

CHAPTER- IV

RESULTS AND DISCUSSION

4.1 OVER VIEW

In this chapter, the test of significance, level of significance, discussions on findings and discussion on hypothesis were analyzed.

The purpose of this study was to find out the effect of Psycho-somatic Regulative programmes, namely, yogic practices, Jacobson relaxation techniques and physical exercises, on selected psychological variables such as Self confidence, Emotional adjustment, Assertiveness, Interpersonal relationship, Stress management and physiological variables such as, Resting heart rate, Mean arterial blood pressure, Breath holding time, Vital capacity and Respiratory rate among engineering college women.

One hundred and twenty five engineering college women students were selected from (Velammal Engineering College, Sri Ram Engineering College, Gojan Engineering College, Jaya Engineering College and S.A. Engineering College in Chennai.) The subjects were selected at random, they were in the age group of 18 to 21 years. The study was formulated as a true random group design consisting of a pre-test and post-test. The subjects (N=125) were randomly assigned to five equal groups of twenty five women students each. The groups were assigned as Experimental group-I (Yogic Practices Group), Experimental group-II (Jacobson Progressive Muscular

Relaxation Technique Group), Experimental group-III (Physical Exercises Group), Experimental group-IV (Combination of Yogic practices , Jacobson Progressive Muscular Relaxation Technique and Physical Exercises Groups) and Control group respectively pre tests were conducted for all the 125 subjects on selected psychological variables and physiological variables. After the experimental period of twelve weeks post test were conducted and the scores were recorded.. The pre test and post test scores were subjected to statistical analysis using Analysis of Covariance (ANCOVA) to find out the significance among the mean differences, whenever the 'F' ratio for adjusted test was found to be significant, Scheffe's Post hoc test was used. In all cases 0.05 level of significance was fixed to test hypotheses.

4.2 TEST OF SIGNIFICANCE

This is the crucial portion of the discussion in arriving at the conclusion by examining the hypothesis. The procedure of testing the hypothesis is in accordance with the result obtained in relation to the level of confidence, which was fixed at 0.05 levels, which was considered necessary for this study. These tests are usually called the tests of significance. Since we test whether the difference between the pre-test and post-test scores of the samples are significant or not. In the present study, if they obtained F-ratio was greater than the table F-ratio at 0.05 levels, the hypothesis was accepted to the effect that there existed significant difference between the means of the groups compared. If the obtained F-ratio was less than the table F-ratio at

0.05 levels, the hypothesis was rejected to the effect that there existed not significant difference between the means of the groups on this study.

4.3 LEVEL OF SIGNIFICANCE

The probability level below which we rejected the hypothesis is termed as the level of significance. The F-ratio obtained by analysis of variance and analysis of co variance needed to be significant at 0.5 levels. In addition to that, the significant confidence interval value, utilizing the scheffe's post hoc test in which the obtained mean difference value needed to be greater than the scheffe's confidence interval value for significance.

4.4 COMPUTATION OF ANALYSIS OF COVARIANCE AND POST HOC TEST

The following table illustrates the statistical results of the effect of different packages of psycho-somatic regulative programmes on selected psychological and physiological variables among engineering college women.

TABLE – X
COMPUTATION OF ANALYSIS OF CO-VARIANCE ON SELF
CONFIDENCE OF FOUR EXPERIMENTAL GROUPS AND CONTROL
GROUP
(Scores in numbers)

Means	Yogic practices group	Jacobson Progressive Muscular Relaxation Technique group	Physical exercises group	Combined group	Control group	S.V.	SS	Df	MS	'F' Ratio
Pre- test	17.08	16.04	16.84	17.08	17.56	B	31.04	4.	7.76	1.05
						W	884.16	120	7.37	
Post – test	22.48	20.16	22.16	24.24	18.56	B	483.52	4.	120.88	35.76*
						W	405.68	120	3.38	
Adjusted – test	22.46	20.25	22.17	24.22	18.49	B	484.62	4.	121.15	36.38*
						W	396.27	119	3.33	
Mean Gains	5.40	4.12	5.32	7.16	1.00					

Table F-ratio at 0.05 level of confidence for 4 and 120 (df) is 2.68, 4 and 119 (df) is 2.68

*Significant

4.4.1 RESULTS ON SELF CONFIDENCE

Table X shows the pre test mean on self confidence of Yogic Practice group, Jacobson Progressive Muscular Relaxation Technique group, Physical Exercise group, Combination group and Control group were 17.08, 16.04, 16.84, 17.08 and 17.56 respectively. The obtained 'F' ratio 1.21 was lesser than the table 'F' ratio 2.68. Hence the pre-test was not significant at 0.05 level of confidence for the degrees of freedom 4 and 120.

Table X shows the post test mean on self confidence of Yogic Practice group, Jacobson Progressive Muscular Relaxation Technique group, Physical Exercise group, Combination group and Control group were 22.48, 20.16, 22.16, 22.24 and 18.56. The obtained 'F' ratio 35.76 was higher than the table 'F' ratio 2.68. Hence the post-test was significant at 0.05 level of confidence for the degrees of freedom 4 and 120.

Table X shows the adjusted post test mean on self confidence of Yogic Practice group, Jacobson Progressive Muscular Relaxation Technique group, Physical Exercise group, Combination group and Control group were 22.46, 20.25, 22.17, 24.22 and 18.49. The obtained 'F' ratio 36.38 was higher than the table 'F' ratio 2.68. Hence the adjusted post-test was significant at 0.05 level of confidence for the degrees of freedom 4 and 119.

TABLE - XI
SCHEFFE'S CONFIDENCE INTERVAL TEST SCORES ON SELF
CONFIDENCE
 (Scores in numbers)

Yogic practices group	Jacobson Progressive Muscular Relaxation Technique group	Physical exercises group	Combined group	Control group	Mean Difference	CI
22.46	20.25				2.21*	1.69
22.46		22.17			0.30	1.69
22.46			24.22		1.76*	1.69
22.46				18.49	3.97*	1.69
	20.25	22.17			1.92*	1.69
-	20.25		24.22		3.97*	1.69
	20.25			18.49	1.76*	1.69
		22.17	24.22		2.06*	1.69
		22.17		18.49	3.67*	1.69
			24.22	18.49	5.73*	1.69

* Significant

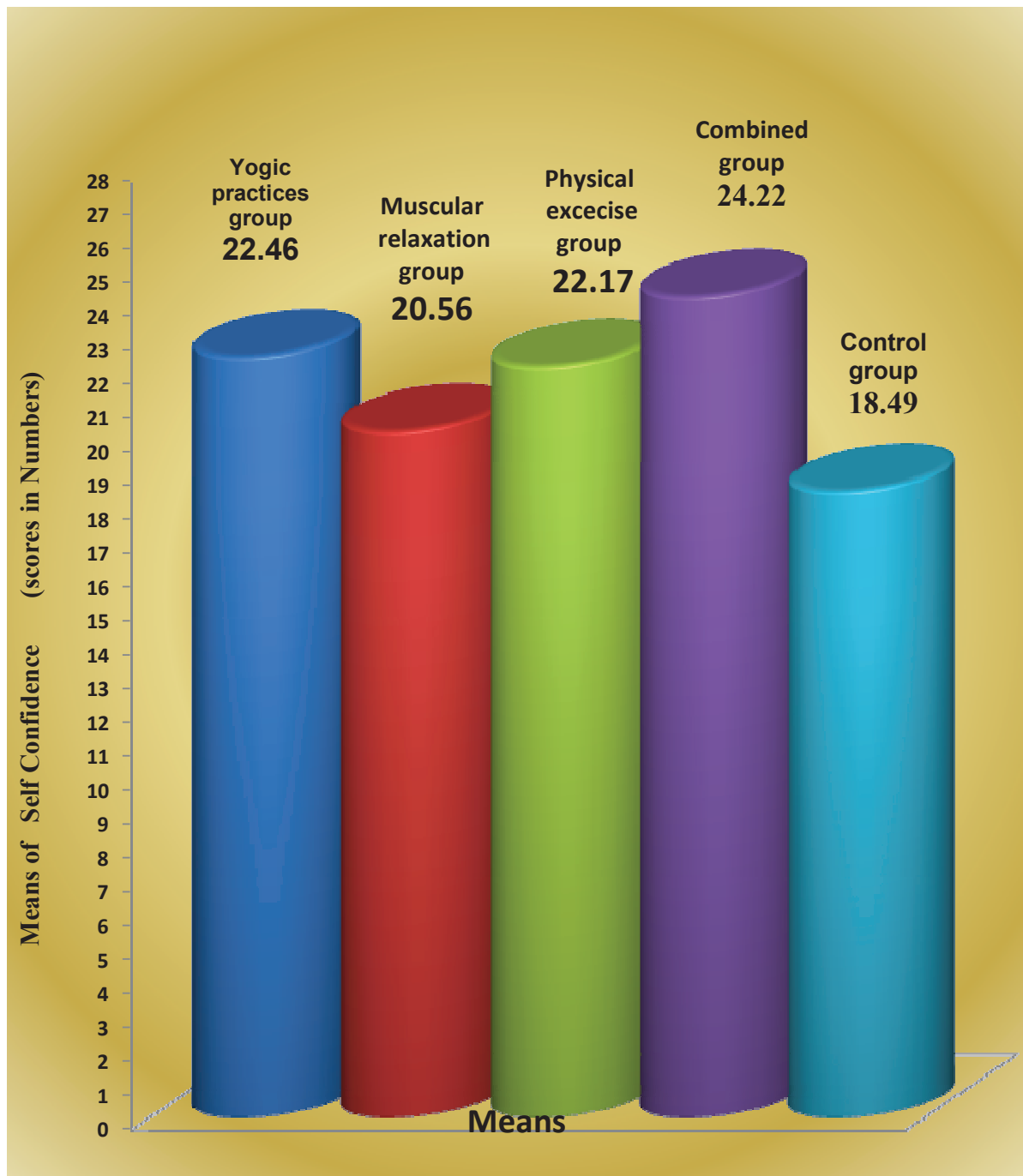
Table XI shows that the adjusted post mean test mean difference of yogic practices group, Jacobson Progressive Muscular relaxation technique group and yogic practices group, combined group and yogic practices group, control group and Jacobson Progressive Muscular relaxation technique group Physical exercises group and Jacobson Progressive Muscular relaxation technique group, combined group and Jacobson Progressive Muscular relaxation technique group, control group and Physical exercises group, combined group and Physical exercises group, control group and combined group and control group were 2.21,1.76,3.97,1.92,3.97,1.76,2.06,3.67 and 5.73 respectively. They were greater than the confidence interval value 1.69 at 0.05 level which indicates that there was a significant difference among between yogic practices group, Jacobson Progressive Muscular relaxation technique group and yogic practices group, combined group and yogic practices group, control group and Jacobson Progressive Muscular relaxation technique group, Physical exercises group and Jacobson Progressive Muscular relaxation technique group, combined group and Jacobson Progressive Muscular relaxation technique group, control group and Physical exercises group, combined group and Physical exercises group, control group and combined group and control group on self confidence.

It also shows that the adjusted post test mean difference of yogic practices group and Physical exercises group were 0.30 respectively. That

they were less than the confidence interval values 1.69 at 0.05 level which indicates that there was no significant difference among of yogic practices group and Physical exercises group on self confidence.

The adjusted post test mean values of yogic practices group, Jacobson Progressive Muscular relaxation technique group, Physical exercises group, combined group and control group on self confidence are graphically presented in figure 24.

Figure - 24
BAR DIGRAM ON ORDERED ADJUSTED MEANS OF SELF CONFIDENCE
(Scores in numbers)



4.4.2 DISCUSSIONS ON THE FINDINGS OF SELF CONFIDENCE.

The results presented in table X and XI showed that the obtained adjusted means on self confidence. Experimental groups mean value of yogic practices group was 22.46, Jacobson Progressive Muscular relaxation technique was 20.25, Physical exercises group was 22.17, combined group was 24.22 and control group was 18.49. The differences experimental groups pre test, post test and adjusted mean scores of the subjects were statistically treated and using ANCOVA the obtained F values were 1.05, 35.76 and 36.38 respectively. It was found that obtained F value on pre test scores were not significant and the obtained F values on post test and adjusted means were significant at 0.05 level of confidence as these were greater than the required table value of 2.43.

The post hoc analysis through Scheffe's confidence test proved that due to Psycho-somatic regulative programme yogic practices group, Jacobson Progressive Muscular relaxation technique, -Physical exercises group and psycho-somatic regulative programme- combination group increased self confidence than the control group and difference were significant at 0.05 level. Further, the post hoc test analysis shows that there was significant difference between the experimental groups, clearly indicating that psycho-somatic regulative programme- combined group was better than yogic practices, Jacobson Progressive Muscular relaxation technique and

Physical exercises in improving the self confidence of the engineering college women.

