

CHAPTER - IV

RESULTS AND DISCUSSIONS

4.1 OVERVIEW

Oligomenorrhea women were selected as subjects. Their age was ranging from 25 to 35 years. The subjects were selected into three groups namely Ex. group I (yogic practices and diet) , Ex. group II (yogic practices not diet) and control group (C.G) (no practices). The Oligomenorrhea women were analyzed with the differences in the measures of Flexibility, Systolic blood pressure, Body mass index, Resting Pulse Rate, stress, adjustment and anxiety.

The subjects are selected randomly but the groups were not equated in relation to factors to be examined hence the difference between the means and three groups pre and posttest were taken into an account during the analysis of covariance, where the final means were adjusted for difference in the initial means and the adjusted means were tested for significance difference. When the adjusted posttest means were significant the Scheffe's post hoc test was administered.

4.2 TEST OF SIGNIFICANCE

This is the important portion of thesis to achieve the conclusion by examining the hypotheses. The hypotheses testing procedure is done either by accepting the hypotheses or rejecting the same in accordance with the results obtained in relation to the level of confidence.

This test is called as the test of significance because it tests if the differences between groups or within many groups scores are significant or not. If the obtained F-value is greater than the table value, the null hypotheses are rejected since that there exists significant

difference among the means of the groups compared. If the obtained values were lesser than the required values, then the null hypotheses will be accepted since there exists no significant differences among the means of the groups under study.

4.3 LEVEL OF SIGNIFICANCE

The comparison of subjects is done based on selected criterion variables among Adult women with Oligomenorrhea on the Yogic practices with and without diet modifications. It is measured both at initial and final stage of the experimental period from all the three groups selected for the study. The difference between initial and final means on each of the selected criterion variable was the Yogic practices with and without diet modifications on the subjects. ANCOVA was used for statistical treatment of data. Level of confidence was fixed as 0.05 for all cases to test the significance, which was considered as appropriate.

4.4 COMPUTATION OF ANALYSIS OF COVARIANCE AND SCHEFFE'S POST HOC TEST

The following tables illustrate the statistical result of the effect of yogic practices of with and without diet modification on selected physical, physiological and psychological variable among adult women with Oligomenorrhea.

4.5 RESULTS OF FLEXIBILITY

The results on physical variable of flexibility were measured through Sit and Reach test. The results on the effect of sixteen weeks of yogic practices with and without diet modification on adult women with Oligomenorrhea presented in the table XI.

TABLE – XI

COMPUTATION OF ANALYSIS OF COVARIANCE OF FLEXIBILITY

(Scores in cms)

Test	Ex. Gr-I	Ex. Gr -II	Cont.G r.	S.V	S.S	df	M.S	Obtained F
Pre-test mean	33.707	32.827	33.400	A	5.985778	2	2.992889	1.091
				W	115.1587	42	2.741873	
Post-test mean	39.100	35.613	33.333	A	253.05	2	126.5242	47.139*
				W	112.73	42	2.684063	
Adjusted mean	38.82	35.96	33.27	A	229.6261	2	114.813	85.080*
				W	55.3277	41	1.349456	
Mean Gain	5.4	2.793	0.67					

* $F_{(0.05)}(2,42 \text{ and } 2, 41) = 3.23$. *Significant at 0.05 level of confidence.

The ordered adjusted mean scores of Exp. group I , Exp. group II and control group (C.G) on Flexibility were 38.82, 35.96 and 33.27 respectively.

TABLE – XII

COMPUTATION OF SCHEFFE’S POST HOC TEST ORDERED ADJUSTED FINAL MEAN DIFFERENC OF FLEXIBILITY

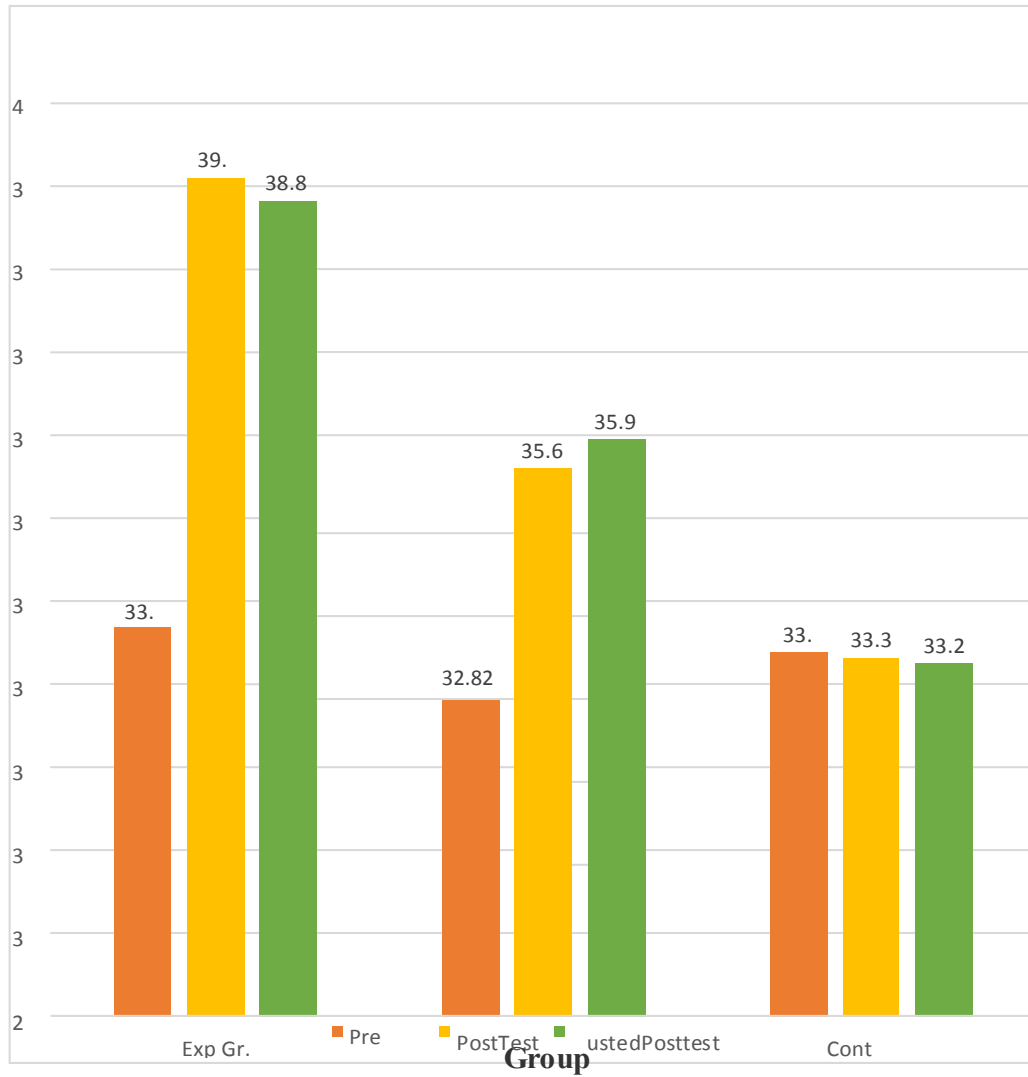
Ex. Gr-I	Ex. Gr -II	Cont.Gr.	Mean. Dif	C.I
38.82	35.96		2.865*	1.2308
38.82		33.27	5.550*	
	35.96	33.27	2.685*	

