean	162.9	170.0	183.3	Between	6393.8 7	2	3196.9 3	109.83*
	6	3	0	Within	2532.2 3	8 7	29.10	
Adjusted Post Test Mean	162.4	169.4	184.3	Between	7255.8 6	2	3627.9 3	256.96*
	9	5	7	Within	1214.1 9	8 6	14.11	
Mean Differenc e	15.57	8.67	7.20					

*** Significant at 0.05 level of confidence.(The table value for Significance at 0.05 level of confidence with df 2 and 87, and df 2 and 86 are 3.10 and 3.10).**

The obtained F value on pre test scores 1.70 was lesser than the required F value of 3.10 to be significant at 0.05 level. This proved there was no significant difference between the groups a pre test and post test and the randomization at the pre test was equal.

The post test scores analysis proved that there was a significant difference between the groups as the obtained F value 109.83 was greater than the required F value of 3.10 .This proved that the difference between the post test means of the subjects were significant.

Taking into consideration the pre test and post test scores among the groups adjusted mean scores were calculated and subjected to statistical treatment. The F value of 256.96 was greater than the required F value of 3.10. This proved that there was a significant difference among the means due to Group I and Group II Yogic practices on Bio-chemical variable blood sugar –post prandial.

Since significant improvements were recorded the results were subjected to post hoc analysis using Scheffe’s Confidence Interval test .The results were presented in table XXXIX

TABLE XXXIX
SCHEFFE’S POST-HOC TEST FOR THE DIFFERENCES
BETWEENTHEADJUSTED TESTED AND POST- TEST PAIRED MEANS
OF BLOOD SUGAR--POST PRANDIAL

MEANS			Mean difference	Required C.I
GROUP-A	GROUP-B	CONTROL		
162.49	169.45		6.96*	2.81
162.49		184.37	21.88*	2.81
	169.45	184.37	14.92*	2.81

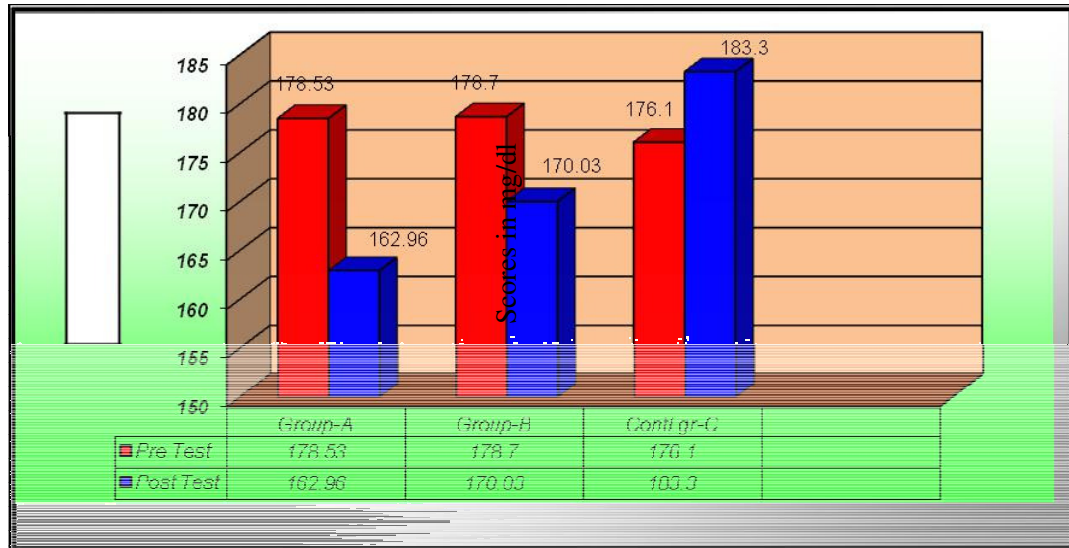
* Significant at 0.05 level of confidence.

