CHAPTER – IV

ANALYSIS OF DATA AND RESULTS OF THE STUDY

4.1 OVERVIEW

The analysis of the data is presented in this chapter. In this study, the influence of the two independent variables namely without music group (WOMG) and music (MG) exercises on physiological variables namely heart rate, breathe rate, sweat rate, body mass index, blood pressure, and psychological variables namely self-concept, stress and achievement motivation were investigated.

The purpose of the study is achieved by finding out the influence of without music group (WOMG) and music (MG) exercises on physiological variables namely heart rate, breathe rate, sweat rate, body mass index, blood pressure, and psychological variables namely self-concept, stress and achievement motivation and to find out the most effective training methodology.

4.2 TEST OF SIGNIFICANCE

As **Clarke and Clarke, (1972)** say, "These data must be analyzed in an appropriate to the research design. Such analysis can only be appropriate to the research design. Such analysis can only be accomplished through the application of pertinent statistics. This is the vital portion of thesis achieving the conclusion by examining the hypothesis. The procedure of testing the hypothesis was either by accepting the hypotheses or rejection the same in accordance with the results obtained in relation to the level of confidents. The test was usually called the test of significance since we test whether the difference between three groups or with in many groups scores were significant or not.

In the study, if they obtained F value were greater than the table value, the null hypothesis were rejected to the effect that there existed significant difference among the means of the groups compared and if they obtained F value were lesser than the table value. Then the null hypotheses were accepted to the effect that there existed no significant differences among the means of the groups under study.

4.2.1 LEVEL OF SIGNIFICANCE

The purpose of this study was to find out the influence of the two independent variables without music group (WOMG) and music (MG) exercises on physiological variables fitness variables namely heart rate, breathe rate, sweat rate, body mass index, blood pressure, and psychological variables namely self-concept, stress and achievement motivation were investigated the analysis of covariance (ANCOVA) was used to find out the significant differences if any different between the groups on health related physical fitness variables separately. In all the cases , 0.05 level of confidence was fixed to test of significance, which was considered as appropriate in this study, if they obtained F value were greater than the table value, the null hypotheses were rejected to the effect that there existed significant difference among the means of the groups compared and if they obtained F value were lesser than the table value at 0.05 level the null hypothesis were accepted to the effect that there existed to significant differences among the means of the groups under study.

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

The purpose of the study is achieved by finding out the influence of without music group (WOMG) and music group (MG) on the selected dependent variables and to find out the most effective training methodology. To achieve this purpose, Group I(n=15)

namely without music group (WOMG) and Group II (n=15) namely music group (MG) underwent two different exercises for twelve weeks and Group III (n=15) (CG) acted as control group. The groups were drawn at random from the same population. Participants of the three groups without music group (WOMG) and music group (MG) and control group (CG) were tested on selected heart rate, breathe rate, sweat rate, Body Mass Index, blood pressure, and psychological variables namely Self-concept, stress and achievement motivation prior to and after the training period.

The data pertaining to the variables in this study were estimated by using analysis of covariance (ANCOVA) for each variable separately in order to determine the differences if any among the adjusted post-test means of experimental and control groups. Whenever 'F' ratio for adjusted post –test is found to be significant, the Scheffe's test is used as post-hoc test to determine the paired mean differences. The level of significance is fixed at 0.05 level of confidence.

4.3.1 RESULTS OF HEART RATE

The statistical analysis of dependent 't' test comparing the initial and final means of Heart Rate due to specific training packages of experimental and control groups have been analyzed and presented in Table VI

TABLE VI

THE SUMMARY OF MEAN AND DEPENDENT 'T'-TEST FOR

THE PRE AND POST TESTS ON HEART RATE

	WOMG	MG	**CG**
Pre test Mean	74.33	75.13	71.53
Post test Mean	68.93	67.20	71.47
't' test	9.81*	13.18*	0.81
Table value required	2.14	2.14	2.14

WOMG-Without Music Group, **MG**- Music Group, and **CG**-Control Group

*significant at 0.05 level (Heart Rate in counts)

(The table value required for 0.05 level of significance with df 14 is 2.14)

Table VI shows that the pre test mean value of Without Music Group, Music Group and control groups are 74.33, 75.13 and 71.53 respectively and the post test means are 68.93,67.2and 71.47 respectively. The obtained dependent t-test between the pre and post test means on Heart Rate of Without Music Group, Music Group and control groups are 9.81, 13.18 and 0.81respectively. The table value required for significant difference with df 14 at 0.05 level is 2.14. The obtained 't' test of experimental groups are greater than the table value.

Hence, it is proved that experimental group had significantly improved the Heart Rate whereas the control group did not improve significantly as they were not subjected to any specific training. Taking into consideration of the pre and post test means on breathe holding time, the adjusted post test means were determined and analysis of covariance was computed for experimental and control groups and presented in Table VII

TABLE VII

COMPUTATION OF ANALYSIS OF COVARIANCE ON

HEART RATE

Adjusted post test means			Sources of Variance	Sum of square	df	Mean squares	F ratio
WOMG	**MG**	**CG**					
68.82	66.94	71.84	Between	78.73	2	39.36	15.12*
			Within	106.74	41	2.6	

WOMG-Without Music Group, **MG-** Music Group, and **CG-**Control Group

*significant at 0.05 level of confidence

(The table value required for significance at 0.05 level with df 2 and 41 is 3.23)

Table VII shows the adjusted post test means of Without Music Group, Music Group and control groups are 68.82, 66.94 and 71.84 respectively. The obtained f-ratio of 15.12 which is higher than the table value 3.23 with df 2 and 41 required for significance. The result of the study indicates that there are significant mean differences on Heart Rate among the adjusted post test means of Without Music Group, Music Group and control groups at 0.05 level. Hence it is clear that the training package significantly improved the Heart Rate of the subjects.

Since significant improvements were recorded among the adjusted post test means, the results were further subjected to post hoc analysis using Scheffe's confidence interval test to find out which of the three paired means had a significant difference. The results were presented in Table VIII

TABLE VIII

SCHEFFE'S POST HOC TEST ON HEART RATE

Adjusted post test mean				
WOMG	**MG**	**CG**	**Mean difference**	**Confidence interval**
68.82		71.84	3.02*	1.49
68.82	66.94		1.88*	
	66.94	71.84	4.90*	

WOMG-Without Music Group, **MG**- Music Group, and **CG**-Control Group

*significant at .05 level

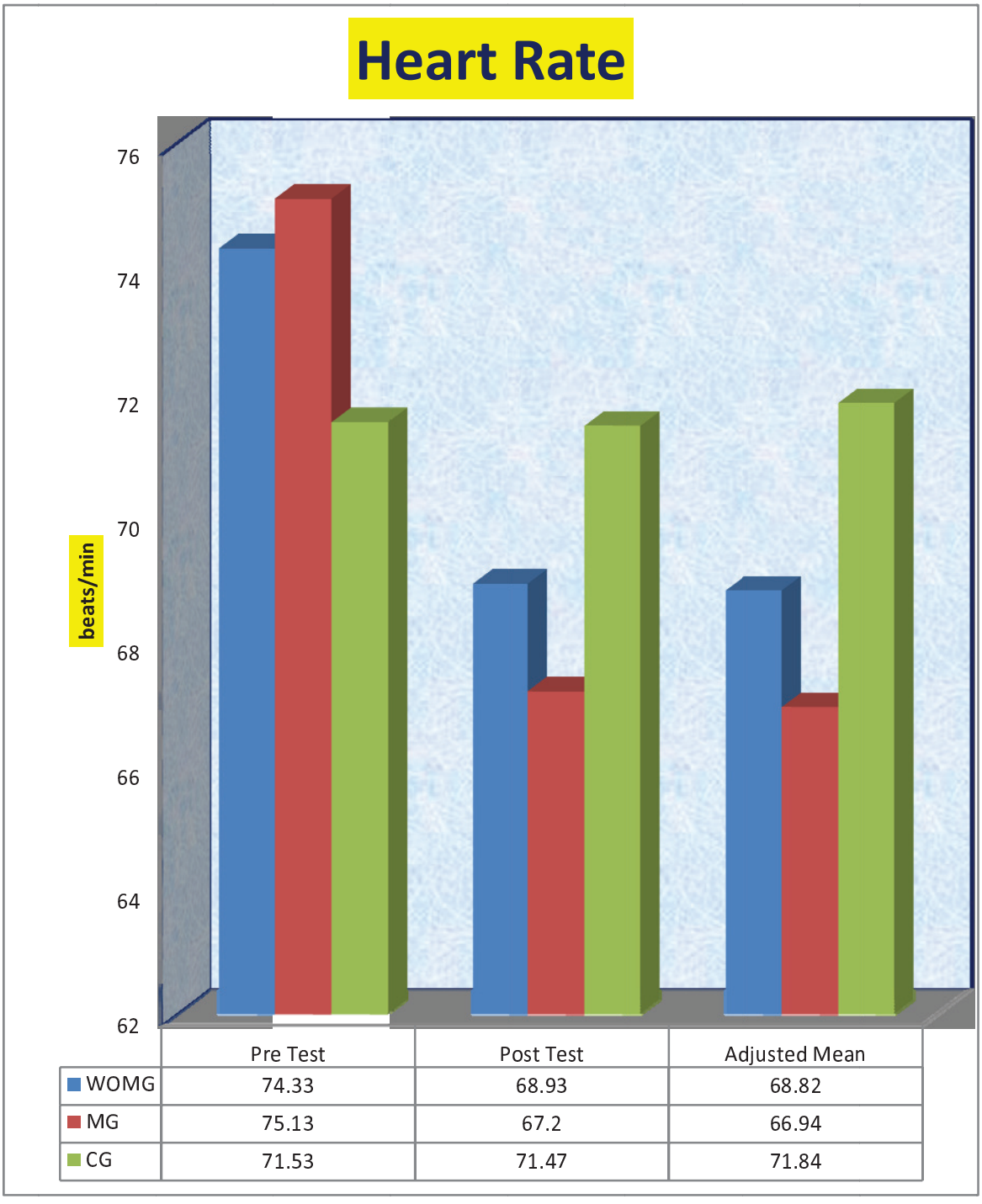
Table VIII shows that the adjusted post test mean differences in Heart Rate between Without Music Group and Control Group is 3.02 which are greater than the confidence interval value of 1.49 which is statistically significant at 0.05 level of confidence. Therefore it is proved that there is significant difference found in Heart Rate between Without Music Group and control group.