***Significant**

The showed in Table XII proved that there were significant differences exists between the adjusted means of Ex.Gr,I (Yogic practices included diet) group and control group (C.G), Ex.Gr,II (Yogic practices not included diet) group and control group (C.G) as the mean obtained 1.2308. practices with diet modifications group and Yogic on Flexibility fig.32.

FIGURE: 32

**BAR DIAGRAM ON ORDERED PRE AND POST MEANS AND ADJUSTED
VALUES OF FLEXIBILITY**



4.6 DISCUSSION ON FINDINGS OFFLEXIBILITY

The results shown in table XIII showed that obtained adjusted means on Flexibility among Ex.Gr,I (Yogic practices included diet) group was 38.82 followed by Ex.Gr,II (Yogic practices not included diet) group was 35.96 and control group (C.G) with mean value 33.27.

Ex.Gr,I (Yogic practices included diet) group and Ex.Gr,II (Yogic practices not included diet) group improved significantly better than the control group (C.G), clearly indicating the positive influences of Ex. Gr.I (Yogic practices included diet) and Ex. Gr.II (Yogic practices included diet) in increase the Flexibility of the Adult women with Oligomenorrhea.

4.7 RESULTS OF BODY MASS INDEX(BMI)

The results on physiological variable of Body mass index were measured stadiometer, weighing machine. The results on the effect of sixteen weeks of Ex.I, II (Yogic practices included and not included diet modifications) on Body mass index (BMI) in Oligomenorrhea women are in table XIII.

TABLE –XIII

**COMPUTATION OF ANALYSIS OF COVARIANCE ON
BODY MASS INDEX (BMI)**

Test	Ex. Gr-I	Ex. Gr -II	Cont.Gr.	S.V	S.S	df	M.S	Obtained F
Pre-test mean	24.140	24.647	24.480	A	2.000444	2	1.000222	0.3210
				W	130.8373	42	3.115175	
Post-test mean	20.107	22.020	24.627	A	154.43	2	77.21489	30.319*
				W	106.96	42	2.54673	
Adjusted mean	20.07	22.05	24.63	A	155.9921	2	77.99605	30.387*
				W	105.2361	41	2.566734	
Mean Gain	4.07	2.62	2.48					

* $F_{(0.05)} (2,42 \text{ and } 2, 41) = 3.23$. *Significant at 0.05 level of confidence.

The group II and control group (C.G) on Body mass index (BMI) were 24.140, 24.647 and 24.480 respectively. The post test scores of Ex. group I ,Ex.group II and control group (C.G) on body mass index were 20.107, 22.020 and 24.627 respectively.

The ordered adjusted mean scores of ex. group I, ex. group II and control group (C.G) on Body mass index (BMI) were 20.07, 22.05 and 24.63 respectively.

The mean gain in the ex. group I, ex. group II and control group (C.G) on Body mass index (BMI) were 4.07, 2.62 and 2.48 respectively.

TABLE – XIV

SCHEFFE'S POST HOC TEST OF BODY MASS INDEX (BMI)

Ex. Gr-I	Ex. Gr -II	Cont.Gr.	Mean. Dif	C.I
20.07	22.05		1.972*	1.697
20.07		24.63	4.559*	
	22.05	24.63	2.588*	

FIGURE - 33

BAR DIAGRAM ON ORDERED PRE AND POST MEANS AND ADJUSTED VALUES OF BODY MASS INDEX (BMI)



4.8 DISCUSSION ON FINDINGS OF BODY MASS INDEX(BMI)

The mass index (BMI) Ex.Gr,I (Yogic practices included diet) group was 20.07 followed by Ex.Gr,II (Yogic practices not included diet) group was 22.05 and control group (C.G) with mean value 24.63.

Ex.Gr,I (Yogic practices included diet) group and Ex.Gr,II (Yogic practices not included diet) group improved significantly better than the control group (C.G), clearly indicating the positive influences of Yogic practices included and not included diet modifications improving the Body mass index (BMI) of the Adult women with Oligomenorrhea.

4.9 RESULTS ON RESTING PULSE RATE (RPR)

The results on physiological variable of resting pulse rate were measured digital heart rate measuring machine. The results on the effect of sixteen weeks of Ex.I, II (Yogic practices included and not included diet modifications) on Body mass index(BMI) in Oligomenorrhea women are in table XV.