TABLE – XII

COMPUTATION OF ANALYSIS OF CO-VARIANCE ON EMOTIONAL ADJUSTMENT OF FOUR EXPERIMENTAL GROUPS AND CONTROL GROUP

(Scores in numbers)

Means	Yogic practices group	Jacobson Progressive Muscular Relaxation Technique group	Physical exercises group	Combined group	Control group	S.V	SS	Df	MS	'F' Ratio
Pre- test	50.24	49.96	49.48	49.1	46.32	B	247.09	4	61.77	1.67
						W	4449.84	120	37.08	
Post – test	45.48	48.60	45.12	41.0	50.12	B	1233.87	4	308.47	15.16*
						W	2442.48	120	20.35	
Adjusted – test	44.86	48.13	44.89	40.9	51.49	B	1524.73	4	381.18	34.80*
						W	1303.58	119	10.95	
Mean Gains	4.76	1.36	4.36	8.08	3.80					

Table F-ratio at 0.05 level of confidence for 4 and 120 (df) is 2.68, 4 and 119 (df) is 2.68

*Significant

4.4.3 RESULTS ON EMOTIONAL ADJUSTMENT

Table XII shows the pre test mean on Emotional adjustment of Yogic Practice group, Jacobson Progressive Muscular Relaxation Technique group, Physical Exercise group, Combination group and Control group were 50.24, 49.96, 49.48, 49.1 and 46.32 respectively. The obtained 'F' ratio 1.67 was lesser than the table 'F' ratio 2.68. Hence the pre-test was not significant at 0.05 level of confidence for the degrees of freedom 4 and 120.

Table XII shows the post test mean on Emotional adjustment of Yogic Practice group, Jacobson Progressive Muscular Relaxation Technique group, Physical Exercise group, Combination group and Control group were 45.48, 48.60, 45.12, 41.0, 5.12 and 50.24, respectively. The obtained 'F' ratio 15.16 was higher than the table 'F' ratio 2.68. Hence the post-test was significant at 0.05 level of confidence for the degrees of freedom 4 and 120.

Table XII shows the adjusted post test mean on Emotional adjustment of Yogic Practice group, Jacobson Progressive Muscular Relaxation Technique group, Physical Exercise group, Combination group and Control group were 44.86, 48.13, 44.89, 40.9 and 51.49 respectively.. The obtained 'F' ratio 34.80 was higher than the table 'F' ratio

2.68. Hence the adjusted post-test was significant at 0.05 level of confidence for the degrees of freedom 4 and 119.

TABLE - XIII

SCHEFFE'S CONFIDENCE INTERVAL TEST SCORES ON EMOTIONAL ADJUSTMENT

(Scores in numbers)

Yogic practices group	Jacobson Progressive Muscular Relaxation Technique group	Physical exercises group	Combined group	Control group	Mean Difference	CI
44.86	48.13				3.26*	3.07
44.86		44.89			0.02	3.07
44.86			40.99		3.87*	3.07
44.86				51.49	6.62*	3.07
	48.13	44.89			3.24*	3.07
-	48.13		40.99		7.14*	3.07
	48.13			51.49	3.36*	3.07
		44.89	40.99		3.90*	3.07
		44.89		51.49	6.60*	3.07
			40.99	51.49	10.50*	3.07

* Significant

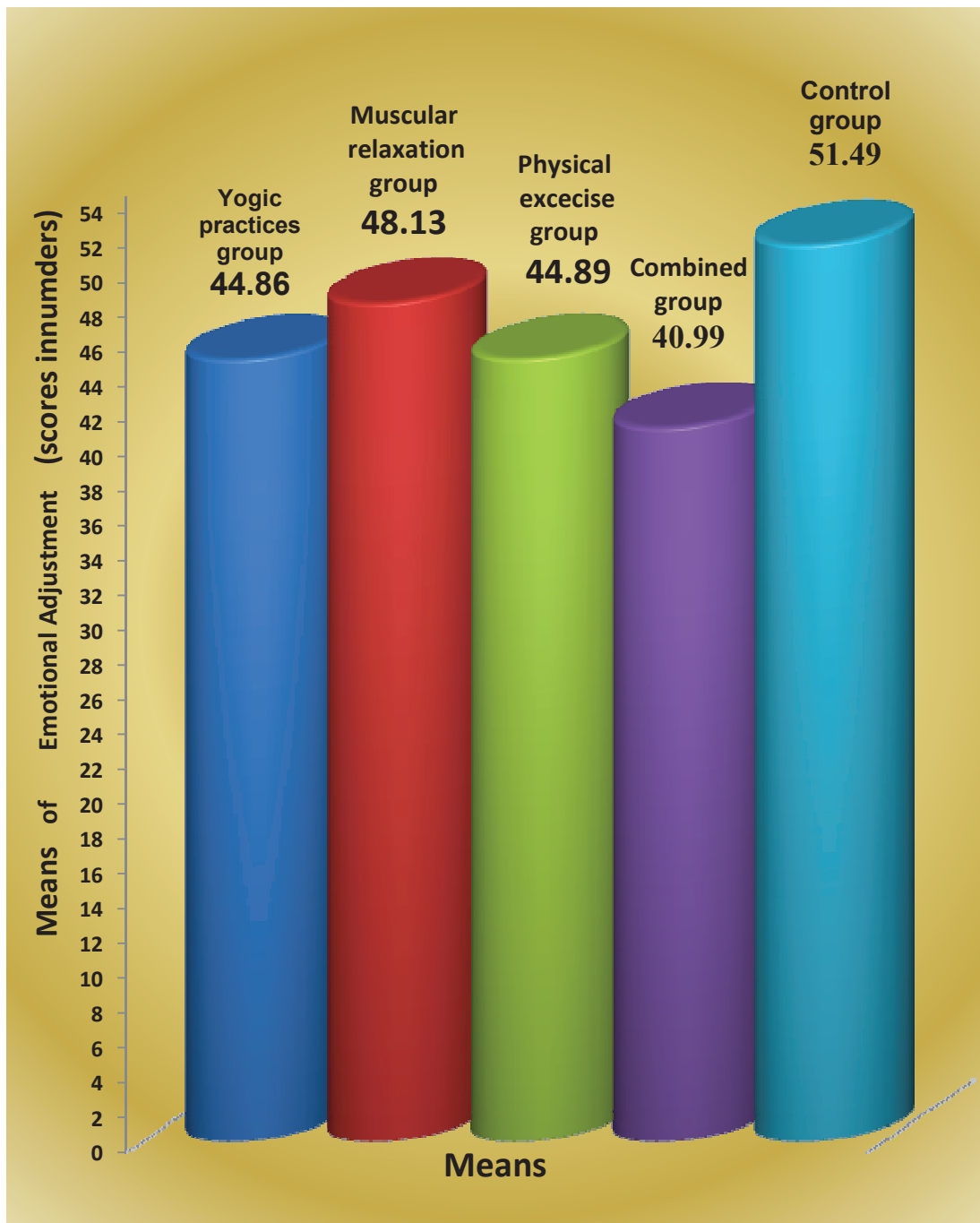
Table XIII shows that the adjusted post mean test mean difference of yogic practices group, Jacobson Progressive Muscular relaxation technique group and yogic physical exercise group, combined group and yogic practices group, control group and Jacobson Progressive Muscular relaxation technique group, Physical exercises group and Jacobson Progressive Muscular relaxation technique group, combined group and Jacobson Progressive Muscular relaxation technique group, control group and Physical exercises group, combined group and Physical exercises group, control group and combined group and control group were 3.26,3.87,6.62,3.24,7.14,3.36,3.90,6.60 and 10.50 respectively. They were greater than the confidence interval value 3.07 at 0.05 level which indicates that there was a significant difference among between yogic practices group, Jacobson Progressive Muscular relaxation technique group and yogic practices group, combined group and yogic practices group, control group and Jacobson Progressive Muscular relaxation technique group, Physical exercises group and Jacobson Progressive Muscular relaxation technique group, combined group and Jacobson Progressive Muscular relaxation technique group, control group and Physical exercises group, combined group and Physical exercises group, control group and combined group and control group on emotional adjustment.

It also shows that the adjusted post test mean difference of yogic practices group and Physical exercises group were 0.02 respectively. That they

were less than the confidence interval values 1.69 at 0.05 level which indicates that there was no significant difference among of yogic practices group and Physical exercises group on emotional adjustment.

The adjusted post test mean values of yogic practices group, Jacobson Progressive Muscular relaxation technique group, Physical exercises group, combined group and control group on emotional adjustment are graphically presented in figure 25.

Figure - 25
BAR DIGRAM ON ORDERED ADJUSTED MEANS OF EMOTIONAL ADJUSTMENT
(Scores in numbers)



4.4.4 DISCUSSIONS ON THE FINDINGS OF EMOTIONAL ADJUSTMENT

The result presented in table XII and XIII showed that the obtained adjusted means on emotional adjustment. Experimental groups mean value of yogic practices group was 44.86, Jacobson Progressive Muscular relaxation technique was 48.13, Physical exercises group was 44.89, combined group was 40.99 and control group was 51.49. The differences experimental groups pre test, post test and adjusted mean scores of the subjects were statistically treated and using ANCOVA the obtained F values were 1.67, 15.16 and 34.80 respectively. It was found that obtained F value on pre test scores were not significant and the obtained F values on post test and adjusted means were significant at 0.05 level of confidence as these were greater than the required table value of 2.68.

The post hoc analysis through Scheffe's confidence test proved that due to Psycho-somatic regulative programme yogic practices group, Jacobson Progressive Muscular relaxation technique, Physical exercises group and psycho-somatic regulative programme- combination group increased self confidence than the control group and difference were significant at 0.05 level. Further, the post hoc test analysis shows that there was significant difference between the experimental groups, clearly indicating that psycho-somatic regulative programme- combined group was better than yogic practices group, Jacobson Progressive Muscular relaxation technique

and Physical exercises group in improving the emotional adjustment of the engineering college women.

TABLE – XIV

**COMPUTATION OF ANALYSIS OF CO-VARIANCE ON ASSERTIVENESS
OF FOUR EXPERIMENTAL GROUPS AND CONTROL GROUP**

(Scores in numbers)

Means	Yogic practices group	Jacobson Progressive Muscular Relaxation Technique group	Physical exercises group	Combined group	Control group	S.V.	SS	Df	MS	'F' Ratio
Pre- test	20.16	20.44	20.88	19.36	20.96	B	41.92	4.	10.48	1.69
						W	742.88	120	6.19	
Post – test	24.80	22.28	23.00	27.56	19.76	B	847.44	4.	211.86	32.94*
						W	771.76	120	6.43	
Adjusted – test	24.82	22.27	22.94	27.67	19.69	B	845.68	4.	211.42	32.98*
						W	762.83	119	6.41	
Mean Gains	4.64	1.84	2.12	8.20	1.20					

Table F-ratio at 0.05 level of confidence for 4 and 120 (df) is 2.68, 4 and 119 (df) is 2.68

*Significant

4.4.4 RESULTS ON ASSERTIVENESS

Table XIV shows the pre test mean on assertiveness of Yogic Practice group, Jacobson Progressive Muscular Relaxation Technique group, Physical Exercise group, Combination group and Control group were 20.16, 20.44, 20.88, 19.36, and 20.96, respectively. The obtained 'F' ratio 1.69 was lesser than the table 'F' ratio 2.68. Hence the pre-test was not significant at 0.05 level of confidence for the degrees of freedom 4 and 120.

Table XIV shows the post test mean on assertiveness of Yogic Practice group, Jacobson Progressive Muscular Relaxation Technique group, Physical Exercise group, Combination group and Control group were 24.80, 22.28, 23.00, 27.56, and 19.76, respectively.. The obtained 'F' ratio 32.94 was higher than the table 'F' ratio 2.68. Hence the post-test was significant at 0.05 level of confidence for the degrees of freedom 4 and 120.

Table XIV shows the adjusted post test mean on assertiveness of Yogic Practice group, Jacobson Progressive Muscular Relaxation Technique group, Physical Exercise group, Combination group and Control group were 24.82, 22.27, 22.94, 27.67 and 19.69, respectively. The obtained 'F' ratio 32.98 was higher than the table 'F' ratio 2.68. Hence the adjusted post-test was significant at 0.05 level of confidence for the degrees of freedom 4 and 119.