Table VIII shows that the adjusted post test mean differences in Heart Rate between Without Music Group and Music Group is 1.88 which are greater than the confidence interval value of 1.49 which is statistically significant at 0.05 level of confidence. Therefore it is proved that there is significant difference found in Heart Rate between Without Music Group and Music Group.

Table VIII shows that the adjusted post test mean differences in Heart Rate between Music Group and Control group is 4.90 which are greater than the confidence interval value of 1.49 which is statistically significant at 0.05 level of confidence.

Therefore it is proved that there is significant difference found in Heart Rate between Music Group and Control group

The ordered pre-test, post-test and adjusted post test mean values of experimental and control groups on Heart Rate are graphically illustrated through bar diagram for better understanding in Figure I.



	Pre Test	Post Test	Adjusted Mean
WOMG	74.33	68.93	68.82
MG	75.13	67.2	66.94
CG	71.53	71.47	71.84

FIGURE: I MEAN VALUES AND ADJUSTED POST MEAN VALUES OF HEART RATE ON WITHOUT MUSIC GROUP (WOMG), MUSIC GROUP (MG) AND CONTROL GROUP (CG)

4.3.1.1 DISCUSSION ON THE FINDINGS OF HEART RATE

The result of the study on Heart Rate indicates that all the experimental groups namely Without Music group (WOMG) and Music Group (MG) brought about significant improvement after the training. The analysis of the data indicates that there was no significant difference on Heart Rate Without Music group (WOMG) and Music Group (MG) Based on the mean value, the Music group (MG) was found to be better in reducing on Heart Rate than the Without Music group (WOMG). Systematic training improves the Heart Rate. The result of this study on Heart Rate has in line with the study conducted by **Loizou and Karageorghis (2014)**

4.3.2 RESULTS OF BREATHE RATE

The statistical analysis of dependent 't' test comparing the initial and final means of Breathe Rate due to specific training packages of experimental and control groups have been analyzed and presented in Table IX

TABLE IX

THE SUMMARY OF MEAN AND DEPENDENT 'T'-TEST FOR THE PRE AND POST TESTS ON BREATHE RATE

	WOMG	MG	CG
Pre test Mean	17.33	17.13	17.2
Post test Mean	13.67	12.51	17.27
't' test	8.94*	9.08*	0.12
Table value required	2.14	2.14	2.14

WOMG-Without Music Group, **MG**- Music Group, and **CG**-Control Group

*significant at 0.05 level (Breathe Rate in counts)

(The table value required for 0.05 level of significance with df 14 is 2.14)

Table IX shows that the pre test mean value of Without Music Group, Music Group and control groups are 17.33, 17.13and 17.20 respectively and the post test means are 13.67, 12.51 and 17.27 respectively. The obtained dependent t-test between the pre and post test means on Breathe Rate of Without Music Group, Music Group and control groups are 8.94, 9.08 and 0.12 respectively. The table value required for significant difference with df 14 at 0.05 level is 2.14. The obtained 't' test of experimental groups are greater than the table value.

Hence, it is proved that experimental group had significantly improved the Breathe Rate whereas the control group did not improve significantly as they were not subjected to any specific training. Taking into consideration of the pre and post test means on breathe holding time, the adjusted post test means were determined and analysis of covariance was computed for experimental and control groups and presented in Table X

TABLE X

COMPUTATION OF ANALYSIS OF COVARIANCE ON BREATHE RATE

Adjusted post test means			Sources of Variance	Sum of square	df	Mean squares	F ratio
WOMG	MG	CG					
13.61	12.51	17.28	Between	186.88	2	93.44	86.23*
			Within	44.43	41	1.08	

WOMG-Without Music Group, **MG**- Music Group, and **CG**-Control Group

*significant at 0.05 level of confidence

(The table value required for significance at 0.05 level with df 2 and 41 is 3.23)

Table X shows the adjusted post test means of Without Music Group, Music Group and control groups are 13.61, 12.51 and 17.28 respectively. The obtained f-ratio of 86.23, which is higher than the table value 3.23 with df 2 and 41 required for significance. The result of the study indicates that there are significant mean differences on Breathe Rate among the adjusted post test means of Without Music Group, Music Group and control groups at 0.05 level. Hence it is clear that the training package significantly improved the Breathe Rate of the subjects.

Since significant improvements were recorded among the adjusted post test means, the results were further subjected to post hoc analysis using Scheffe's confidence interval test to find out which of the three paired means had a significant difference. The results were presented in Table XI

TABLE XI

SCHEFFE'S POST HOC TEST ON BREATHE RATE

Adjusted post test mean				
WOMG	**MG**	**CG**	**Mean difference**	**Confidence interval**
13.61		17.28	3.67*	0.96
13.61	12.51		1.10*	
	12.51	17.28	4.77*	

WOMG-Without Music Group, **MG**- Music Group, and **CG**-Control Group

*significant at .05 level

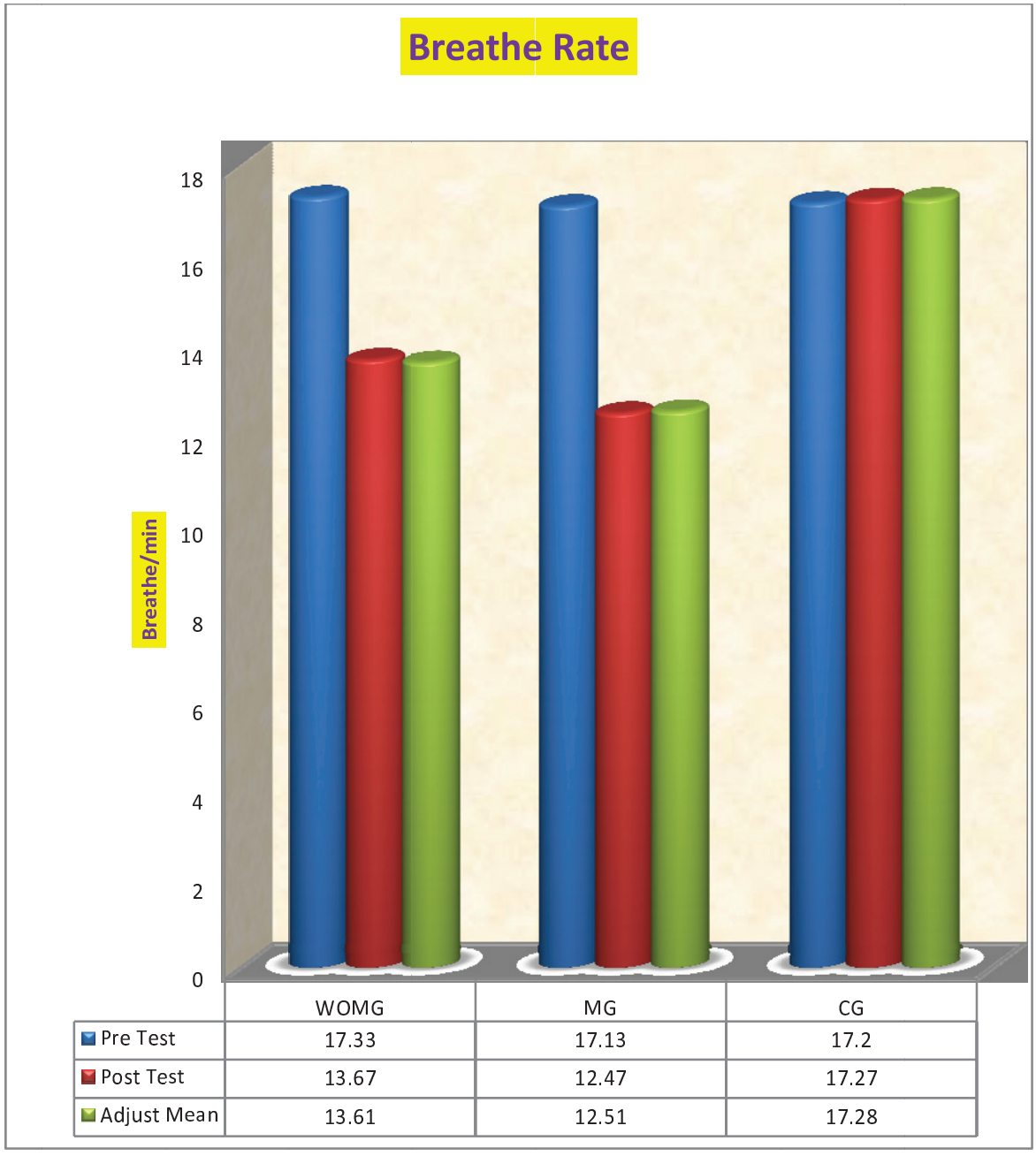
Table XI shows that the adjusted post test mean differences in Breathe Rate between Without Music Group and Control is 3.67 which are greater than the confidence interval value of 0.96 which is statistically significant at 0.05 level of confidence.

Therefore it is proved that there is significant difference found in Breathe Rate between Without Music Group and control group.