The multiple mean comparison shown in table XXXIX proved that there existed significant differences between adjusted means of group I and control group, group II and control group . There was significant difference between groupI and group II

The ordered adjusted means on Bio-chemical variable blood sugar –post prandial were presented through bar diagram for better understanding of the results of this study in fig XXXIV -

BAR DIAGRAM OF PRE, POST AND ORDERED ADJUSTED POST TEST MEANS ON BLOOD SUGAR--POST PRANDIAL RATE OF EXPERIMENTAL AND CONTROL GROUPS.

FIG XXXIV



4.4.7.1 DISCUSSIONS ON THE FINDINGS OF BLOOD SUGAR--POST PRANDIAL

The table XXXIX shows that Scheffe’s confidence values of Bio-chemical variable, blood sugar –post prandial among group I and group II and control group of traffic policemen.

From table XXXIX it is clear that the mean values group I and group II and control group of traffic policemen were 162.49, 169.45 and 184.37 respectively.

The mean differences between group I and group II, group I and control group and group II and control group . were 6.96, 21.88 and 14.92 respectively. The required Scheffe’s confidence interval to be significant at 0.05 level was 2.81 and the difference between group I and control group and group II and control

group .of traffic policemen were greater than required confidence interval and hence it is significant at 0.05 level of confidence.

The findings of this study are in agreement with the findings of **Madanmohan, et.al. (2012) and Gordon LA, et.al. (2008)** who have found that group I , group II decreased significantly on Bio-chemical variable blood sugar – post prandial on traffic policemen.

4.4.8 RESULTS ON LIVER FUNCTION TEST -ALBUMIN

The pre and post test scores of the Bio-chemical variable liver function test –albumin were measured and subjected to statistical treatment. The results on the effect of twelve weeks training of group I and group II on traffic policemen is presented in the table XL

TABLE XL

**ANALYSIS OF CO VARIANCE OF THE MEANS OF TWO
EXPERIMENTAL GROUPS AND THE CONTROL GROUP IN ON
LIVER FUNCTION TEST -ALBUMIN**

	Group- A	Group- B	Control Group	Source of Variance	Sum of Squares	Df	Mean Squares	Obtained F-ratio
Pre Test Mean	3.92	3.94	4.20	Between	1.46	2	0.73	2.18
				Within	29.16	87	0.33	
Post Test Mean	4.43	4.17	4.07	Between	2.12	2	1.06	3.40*
				Within	27.15	87	0.31	
Adjusted Post Test Mean	4.52	4.23	3.93	Between	5.00	2	2.50	26.33*
				Within	8.17	86	0.09	
Mean Difference	0.52	0.23	0.13					

* Significant at 0.05 level of confidence.(The table value for Significance at 0.05 level of confidence with df 2 and 87, and df 2 and 86 are 3.10 and 3.10).

The obtained F value on pre test scores 2.18 was lesser than the required F value of 3.10 to be significant at 0.05 level. This proved there was no significant difference between the groups a pre test and post test and the randomization at the pre test was equal.

The post test scores analysis proved that there was a significant difference between the groups as the obtained F value 3.40 was greater than the required F value of 3.10. This proved that the difference between the post test means of the subjects were significant.

Taking into consideration the pre test and post test scores among the groups adjusted mean scores were calculated and subjected to statistical treatment. The F value of 26.33 was greater than the required F value of 3.10. This proved that there was a significant difference among the means due to Group I and Group II yogic practices on Bio-chemical variables liver function test -albumin

Since significant improvements were recorded the results were subjected to post hoc analysis using Scheffe's Confidence Interval test .The results were presented in TABLE XLI

TABLE XLI
SCHEFFE'S POST-HOC TEST FOR THE DIFFERENCES
BETWEENTHEADJUSTED TESTED AND POST- TEST PAIRED MEANS
OF LIVER FUNCTION TESTALBUMIN

MEANS			Mean difference	Required C.I
GROUP-A	GROUP-B	CONTROL		
4.52	4.23		0.28*	0.23
4.52		3.93	0.58*	0.23
	4.23	3.93	0.30*	0.23