TABLE – XV

**SCHEFFE’S CONFIDENCE INTERVAL TEST SCORES ON
ASSERTIVENESS**
(Scores in numbers)

Yogic practices group	Jacobson Progressive Muscular Relaxation Technique group	Physical exercises group	Combined group	Control group	Mean Difference	CI
24.82	22.27				2.55*	2.34
24.82		22.94			1.88	2.34
24.82			27.67		2.85*	2.34
24.82				19.69	5.13*	2.34
	22.27	22.94			0.67	2.34
-	22.27		27.67		5.40*	2.34
	22.27			19.69	2.58*	2.34
		22.94	27.67		4.73*	2.34
		22.94		19.69	3.25*	2.34
			27.67	19.69	7.98*	2.34

* Significant

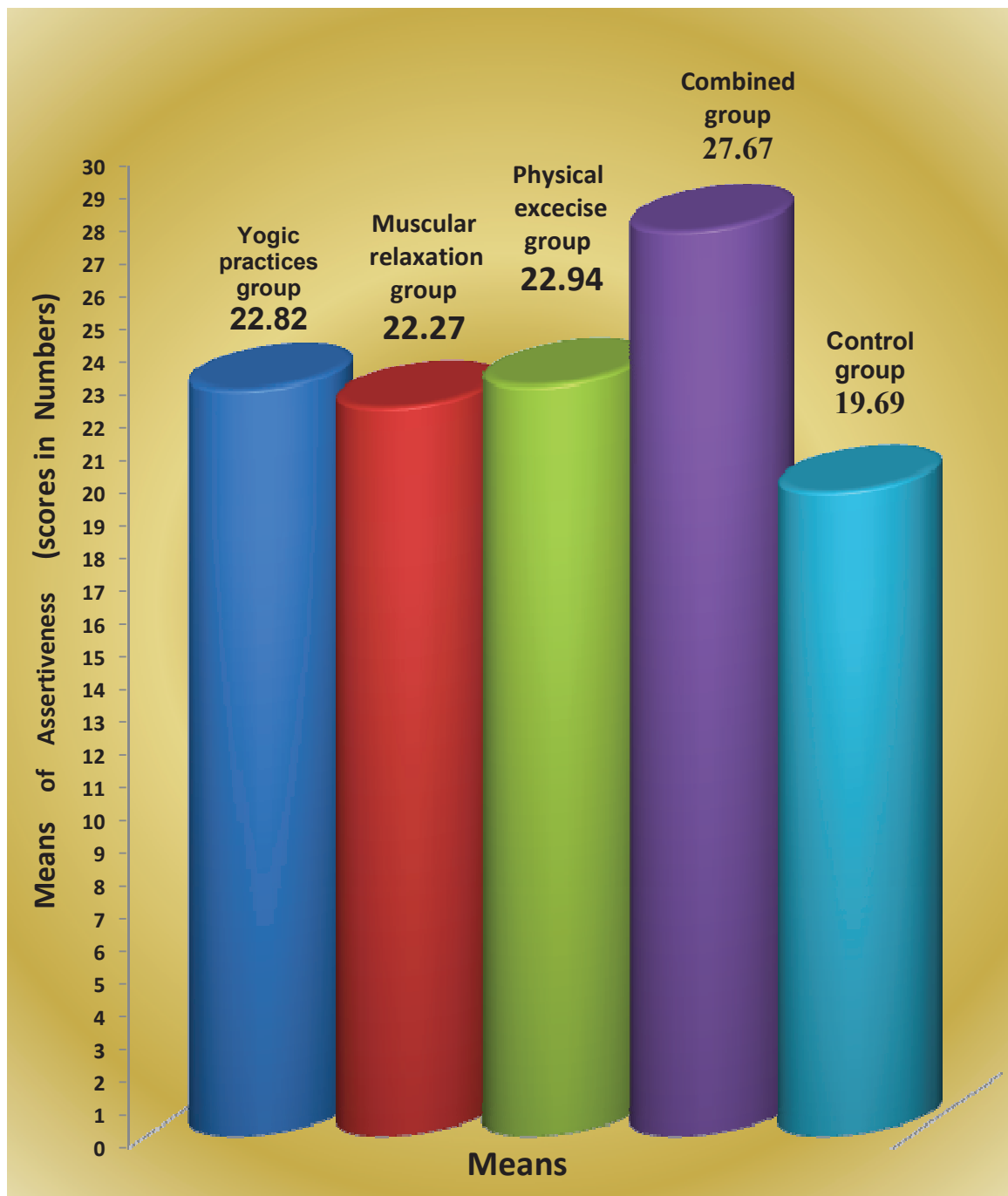
Table XV shows that the adjusted post mean test mean difference of yogic practices group, Jacobson Progressive Muscular relaxation technique group and yogic practices group, combined group and yogic practices group, control group and Jacobson Progressive Muscular relaxation technique group, combined group and Jacobson Progressive Muscular relaxation technique group, control group and Physical exercises group, combined group and Physical exercises group, control group and combined group and control group were 2.55,2.85,5.13,5.40,2.58,4.73,3.25 and 7.98 respectively. They were greater than the confidence interval value 2.34 at 0.05 level which indicates that there was a significant among between yogic practices group, Jacobson Progressive Muscular relaxation technique group and yogic practices group, combined group and yogic practices group, control group and Jacobson Progressive Muscular relaxation technique group, combined group and Jacobson Progressive Muscular relaxation technique group, control group and Physical exercises group, combined group and Physical exercises group, control group and combined group and control group on assertiveness.

It also shows that the adjusted post test mean difference of yogic practices group and Physical exercises group and Jacobson Progressive Muscular relaxation technique group, Physical exercises group were 1.88, and 0.67 respectively. That they were less than the confidence interval values

2.34 at 0.05 level which indicates that there was no significant difference among of yogic practices group and Physical exercises group on assertiveness.

The adjusted post test mean values of yogic practices group, Jacobson Progressive Muscular relaxation technique group, Physical exercises group, combined group and control group on assertiveness are graphically presented in figure 26.

Figure - 26
BAR DIGRAM ON ORDERED ADJUSTED MEANS OF ASSERTIVENESS
(Scores in numbers)



4.4.5 DISCUSSIONS ON THE FINDINGS OF ASSERTIVENESS

The result presented in table XIV and XV showed that the obtained adjusted means on assertiveness. Experimental groups mean value of yogic practices group was 24.82, Jacobson Progressive Muscular relaxation technique was 22.27, Physical exercises group was 22.94, combined group was 27.67 and control group was 19.69. The differences experimental groups pre test, post test and adjusted mean scores of the subjects were statistically treated and using ANCOVA the obtained F values were 1.69, 32.94 and 32.98 respectively. It was found that obtained F value on pre test scores were not significant and the obtained F values on post test and adjusted means were significant at 0.05 level of confidence as these were greater than the required table value of 2.68.

The post hoc analysis through Scheffe's confidence test proved that due to Psycho-somatic regulative programme yogic practices group, Jacobson Progressive Muscular relaxation technique, -Physical exercises group and psycho-somatic regulative programme- combination group increased self confidence than the control group and difference were significant at 0.05 level. Further, the post hoc test analysis shows that there was significant difference between the experimental groups, clearly indicating that psycho-somatic regulative programme- combined group was better than yogic practices group, Jacobson Progressive Muscular relaxation technique

and Physical exercises group in improving the assertiveness of the engineering college women.

TABLE – XVI

**COMPUTATION OF ANALYSIS OF CO-VARIANCE ON INTER PERSONAL
RELATIONSHIP OF FOUR EXPERIMENTAL GROUPS AND CONTROL
GROUP**

(Scores in numbers)

Means	Yogic practices group	Jacobson Progressive Muscular Relaxation Technique group	Physical exercises group	Combined group	Control group	S.V.	SS	Df	MS	'F' Ratio
Pre- test	18.88	18.52	18.44	17.32	18.96	B	43.09	4	10.77	1.13
						W	1141.44	120	9.51	
Post – test	24.36	21.80	24.48	27.56	19.00	B	1032.64	4	258.16	37.05*
						W	836.16	120	6.97	
Adjusted – test	24.34	21.80	24.48	27.61	18.98	B	1023.12	4	255.78	36.49*
						W	834.06	119	7.01	
Mean Gains	5.48	3.28	6.04	10.24	0.04					

Table F-ratio at 0.05 level of confidence for 4 and 120 (df) is 2.68, 4 and 119 (df) is 2.68

*Significant

4.4.6 RESULTS ON INTER PERSONAL RELATIONSHIP

Table XVI shows the pre test mean on Inter personal relationship of Yogic Practice group, Jacobson Progressive Muscular Relaxation Technique group, Physical Exercise group, Combination group and Control group were 18.88, 18.52, 18.44, 17.32 and 18.96, respectively. The obtained 'F' ratio 1.13 was lesser than the table 'F' ratio 2.68. Hence the pre-test was not significant at 0.05 level of confidence for the degrees of freedom 4 and 120.

Table XVI shows the post test mean on inter personal relationship of Yogic Practice group, Jacobson Progressive Muscular Relaxation Technique group, Physical Exercise group, Combination group and Control group were 24.36, 21.80, 24.48, 27.56 and 19.00, respectively. The obtained 'F' ratio 37.05 was higher than the table 'F' ratio 2.68. Hence the post-test was significant at 0.05 level of confidence for the degrees of freedom 4 and 120.

Table XVI shows the adjusted post test mean on inter personal relationship of Yogic Practice group, Jacobson Progressive Muscular Relaxation Technique group, Physical Exercise group, Combination group and Control group were 24.34, 21.80, 24.48, 27.61 and 18.98, respectively. The obtained 'F' ratio 36.49 was higher than the table 'F'

ratio 2.68. Hence the adjusted post-test was significant at 0.05 level of confidence for the degrees of freedom 4 and 119.

TABLE - XVII
SCHEFFE'S CONFIDENCE INTERVAL TEST SCORES ON INTER
PERSONAL RELATIONSHIP
 (Scores in numbers)

Yogic practices group	Jacobson Progressive Muscular Relaxation	Physical exercises group	Combined group	Control group	Mean Difference	CI
24.34	21.80				2.54*	2.45
24.34		24.48			0.14	2.45
24.34			27.61		3.27*	2.45
24.34				18.98	5.36*	2.45
	21.80	24.48			2.68*	2.45
-	21.80		27.61		5.81*	2.45
	21.80			18.98	2.82*	2.45
		24.48	27.61		3.13*	2.45
		24.48		18.98	5.50*	2.45
			27.61	18.98	8.63*	2.45

* Significant

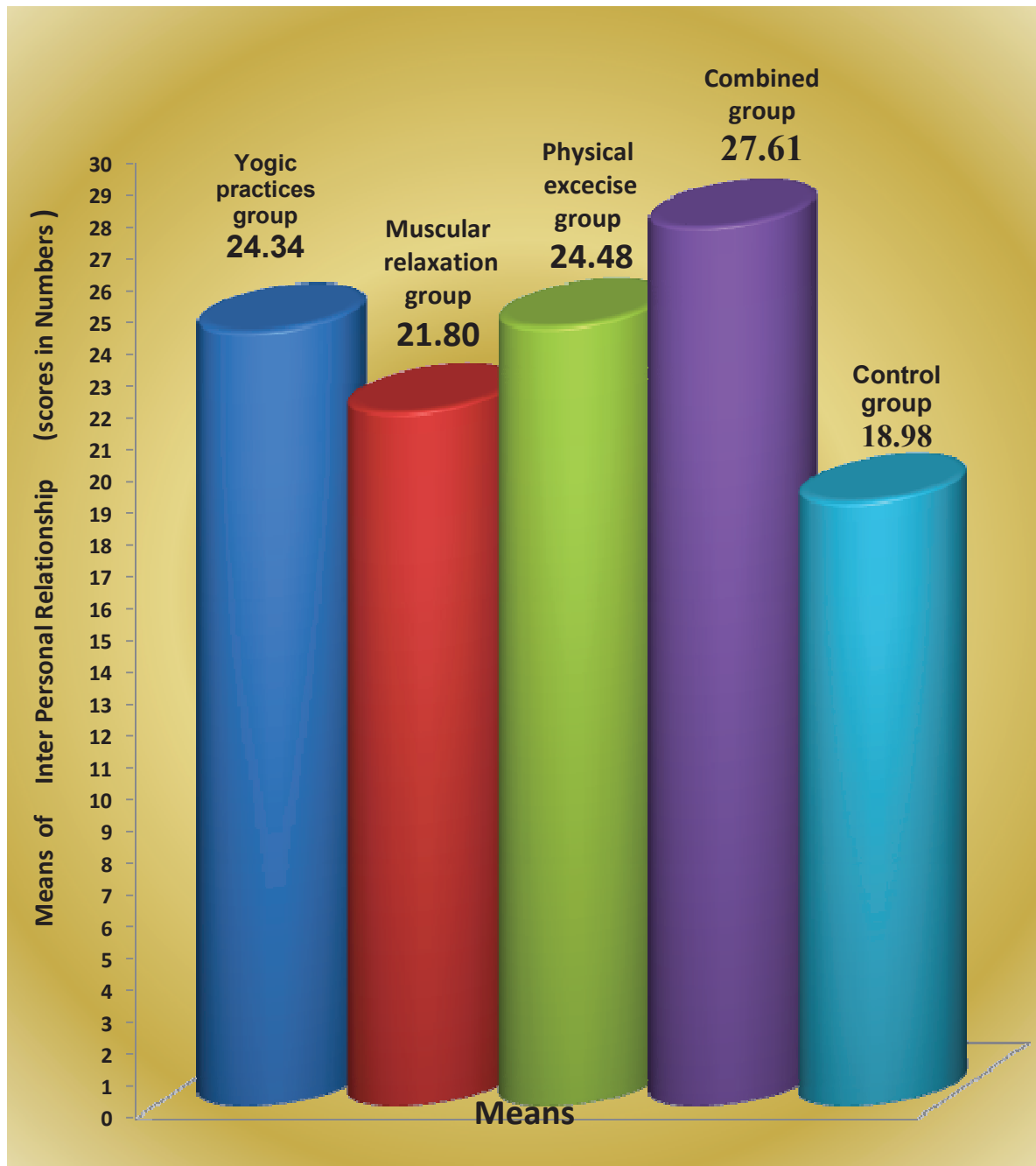
Table XVII shows that the adjusted post mean test mean difference of yogic practices group, Jacobson Progressive Muscular relaxation technique group and yogic practices group, combined group and yogic practices group, control group and Jacobson Progressive Muscular relaxation technique group, Physical exercises group and Jacobson Progressive Muscular relaxation technique group, combined group and Jacobson Progressive Muscular relaxation technique group, control group and Physical exercises group, combined group and Physical exercises group, control group and combined group and control group were 2.54,3.27,5.36,2.68,5.81,2.82,3.13,5.50 and 8.63 respectively. They were greater than the confidence interval value 2.45 at 0.05 level which indicates that there was a significant difference among between yogic practices group, Jacobson Progressive Muscular relaxation technique group and yogic practices group, combined group and yogic practices group, control group and Jacobson Progressive Muscular relaxation technique group, Physical exercises group and Jacobson Progressive Muscular relaxation technique group, combined group and Jacobson Progressive Muscular relaxation technique group, control group and Physical exercises group, combined group and Physical exercises group, control group and combined group and control group on inter personal relationship.