Table XI shows that the adjusted post test mean differences in Breathe Rate between Without Music Group and Music Group is 1.10 which are greater than the confidence interval value of 0.96 which is statistically significant at 0.05 level of confidence. Therefore it is proved that there is significant difference found in Breathe Rate between Without Music Group and Music Group.

Table XI Shows that the adjusted post test mean differences in Breathe Rate between Music Group and Control group is 4.77 which are greater than the confidence interval value of 0.96 which is statistically significant at 0.05 level of confidence. Therefore it is proved that there is significant difference found in Breathe Rate between Music Group and Control group

The ordered pre-test, post-test and adjusted post test mean values of experimental and control groups on Breathe Rate are graphically illustrated through bar diagram for better understanding in Figure II.



	WOMG	MG	CG
Pre Test	17.33	17.13	17.2
Post Test	13.67	12.47	17.27
Adjust Mean	13.61	12.51	17.28

-

FIGURE: II MEAN VALUES AND ADJUSTED POST MEAN VALUES OF BREATHE RATE ON WITHOUT MUSIC GROUP (WOMG), MUSIC GROUP (MG) AND CONTROL GROUP (CG)

4.3.2.1 DISCUSSION ON THE FINDINGS OF BREATHE RATE

The result of the study on Breathe Rate indicates that all the experimental groups namely Without Music group (WOMG) and Music Group (MG) brought about significant improvement after the training. The analysis of the data indicates that there was significant difference on Breathe Rate Without Music group (WOMG) and Music Group (MG) Based on the mean value, the Music group (MG) was found to be better in reducing on Breathe Rate than the Without Music group (WOMG). Systematic training improves the breathe Rate.

4.3.3 RESULTS OF SWEAT RATE

The statistical analysis of dependent 't' test comparing the initial and final means of Sweat Rate due to specific training packages of experimental and control groups have been analyzed and presented in Table XII

TABLE XII

THE SUMMARY OF MEAN AND DEPENDENT 'T'-TEST FOR THE PRE AND POST TESTS ON SWEAT RATE

	WOMG	MG	**CG**
Pre test Mean	583.73	597.40	590.40
Post test Mean	630.47	687.27	596.4
't' test	7.00*	14.74*	0.44
Table value required	2.14	2.14	2.14

WOMG-Without Music Group, **MG**- Music Group, and **CG**-Control Group

*significant at 0.05 level (Sweat Rate in counts)

(The table value required for 0.05 level of significance with df 14 is 2.14)

Table XII shows that the pre test mean value of Without Music Group, Music Group and control groups are 583.73, 597.40 and 590.40 respectively and the post test means are 630.47,687.27 and 596.40 respectively. The obtained dependent t-test between the pre and post test means on Sweat Rate of Without Music Group, Music Group and control groups are 7.00, 14.74 and 0.44 respectively. The table value required for significant difference with df 14 at 0.05 level is 2.14. The obtained 't' test of experimental groups are greater than the table value.

Hence, it is proved that experimental group had significantly improved the Sweat Rate where as the control group did not improve significantly as they were not subjected to any specific training. Taking into consideration of the pre and post test means on breathe holding time, the adjusted post test means were determined and analysis of covariance was computed for experimental and control groups and presented in Table XIII

TABLE XIII

COMPUTATION OF ANALYSIS OF COVARIANCE ON SWEAT RATE

Adjusted post test means			Sources of Variance	Sum of square	Df	Mean squares	F ratio
WOMG	MG	CG					
629.88	687.87	596.39	Between	62608.27	2	31304.14	44.98*
			Within	28534.28	41	695.96	

WOMG-Without Music Group, **MG**- Music Group, and **CG**-Control Group
*significant at 0.05 level of confidence

(The table value required for significance at 0.05 level with df 2 and 41 is 3.23)

Table XIII shows the adjusted post test means of Without Music Group, Music Group and control groups are 629.88, 687.87 and 596.39 respectively. The obtained f-ratio of 44.98, which is higher than the table value 3.23 with df 2 and 41 required for significance. The result of the study indicates that there are significant mean differences on Sweat Rate among the adjusted post test means of Without Music Group, Music Group and control groups at 0.05 level. Hence it is clear that the training package significantly improved the Sweat Rate of the subjects.

Since significant improvements were recorded among the adjusted post test means, the results were further subjected to post hoc analysis using Scheffe's confidence interval test to find out which of the three paired means had a significant difference. The results were presented in Table XIV

TABLE XIV

SCHEFFE'S POST HOC TEST ON SWEAT RATE

Adjusted post test mean				
WOMG	**MG**	**CG**	**Mean difference**	**Confidence interval**
629.88		596.39	33.49*	24.48
629.88	687.87		57.99*	
	687.87	596.39	91.48*	

WOMG-Without Music Group, **MG**- Music Group, and **CG**-Control Group

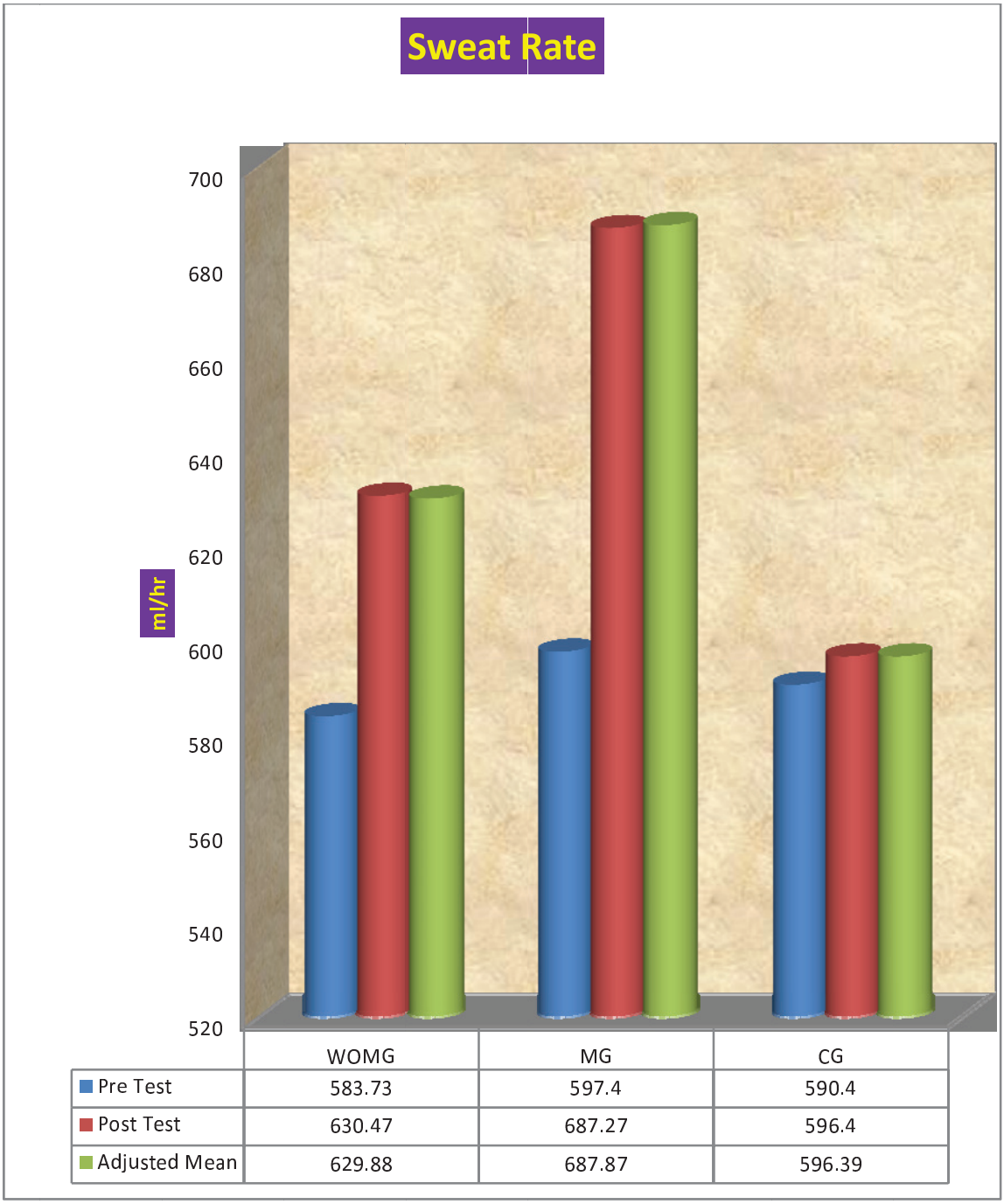
*significant at .05 level

Table XIV shows that the adjusted post test mean differences in Sweat Rate between Without Music Group and Control is 33.49 which are greater than the confidence interval value of 24.48 which is statistically significant at 0.05 level of confidence. Therefore it is proved that there is significant difference found in Sweat Rate between Without Music Group and control group.

Table XIV shows that the adjusted post test mean differences in Sweat Rate between Without Music Group and Music Group is 57.99 which are greater than the confidence interval value of 24.48 which is statistically significant at 0.05 level of confidence. Therefore it is proved that there is significant difference found in Sweat Rate between Without Music Group and Music Group.

Table XIV shows that the adjusted post test mean differences in Sweat Rate between Music Group and Control group is 91.48 which are greater than the confidence interval value of 24.48 which is statistically significant at 0.05 level of confidence. Therefore it is proved that there is significant difference found in Sweat Rate between Music Group and Control group

The ordered pre-test, post-test and adjusted post test mean values of experimental and control groups on Sweat Rate are graphically illustrated through bar diagram for better understanding in Figure III.