TABLE – XV

COMPUTATION OF ANALYSIS OF COVARIANCE OF RESTING PULSE RATE

(Scores in beats/min)

Test	Ex. Gr-I	Ex.Gr -II	Cont.Gr.	S.V	S.S	df	M.S	Obtained F
Pre mean	80.133	82.667	79.600	A	80.53333	2	40.26667	1.735
				W	974.6667	42	23.20635	
Post mean	75.600	79.400	81.800	A	293.20	2	146.6	15.48*
				W	397.60	42	9.466667	
Adjusted mean	75.78	78.90	82.12	A	301.1623	2	150.5812	18.88*
				W	326.8489	41	7.971924	
Mean Gain	4.53	3.26	2.2					

* $F_{(0.05)}(2,42 \text{ and } 2, 41) = 3.23$. *Significant at 0.05 level of confidence.

The ordered adjusted mean scores of Ex. group I ,Ex. group II and control group (C.G) on body mass index were 75.78, 78.90 and 82.12

TABLE – XVI

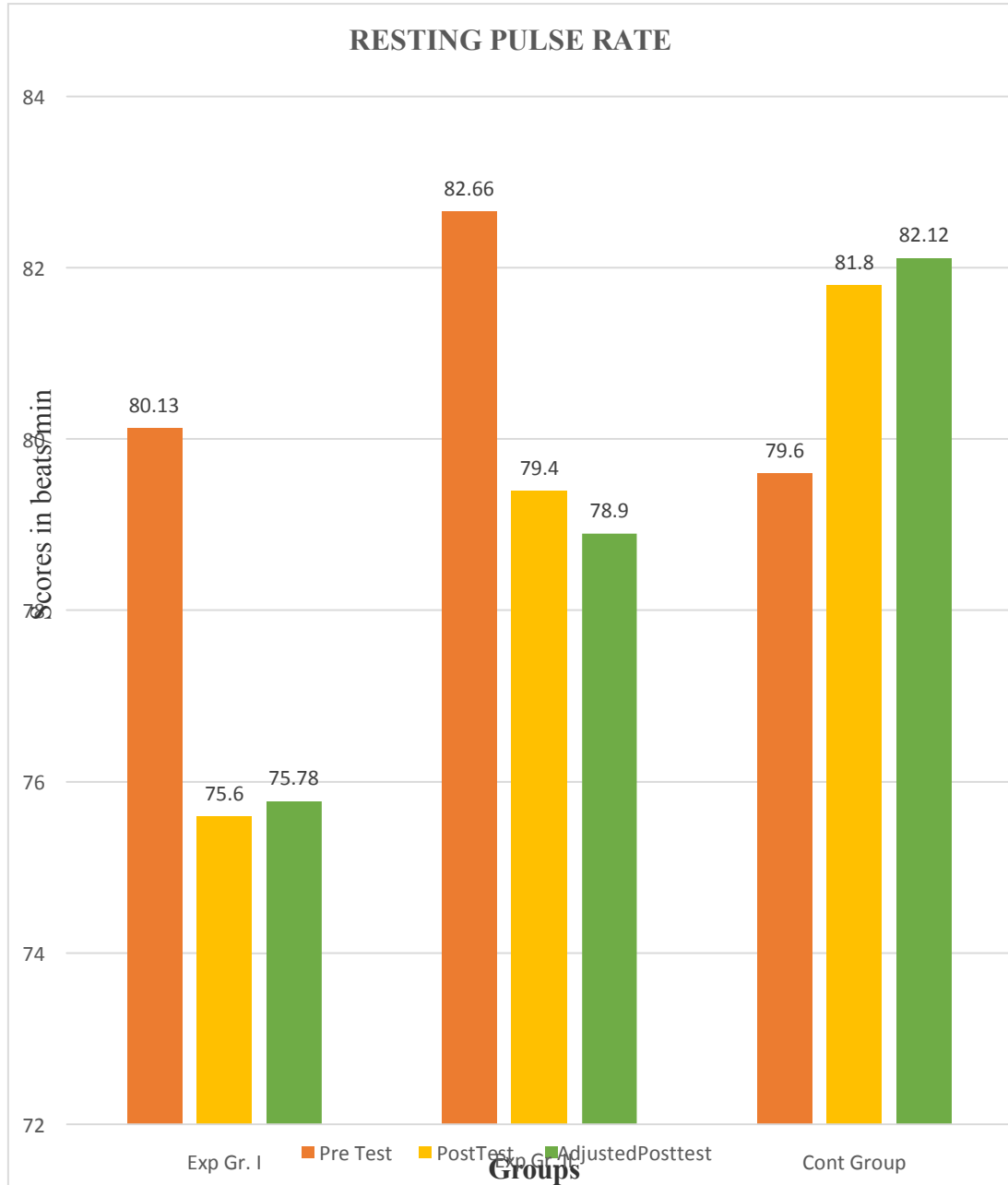
COMPUTATION OF SCHEFFE'S POST-HOC TEST ORDERED ADJUSTED
FINAL MEAN DIFFERENCE ON RESTING PULSE RATE

Ex. Gr-I	Ex. Gr -II	Cont.Gr.	Mean. Dif	C.I
75.78	78.90		3.117*	2.99
75.78		82.12	6.344*	
	78.90	82.12	3.226*	

*Significant

FIGURE – 34

**BAR DIAGRAM ON ORDERED PRE AND POST MEANS AND ADJUSTED
VALUES OF RESTING PULSE RATE**



4.10 DISCUSSION ON FINDINGS OF RESTING PULSE RATE (RPR)

The Resting Pulse Rate Ex.Gr,I (Yogic practices included diet) group was 75.78 followed by Ex.Gr,II (Yogic practices not included diet) group was 78.90 and control group (C.G) with mean value 82.12.