It also shows that the adjusted post test mean difference of yogic practices group and Physical exercises group were 0.14 respectively. That they

were less than the confidence interval values 2.45 at 0.05 level which indicates that there was no significant difference among of yogic practices group and Physical exercises group on inter personal relationship.

The adjusted post test mean values of yogic practices group, Jacobson Progressive Muscular relaxation technique group, Physical exercises group, combined group and control group on inter personal relationship are graphically presented in figure 27.

Figure - 27
BAR DIGRAM ON ORDERED ADJUSTED MEANS OF INTER PERSONAL
RELATIONSHIP
(Scores in numbers)



4.4.7 DISCUSSIONS ON THE FINDINGS OF INTER PERSONAL RELATIONSHIP

The result presented in table XVI and XVII showed that the obtained adjusted means on inter personal relationship. Experimental groups mean value of yogic practices group was 24.34, Jacobson Progressive Muscular relaxation technique was 21.80, Physical exercises group was 24.48, combined group was 27.61 and control group was 18.98. The differences experimental groups pre test, post test and adjusted mean scores of the subjects were statistically treated and using ANCOVA the obtained F values were 1.13,37.05 and 36.49 respectively. It was found that obtained F value on pre test scores were not significant and the obtained F values on post test and adjusted means were significant at 0.05 level of confidence as these were greater than the required table value of 2.68.

The post hoc analysis through Scheffe's confidence test proved that due to Psycho-somatic regulative programme yogic practices group, Jacobson Progressive Muscular relaxation technique, -Physical exercises group and psycho-somatic regulative programme- combination group increased self confidence than the control group and difference were significant at 0.05 level. Further, the post hoc test analysis shows that there was significant difference between the experimental groups, clearly indicating that psycho-somatic regulative programme- combination group was better than yogic practices group, Jacobson Progressive Muscular relaxation

technique and Physical exercises in improving the inter personal relationship of the engineering college women.

TABLE – XVIII
COMPUTATION OF ANALYSIS OF CO-VARIANCE ON
STRESS MANAGEMENT OF FOUR EXPERIMENTAL GROUPS AND
CONTROL GROUP
 (Scores in numbers)

Means	Yogic practices group	Jacobson Progressive Muscular Relaxation Technique group	Physical exercises group	Combined group	Control group	S.V.	SS	Df	MS	'F' Ratio
Pre- test	27.80	27.52	27.68	27.24	29.08	B	50.61	4	12.65	1.26
						W	1208.08	120	10.07	
Post – test	38.96	34.28	34.96	42.88	29.44	B	2577.89	4	644.47	40.88*
						W	1891.76	120	15.76	
Adjusted – test	38.98	34.38	35.01	43.00	29.10	B	2670.61	4	667.65	44.20*
						W	1797.37	119	15.10	
Mean Gains	11.16	6.76	7.28	15.64	0.36					

Table F-ratio at 0.05 level of confidence for 4 and 120 (df) is 2.68, 4 and 119 (df) is 2.68

*Significant

4.4.9 RESULTS ON STRESS MANAGEMENT

Table XVIII shows the pre test mean on stress management of Yogic Practice group, Jacobson Progressive Muscular Relaxation Technique group, Physical Exercise group, Combination group and Control group were 27.80, 27.52, 27.68, 27.24 and 29.08, respectively. The obtained 'F' ratio 1.26 was lesser than the table 'F' ratio 2.68. Hence the pre-test was not significant at 0.05 level of confidence for the degrees of freedom 4 and 120.

Table XVIII shows the post test mean on stress management of Yogic Practice group, Jacobson Progressive Muscular Relaxation Technique group, Physical Exercise group, Combination group and Control group were 38.96, 34.28, 34.96, 42.88 and 29.44, respectively. The obtained 'F' ratio 40.88 was higher than the table 'F' ratio 2.68. Hence the post-test was significant at 0.05 level of confidence for the degrees of freedom 4 and 120.

Table XVIII shows the adjusted post test mean on stress management of Yogic Practice group, Jacobson Progressive Muscular Relaxation Technique group, Physical Exercise group, Combination group and Control group were 38.98, 34.38, 35.01, 42.88 and 29.44, respectively.. The obtained 'F' ratio 44.20 was higher than the table 'F' ratio

2.68. Hence the adjusted post-test was significant at 0.05 level of confidence for the degrees of freedom 4 and 119.

TABLE - XIX
SCHEFFE'S CONFIDENCE INTERVAL TEST SCORES ON
STRESS MANAGEMENT
 (Scores in numbers)

Yogic practices group	Jacobson Progressive Muscular Relaxation Technique group	Physical exercises group	Combined group	Control group	Mean Difference	CI
38.98	34.38				4.60*	3.60
38.98		35.01			3.97*	3.60
38.98			43.05		4.08*	3.60
38.98				29.10	9.88*	3.60
	34.38	35.01			0.64	3.60
-	34.38		43.05		8.68*	3.60
	34.38			29.10	5.28*	3.60
		35.01	43.05		8.04*	3.60
		35.01		29.10	5.91*	3.60
			43.05	29.10	13.95*	3.60

* Significant

Table XVIII shows that the adjusted post mean test mean difference of yogic practices group, Jacobson Progressive Muscular relaxation technique group and yogic practices group, Physical exercises group and yogic practices group, combined group and yogic practices group, control group and Jacobson Progressive Muscular relaxation technique group, combined group and Jacobson Progressive Muscular relaxation technique group, control group and Physical exercises group, combined group and Physical exercises group, control group and combined group and control group were 4.60,3.97,4.08,9.88,8.68,5.28,8.04,5.91 and 13.95 respectively. They were greater than the confidence interval value 3.60 at 0.05 level which indicates that there was a significant difference among between yogic practices group, Jacobson Progressive Muscular relaxation technique group, yogic practices group, Physical exercises group and yogic practices group, combined group and yogic practices group, control group and Jacobson Progressive Muscular relaxation technique group, combined group and Jacobson Progressive Muscular relaxation technique group, control group and Physical exercises group, combined group and Physical exercises group, control group and combined group and control group on stress management.

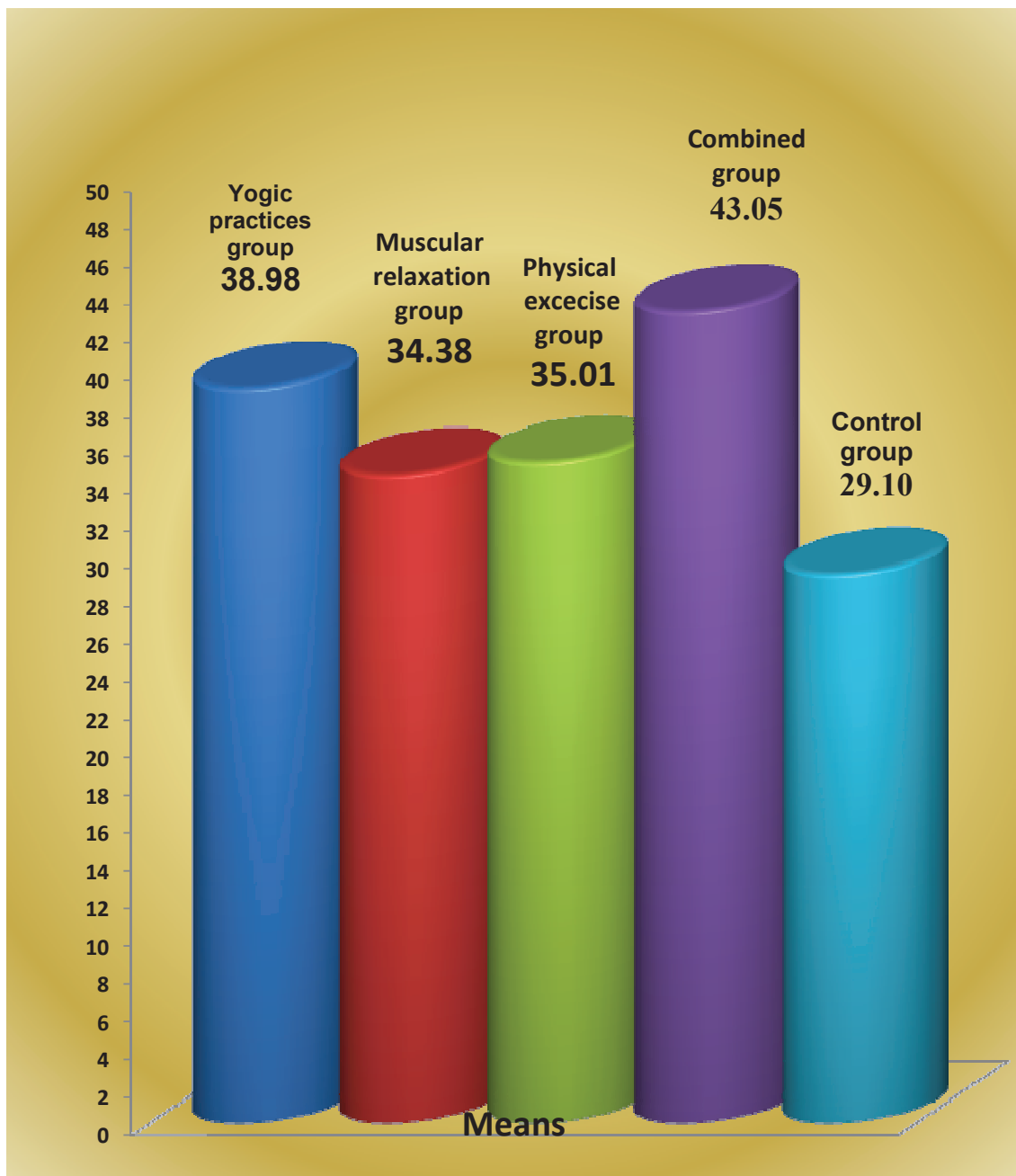
It also shows that the adjusted post test mean difference of Jacobson Progressive Muscular relaxation technique group, Physical exercises group were 0.64 respectively. That they were less than the

confidence interval values 1.69 at 0.05 level which indicates that there was no significant difference among of yogic practices group and Physical exercises group on stress management.