	WOMG	MG	CG
Pre Test	583.73	597.4	590.4
Post Test	630.47	687.27	596.4
Adjusted Mean	629.88	687.87	596.39

FIGURE: III MEAN VALUES AND ADJUSTED POST MEAN VALUES OF SWEAT RATE ON WITHOUT MUSIC GROUP (WOMG), MUSIC GROUP (MG) AND CONTROL GROUP (CG)

4.3.3.1 DISCUSSION ON THE FINDINGS OF SWEAT RATE

The result of the study on Sweat Rate indicates that all the experimental groups namely Without Music group (WOMG) and Music Group (MG) brought about significant improvement after the training. The analysis of the data indicates that there was significant difference on Sweat Rate Without Music group (WOMG) and Music Group (MG) Based on the mean value, the Music group (MG) was found to be better in reducing on Sweat Rate than the Without Music group (WOMG). Systematic training improves the Sweat Rate.

4.3.4 RESULTS OF BODY MASS INDEX

The statistical analysis of dependent 't' test comparing the initial and final means of Body Mass Index due to specific training packages of experimental and control groups have been analyzed and presented in Table XV

TABLE XV

THE SUMMARY OF MEAN AND DEPENDENT 'T'-TEST FOR THE PRE AND POST TESTS ON BODY MASS INDEX

	WOMG	MG	**CG**
Pre test Mean	24.93	24.80	24.86
Post test Mean	22.87	21.27	24.73
't' test	5.77	12.16	0.52
Table value required	2.14	2.14	2.14

WOMG-Without Music Group, **MG**- Music Group, and **CG**-Control Group

*significant at 0.05 level (Body Mass Index in counts)

(The table value required for 0.05 level of significance with df 14 is 2.14)

Table XV shows that the pre test mean value of Without Music Group, Music Group and control groups are 24.93, 24.80 and 24.86 respectively and the post test means are 22.87, 21.27 and 24.73 respectively. The obtained dependent t-test between the pre and post test means on Body Mass Index of Without Music Group, Music Group and control groups are 5.77, 12.16 and 0.52 respectively. The table value required for significant difference with df 14 at 0.05 level is 2.14. The obtained 't' test of experimental groups are greater than the table value.

Hence, it is proved that experimental group had significantly improved the Body Mass Index whereas the control group did not improve significantly as they were not subjected to any specific training. Taking into consideration of the pre and post test means on breathe holding time, the adjusted post test means were determined and analysis of covariance was computed for experimental and control groups and presented in Table XVI

TABLE XVI

COMPUTATION OF ANALYSIS OF COVARIANCE ON BODY MASS INDEX

Adjusted post test means			Sources of Variance	Sum of square	df	Mean squares	F ratio
WOMG	MG	CG					
22.84	21.29	24.73	Between	89.15	2	44.58	42.11*
			Within	43.4	41	1.06	

WOMG-Without Music Group, **MG**- Music Group, and **CG**-Control Group
*significant at 0.05 level of confidence

(The table value required for significance at 0.05 level with df 2 and 41 is 3.23)

Table XVI shows the adjusted post test means of Without Music Group, Music Group and control groups are 22.84, 21.29 and 24.73 respectively. The obtained f-ratio of

42.11, which is higher than the table value 3.23 with df 2 and 41 required for significance. The result of the study indicates that there are significant mean differences on Body Mass Index among the adjusted post test means of Without Music Group, Music Group and control groups at 0.05 level. Hence it is clear that the training package significantly improved the Body Mass Index of the subjects.

Since significant improvements were recorded among the adjusted post test means, the results were further subjected to post hoc analysis using Scheffe's confidence interval test to find out which of the three paired means had a significant difference. The results were presented in Table XVII

TABLE XVII

SCHEFFE'S POST HOC TEST ON BODY MASS INDEX

Adjusted post test mean				
WOMG	**MG**	**CG**	**Mean difference**	**Confidence interval**
22.84		24.73	1.89*	0.96
22.84	21.29		1.55*	
	21.29	24.73	3.44*	

WOMG-Without Music Group, **MG**- Music Group, and **CG**-Control Group

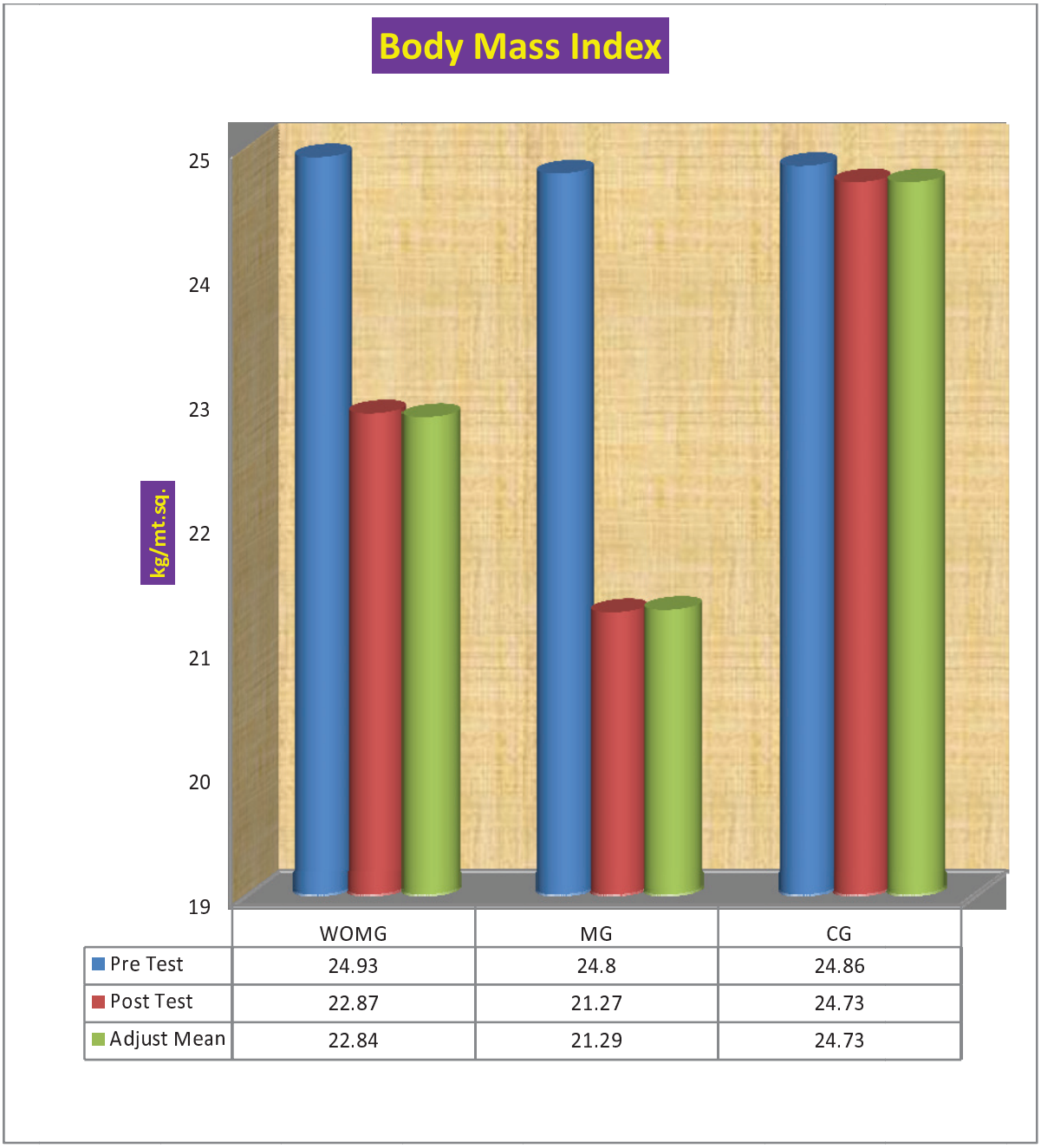
*significant at .05 level

Table XVII shows that the adjusted post test mean differences in Body Mass Index between Without Music Group and Control is 1.89 which are greater than the confidence interval value of 0.96 which is statistically significant at 0.05 level of confidence. Therefore it is proved that there is significant difference found in Body Mass Index between Without Music Group and control group.

Table XVII shows that the adjusted post test mean differences in Body Mass Index between Without Music Group and Music Group is 1.55 which are greater than the confidence interval value of 0.96 which is statistically significant at 0.05 level of confidence. Therefore it is proved that there is significant difference found in Body Mass Index between Without Music Group and Music Group.

Table XVII shows that the adjusted post test mean differences in Body Mass Index between Music Group and Control group is 3.44 which are greater than the confidence interval value of 0.96 which is statistically significant at 0.05 level of confidence. Therefore it is proved that there is significant difference found in Body Mass Index between Music Group and Control group

The ordered pre-test, post-test and adjusted post test mean values of experimental and control groups on Body Mass Index are graphically illustrated through bar diagram for better understanding in Figure IV.



	WOMG	MG	CG
Pre Test	24.93	24.8	24.86
Post Test	22.87	21.27	24.73
Adjust Mean	22.84	21.29	24.73

FIGURE: IV MEAN VALUES AND ADJUSTED POST MEAN VALUES OF BODY MASS INDEX WITHOUT MUSIC GROUP, MUSIC GROUP AND CONTROL GROUP

4.3.4.1 DISCUSSION ON THE FINDINGS OF BODY MASS INDEX

The result of the study on body mass index indicates that all the experimental groups namely Without Music group (WOMG) and Music Group (MG) brought about significant improvement after the training. The analysis of the data indicates that there was significant difference on body mass index Without Music group (WOMG) and Music Group (MG) Based on the mean value, the Music group (MG) was found to be better in reducing on body mass index than the Without Music group (WOMG). Systematic training improves the body mass index.