Ex.Gr,I (Yogic practices included diet) group and Ex.Gr,II (Yogic practices not included diet) group improved significantly better than the control group (C.G), clearly indicating the positive influences of Ex.Gr,I (Yogic practices included diet) group and Ex.Gr,II (Yogic practices not included diet) group in improving the Resting Pulse Rate of the Adult women with Oligomenorrhea.

4.11 RESULTS OF SYSTOLIC BLOOD PRESSURE

The results of systolic blood pressure measured through citizen make digital B.P monitor. The results on the effect of sixteen weeks of Exp.Group I&II Yogic practices included and not included diet modification on systolic blood pressure in oligomenorrhea women are in table XVII.

TABLE-XVII

**COMPUTATION OF ANALYSIS OF COVARIANCE OF SYSTOLIC BLOOD
PRESSURE**

(Scores in mm/hg)

Test	Ex. Gr-I	Ex. Gr -II	Cont.Gr .	S.V	S.S	df	M.S	Obtained F
Pre mean	134.000	132.667	132.667	A	17.77778	2	8.888889	1.465
				W	254.6667	42	6.063492	
Post mean	126.533	128.933	133.267	A	349.38	2	174.6889	44.846*
				W	163.60	42	3.895238	
Adjusted mean	126.61	128.89	133.23	A	325.6246	2	162.8123	41.327*
				W	161.5228	41	3.93958	
Mean Gain	7.467	3.73	0.6					

The ordered adjusted mean scores of Ex. group I ,Ex. group II and control group (C.G) on Systolic Blood Pressure were 126.61, 128.89 and 133.23 respectively.

TABLE – XVIII

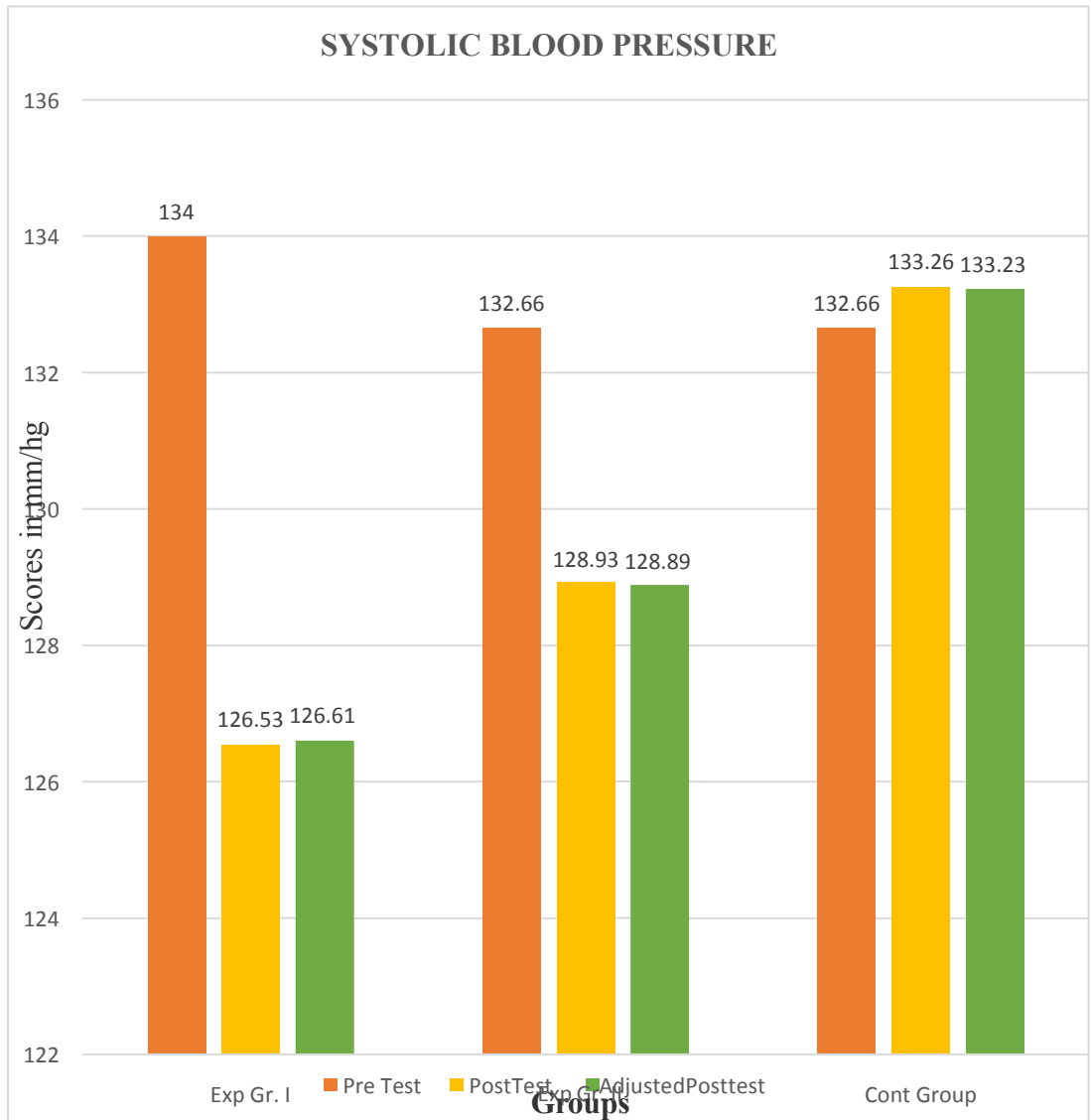
**COMPUTATION OF SCHEFFE’S POST-HOC TEST ORDERED ADJUSTED
FINAL MEAN DIFFERENCE OF SYSTOLIC BLOOD PRESSURE**

Ex. Gr-I	Ex. Gr -II	Cont.Gr.	Mean. Dif	C.I
126.61	128.89		2.280*	2.103
126.61		133.23	6.613*	
	128.89	133.23	4.333*	

*Significant

FIGURE – 35

BAR DIAGRAM ON ORDERED PRE AND POST MEANS AND ADJUSTED VALUES OF SYSTOLIC BLOOD PRESSURE



4.12DISCUSSION ON FINDINGS OF SYSTOLIC BLOODPRESSURE

The Systolic blood pressure Ex.Gr,I (Yogic practices included diet) group was 126.61 followed by Ex.Gr,II (Yogic practices not included diet) group was 128.89 and control group (C.G) with mean value 133.23.