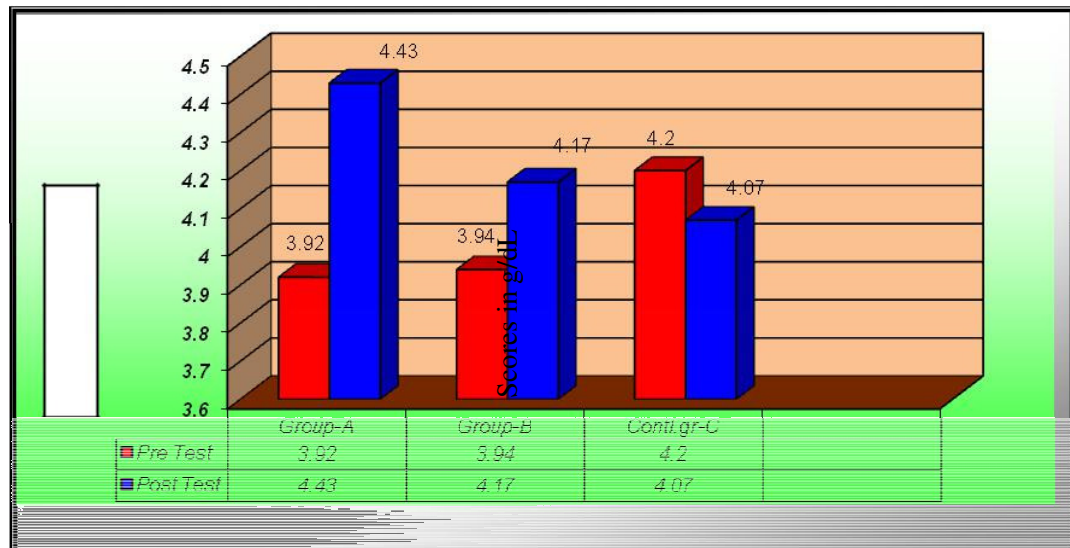
* Significant at 0.05 level of confidence.

The multiple mean comparison shown in tableXLI proved that there existed significant differences between adjusted means of group I and control group, group II and control group. There was significant difference between groupI and group II

The ordered adjusted means on Bio-chemical variable, liver function test - albumin were presented through bar diagram for better understanding of the results of this study in figureXXXV

BAR DIAGRAM OF PRE, POST AND ORDERED ADJUSTED POST TEST MEANS ON LIVER FUNCTION TEST -ALBUMIN OF EXPERIMENTAL AND CONTROL GROUPS.

FIG XXXV



4.4.8.1 DISCUSSIONS ON THE FINDINGS OF LIVER FUNCTION TEST - ALBUMIN

The tableXLI shows that Scheffe’s confidence values of Bio-chemical variable, liver function test –albumin among groupI and group II and control group of traffic policemen.

From tableXLI it is clear that the mean values groupI and group II and control group of traffic policemen were 4.52, 4.23 and 3.93 respectively.

The mean differences between groupI and group II, groupI and control group and group II and control group were 0.28, 0.58 and 0.30 respectively. The required Scheffe's confidence interval to be significant at 0.05 level was 0.23 and the difference between groupI and control group and group II and control group .of traffic policemen were greater than required confidence interval and hence it is significant at 0.05 level of confidence.

The findings of this study are in agreement with the findings of **Lee JA, et.al. (2012) and Schmidt T, et.al. (1997)** who have found that groupI, group II increased significantly on Bio-chemical variable, liver function test -albumin on traffic policemen.

4.4.9 RESULTS ON JOB INVOLVRMENT

The pre and post test scores of the psychological variable Job involvement were measured and subjected to statistical treatment. The results on the effect of twelve weeks training of group I and group II on traffic policemen is presented in the table XLII