The adjusted post test mean values of yogic practices group, Jacobson Progressive Muscular relaxation technique group, Physical exercises group, combined group and control group on stress management are graphically presented in figure 28

Figure - 28

BAR DIGRAM ON ORDERED ADJUSTED MEANS OF STRESS MANAGEMENT
(Scores in numbers)



4.4.10 DISCUSSIONS ON THE FINDINGS OF STRESS MANAGEMENT

The result presented in table XVIII and XIX showed that the obtained adjusted means on stress management. Experimental groups mean value of yogic practices group was 38.98, Jacobson Progressive Muscular relaxation technique was 34.38, Physical exercises group was 35.01, combined group was 43.05 and control group was 29.10. The differences experimental groups pre test, post test and adjusted mean scores of the subjects were statistically treated and using ANCOVA the obtained F values were 1.26,40.88 and 44.20 respectively. It was found that obtained F value on pre test scores were not significant and the obtained F values on post test and adjusted means were significant at 0.05 level of confidence as these were greater than the required table value of 2.68.

The post hoc analysis through Scheffe's confidence test proved that due to Psycho-somatic regulative programme yogic practices group, Jacobson Progressive Muscular relaxation technique, -Physical exercises group and psycho-somatic regulative programme- combination group increased self confidence than the control group and difference were significant at 0.05 level. Further, the post hoc test analysis shows that there was significant difference between the experimental groups, clearly indicating that psycho-somatic regulative programme- combined group was better than yogic practices group, Jacobson Progressive Muscular relaxation technique

and Physical exercises in improving the stress management of the engineering college women.

TABLE – XX

**COMPUTATION OF ANALYSIS OF CO-VARIANCE ON VITAL CAPACITY
OF FOUR EXPERIMENTAL GROUPS AND CONTROL GROUP**
(Scores in Milliliters)

Means	Yogic practices group	Jacobson Progressive Muscular Relaxation Technique group	Physical exercises group	Combined group	Control group	S. V.	SS	Df	MS	'F' Ratio
Pre- test	2864.00	2896.00	2880.00	2868.00	3056.00	B	656320.00	4	164080.00	1.20
						W	16343200.00	120	136193.33	
Post – test	3424.00	3156.00	3484.0	3736.00	2916.00	B	9954720.00	.	2488680.00	28.85*
						W	10352000.00	120	86266.67	
Adjusted – test	3433.60	3159.31	3490.45	3744.81	2887.82	B	10514810.65	4	2628702.66	32.18*
						W	9719315.86	119	81674.92	
Mean Gains	560.00	260.00	604.00	868.00	140.00					

Table F-ratio at 0.05 level of confidence for 4 and 120 (df) is 2.68, 4 and 119 (df) is 2.68

*Significant

4.4.11 RESULTS ON VITAL CAPACITY

Table XX shows the analyzed data on vital capacity the pre-test means of vital capacity were 2864.00 for yogic practice, 2896.00 for Jacobson progressive muscular relaxation technique group, 2880.00 for physical exercise group, 2868.00 for combined group and 3056.00 for control group. The obtained 'F' ratio 1.20 was lesser than the table 'F' ratio 2.68. Hence the pre-test was not significant at 0.05 level of confidence for the degrees of freedom 4 and 120.

The post-test means of vital capacity were 3424.00 for yogic practice, 3156.00 for Jacobson progressive muscular relaxation technique group, 3484.00 for physical exercise group, 3736.00 for combined group and 2916.00 for control group. The obtained 'F' ratio 28.85 was higher than the table 'F' ratio 2.68. Hence the post-test was significant at 0.05 level of confidence for the degrees of freedom 4 and 120.

The adjusted post-test means of vital capacity were 3433.60 for yogic practice,, 3159.31 for Jacobson progressive muscular relaxation technique group, 3490.45 for physical exercise group, 3744.81 for combined group and 2887.82 for control group. The obtained 'F' ratio 32.18 was higher than the table 'F' ratio 2.68. Hence the adjusted post-test was significant at 0.05 level of confidence for the degrees of freedom 4 and 119.

TABLE – XXI
SCHEFFE’S CONFIDENCE INTERVAL TEST SCORES ON VITAL CAPACITY
 (Scores in Milliliters)

Yogic practices group	Jacobson Progressive Muscular Relaxation Technique group	Physical exercises group	Combined group	Control group	Mean Difference	CI
3433.60	3159.31				274.30*	264.66
3433.60		3490.45			56.85	264.66
3433.60			3744.81		311.21*	264.66
3433.60				2887.82	545.78*	264.66
	3159.31	3490.45			331.15*	264.66
-	3159.31		3744.81		585.51*	264.66
	3159.31			2887.82	271.48*	264.66
		3490.45	3744.81		254.36*	264.66
		3490.45		2887.82	602.63*	264.66
			3744.81	2887.82	856.99*	264.66

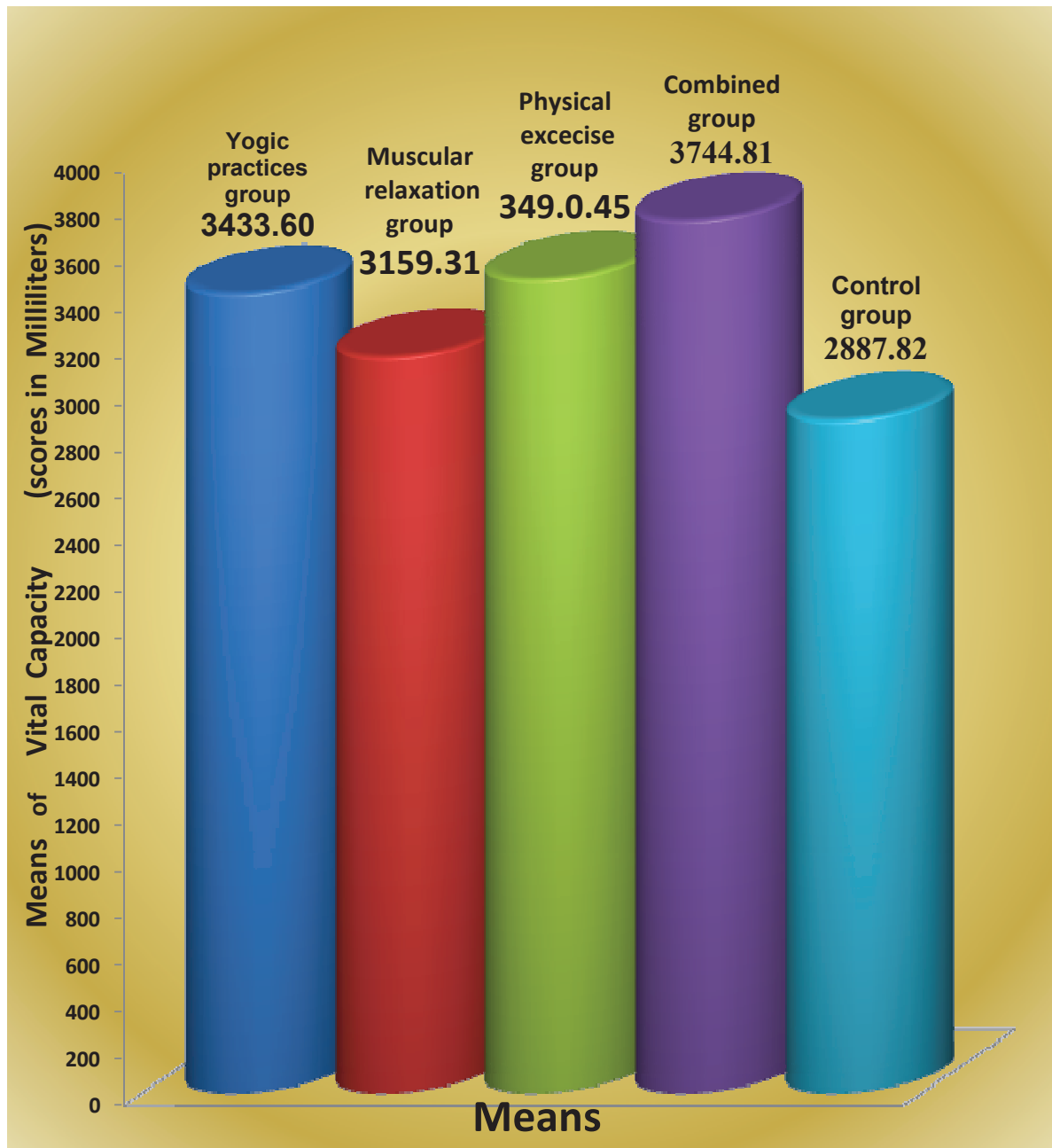
* Significant

Table XXI shows that the adjusted post mean test mean difference of yogic practices group, Jacobson Progressive Muscular relaxation technique group and yogic practices group, combined group and yogic practices group, control group and Jacobson Progressive Muscular relaxation technique group, Physical exercises group and Jacobson Progressive Muscular relaxation technique group, combined group and Jacobson Progressive Muscular relaxation technique group, control group and Physical exercises group, combined group and Physical exercises group, control group and combined group and control group were 274.30,311.21,545.78,331.15,585.51,271.48,254.36,602.63 and 856.99 respectively. They were greater than the confidence interval value 1.69 at 0.05 level which indicates that there was a significant among difference between yogic practices group, Jacobson Progressive Muscular relaxation technique group and yogic practices group, combined group and yogic practices group, control group and Jacobson Progressive Muscular relaxation technique group, Physical exercises group and Jacobson Progressive Muscular relaxation technique group, combined group and Jacobson Progressive Muscular relaxation technique group, control group and Physical exercises group, combined group and Physical exercises group, control group and combined group and control group on vital capacity.

It also shows that the adjusted post test mean difference of yogic practices group and Physical exercises group were 56.85 respectively. That they were less than the confidence interval values 264.66 at 0.05 level which indicates that there was no significant difference among of yogic practices group and Physical exercises group on vital capacity.

The adjusted post test mean values of yogic practices group, Jacobson progressive muscular relaxation technique group, physical exercises group, combined group and control group on vital capacity are graphically presented in figure- 29.

Figure - 29
BAR DIGRAM ON ORDERED ADJUSTED MEANS OF VITAL CAPACITY
(Scores in milliliters)



4.4.11 DISCUSSIONS ON THE FINDINGS OF VITAL CAPACITY

The result presented in table XX and XXI showed that the obtained adjusted means on vital capacity. Experimental groups mean value of yogic practices group was 3433.60, Jacobson Progressive Muscular relaxation technique was 3159.31, Physical exercises group was 3490.45, combined group was 3744.81 and control group was 2887.82. The differences experimental groups pre test, post test and adjusted mean scores of the subjects were statistically treated and using ANCOVA the obtained F values were 1.20, 28.85 and 32.18 respectively. It was found that obtained F value on pre test scores were not significant and the obtained F values on post test and adjusted means were significant at 0.05 level of confidence as these were greater than the required table value of 2.68.

The post hoc analysis through Scheffe's confidence test proved that due to Psycho-somatic regulative programme yogic practices group, Jacobson Progressive Muscular relaxation technique, Physical exercises group and psycho-somatic regulative programme- combination group increased self confidence than the control group and difference were significant at 0.05 level. Further, the post hoc test analysis shows that there was significant difference between the experimental groups, clearly indicating that psycho-somatic regulative programme- combined group was better than yogic practices, Jacobson Progressive Muscular relaxation technique and

Physical exercises in improving the vital capacity of the engineering college women.

TABLE – XXII

COMPUTATION OF ANALYSIS OF CO-VARIANCE ON RESTING HEART RATE OF FOUR EXPERIMENTAL GROUPS AND CONTROL GROUP
(Scores in Beats per minutes)

Means	Yogic practices group	Jacobson Progressive Muscular Relaxation Technique group	Physical exercises group	Combined group	Control group	S.V.	SS	Df	MS	'F' Ratio
Pre- test	73.52	73.44	73.32	74.04	75.20	B	60.05	4	15.01	1.06
						W	1698.80	120	14.16	
Post – test	69.88	72.24	69.76	67.52	75.04	B	817.47	4	204.37	28.55*
						W	858.96	120	7.16	
Adjusted – test	69.97	72.35	69.90	67.49	74.73	B	749.39	4	187.35	29.21*
						W	763.30	119	6.41	
Mean Gains	3.64	1.20	3.56	6.52	0.16					

Table F-ratio at 0.05 level of confidence for 4 and 120 (df) is 2.68, 4 and 119 (df) is 2.68

*Significant

4.4.13 RESULTS ON RESTING HEART RATE

Table XXII shows the analyzed data on resting heart rate the pre-test means of resting heart rate were 73.52 for yogic practice, 73.44 for Jacobson progressive muscular relaxation technique group, 73.32 for physical exercise group, 74.04 for combined group and 75.20 for control group. The obtained 'F' ratio 1.06 was lesser than the table 'F' ratio 2.68. Hence the pre-test was not significant at 0.05 level of confidence for the degrees of freedom 4 and 120.