Ex.Gr,I (Yogic practices included diet) group and Ex.Gr,II (Yogic practices not included diet) group improved significantly better than the control group (C.G), clearly indicating the positive influences of Ex.Gr,I (Yogic practices included diet) group and Ex.Gr,II (Yogic practices not included diet) group in decrease the Systolic Blood Pressure of the Adult women with Oligomenorrhea.

4.13RESULTS OFSTRESS

The results of stress measured by Dr.Latha Sathish. The results on the effect of sixteen weeks of Exp.Group I&II Yogic practices included and not included diet modification on Stress in oligomenorrhea women are in table XIX.

TABLE-XIX
COMPUTATION OF ANALYSIS OF COVARIANCE OF STRESS

(Scores in marks)

Test	Ex. Gr-I	Ex. Gr -II	Cont.Gr .	S.V	S.S	df	M.S	Obtained F
Pre mean	70.200	68.533	69.600	A	21.37778	2	10.68889	0.061
				W	7315.733	42	174.1841	
Post mean	42.067	55.933	68.800	A	5362.53	2	2681.267	18.34*
				W	6140.27	42	146.1968	
Adjusted mean	41.72	56.35	68.73	A	5481.011	2	2740.505	24.40*
				W	4603.373	41	112.2774	
Mean Gain	28.133	12.6	0.8					

* $F_{(0.05)}(2,42 \text{ and } 2, 41) = 3.23$. *Significant at 0.05 level of confidence.

The ordered adjusted mean scores of Ex. group I ,Ex.group II and control group (C.G) on Stress were 42.067, 55.93 and 68.80 respectively.

The mean gain in the Ex. group I ,Ex.group II and control group (C.G) on Stress were 28.133, 12.6 and 0.8 respectively.

TABLE – XX

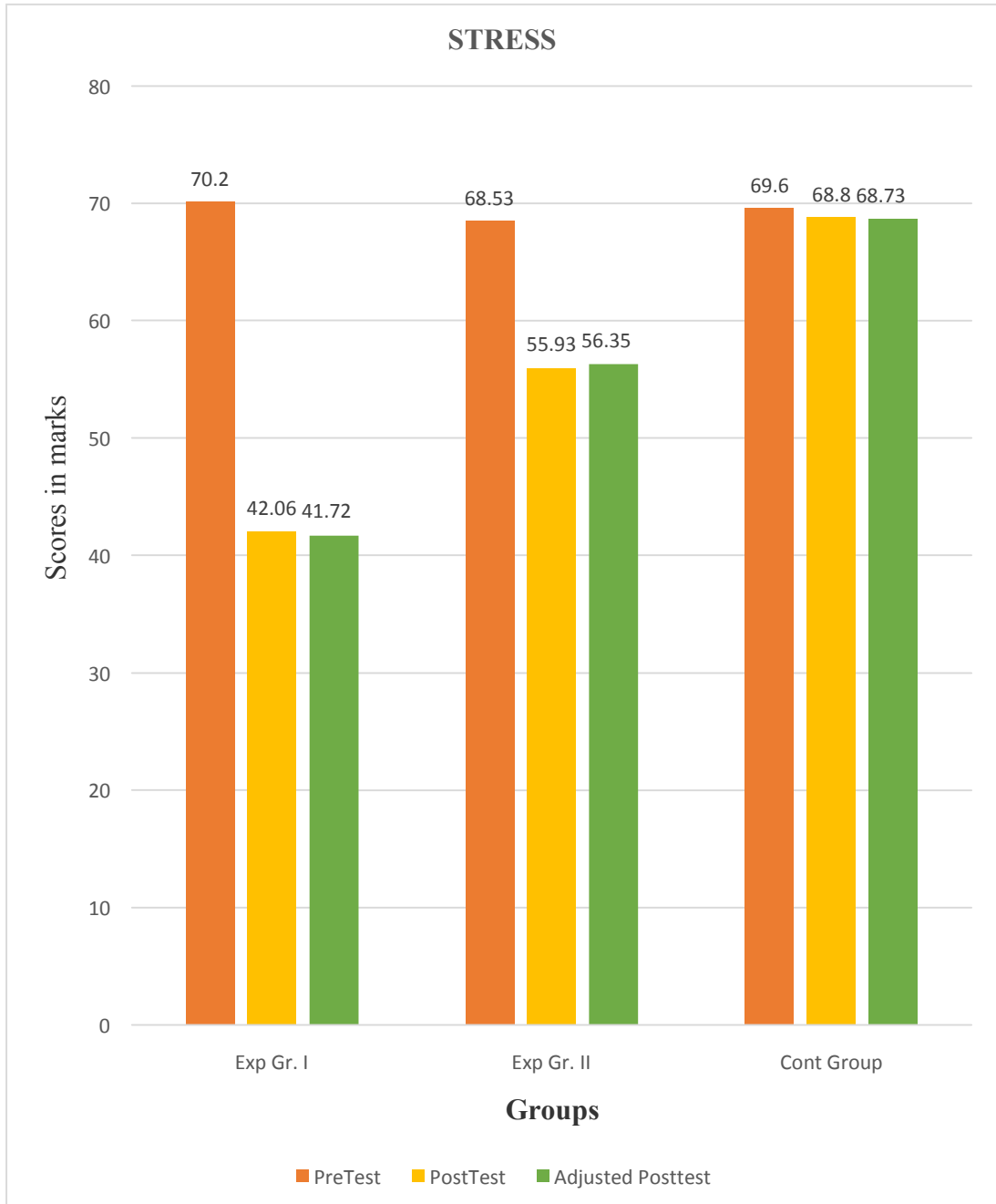
**COMPUTATION OF SCHEFFE’S POST-HOC TEST ORDERED ADJUSTED
FINAL MEAN DIFFERENCE OF STRESS**