TABLE XLII

**ANALYSIS OF CO VARIANCE OF THE MEANS OF TWO
EXPERIMENTAL GROUPS AND THE CONTROL GROUP IN JOB
INVOLVEMENT**

	Group- A	Group -B	Contro l Group	Source of Varianc e	Sum of Squares	Df	Mean Squares	Obtaine d F-ratio
Pre Test Mean	69.10	73.96	76.90	Between	931.28	2	465.64	2.79
				Within	14486.3 7	8 7	166.51	
Post Test Mean	104.4 3	96.03	66.83	Between	23369.6 0	2	11684.8	51.36*
				Within	19792.5 0	8 7	227.5	
Adjusted Post Test Mean	107.6 0	95.55	64.15	Between	28643.4 2	2	14321.7 1	105.94 *
				Within	11625.2 2	8 6	135.17	
Mean Differenc e	35.33	22.07	10.07					

*** Significant at 0.05 level of confidence. (The table value for Significance at 0.05 level of confidence with df 2 and 87, and df 2 and 86 are 3.10 and 3.10).**

The obtained F value on pre test scores 2.79 was lesser than the required F value of 3.10 to be significant at 0.05 level. This proved there was no significant difference between the groups a pre test and post test and the randomization at the pre test was equal.

The post test scores analysis proved that there was a significant difference between the groups as the obtained F value 51.36 was greater than the required F value of 3.10. This proved that the difference between the post test means of the subjects were significant.

Taking into consideration the pre test and post test scores among the groups adjusted mean scores were calculated and subjected to statistical treatment. The F value of 105.94 was greater than the required F value of 3.10. This proved that there was a significant difference among the means due to Group I and Group II yogic practice on psychological variable Job involvement .

Since significant improvements were recorded the results were subjected to post hoc analysis using Scheffe’s Confidence Interval test .The results were presented in tableXLII

TABLE XLIII

SCHEFFE’S POST-HOC TEST FOR THE DIFFERENCES BETWEEN THE ADJUSTED TESTED AND POST- TEST PAIRED MEANS OF JOB INVOLVEMENT

MEANS			Mean difference	Required C.I
GROUP-A	GROUP-B	CONTROL		
107.60	95.55		12.05*	8.71
107.60		64.15	43.45*	8.71
	95.55	64.15	31.40*	8.71

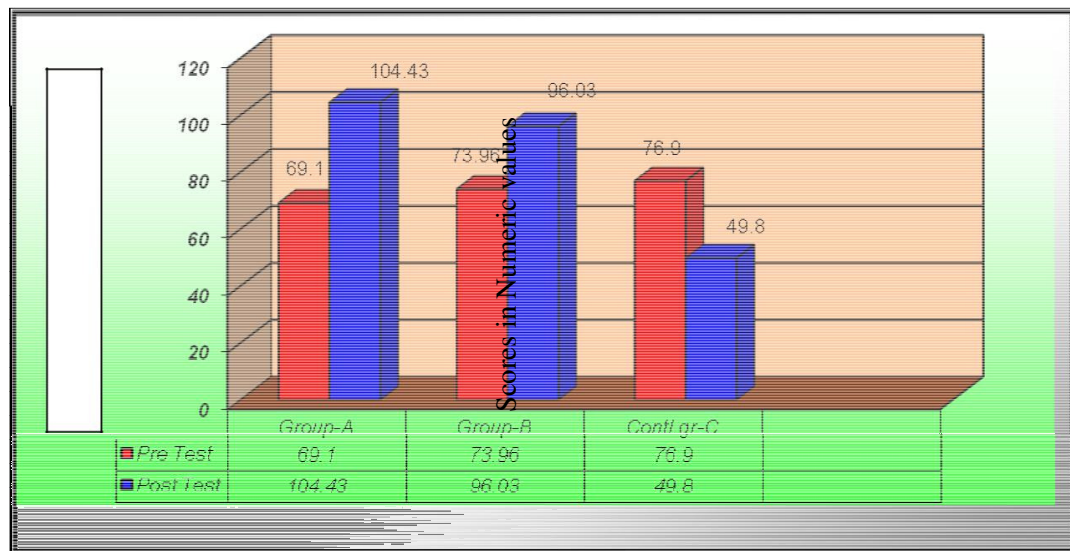
* Significant at 0.05 level of confidence.