The post-test means of resting heart rate were 69.88 for yogic practice, 72.24 for Jacobson progressive muscular relaxation technique group, 69.76 for physical exercise group, 67.52 for combined group and 75.04 for control group. The obtained 'F' ratio 28.55 was higher than the table 'F' ratio 2.68. Hence the post-test was significant at 0.05 level of confidence for the degrees of freedom 4 and 120.

The adjusted post-test means of resting heart rate were 69.97 for yogic practice,, 72.35 for Jacobson progressive muscular relaxation technique group, 69.90 for physical exercise group, 67.49 for combined group and 74.73 for control group. The obtained 'F' ratio 29.21 was higher than the table 'F' ratio 2.68. Hence the adjusted post-test was significant at 0.05 level of confidence for the degrees of freedom 4 and 119.

TABLE – XXIII
SCHEFFE’S CONFIDENCE INTERVAL TEST SCORES ON
RESTING HEART RATE
 (Scores in Beats per minutes)

Yogic practices group	Jacobson Progressive Muscular Relaxation Technique group	Physical exercises group	Combined group	Control group	Mean Difference	CI
69.97	72.35				2.38*	2.35
69.97		69.90			0.07	2.35
69.97			67.49		2.48*	2.35
69.97				74.73	4.76*	2.35
	72.35	69.90			2.45*	2.35
-	72.35		67.49		4.86*	2.35
	72.35			74.73	2.38*	2.35
		69.90	67.49		2.41*	2.35
		69.90		74.73	4.83*	2.35
			67.49	74.73	7.24*	2.35

* Significant

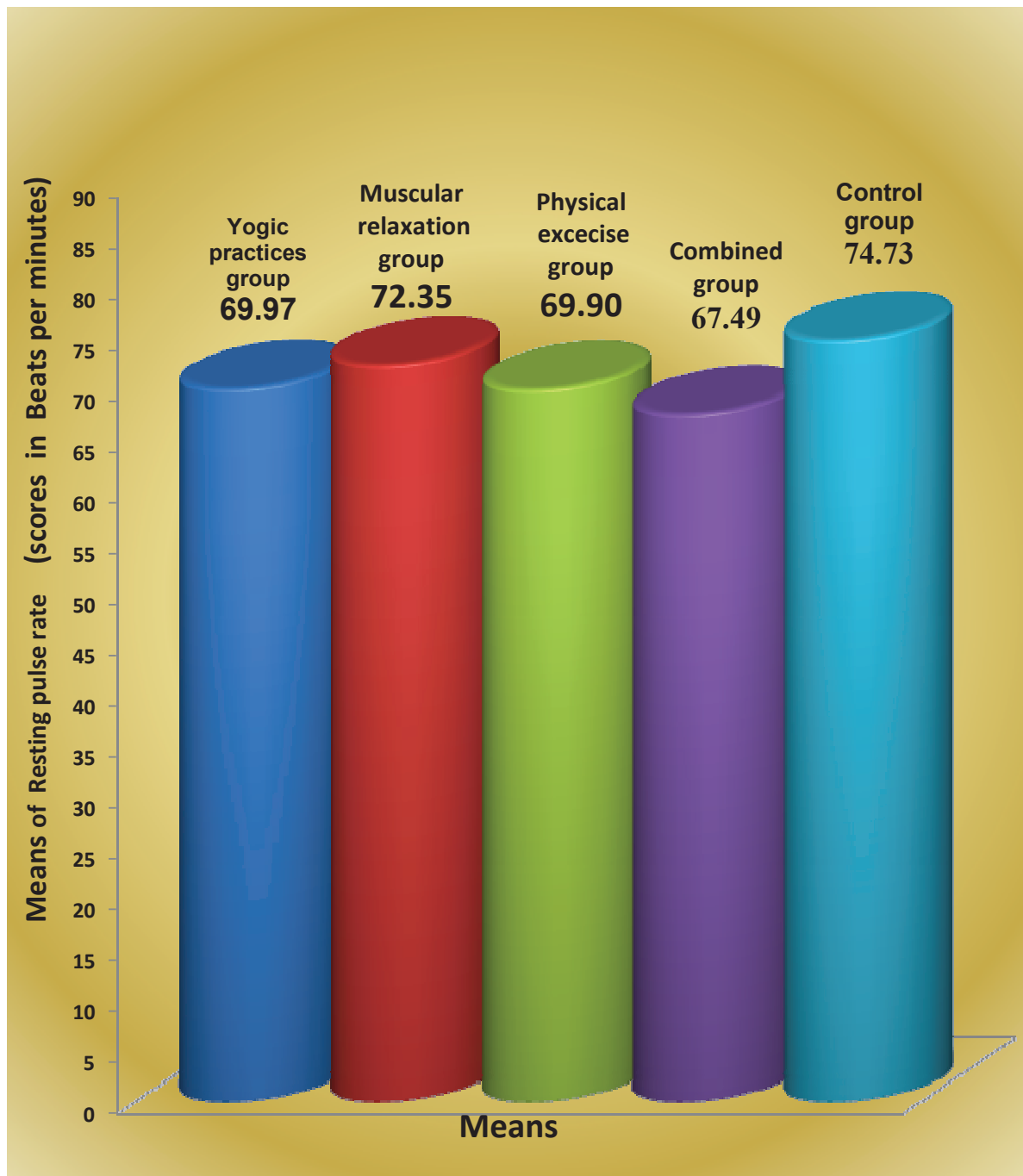
Table XXIII shows that the adjusted post mean test mean difference of yogic practices group, Jacobson Progressive Muscular relaxation technique group and yogic practices group, combined group and yogic practices group, control group and Jacobson Progressive Muscular relaxation technique group, Physical exercises group and Jacobson Progressive Muscular relaxation technique group, combined group and Jacobson Progressive Muscular relaxation technique group, control group and Physical exercises group, combined group and Physical exercises group, control group and combined group and control group were 2.38,2.48,4.76,2.45,4.86,2.38,2.41,4.83 and 7.24 respectively. They were greater than the confidence interval value 2.35 at 0.05 level which indicates that there was a significant difference among between yogic practices group, Jacobson Progressive Muscular relaxation technique group and yogic practices group, combined group and yogic practices group, control group and Jacobson Progressive Muscular relaxation technique group, Physical exercises group and Jacobson Progressive Muscular relaxation technique group, combined group and Jacobson Progressive Muscular relaxation technique group, control group and Physical exercises group, combined group and Physical exercises group, control group and combined group and control group on resting heart rate.

It also shows that the adjusted post test mean difference of yogic practices group and Physical exercises group were 0.07 respectively. That they

were less than the confidence interval values 2.35 at 0.05 level which indicates that there was no significant difference among of yogic practices group and Physical exercises group on resting heart rate.

The adjusted post test mean values of yogic practices group, Jacobson Progressive Muscular relaxation technique group, Physical exercises group, combined group and control group on resting heart rate are graphically presented in figure 30.

Figure - 30
BAR DIGRAM ON ORDERED ADJUSTED MEANS OF RESTING HEART RATE
(Scores in Beats per minutes)



4.4.14 DISCUSSIONS ON THE FINDINGS OF RESTING HEART RATE

The result presented in table XXII and XXIII showed that the obtained adjusted means on resting heart rate. Experimental groups mean value of yogic practices group was 69.97, Jacobson Progressive Muscular relaxation technique was 72.35, Physical exercises group was 69.90, combined group was 67.49 and control group was 74.73. The differences experimental groups pre test, post test and adjusted mean scores of the subjects were statistically treated and using ANCOVA the obtained F values were 1.06, 28.55 and 29.21 respectively. It was found that obtained F value on pre test scores were not significant and the obtained F values on post test and adjusted means were significant at 0.05 level of confidence as these were greater than the required table value of 2.43.

The post hoc analysis through Scheffe's confidence test proved that due to Psycho-somatic regulative programme yogic practices group, Jacobson Progressive Muscular relaxation technique, -Physical exercises group and psycho-somatic regulative programme- combination group increased self confidence than the control group and difference were significant at 0.05 level. Further, the post hoc test analysis shows that there was significant difference between the experimental groups, clearly indicating that psycho-somatic regulative programme- combined group was better than yogic practices, Jacobson Progressive Muscular relaxation technique and

Physical exercises in improving the resting heart rate. of the engineering college women.

TABLE – XXIV

COMPUTATION OF ANALYSIS OF CO-VARIANCE ON BLOOD PRESSURE OF FOUR EXPERIMENTAL GROUPS AND CONTROL GROUP

(Scores in mm Hg)

Means	Yogic practices group	Jacobson Progressive Muscular Relaxation Technique group	Physical exercises group	Combined group	Control group	S.V.	SS	Df	MS	'F' Ratio
Pre- test	98.24	98.33	98.10	98.04	96.62	B	49.91	4	12.48	1.20
						W	1247.86	120	10.40	
Post – test	92.28	92.52	91.75	88.93	99.53	B	1538.53	4	384.63	5.23*
						W	8824.94	120	73.54	
Adjusted – test	92.05	92.25	91.62	88.83	100.26	B	1780.56	4	445.14	6.31*
						W	8399.46	119	70.58	
Mean Gains	5.97	5.80	6.35	9.10	2.92					

Table F-ratio at 0.05 level of confidence for 4 and 120 (df) is 2.68, 4 and 119 (df) is 2.68

*Significant

4.4.15 RESULTS ON BLOOD PRESSURE

Table XXIV shows the analyzed data on blood pressure the pre-test means of blood pressure were 98.24 for yogic practice, 98.33 for Jacobson progressive muscular relaxation technique group, 98.10 for physical exercise group, 98.04 for combined group and 96.62 for control group. The obtained 'F' ratio 1.20 was lesser than the table 'F' ratio 2.68. Hence the pre-test was not significant at 0.05 level of confidence for the degrees of freedom 4 and 120.

The post-test means of blood pressure were 92.28 for yogic practice, 92.52 for Jacobson progressive muscular relaxation technique group, 91.75 for physical exercise group, 88.93 for combined group and 99.53 for control group. The obtained 'F' ratio 5.23 was higher than the table 'F' ratio 2.68. Hence the post-test was significant at 0.05 level of confidence for the degrees of freedom 4 and 120.

The adjusted post-test means of blood pressure were 92.05 for yogic practice,, 92.25 for Jacobson progressive muscular relaxation technique group, 91.62 for physical exercise group, 88.83 for combined group and 100.26 for control group. The obtained 'F' ratio 6.31 was higher than the table 'F' ratio 2.68. Hence the adjusted post-test was significant at 0.05 level of confidence for the degrees of freedom 4 and 119.

TABLE – XXV
SCHEFFE’S CONFIDENCE INTERVAL TEST SCORES ON BLOOD PRESSURE
 (Scores in mm Hg)

Yogic practices group	Jacobson Progressive Muscular Relaxation Technique group	Physical exercises group	Combined group	Control group	Mean Difference	CI
92.05	92.25				0.20	7.78
92.05		91.62			0.44	7.78
92.05			88.83		3.22	7.78
92.05				100.26	8.21*	7.78
	92.25	91.62			0.64	7.78
-	92.25		88.83		3.42	7.78
	92.25			100.26	8.01*	7.78
		91.62	88.83		2.78	7.78
		91.62		100.26	8.65*	7.78
			88.83	100.26	11.43*	7.78