Ex. Gr-I	Ex. Gr -II	Cont.Gr.	Mean. Dif	C.I
41.72	56.35		14.631*	11.22
41.72		68.73	27.008*	
	56.35	68.73	12.378*	

***Significant**

FIGURE - 36

BAR DIAGRAM ON ORDERED PRE AND POST MEANS AND ADJUSTED VALUES OF STRESS



4.14 DISCUSSION ON FINDINGS OF STRESS

The Stress of Ex.Gr,I (Yogic practices included diet) group was 41.72 followed by Ex.Gr,II (Yogic practices not included diet) group was 56.35 and control group (C.G) with mean value 68.73.

Ex.Gr,I (Yogic practices included diet) group and Ex.Gr,II (Yogic practices not included diet) group improved significantly better than the control group (C.G), clearly indicating the positive influences of Ex.Gr,I (Yogic practices included diet) group and Ex.Gr,II (Yogic practices not included diet) group in improving the Stress of the Oligomenorrhea Adult women.

4.15 RESULTS OF ANXIETY

The results of Anxiety constructed by Spiel berker. The results on the effect of sixteen weeks of Exp.Group I&II Yogic practices included and not included diet modification on Anxiety in oligomenorrhea women are in table XXI.

TABLE-XXI

COMPUTATION OF ANALYSIS OF COVARIANCE OF ANXIETY

(Scores in marks)

Test	Ex. Gr-I	Ex. Gr -II	Cont.Gr.	S.V	S.S	df	M.S	Obtained F
Pre mean	22.667	24.673	25.867	A	78.45378	2	39.22689	1.1413
				W	1443.476	42	34.36848	
Post mean	14.933	19.133	26.200	A	972.58	2	486.2889	20.566*
				W	993.07	42	23.64444	
Adjusted mean	16.24	18.93	25.10	A	591.4701	2	295.735	68.142*
				W	177.9388	41	4.339971	
Mean Gain	7.73	5.54	0.33					

* $F_{(0.05)}(2,42 \text{ and } 2, 41) = 3.23$. *Significant at 0.05 level of confidence.

The ordered adjusted mean scores of Ex. group I ,Ex. group II and control group (C.G) on Anxiety were 16.24, 18.93 and 25.10 respectively.

TABLE – XXII

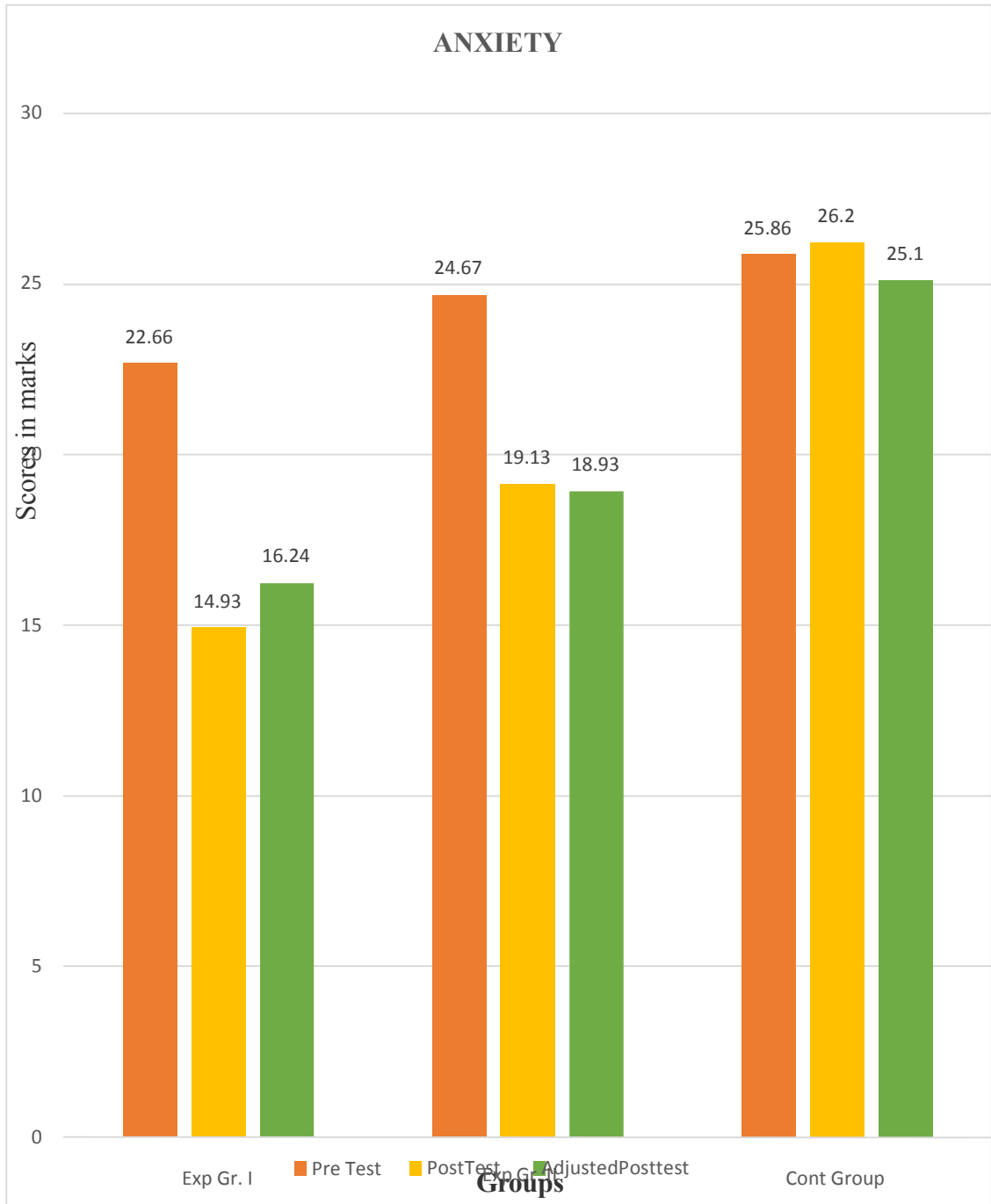
**COMPUTATION OF SCHEFFE’S POST-HOC TEST ORDERED
ADJUSTED FINAL MEAN DIFFERENCE OF ANXIETY**