The multiple mean comparison shown in table XLIII proved that there existed significant differences between adjusted means of group I and control group, group II and control group . There was significant difference between group I and group II

The ordered adjusted means on psychological variable Job involvement were presented through bar diagram for better understanding of the results of this study in figure XXXVI

**BAR DIAGRAM OF PRE, POST AND ORDERED ADJUSTED POST -
TEST MEANS ON JOB INVOLVEMENT OF EXPERIMENTAL AND
CONTROL GROUPS.**

FIG XXXVI



4.4.9.1 DISCUSSIONS ON THE FINDINGS OF JOB INVOLVEMENT

The table XLIII shows that Scheffe's confidence values of psychological variable Job involvement among group I and group II and control group of traffic policemen.

From table XLIII it is clear that the mean values group I and group II and control group of traffic policemen were 107.60, 95.55 and 64.15 respectively.

The mean differences between group I and group II, group I and control group and group II and control group were 12.05, 43.45 and 31.40 respectively. The required Scheffe's confidence interval to be significant at 0.05 level was 8.71 and the difference between group I and control group and group II and control

group .of traffic policemen were greater than required confidence interval and hence it is significant at 0.05 level of confidence.

The findings of this study are in agreement with the findings of **Melville GW, et.al. (2013)** who have found that groupI, group II improved significantly on psychological variable Job involvement on traffic policemen.

4.4.10 RESULTS ON STRESS

The pre and post test scores of the psychological variable stress were measured and subjected to statistical treatment. The results on the effect of twelve weeks training of group I and group II on traffic policemen is presented in the table XLIV

TABLE XXXXIV
ANALYSIS OF CO VARIANCE OF THE MEANS OF TWO
EXPERIMENTAL GROUPS AND THE CONTROL GROUP IN RESULTS
ON STRESS

	Group- A	Group- B	Control Group	Source of Variance	Sum of Squares	Df	Mean Squares	Obtained F-ratio
Pre Test Mean	82.50	91.40	76.36	Between	3428.28	2	1714.14	2.22
				Within	67083.67	87	771.07	
Post Test Mean	52.66	77.83	80.96	Between	14440.69	2	7220.34	9.39*
				Within	66829.80	87	768.15	
Adjusted Post Test Mean	53.54	70.32	87.61	Between	17276.07	2	8638.03	101.85*
				Within	7293.59	86	84.80	
Mean Difference	29.83	13.57	4.60					

* Significant at 0.05 level of confidence.(The table value for Significance at 0.05 level of confidence with df 2 and 87, and df 2 and 86 are 3.10 and 3.10).

The obtained F value on pre test scores 2.22 was lesser than the required F value of 3.10 to be significant at 0.05 level. This proved there was no significant difference between the groups a pre test and post test and the randomization at the pre test was equal.

The post test scores analysis proved that there was a significant difference between the groups as the obtained F value 9.39 was greater than the required F value of 3.10. This proved that the difference between the post test means of the subjects were significant.

Taking into consideration the pre test and post test scores among the groups adjusted mean scores were calculated and subjected to statistical treatment. The F value of 101.85 was greater than the required F value of 3.10. This proved that there was a significant difference among the means due to Group I and Group II yogic practices on psychological variable stress .

Since significant improvements were recorded the results were subjected to post hoc analysis using Scheffe’s Confidence Interval test .The results were presented in TABLE XLV

TABLE XLV
SCHEFFE’S POST-HOC TEST FOR THE DIFFERENCES BETWEEN
THE ADJUSTED TESTED AND POST- TEST PAIRED MEANS OF
STRESS

MEANS			Mean difference	Required C.I
GROUP-A	GROUP-B	CONTROL		
53.54	70.32		16.78*	6.89
53.54		87.61	34.07*	6.89
	70.32	87.61	17.29*	6.89