4.3.5 RESULTS OF SYSTOLIC BLOOD PRESSURE

The statistical analysis of dependent 't' test comparing the initial and final means of Systolic Blood Pressure due to specific training packages of experimental and control groups have been analyzed and presented in Table XVIII

TABLE XVIII

THE SUMMARY OF MEAN AND DEPENDENT 'T'-TEST FOR THE PRE AND POST TESTS ON SYSTOLIC BLOOD PRESSURE

	WOMG	MG	**CG**
Pre test Mean	131.60	133.87	133.20
Post test Mean	121.40	117.93	132.60
't' test	10.19*	10.69*	0.48
Table value required	2.14	2.14	2.14

WOMG-Without Music Group, **MG**- Music Group, and **CG**-Control Group

*significant at 0.05 level (Systolic Blood Pressure in counts)

(The table value required for 0.05 level of significance with df 14 is 2.14)

Table XVIII shows that the pre test mean value of Without Music Group, Music Group and control groups are 131.60, 133.87 and 133.20 respectively and the post test means are 121.40, 117.93 and 132.60 respectively. The obtained dependent t-test between the pre and post test means on systolic blood pressure of without music group, music group and control groups are 10.19, 10.69 and 0.48 respectively. The table value required for significant difference with df 14 at 0.05 level is 2.14. The obtained 't' test of experimental groups are greater than the table value.

Hence, it is proved that experimental group had significantly improved the Systolic Blood Pressure whereas the control group did not improve significantly as they were not subjected to any specific training. Taking into consideration of the pre and post test means on breathe holding time, the adjusted post test means were determined and analysis of covariance was computed for experimental and control groups and presented in Table XIX

TABLE XIX

COMPUTATION OF ANALYSIS OF COVARIANCE ON

SYSTOLIC BLOOD PRESSURE

Adjusted post test means			Sources of Variance	Sum of square	df	Mean squares	F ratio
WOMG	MG	CG					
121.35	117.97	132.62	Between	1762.99	2	881.5	111.8*
			Within	323.26	41	7.88	

WOMG-Without Music Group, **MG**- Music Group, and **CG**-Control Group
*significant at 0.05 level of confidence

(The table value required for significance at 0.05 level with df 2 and 41 is 3.23)

Table XIX shows the adjusted post test means of Without Music Group, Music Group and control groups are 121.35, 117.97 and 132.62 respectively. The obtained f-ratio of 111.8, which is higher than the table value 3.23 with df 2 and 41 required for significance. The result of the study indicates that there are significant mean differences on Systolic Blood Pressure among the adjusted post test means of Without Music Group, Music Group and control groups at 0.05 level. Hence it is clear that the training package significantly improved the Systolic Blood Pressure of the subjects.

Since significant improvements were recorded among the adjusted post test means, the results were further subjected to post hoc analysis using Scheffe's confidence interval test to find out which of the three paired means had a significant difference. The results were presented in Table XX

TABLE XX

SCHEFFE'S POST HOC TEST ON SYSTOLIC BLOOD PRESSURE

Adjusted post test mean				
WOMG	**MG**	**CG**	**Mean difference**	**Confidence interval**
121.35		132.62	11.27*	2.61
121.35	117.97		3.38*	
	117.97	132.62	14.95*	

WOMG-Without Music Group, **MG**- Music Group, and **CG**-Control Group

*significant at .05 level

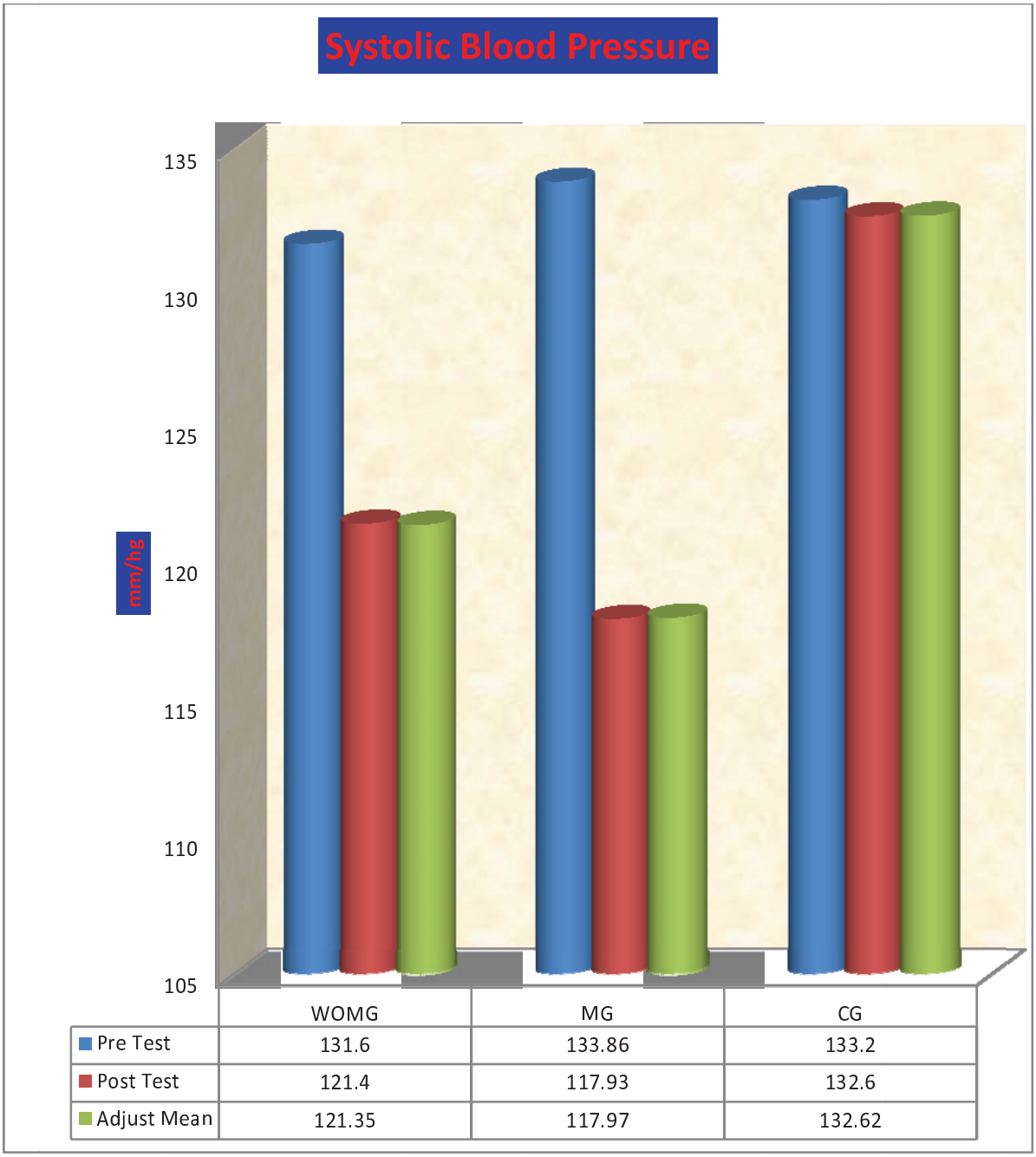
Table XX shows that the adjusted post test mean differences in Systolic Blood Pressure between Without Music Group and Control is 11.27 which are greater than the confidence interval value of 2.61 which is statistically significant at 0.05 level of

confidence. Therefore it is proved that there is significant difference found in Systolic Blood Pressure between Without Music Group and control group.

Table XX shows that the adjusted post test mean differences in Systolic Blood Pressure between Without Music Group and Music Group is 3.38 which are greater than the confidence interval value of 2.61 which is statistically significant at 0.05 level of confidence. Therefore it is proved that there is significant difference found in Systolic Blood Pressure between Without Music Group and Music Group.

Table XX shows that the adjusted post test mean differences in Systolic Blood Pressure between Music Group and Control group is 14.95 which are greater than the confidence interval value of 2.61 which is statistically significant at 0.05 level of confidence. Therefore it is proved that there is significant difference found in Systolic Blood Pressure between Music Group and Control group

The ordered pre-test, post-test and adjusted post test mean values of experimental and control groups on Systolic Blood Pressure are graphically illustrated through bar diagram for better understanding in Figure V.



	WOMG	MG	CG
Pre Test	131.6	133.86	133.2
Post Test	121.4	117.93	132.6
Adjust Mean	121.35	117.97	132.62

FIGURE: V MEAN VALUES AND ADJUSTED POST MEAN VALUES OF SYSTOLIC BLOOD PRESSURE WITHOUT MUSIC GROUP, MUSIC GROUP AND CONTROL GROUP

4.3.5.1 DISCUSSION ON THE FINDINGS OF SYSTOLIC BLOOD PRESSURE

The result of the study on Systolic Blood Pressure indicates that all the experimental groups namely Without Music group (WOMG) and Music Group (MG) brought about significant improvement after the training. The analysis of the data indicates that there was significant difference on Systolic Blood Pressure Without Music group (WOMG) and Music Group (MG) Based on the mean value, the Music group (MG) was found to be better in reducing on Systolic Blood Pressure than the Without Music group (WOMG). Systematic training improves the body mass index.

4.3.6 RESULTS OF DIASTOLIC BLOOD PRESSURE

The statistical analysis of dependent 't' test comparing the initial and final means of Diastolic Blood Pressure due to specific training packages of experimental and control groups have been analyzed and presented in Table XXI

TABLE XXI

THE SUMMARY OF MEAN AND DEPENDENT 'T'-TEST FOR THE PRE AND POST TESTS ON DIASTOLIC BLOOD PRESSURE

	WOMG	MG	**CG**
Pre test Mean	90.60	91.33	91.2
Post test Mean	80.33	78.53	90.8
't' test	10.71*	15.44*	1.31
Table value required	2.14	2.14	2.14

WOMG-Without Music Group, **MG**- Music Group, and **CG**-Control Group

*significant at 0.05 level (Diastolic Blood Pressure in counts)

(The table value required for 0.05 level of significance with df 14 is 2.14)

Table XXI shows that the pre test mean value of Without Music Group, Music Group and control groups are 90.60, 91.33 and 91.2 respectively and the post test means are 80.33, 78.53 and 90.8 respectively. The obtained dependent t-test between the pre and post test means on Diastolic Blood Pressure of Without Music Group, Music Group and control groups are 10.71, 15.44 and 1.31 respectively. The table value required for significant difference with df 14 at 0.05 level is 2.14. The obtained 't' test of experimental groups are greater than the table value.