Ex. Gr-I	Ex. Gr -II	Cont.Gr.	Mean. Dif	C.I
16.24	18.93		2.692*	2.207
16.24		25.10	8.862*	
	18.93	25.10	6.170*	

***Significant**

FIGURE – 37

BAR DIAGRAM ON ORDERED PRE AND POST MEANS AND ADJUSTED VALUES OF ANXIETY



4.16 DISCUSSION ON FINDINGS OF ANXIETY

The results presented in table XXII showed that obtained adjusted means on Anxiety among Ex.Gr,I (Yogic practices included diet) group was 16.24 followed by Ex.Gr,II (Yogic practices not included diet) group was 18.93 and control group (C.G) with mean value 25.10. training of Ex.Gr,I (Yogic practices included diet) group and Ex.Gr,II (Yogic practices not included diet) group improved significantly better than the control group (C.G), clearly indicating the positive influences of Ex.Gr,I (Yogic practices included diet) group and Ex.Gr,II (Yogic practices not included diet) group in improving the Anxiety of the Adult women with Oligomenorrhea.

4.17 RESULTS OF ADJUSTMENT

The results of psychological variable of adjustment inventory by H.S. Asthana. The results on the effect of sixteen weeks of Ex.I, II (Yogic practices with and without diet modifications) on Adjustment in Oligomenorrhea women are presented in the table XXII.

TABLE-XXII

COMPUTATION OF ANALYSIS OF COVARIANCE OF ADJUSTMENT

(Scores in marks)

Test	Ex. Gr-I	Ex. Gr -II	Cont.Gr.	S.V	S.S	df	M.S	Obtained F
Pre mean	21.267	22.400	21.400	A	11.51111	2	1.75556	0.626
				W	290.1333	42	2.8	
Post mean	30.000	26.533	19.333	A	888.18	2	1180.82	101.87*
				W	349.07	42	11.5905	
Adjusted mean	29.91	26.68	19.27	A	892.061	2	1162.2	98.484*
				W	336.5757	41	11.8009	
Mean Gain	8.73	4.13	2.07					

The pre-test scores of Ex. group I ,Ex. group II and control group (C.G) on Adjustment were 21.267, 22.400 and 21.400 respectively. The post test scores of Ex. group I ,Ex.group II and control group (C.G) on Adjustment were 30.00, 26.533 and 19.33 respectively.

The ordered adjusted mean scores of Ex. group I ,Ex. group II and control group (C.G) on Adjustment were 29.91, 26.68 and 19.27 respectively.

The mean gain in the Ex. group I ,Ex. group II and control group (C.G) on Adjustment were 8.73, 4.13 and 2.07respectively.