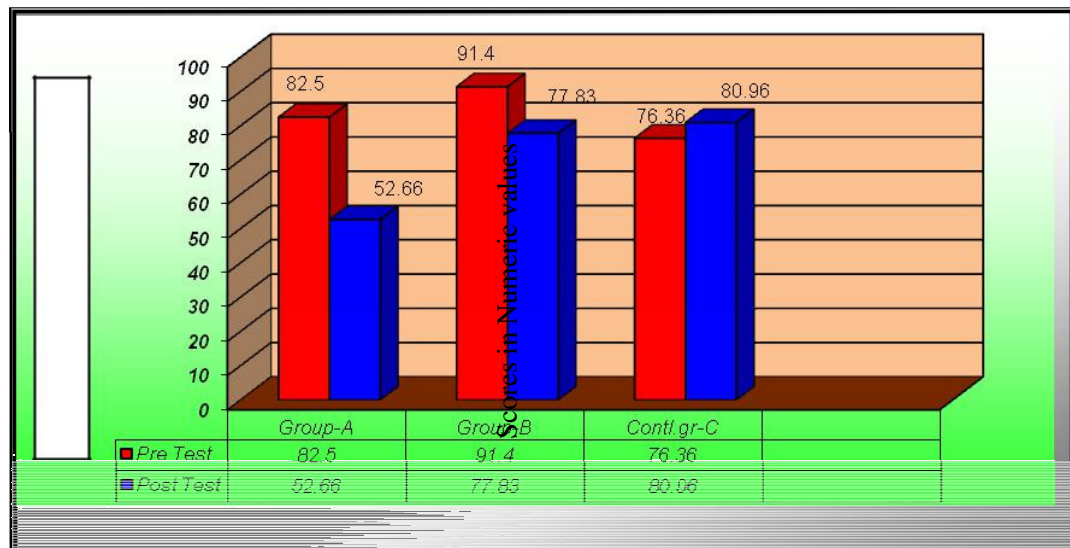
* Significant at 0.05 level of confidence.

The multiple mean comparison shown in table XLV proved that there existed significant differences between adjusted means of group I and control group, group II and control group . There was significant difference between group I and group II

The ordered adjusted means on psychological variable stress were presented through bar diagram for better understanding of the results of this study in figure XXXVII

BAR DIAGRAM OF PRE, POST AND ORDERED ADJUSTED POST-TEST MEANS ON STRESS OF EXPERIMENTAL AND CONTROL GROUPS.

FIG XXXVII



4.4.10.1 DISCUSSIONS ON THE FINDINGS OF STRESS

The table XLIV shows that Scheffe’s confidence values of psychological variable stress among group I and group II and control group of traffic policemen.

From table XLIV it is clear that the mean values group I and group II and control group of traffic policemen were 53.54, 70.32 and 87.61 respectively.

The mean differences between group I and group II group I and control group and group II and control group were 16.78, 34.07 and 17.29 respectively. The required Scheffe's confidence interval to be significant at 0.05 level was 6.89 and the difference between group I and control group and group II and control group of traffic policemen were greater than required confidence interval and hence it is significant at 0.05 level of confidence.

The findings of this study are in agreement with the findings of **Cronin S, et.al. (2013) and Sharma VK, et.al. (2013)** who have found that group I, group II reduced significantly on psychological variable stress.

4.4.11 RESULTS ON ORGANISATIONAL CLIMATE

The pre and post test scores of the psychological variable organizational climate were measured and subjected to statistical treatment. The results on the effect of twelve weeks training of group I and group II on traffic policemen is presented in the TABLE XLVI

TABLE XLVI

**ANALYSIS OF CO VARIANCE OF THE MEANS OF TWO
EXPERIMENTAL GROUPS AND THE CONTROL GROUP IN RESULTS
ON ORGANISATIONAL CLIMATE**

	Group -A	Group -B	Control Group	Source of Variance	Sum of Squares	Df	Mean Squares	Obtained F-ratio
Pre Test Mean	54.50	56.40	58.60	Between	252.6	2	126.3	1.84
				Within	5943.9	8	68.32	
Post Test Mean	93.43	90.86	49.80	Between	35969.2	2	17984.6	120.17 *
				Within	13019.6	8	149.65	
Adjusted Post Test Mean	94.18	90.90	49.01	Between	36759.8	2	18379.9	129.70 *
				Within	12186.2	8	141.70	
Mean Difference	38.93	34.47	8.80					

* Significant at 0.05 level of confidence.(The table value for Significance at 0.05 level of confidence with df 2 and 87, and df 2 and 86 are 3.10 and 3.10).