Hence, it is proved that experimental group had significantly improved the Diastolic Blood Pressure whereas the control group did not improve significantly as they were not subjected to any specific training. Taking into consideration of the pre and post test means on breathe holding time, the adjusted post test means were determined and analysis of covariance was computed for experimental and control groups and presented in Table XXII.

TABLE XXII

COMPUTATION OF ANALYSIS OF COVARIANCE ON

DIASTOLIC BLOOD PRESSURE

Adjusted post test means			Sources of Variance	Sum of square	df	Mean squares	F ratio
WOMG	MG	CG					
80.47	78.44	90.75	Between	1305.64	2	652.82	161.44*
			Within	165.79	41	4.04	

WOMG-Without Music Group, **MG**- Music Group, and **CG**-Control Group
*significant at 0.05 level of confidence

(The table value required for significance at 0.05 level with df 2 and 41 is 3.23)

Table XXII shows the adjusted post test means of Without Music Group, Music Group and control groups are 80.47, 78.44 and 90.75 respectively. The obtained f-ratio of 161.44, which is higher than the table value 3.23 with df 2 and 41 required for significance. The result of the study indicates that there are significant mean differences on Diastolic Blood Pressure among the adjusted post test means of Without Music Group, Music Group and control groups at 0.05 level. Hence it is clear that the training package significantly improved the Diastolic Blood Pressure of the subjects.

Since significant improvements were recorded among the adjusted post test means, the results were further subjected to post hoc analysis using Scheffe's confidence interval test to find out which of the three paired means had a significant difference. The results were presented in Table 4.4.3

TABLE XXIII

SCHEFFE'S POST HOC TEST ON DIASTOLIC BLOOD PRESSURE

Adjusted post test mean				
WOMG	**MG**	**CG**	**Mean difference**	**Confidence interval**
80.47		90.75	10.28*	1.87
80.47	78.44		2.03*	
	78.44	90.75	12.31*	

WOMG-Without Music Group, **MG**- Music Group, and **CG**-Control Group

*significant at .05 level

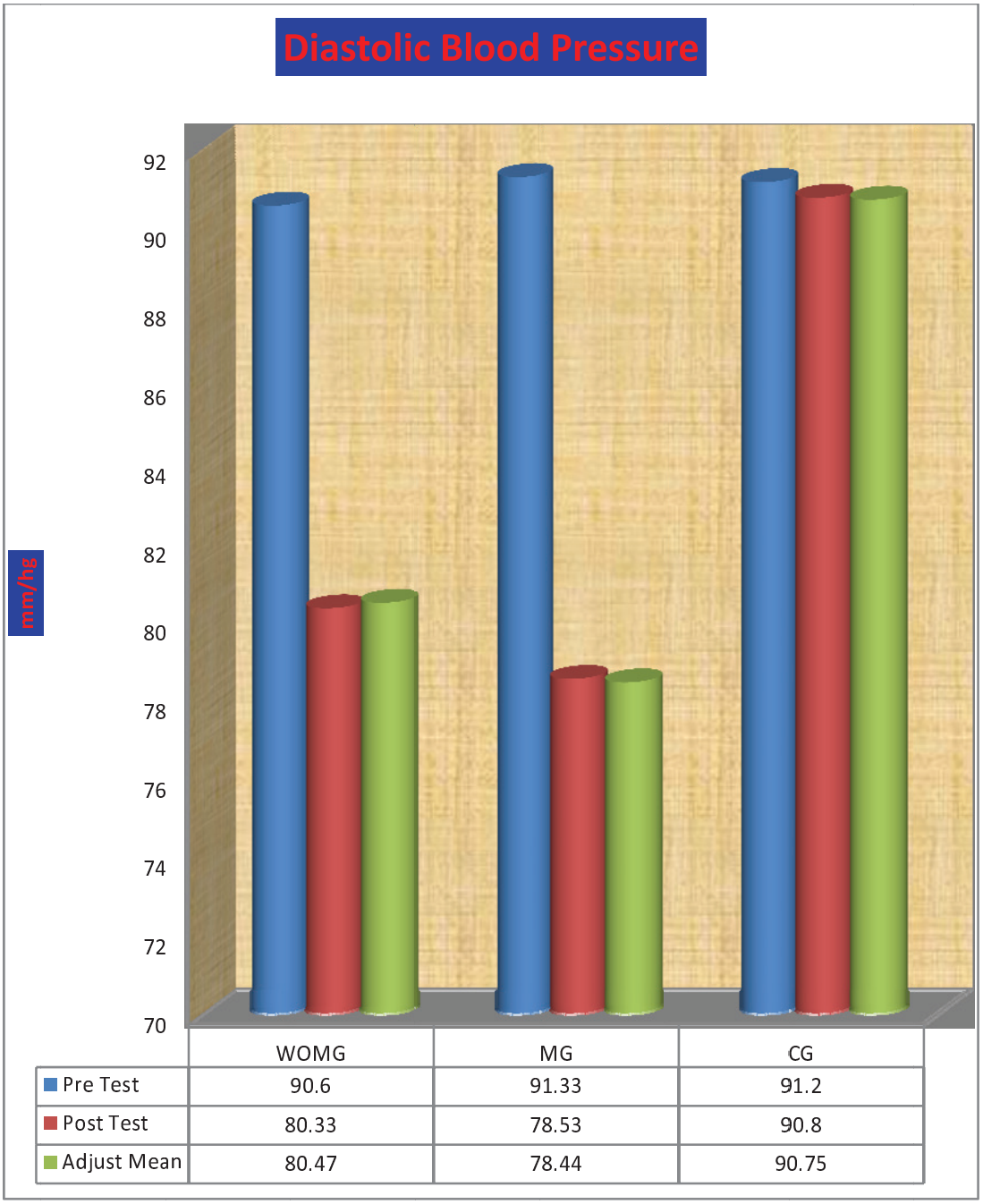
Table XXIII shows that the adjusted post test mean differences in Diastolic Blood Pressure between Without Music Group and Control is 10.28 which are greater than the confidence interval value of 1.87 which is statistically significant at 0.05 level of

confidence. Therefore it is proved that there is significant difference found in Diastolic Blood Pressure between Without Music Group and control group.

Table XXIII shows that the adjusted post test mean differences in Diastolic Blood Pressure between Without Music Group and Music Group is 2.03 which are greater than the confidence interval value of 1.87 which is statistically significant at 0.05 level of confidence. Therefore it is proved that there is significant difference found in Diastolic Blood Pressure between Without Music Group and Music Group.

Table XXIII shows that the adjusted post test mean differences in Diastolic Blood Pressure between Music Group and Control group is 12.31 which are greater than the confidence interval value of 1.87which is statistically significant at 0.05 level of confidence. Therefore it is proved that there is significant difference found in Diastolic Blood Pressure between Music Group and Control group

The ordered pre-test, post-test and adjusted post test mean values of experimental and control groups on Diastolic Blood Pressure are graphically illustrated through bar diagram for better understanding in Figure VI.



	WOMG	MG	CG
Pre Test	90.6	91.33	91.2
Post Test	80.33	78.53	90.8
Adjust Mean	80.47	78.44	90.75

FIGURE: VI MEAN VALUES AND ADJUSTED POST MEAN VALUES OF DIASTOLIC BLOOD PRESSUREWITHOUT MUSIC GROUP, MUSIC GROUP AND CONTROL GROUP

4.3.6.1 DISCUSSION ON THE FINDINGS OF DIASTOLIC BLOOD PRESSURE

The result of the study on diastolic blood pressure indicates that all the experimental groups namely Without Music group (WOMG) and Music Group (MG) brought about significant improvement after the training. The analysis of the data indicates that there was significant difference on diastolic blood pressure Without Music group (WOMG) and Music Group (MG) Based on the mean value, the Music group (MG) was found to be better in reducing on diastolic blood pressure than the Without Music group (WOMG). Systematic training improves the diastolic blood pressure.

4.3.7 RESULTS OF STRESS

The statistical analysis of dependent 't' test comparing the initial and final means of Stress due to specific training packages of experimental and control groups have been analyzed and presented in Table XXIV

TABLE XXIV

THE SUMMARY OF MEAN AND DEPENDENT 'T'-TEST FOR

THE PRE AND POST TESTS ON STRESS

	WOMG	MG	**CG**
Pre test Mean	32.40	32.60	32.53
Post test Mean	28.93	27.33	32.27
't' test	7.27*	15.88*	0.84
Table value required	2.14	2.14	2.14

WOMG-Without Music Group, **MG**- Music Group, and **CG**-Control Group

*significant at 0.05 level (Stress in counts)

(The table value required for 0.05 level of significance with df 14 is 2.14)

Table XXIV shows that the pre test mean value of Without Music Group, Music Group and control groups are 32.40, 32.60 and 32.53 respectively and the post test means are 28.93, 27.33 and 32.27 respectively. The obtained dependent t-test between the pre and post test means on Stress of Without Music Group, Music Group and control groups are 7.27, 15.88 and 0.84 respectively. The table value required for significant difference with df 14 at 0.05 level is 2.14. The obtained 't' test of experimental groups are greater than the table value.

Hence, it is proved that experimental group had significantly improved the Stress whereas the control group did not improve significantly as they were not subjected to any specific training. Taking into consideration of the pre and post test means on breathe holding time, the adjusted post test means were determined and analysis of covariance was computed for experimental and control groups and presented in Table XXV.