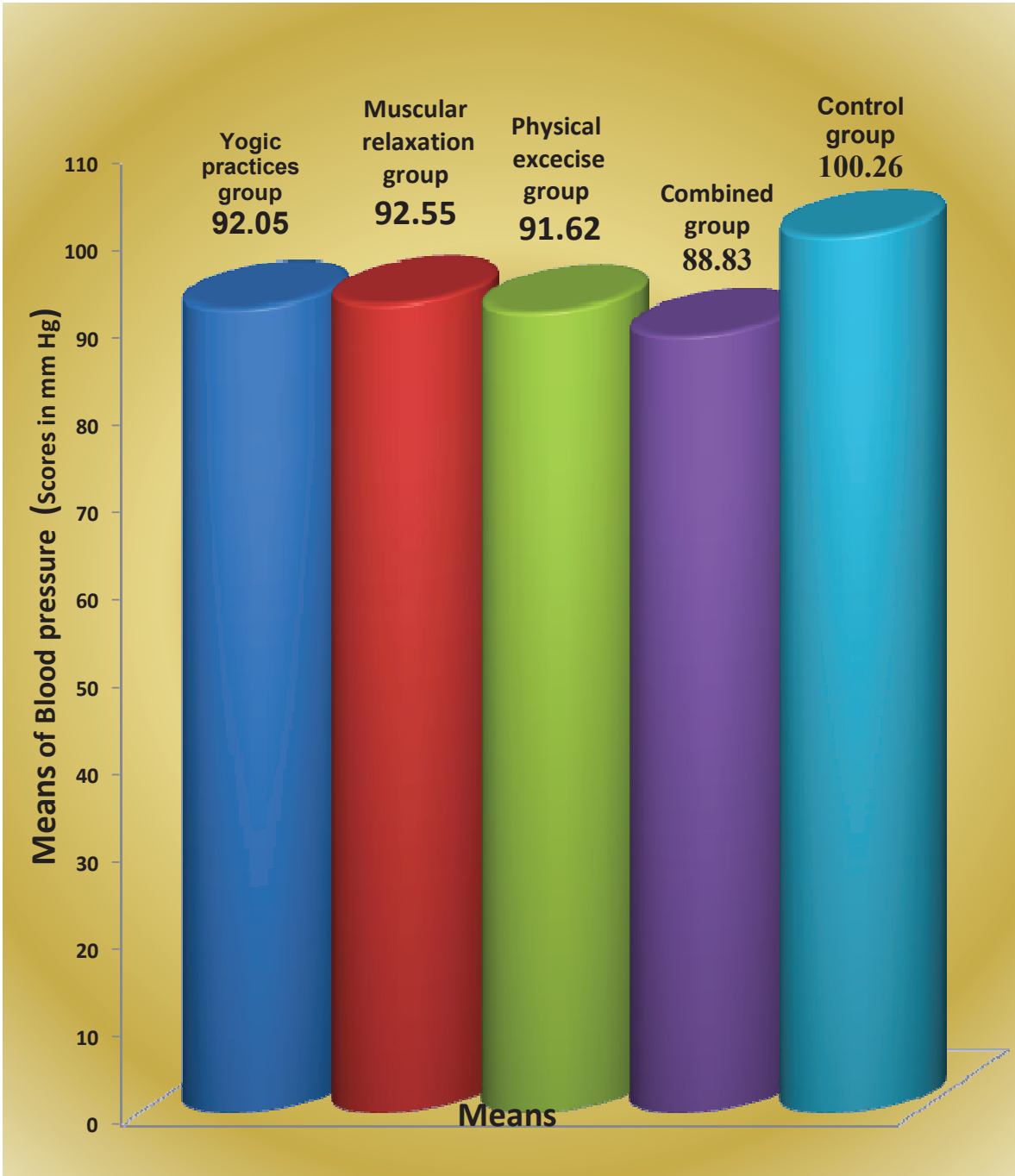
* Significant

Table XXV shows that the adjusted post mean test mean difference of yogic practices group, control group and Jacobson Progressive Muscular relaxation technique group, control group and , Physical exercises group , control group and combined group and control group were 8.21,8.01,8.65 and 11.43 respectively. They were greater than the confidence interval value 7.78 at 0.05 level which indicates that there was a significant difference among yogic practices group, control group and Jacobson Progressive Muscular relaxation technique group, control group and Physical exercises group, control group and combined group and control group on blood pressure.

It also shows that the adjusted post test mean difference of yogic practices group, , Jacobson Progressive Muscular relaxation technique group and yogic practices group, Physical exercises group and yogic practices group, combined group and Jacobson Progressive Muscular relaxation technique group, Physical exercises group and Jacobson Progressive Muscular relaxation technique group, combined group and Physical exercises group and combined group were 0.20,0.44,3.22,0.64,3.42 and 2.78 respectively. That they were less than the confidence interval values 7.78 at 0.05 level which indicates that there was no significant difference among of yogic practices group and Physical exercises group on blood pressure.

The adjusted post test mean values of yogic practices group, jacobson progressive muscular relaxation technique group, physical exercises group, combined group and control group on blood pressure are graphically presented in figure 31.

Figure - 31
BAR DIGRAM ON ORDERED ADJUSTED MEANS OF BLOOD PRESSURE
(Scores in mm Hg)



4.4.15 DISCUSSIONS ON THE FINDINGS OF BLOOD PRESSURE

The result presented in table XXIV and XXV showed that the obtained adjusted means on blood pressure. Experimental groups mean value of yogic practices group was 92.05, Jacobson Progressive Muscular relaxation technique was 92.25, Physical exercises group was 91.62, combined group was 88.83 and control group was 100.26. The differences experimental groups pre test, post test and adjusted mean scores of the subjects were statistically treated and using ANCOVA the obtained F values were 1.20, 5.23 and 6.31 respectively. It was found that obtained F value on pre test scores were not significant and the obtained F values on post test and adjusted means were significant at 0.05 level of confidence as these were greater than the required table value of 2.68.

The post hoc analysis through Scheffe's confidence test proved that due to Psycho-somatic regulative programme yogic practices group, Jacobson Progressive Muscular relaxation technique, -Physical exercises group and psycho-somatic regulative programme- combination group increased self confidence than the control group and difference were significant at 0.05 level. Further, the post hoc test analysis shows that there was significant difference between the experimental groups, clearly indicating that psycho-somatic regulative programme- combined group was better than

yogic practices, Jacobson Progressive Muscular relaxation technique and Physical in improving the blood pressure of the engineering college women.

TABLE – XXVI

COMPUTATION OF ANALYSIS OF CO-VARIANCE ON BREATH HOLDING TIME OF FOUR EXPERIMENTAL GROUPS AND CONTROL GROUP
(Scores in Seconds)

Means	Yogic practices group	Jacobson Progressive Muscular Relaxation Technique group	Physical exercises group	Combined group	Control group	S.V.	SS	Df	MS	'F' Ratio
Pre- test	44.76	44.84	45.04	43.00	46.88	B	189.33	4	47.33	1.02
						W	5595.52	120	46.63	
Post – test	53.88	49.92	53.92	57.52	46.96	B	1661.28	4	415.32	17.39*
						W	2865.52	120	23.88	
Adjusted – test	53.94	49.95	53.86	58.35	46.10	B	2080.24	4	520.06	34.33*
						W	1802.47	119	15.15	
Mean Gains	9.12	5.08	8.88	14.52	0.08					

Table F-ratio at 0.05 level of confidence for 4 and 120 (df) is 2.68, 4 and 119 (df) is 2.68

*Significant

4.4.17 RESULTS ON BREATH HOLDING TIME

Table XXVI shows the analyzed data on breath holding time the pre-test means of self confidence were 53.94 for yogic practice, 49.95 for Jacobson progressive muscular relaxation technique group, 53.86 for physical exercise group, 58.35 for combined group and 46.10 for control group. The obtained 'F' ratio 1.20 was lesser than the table 'F' ratio 2.68. Hence the pre-test was not significant at 0.05 level of confidence for the degrees of freedom 4 and 120.

The post-test means of breath holding time were 53.88 for yogic practice, 49.92 for Jacobson progressive muscular relaxation technique group, 53.92 for physical exercise group, 57.52 for combined group and 46.96 for control group. The obtained 'F' ratio 17.39 was higher than the table 'F' ratio 2.68. Hence the post-test was significant at 0.05 level of confidence for the degrees of freedom 4 and 120.

The adjusted post-test means of breath holding time were 53.94 for yogic practice, 49.95 for Jacobson progressive muscular relaxation technique group, 53.86 for physical exercise group, 58.35 for combined group and 46.10 for control group. The obtained 'F' ratio 34.33 was higher than the table 'F' ratio 2.68. Hence the adjusted post-test was significant at 0.05 level of confidence for the degrees of freedom 4 and 119.

TABLE – XXVII

**SCHEFFE'S CONFIDENCE INTERVAL TEST SCORES ON BREATH
HOLDING TIME**
(Scores in Seconds)

Yogic practices group	Jacobson Progressive Muscular Relaxation Technique group	Physical exercises group	Combined group	Control group	Mean Difference	CI
53.94	49.95				3.99*	3.60
53.94		53.86			0.08	3.60
53.94			58.35		4.41*	3.60
53.94				46.10	7.84*	3.60
	49.95	53.86			3.91*	3.60
-	49.95		58.35		8.40*	3.60
	49.95			46.10	3.85*	3.60
		53.86	58.35		4.49*	3.60
		53.86		46.10	7.76*	3.60
			58.35	46.10	12.25*	3.60

* Significant

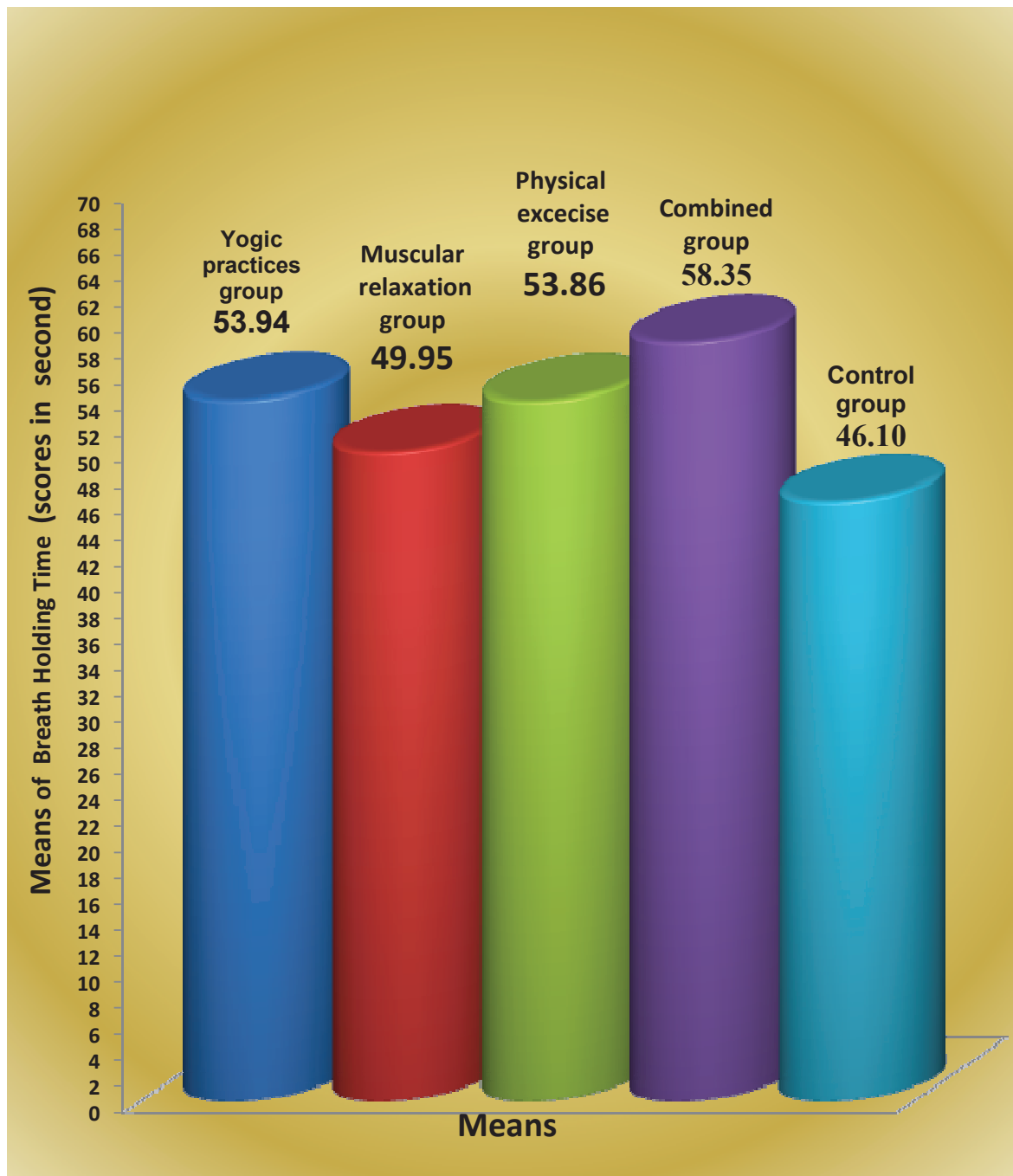
Table XXVII shows that the adjusted post mean test mean difference of yogic practices group, Jacobson Progressive Muscular relaxation technique group and yogic practices group, combined group and yogic practices group, control group and Jacobson Progressive Muscular relaxation technique group, Physical exercises group and Jacobson Progressive Muscular relaxation technique group, combined group and Jacobson Progressive Muscular relaxation technique group, control group and Physical exercises group, combined group and Physical exercises group, control group and combined group and control group were 3.99,4.41,7.84,3.91,8.40,3.85,4.49,7.76 and 12.25 respectively. They were greater than the confidence interval value 3.60 at 0.05 level which indicates that there was a significant among between yogic practices group, Jacobson Progressive Muscular relaxation technique group and yogic practices group, combined group and yogic practices group, control group and Jacobson Progressive Muscular relaxation technique group, Physical exercises group and Jacobson Progressive Muscular relaxation technique group, combined group and Jacobson Progressive Muscular relaxation technique group, control group and Physical exercises group, combined group and Physical exercises group, control group and combined group and control group on breath holding time.