The obtained F value on pre test scores 1.84 was lesser than the required F value of 3.10 to be significant at 0.05 level. This proved there was no significant difference between the groups a pre test and post test and the randomization at the pre test was equal.

The post test scores analysis proved that there was a significant difference between the groups as the obtained F value 120.17 was greater than the required F value of 3.10 .This proved that the difference between the post test means of the subjects were significant.

Taking into consideration the pre test and post test scores among the groups adjusted mean scores were calculated and subjected to statistical treatment. The F value of 129.70 was greater than the required F value of 3.10. This proved that

there was a significant difference among the means due to Group I and Group II yogic practices on psychological variable organizational climate .

Since significant improvements were recorded the results were subjected to post hoc analysis using Scheffe’s Confidence Interval test .The results were presented in TABLE XLVII

TABLE XLVII
SCHEFFE’S POST-HOC TEST FOR THE DIFFERENCES
BETWEENTHEADJUSTED TESTED AND POST- TEST PAIRE MEANS
OFORGANISATIONAL CLIMATE

EANS			Mean difference	Required C.I
GROUP-A	GROUP-B	CONTROL		
94.18	90.90		3.27	8.91
94.18		49.01	45.16*	8.91
	90.90	49.01	41.89*	8.91

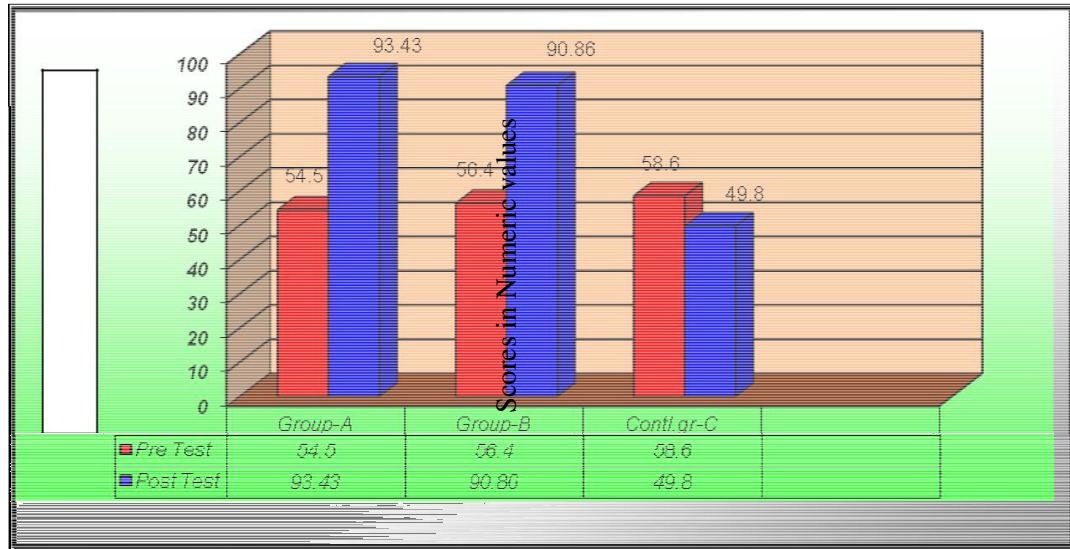
* Significant at 0.05 level of confidence.

The multiple mean comparison shown in table XLVII proved that there existed significant differences between adjusted means of group I and control group, group II and control group. There was significant difference between group I and group II

The ordered adjusted means on psychological variable organizational climate were presented through bar diagram for better understanding of the results of this study in figure XXXVIII

**BAR DIAGRAM OF PRE, POST AND ORDERED ADJUSTED POST-
TEST ON MEANS ON ORGANISATIONAL CLIMATE OF
EXPERIMENTAL AND CONTROL GROUPS.**

FIG XXXVIII



4.4.11.1 DISCUSSIONS ON THE FINDINGS OF ORGANISATIONAL CLIMATE

The table XLVII shows that Scheffe’s confidence values of psychological variable organizational climate among group I and group II and control group of traffic policemen.