TABLE XXV

COMPUTATION OF ANALYSIS OF COVARIANCE ON STRESS

Adjusted post test means			Sources of Variance	Sum of square	df	Mean squares	F ratio
WOMG	MG	CG					
28.98	27.69	32.25	Between	166	2	83	55.69*
			Within	61.11	41	1.49	

WOMG-Without Music Group, **MG-** Music Group, and **CG-**Control Group
*significant at 0.05 level of confidence

(The table value required for significance at 0.05 level with df 2 and 41 is 3.23)

Table XXV shows the adjusted post test means of Without Music Group, Music Group and control groups are 28.98, 27.69 and 32.25 respectively. The obtained f-ratio of 55.69, which is higher than the table value 3.23 with df 2 and 41 required for

significance. The result of the study indicates that there are significant mean differences on Stress among the adjusted post test means of Without Music Group, Music Group and control groups at 0.05 level. Hence it is clear that the training package significantly improved the Stress of the subjects.

Since significant improvements were recorded among the adjusted post test means, the results were further subjected to post hoc analysis using Scheffe's confidence interval test to find out which of the three paired means had a significant difference. The results were presented in Table XXVI

TABLE XXVI

SCHEFFE'S POST HOC TEST ON STRESS

Adjusted post test mean				
WOMG	**MG**	**CG**	**Mean difference**	**Confidence interval**
28.98		32.25	3.27*	1.14
28.98	27.69		1.29*	
	27.69	32.25	4.56*	

WOMG-Without Music Group, **MG**- Music Group, and **CG**-Control Group

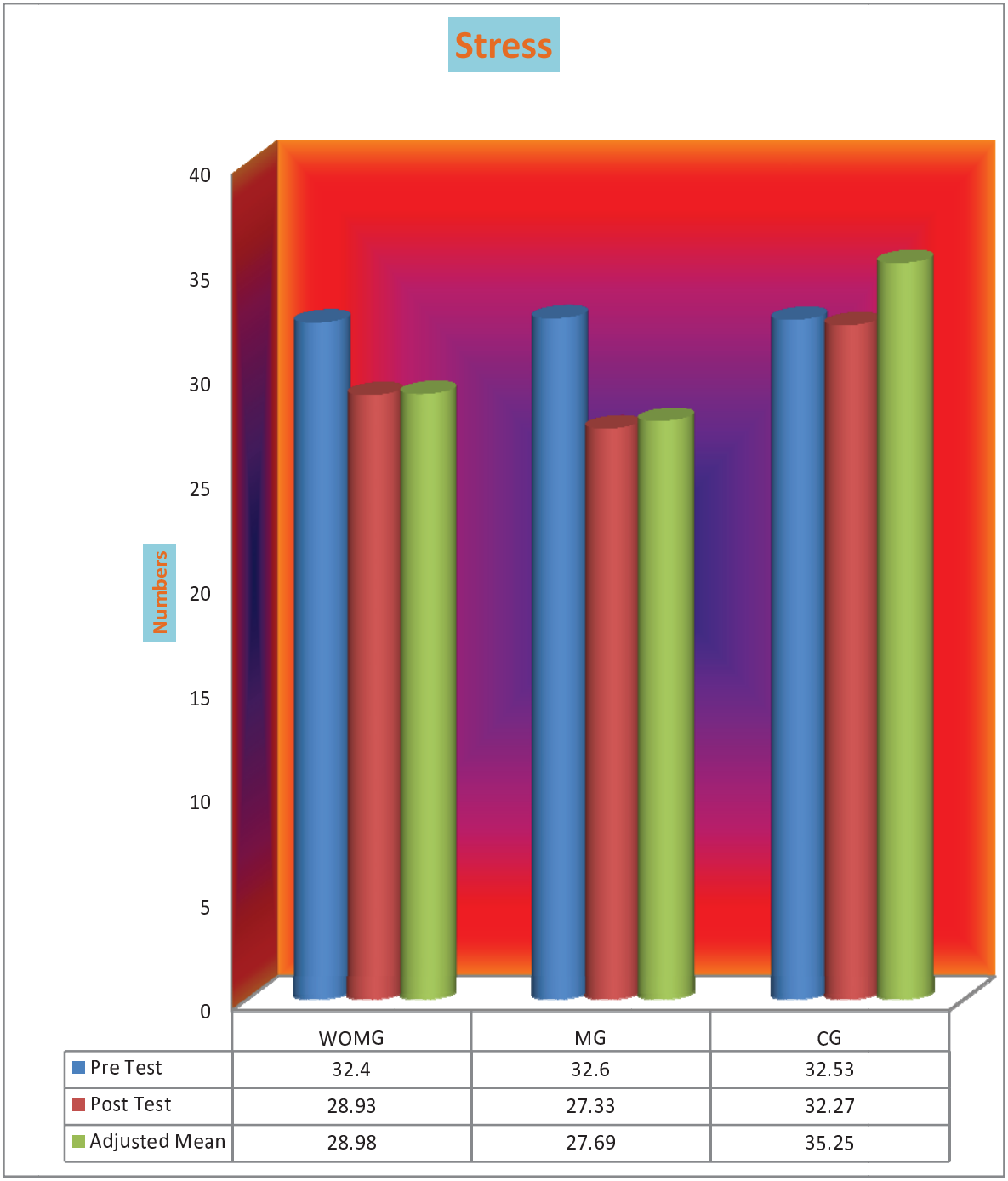
*significant at .05 level

Table XXVI shows that the adjusted post test mean differences in Stress between Without Music Group and Control is 3.27 which are greater than the confidence interval value of 1.14 which is statistically significant at 0.05 level of confidence. Therefore it is proved that there is significant difference found in Stress between Without Music Group and control group.

Table XXVI shows that the adjusted post test mean differences in Stress between Without Music Group and Music Group is 1.29 which are greater than the confidence interval value of 1.14 which is statistically significant at 0.05 level of confidence. Therefore it is proved that there is significant difference found in Stress between Without Music Group and Music Group.

Table XXVI shows that the adjusted post test mean differences in Stress between Music Group and Control group is 4.56 which are greater than the confidence interval value of 1.14 which is statistically significant at 0.05 level of confidence. Therefore it is proved that there is significant difference found in Stress between Music Group and Control group.

The ordered pre-test, post-test and adjusted post test mean values of experimental and control groups on Stress are graphically illustrated through bar diagram for better understanding in Figure VII.



	WOMG	MG	CG
Pre Test	32.4	32.6	32.53
Post Test	28.93	27.33	32.27
Adjusted Mean	28.98	27.69	35.25

FIGURE: VII MEAN VALUES AND ADJUSTED POST MEAN VALUES OF STRESS WITHOUT MUSIC GROUP, MUSIC GROUP AND CONTROL GROUP

4.3.7.1 DISCUSSION ON THE FINDINGS OF STRESS

The result of the study on diastolic blood pressure indicates that all the experimental groups namely Without Music group (WOMG) and Music Group (MG) brought about significant improvement after the training. The analysis of the data indicates that there was significant difference on diastolic blood pressure Without Music group (WOMG) and Music Group (MG) Based on the mean value, the Music group (MG) was found to be better in reducing on diastolic blood pressure than the Without Music group (WOMG). Systematic training improves the diastolic blood pressure. The result of this study on stress has in line with the study conducted by **Loizou and Karageorghis (2014).**

4.3.8 RESULTS OF SELF - CONCEPT

The statistical analysis of dependent 't' test comparing the initial and final means of Self – Concept due to specific training packages of experimental and control groups have been analyzed and presented in Table XXVII

TABLE XXVII

THE SUMMARY OF MEAN AND DEPENDENT 'T'-TEST FOR

THE PRE AND POST TESTS ON SELF - CONCEPT

	WOMG	MG	**CG**
Pre test Mean	150.20	151.60	150.53
Post test Mean	171.47	177.40	152.20
't' test	12.17*	15.00*	0.76
Table value required	2.14	2.14	2.14

WOMG-Without Music Group, **MG-** Music Group, and **CG-**Control Group

*significant at 0.05 level (Self - Concept in counts)

(The table value required for 0.05 level of significance with df 14 is 2.14)

Table XXVII shows that the pre test mean value of Without Music Group, Music Group and control groups are 150.20, 151.60 and 150.53 respectively and the post test means are 171.47, 177.40 and 152.20 respectively. The obtained dependent t-test between the pre and post test means on Self - Concept of Without Music Group, Music Group and control groups are 12.17, 15.00 and 0.76 respectively. The table value required for significant difference with df 14 at 0.05 level is 2.14. The obtained 't' test of experimental groups are greater than the table value.

Hence, it is proved that experimental group had significantly improved the Self - Concept whereas the control group did not improve significantly as they were not subjected to any specific training. Taking into consideration of the pre and post test means on self-concept, the adjusted post test means were determined and analysis of covariance was computed for experimental and control groups and presented in Table XXVIII.

TABLE XXVIII

COMPUTATION OF ANALYSIS OF COVARIANCE ON SELF - CONCEPT

Adjusted post test means			Sources of Variance	Sum of square	df	Mean squares	F ratio
WOMG	MG	CG					
171.70	177.06	152.29	Between	5079.50	2	2539.75	118.17*
			Within	881.16	41	21.49	

WOMG-Without Music Group, **MG**- Music Group, and **CG**-Control Group
*significant at 0.05 level of confidence

(The table value required for significance at 0.05 level with df 2 and 41 is 3.23)

Table XXVIII shows the adjusted post test means of Without Music Group, Music Group and control groups are 171.70, 177.06 and 152.29 respectively. The obtained f-ratio

of 118.17, which is higher than the table value 3.23 with df 2 and 41 required for significance. The result of the study indicates that there are significant mean differences on Self - Concept among the adjusted post test means of Without Music Group, Music Group and control groups at 0.05 level. Hence it is clear that the training package significantly improved the Self - Concept of the subjects.