TABLE – XXIV

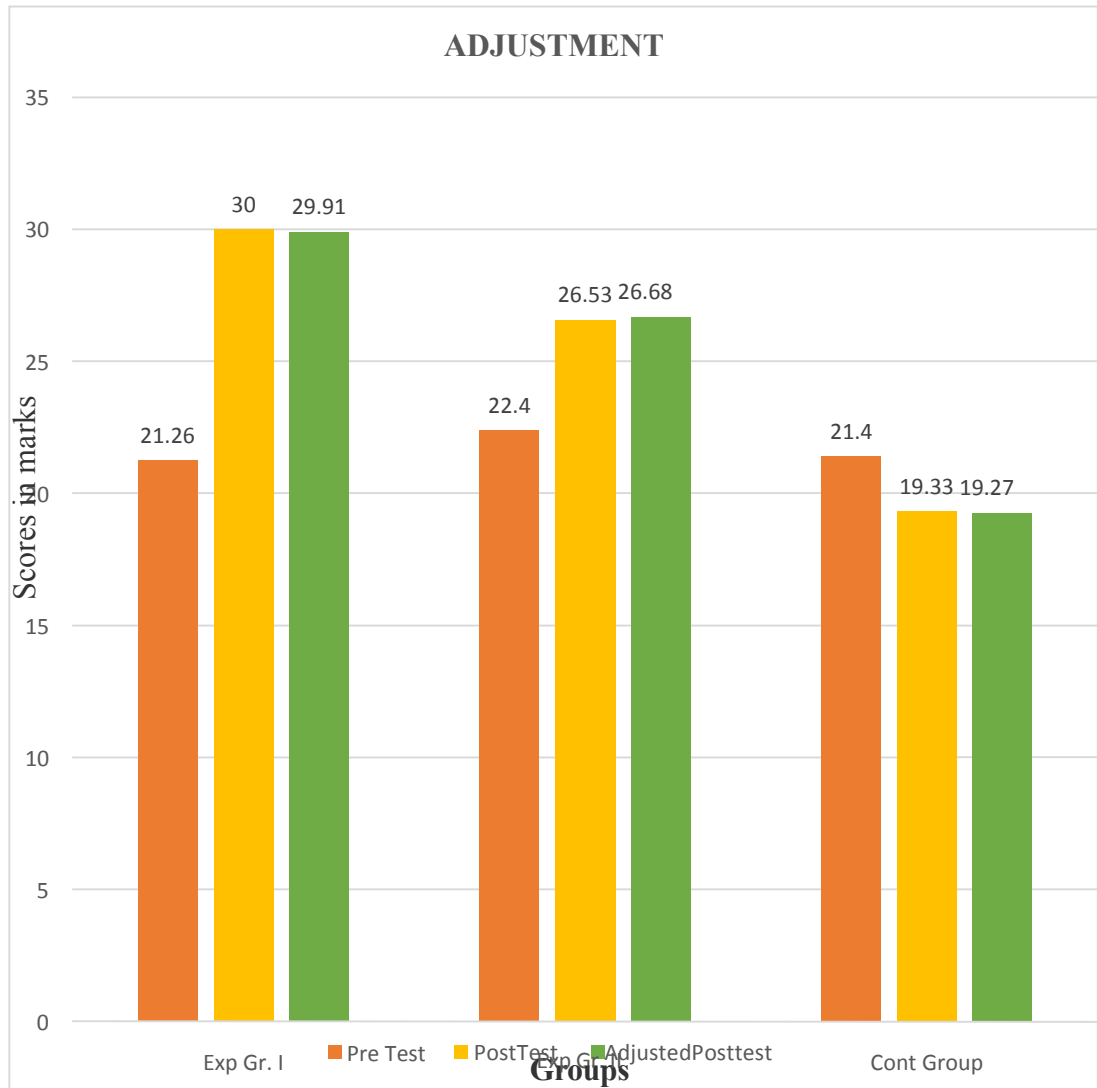
**COMPUTATION OFSCHEFFE’S POST-HOC TEST ORDERED ADJUSTED
FINAL MEAN DIFFERECNE OF ADJUSTMENT**

Ex. Gr-I	Ex. Gr -II	Cont.Gr.	Mean. Dif	C.I
29.91	26.68		3.232*	3.035
29.91		19.27	10.639*	
	26.68	19.27	7.407*	

***Significant**

FIGURE – 38

BAR DIAGRAM ON ORDERED PRE AND POST MEANS AND ADJUSTED VALUES OF ADJUSTMENT



4.18 DISCUSSION ON FINDINGS OF ADJUSTMENT

The Ex.Gr,I (Yogic practices included diet) group was 29.91 followed by Ex.Gr,II (Yogic practices not included diet) group was 26.68 and control group (C.G) with mean value 19.27. The differences among pre-test scores, post test scores and adjusted mean scores of the subjects were statistically treated using ANCOVA and F value were 0.626, 101.87 and 98.484 respectively sixteen weeks of training of Ex.Gr,I (Yogic practices included diet) group and Ex.Gr,II (Yogic practices not included diet) group improved significantly better than the control group (C.G), clearly indicating the positive influences of Ex.Gr,I (Yogic practices included diet) group and Ex.Gr,II (Yogic practices not included diet) group in improving the Adjustment of the Adult women with Oligomenorrhea.

4.19 DISCUSSION ON HYPOTHESES

The formulated first hypothesis stated that the results presented in tables XII to XXVI proved that there would be a significant differences on selected Physical, Physiological and psychological variables such as Flexibility, Systolic blood pressure, Body mass index, Resting Pulse Rate, stress, adjustment and anxiety among Oligomenorrhea women due to yogic practices included with diet and hence the null hypothesis was rejected and Isthypothesis was accepted.

The formulated second hypothesis stated that the results presented in tables XII to XXVI proved that there would be a significant difference on selected Physical, Physiological and psychological variables such as Flexibility, Systolic blood pressure, Body mass index, Resting Pulse Rate, stress, adjustment and anxiety among Oligomenorrhea women due to yogic practices not included diet practices. hence the null

hypothesis was rejected and H_0 hypothesis was accepted.

The formulated third hypothesis stated that the results presented in tables XII to XXVI proved that there would be a significant difference between on selected Physical, Physiological and psychological variables such as Flexibility, Systolic blood pressure, Body mass index, Resting Pulse Rate, stress, adjustment and anxiety among Oligomenorrhea women due to yogic practices included diet modifications and yogic practices not included diet modifications practices. hence the null hypothesis was rejected and IIIrd hypothesis was accepted.

CHAPTER - V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 SUMMARY

The purpose of the study was to find out the effect of Ex.I, II (Yogic practices with and without diet modifications) on Physical, Physiological and psychological variables among Oligomenorrhea women and risk factors (Physical, Physiological and psychological variables) were dependent variables and a. Yogic practices included diet modifications b. Yogic practices not included diet modifications were taken as independent variables.

To facilitate this study forty five Oligomenorrhea women from Sholinganallur, Chennai were randomly selected as subjects and total duration of the training was 12 weeks and 5 days in a week. They were divided into four groups which were as follows.

- a. **Experimental Group – I** - Yogic practices included diet
- b. **Experimental Group - II** – Yogic practices not included diet
- c. **Group III** - (Control group (C.G), No training was provided).

The significance of the difference between the three groups I, II and Group – III were found

out by the initial-test and final-test and statistical technique through analysis of covariance (ANCOVA) and the adjusted post-test means were also computed by scheffé's post hoc test.

5.2 CONCLUSIONS

The following conclusions are arrived as: If the comparing between the Group I

(Yogic practices included diet) and Group II (Yogic Practices not included diet) showed significant improvement in the physical variable flexibility (Increased), physiological