It also shows that the adjusted post test mean difference of yogic practices group and Physical exercises group were 0.08 respectively. That they

were less than the confidence interval values 3.360 at 0.05 level which indicates that there was no significant difference among of yogic practices group and Physical exercises group on breath holding time.

The adjusted post test mean values of yogic practices group, Jacobson Progressive Muscular relaxation technique group, Physical exercises group, combined group and control group on breath holding time are graphically presented in figure 32.

Figure - 32
BAR DIGRAM ON ORDERED ADJUSTED MEANS OF BREATH HOLDING TIME
(Scores in Seconds)



4.4.18 DISCUSSIONS ON THE FINDINGS OF BREATH HOLDING TIME

The result presented in table XXVI and XXVII showed that the obtained adjusted means on breath holding time. Experimental groups mean value of yogic practices group was 53.94, Jacobson Progressive Muscular relaxation technique was 49.95, Physical exercises group was 53.86, combined group was 58.35 and control group was 46.10. The differences experimental groups pre test, post test and adjusted mean scores of the subjects were statistically treated and using ANCOVA the obtained F values were 1.20, 17.39 and 34.33 respectively. It was found that obtained F value on pre test scores were not significant and the obtained F values on post test and adjusted means were significant at 0.05 level of confidence as these were greater than the required table value of 2.68.

The post hoc analysis through Scheffe's confidence test proved that due to Psycho-somatic regulative programme yogic practices group, Jacobson Progressive Muscular relaxation technique, -Physical exercises group and psycho-somatic regulative programme- combination group increased self confidence than the control group and difference were significant at 0.05 level. Further, the post hoc test analysis shows that there was significant difference between the experimental groups, clearly indicating that psycho-somatic regulative programme- combined group was better than yogic practices, Jacobson Progressive Muscular relaxation technique and

Physical exercises in improving the breath holding time of the engineering college women.

TABLE – XXVIII

COMPUTATION OF ANALYSIS OF CO-VARIANCE ON RESPIRATORY RATE OF FOUR EXPERIMENTAL GROUPS AND CONTROL GROUP
(Scores in Numbers per minute)

Means	Yogic practices group	Jacobson Progressive Muscular Relaxation Technique group	Physical exercises group	Combined group	Control group	S.V.	SS	Df	MS	'F' Ratio
Pre- test	12.64	12.72	13.00	12.52	12.72	B	3.12	4.	0.78	1.04
						W	90.08	120	0.75	
Post – test	14.72	14.28	15.16	15.32	13.16	B	74.91	4.	18.73	14.38*
						W	156.24	120	1.30	
Adjusted – test	14.75	14.28	15.07	15.32	13.16	B	75.203	4.	18.80	15.33*
						W	145.981	119	1.23	
Mean Gains	2.08	1.56	2.16	2.8	0.04					

Table F-ratio at 0.05 level of confidence for 4 and 120 (df) is 2.68, 4 and 119 (df) is 2.68

*Significant

4.4.19 RESULTS ON RESPIRATORY RATE

Table XXVIII shows the analyzed data on respiratory rate the pre-test means of respiratory rate were 12.64 for yogic practice, 12.72 for Jacobson progressive muscular relaxation technique group, 13.00 for physical exercise group, 12.52 for combined group and 12.72 for control group. The obtained 'F' ratio 1.04 was lesser than the table 'F' ratio 2.68. Hence the pre-test was not significant at 0.05 level of confidence for the degrees of freedom 4 and 120.

The post-test means of respiratory rate 14.72 for yogic practice, 14.28 for Jacobson progressive muscular relaxation technique group, 15.16 for physical exercise group, 15.32 for combined group and 13.16 for control group. The obtained 'F' ratio 14.38 was higher than the table 'F' ratio 2.68. Hence the post-test was significant at 0.05 level of confidence for the degrees of freedom 4 and 120.

The adjusted post-test means of respiratory rate were 14.74 for yogic practice,, 14.28 for Jacobson progressive muscular relaxation technique group, 15.07 for physical exercise group, 15.32 for combined group and 13.16 for control group. The obtained 'F' ratio 15.33 was higher than the table 'F' ratio 2.68. Hence the adjusted post-test was significant at 0.05 level of confidence for the degrees of freedom 4 and 119.

TABLE – XXIX
SCHEFFE’S CONFIDENCE INTERVAL TEST SCORES ON
RESPIRATORY RATE
 (Scores in Numbers per minute)

Yogic practices group	Jacobson Progressive Muscular Relaxation Technique group	Physical exercises group	Combined group	Control group	Mean Difference	CI
14.75	14.28				0.47	1.45
14.75		15.07			0.32	1.45
14.75			15.32		0.57	1.45
14.75				13.16	1.59	1.45
	14.28	15.07			0.79	1.45
-	14.28		15.32		1.04	1.45
	14.28			13.16	1.12	1.45
		15.07	15.32		0.25	1.45
		15.07		13.16	1.91	1.45
			15.32	13.16	2.16	1.45

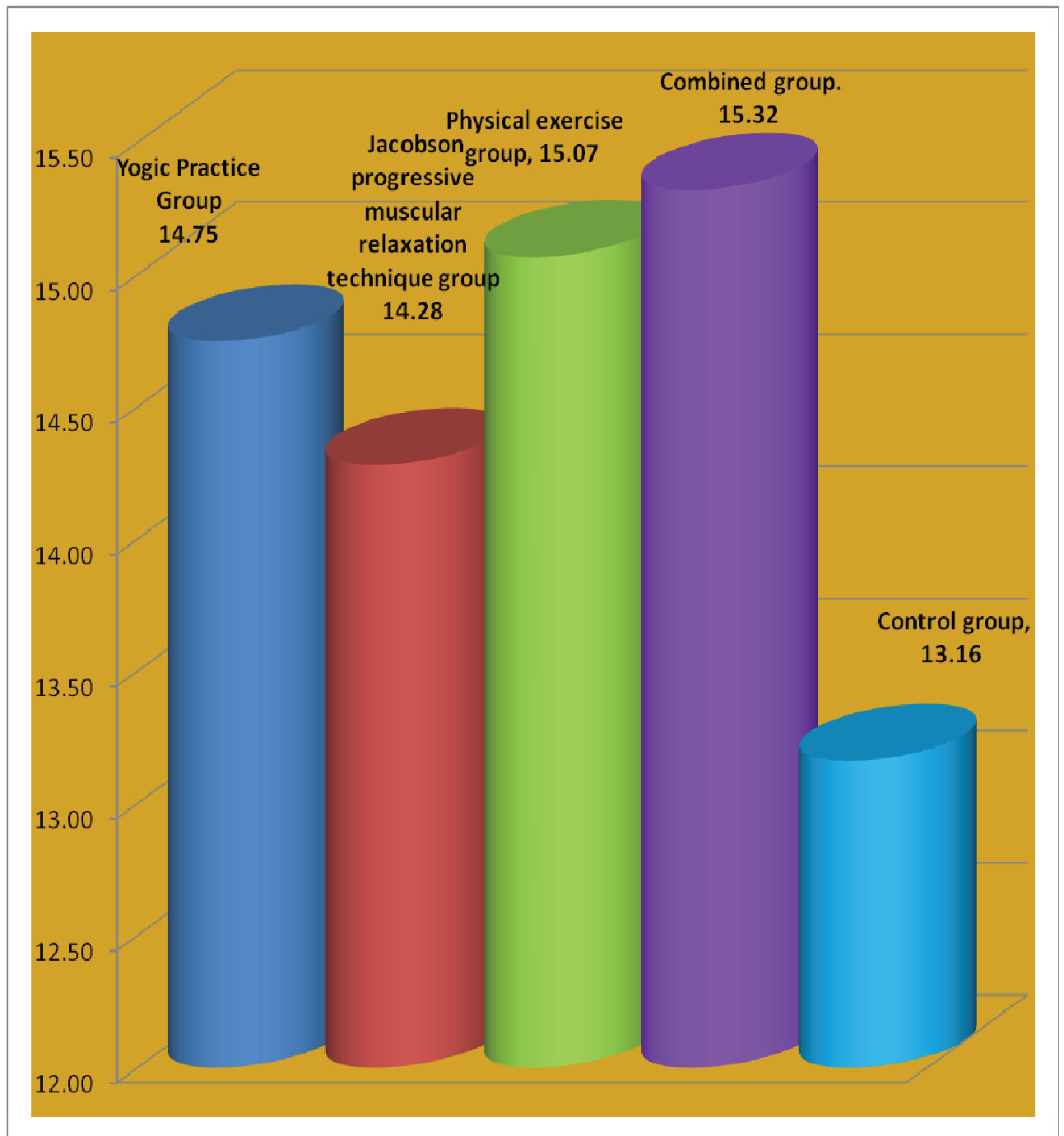
* Significant

Table XXIX shows that the adjusted post mean test mean difference of yogic practices group, Jacobson Progressive Muscular relaxation technique group and yogic practices group, combined group and yogic practices group, control group and Jacobson Progressive Muscular relaxation technique group, combined group and Jacobson Progressive Muscular relaxation technique group, control group and Physical exercises group, combined group and Physical exercises group, control group and combined group and control group were 0.47, 0.32, 0.57, 1.59, 0.79, 1.04, 1.12, 0.25, 1.91 and 2.16 respectively. In which 1.59, 1.91, and 2.16 were greater than the confidence interval value 1.45 at 0.05 level which indicate that there was a significant difference between yogic practice and control group, physical exercises group and control group, combined group and control group on respiratory rate.

It also shows that there was no significant difference adjusted post test mean between Yogic practices group and Jacobson Progressive Muscular relaxation technique group, Yogic practices group and Jacobson Progressive Muscular relaxation technique group, Yogic practices group and Physical exercises group, Yogic practices group and Combined group, Physical exercises group and Combined group as the obtained mean differences were 0.47, 0.32, 0.57, 0.79, 1.04, 1.12 and 0.25 respectively were less than the confidence interval values 1.45 at 0.05 level which indicates that there was no significant difference among groups on respiratory rate.

The adjusted post test mean values of yogic practices group, Jacobson Progressive Muscular relaxation technique group, Physical exercises group, combined group and control group on respiratory rate are graphically presented in figure 33.

Figure - 33
BAR DIGRAM ON ORDERED ADJUSTED MENAS OF RESPIRATORY RATE
(Scores in Numbers per minutes)



4.4.20 DISCUSSIONS ON THE FINDINGS OF RESPIRATORY RATE

The result presented in table XXVIII and XXIX showed that the obtained adjusted means on respiratory rate. Experimental groups mean value of yogic practices group was 22.46, Jacobson Progressive Muscular relaxation technique was 20.25, Physical exercises group was 22.17, combined group was 24.22 and control group was 18.49. The differences experimental groups pre test, post test and adjusted mean scores of the subjects were statistically treated and using ANCOVA the obtained F values were 1.05, 35.76 and 36.38 respectively. It was found that obtained F value on pre test scores were not significant and the obtained F values on post test and adjusted means were significant at 0.05 level of confidence as these were greater than the required table value of 2.43.

The post hoc analysis through Scheffe's confidence test proved that due to Psycho-somatic regulative programme yogic practices group, Jacobson Progressive Muscular relaxation technique, -Physical exercises group and psycho-somatic regulative programme- combination group increased self confidence than the control group and difference were significant at 0.05 level. Further, the post hoc test analysis shows that there was significant difference between the experimental groups, clearly indicating that psycho-somatic regulative programme- combined group was better than yogic practices, Jacobson Progressive Muscular relaxation technique and

Physical exercises in improving the respiratory rate of the engineering college women.

4.5 DISCUSSION ON HYPOTHESIS

1. The formulated first hypothesis was that the psycho-somatic regulative programme of combined of yogic practices , Jacobson progressive muscular relaxation technique and physical exercises would have significantly greater influence on the selected psychological variables such as self confidence, emotional adjustment, assertiveness, interpersonal relationship, stress management than the yogic practices, Jacobson progressive muscular relaxation technique and physical exercises among engineering college women.

The results presented in Tables X to XIX proved that the combined training was significantly improved the selected psychological variables namely self confidence, emotional adjustment, assertiveness, interpersonal relationship and stress management better than the yogic practices, Jacobson progressive muscular relaxation technique and physical exercises among engineering college women. Hence the research hypothesis was accepted for the selected psychological variables namely self confidence, emotional adjustment, assertiveness, interpersonal relationship and stress management and the null hypothesis was rejected.