From table XLVII it is clear that the mean values group I and group II and control group of traffic policemen were 94.18, 90.90 and 49.01 respectively.

The mean differences between group I and group II, group I and control group and group II and control group were 3.27, 45.16 and 41.89 respectively.

The required Scheffe’s confidence interval to be significant at 0.05 level was 8.91

and the difference between group I and control group and group II and control group .of traffic policemen were greater than required confidence interval and hence it is significant.

The findings of this study are in agreement with the findings of **Adhia H, et.al. (2010)** who have found that groupI, group II improved significantly on psychological variable organizational climate.

4.5 DISCUSSION ON HYPOTHESES

(1) It was hypothesized that there would be significant difference between the groups of varied yogic practices and the control group in physiological variable of Pulse rate. According to Table XXVII it was proved that there was a significant difference between the groups of varied yogic practices and the control group and hence the research hypothesis was accepted at 0.05 level of confidence.

(2) It was hypothesized that group and there would be significant difference between the groups of varied yogic practices and the control group in physiological variable of Vital capacity. According to Table XXIX it was proved that there was a significant difference between the groups of varied yogic practices and the control group and hence the research hypothesis was accepted at 0.05 level of confidence.

.3) It was hypothesized that there would be significant difference between the groups of varied yogic practices and the control group in physiological variable of Blood pressure. According to Table XXXI and XXXIII it was proved that there was a significant difference between the groups of varied yogic

practices and the control group and hence the research hypothesis was accepted at 0.5 level of confidence.

(4) It was hypothesized that there would be significant difference between the groups of varied yogic practices and the control group in bio chemical variable of Cholesterol. According to Table XXXV it was proved that there was a significant difference between the groups of varied yogic practices and the control group and hence the research hypothesis was accepted at 0.05 level of confidence.

(5) It was hypothesized that there would be significant difference between the groups of varied yogic practices and the control group in bio chemical variable of blood sugar. According to Table XXXVII and XXXIX it was proved that there was a significant difference between the groups of varied yogic practices and control group and hence the research hypothesis was accepted at 0.5 level of confidence.

(6) It was hypothesized that there would be significant difference between the groups of varied yogic practices and the control group in bio chemical variable of Liver function test. According to Table XLI it was proved that there was a significant difference between the groups of varied yogic practices and the control group and hence the research hypothesis was accepted at 0.05 level of confidence.

(7) It was hypothesized that there would be significant difference between the groups of varied yogic practices and the control group in psychological variable of Job involvement. According to Table XLIII it was proved that there was a significant difference between the groups of varied yogic

practices and the control group and hence the research hypothesis was accepted at 0.05 level of confidence.

. (8) It was hypothesized that there would be significant difference between the groups of varied yogic practices and the control group in psychological variable of Stress According to Table XLV it was proved that there was a significant difference between the groups of varied yogic practices and the control group and hence the research hypothesis was accepted at 0.05 level of confidence.

(9) It was hypothesized that there would be significant difference between the groups of varied yogic practices and the control group in psychological variable of Organizational behavior According to Table XLVII it was proved that there was a significant difference between the groups of varied yogic practices and the control group and hence the research hypothesis was accepted at 0.05 level of confidence.

Table XLVIII

Variable	Research hypothesis
Pulse Rate	Accepted
Vital Capacity	Accepted
Blood Pressure	Accepted
Cholesterol	Accepted
Blood sugar	Accepted
Liver function test	Accepted
Job Involvement	Accepted
Stress	Accepted
Organisational Behaviour	Accepted

Thus Group 'A' yogic practices have better results than Group 'B' yogic practices. It was hypothesized that there would be significant difference between the groups of varied yogic practices on selected physiological, bio-chemical and psychological variables. It was proved that there was a significant difference between the groups of varied yogic practices and the control group. Hence the research hypothesis was accepted at 0.05 level of confidence.