Since significant improvements were recorded among the adjusted post test means, the results were further subjected to post hoc analysis using Scheffe's confidence interval test to find out which of the three paired means had a significant difference. The results were presented in Table XXIX

TABLE XXIX

SCHEFFE'S POST HOC TEST ON SELF - CONCEPT

Adjusted post test mean				
WOMG	**MG**	**CG**	**Mean difference**	**Confidence interval**
171.70		152.29	18.88*	4.30
171.70	177.06		5.36*	
	177.06	152.29	24.77*	

WOMG-Without Music Group, **MG**- Music Group, and **CG**-Control Group

*significant at .05 level

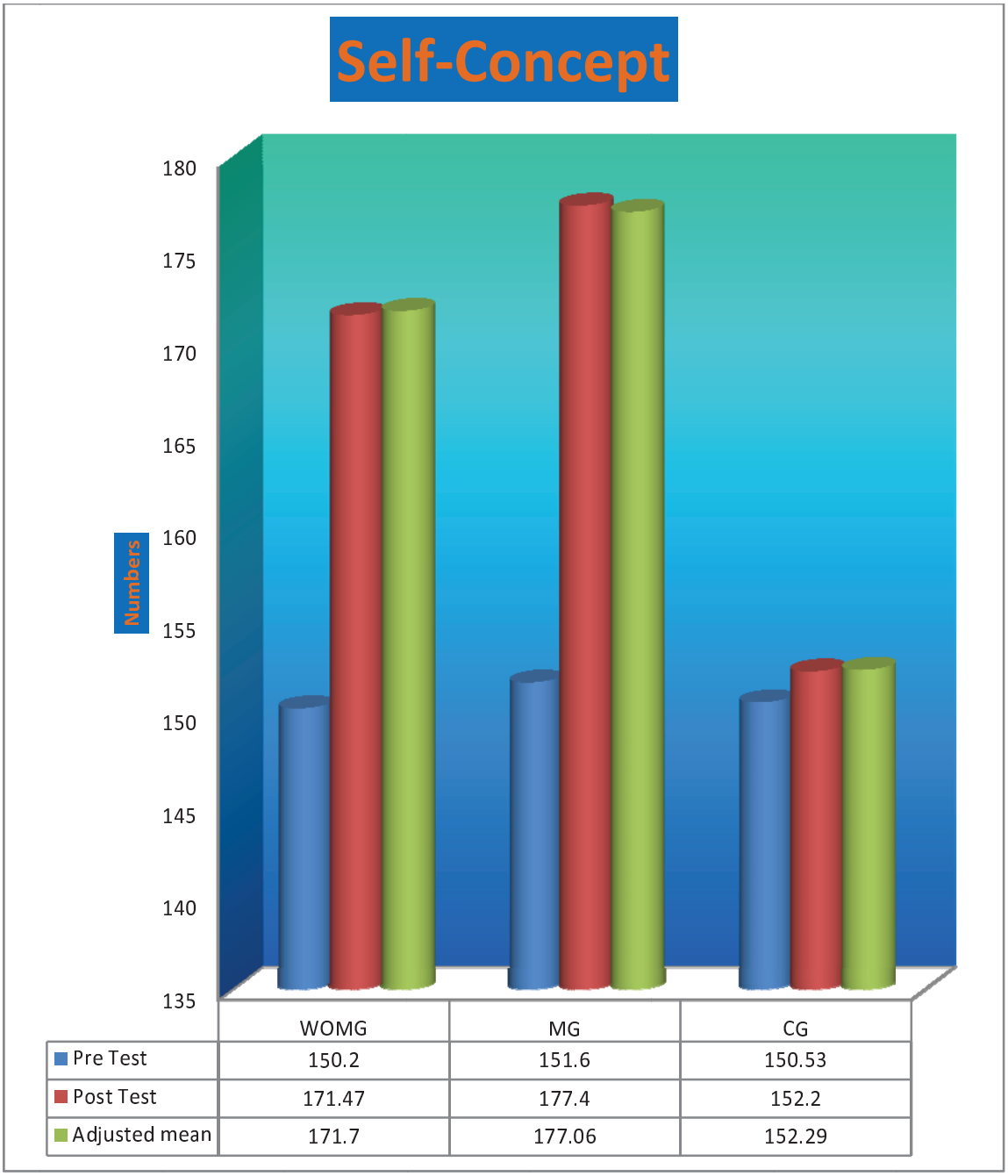
Table XXIX shows that the adjusted post test mean differences in Self - Concept between Without Music Group and Control is 18.88 which are greater than the confidence interval value of 4.30 which is statistically significant at 0.05 level of

confidence. Therefore it is proved that there is significant difference found in Self - Concept between Without Music Group and control group.

Table XXIX shows that the adjusted post test mean differences in Self - Concept between Without Music Group and Music Group is 5.36 which are greater than the confidence interval value of 4.30 which is statistically significant at 0.05 level of confidence. Therefore it is proved that there is significant difference found in Self - Concept between Without Music Group and Music Group.

Table XXIX shows that the adjusted post test mean differences in Self - Concept between Music Group and Control group is 24.77 which are greater than the confidence interval value of 4.30 which is statistically significant at 0.05 level of confidence. Therefore it is proved that there is significant difference found in Self - Concept between Music Group and Control group

The ordered pre-test, post-test and adjusted post test mean values of experimental and control groups on Self - Concept are graphically illustrated through bar diagram for better understanding in Figure VIII.



	WOMG	MG	CG
Pre Test	150.2	151.6	150.53
Post Test	171.47	177.4	152.2
Adjusted mean	171.7	177.06	152.29

FIGURE: VIII MEAN VALUES AND ADJUSTED POST MEAN VALUES OF SELF-CONCEPT WITHOUT MUSIC GROUP, MUSIC GROUP AND CONTROL GROUP

4.3.8.1 DISCUSSION ON THE FINDINGS OF SELF-CONCEPT

The result of the study on diastolic blood pressure indicates that all the experimental groups namely Without Music group (WOMG) and Music Group (MG) brought about significant improvement after the training. The analysis of the data indicates that there was significant difference on diastolic blood pressure Without Music group (WOMG) and Music Group (MG) Based on the mean value, the Music group (MG) was found to be better in reducing on diastolic blood pressure than the Without Music group (WOMG). Systematic training improves the diastolic blood pressure. The result of this study on self-concept has in line with the study conducted by **Loizou and Karageorghis (2014).**

4.3.9 RESULTS OF ACHIEVEMENT MOTIVATION

The statistical analysis of dependent 't' test comparing the initial and final means of Achievement motivation due to specific training packages of experimental and control groups have been analyzed and presented in Table XXX

TABLE XXX

THE SUMMARY OF MEAN AND DEPENDENT 'T'-TEST FOR THE PRE AND POST TESTS ON ACHIEVEMENT MOTIVATION

	WOMG	MG	**CG**
Pre test Mean	26.07	26.67	26.13
Post test Mean	32.87	35.20	26.27
't' test	11.42*	13.51*	0.19
Table value required	2.14	2.14	2.14

WOMG-Without Music Group, **MG**- Music Group, and **CG**-Control Group

*significant at 0.05 level (Achievement motivation in counts)

(The table value required for 0.05 level of significance with df 14 is 2.14)

Table XXX shows that the pre test mean value of Without Music Group, Music Group and control groups are 26.07, 26.67 and 26.13 respectively and the post test means are 32.87, 35.20 and 26.27 respectively. The obtained dependent t-test between the pre and post test means on Achievement motivation of Without Music Group, Music Group and control groups are 11.42, 13.51 and 0.19 respectively. The table value required for significant difference with df 14 at 0.05 level is 2.14. The obtained 't' test of experimental groups are greater than the table value.

Hence, it is proved that experimental group had significantly improved the Achievement motivation whereas the control group did not improve significantly as they were not subjected to any specific training. Taking into consideration of the pre and post test means on breathe holding time, the adjusted post test means were determined and analysis of covariance was computed for experimental and control groups and presented in Table XXXI

TABLE XXXI

COMPUTATION OF ANALYSIS OF COVARIANCE ON ACHIEVEMENT MOTIVATION

Adjusted post test means			Sources of Variance	Sum of square	df	Mean squares	F ratio
WOMG	MG	CG					
32.88	35.17	26.28	Between	634.19	2	317.09	106.88*
			Within	121.645	41	2.97	

WOMG-Without Music Group, **MG**- Music Group, and **CG**-Control Group
*significant at 0.05 level of confidence

(The table value required for significance at 0.05 level with df 2 and 41 is 3.23)

Table XXXI shows the adjusted post test means of Without Music Group, Music Group and control groups are 32.88, 35.17 and 26.28 respectively. The obtained f-ratio of 106.88 which is higher than the table value 3.23 with df 2 and 41 required for significance. The result of the study indicates that there are significant mean differences on Achievement motivation among the adjusted post test means of Without Music Group, Music Group and control groups at 0.05 level. Hence it is clear that the training package significantly improved the Achievement motivation of the subjects.

Since significant improvements were recorded among the adjusted post test means, the results were further subjected to post hoc analysis using Scheffe's confidence interval test to find out which of the three paired means had a significant difference. The results were presented in Table XXXII

TABLE XXXII

SCHEFFE'S POST HOC TEST ON ACHIEVEMENT MOTIVATION

Adjusted post test mean				
WOMG	**MG**	**CG**	**Mean difference**	**Confidence interval**
32.88		26.28	6.60*	1.60
32.88	35.17		2.29*	
	35.17	26.28	8.89*	

WOMG-Without Music Group, **MG**- Music Group, and **CG**-Control Group

*significant at .05 level

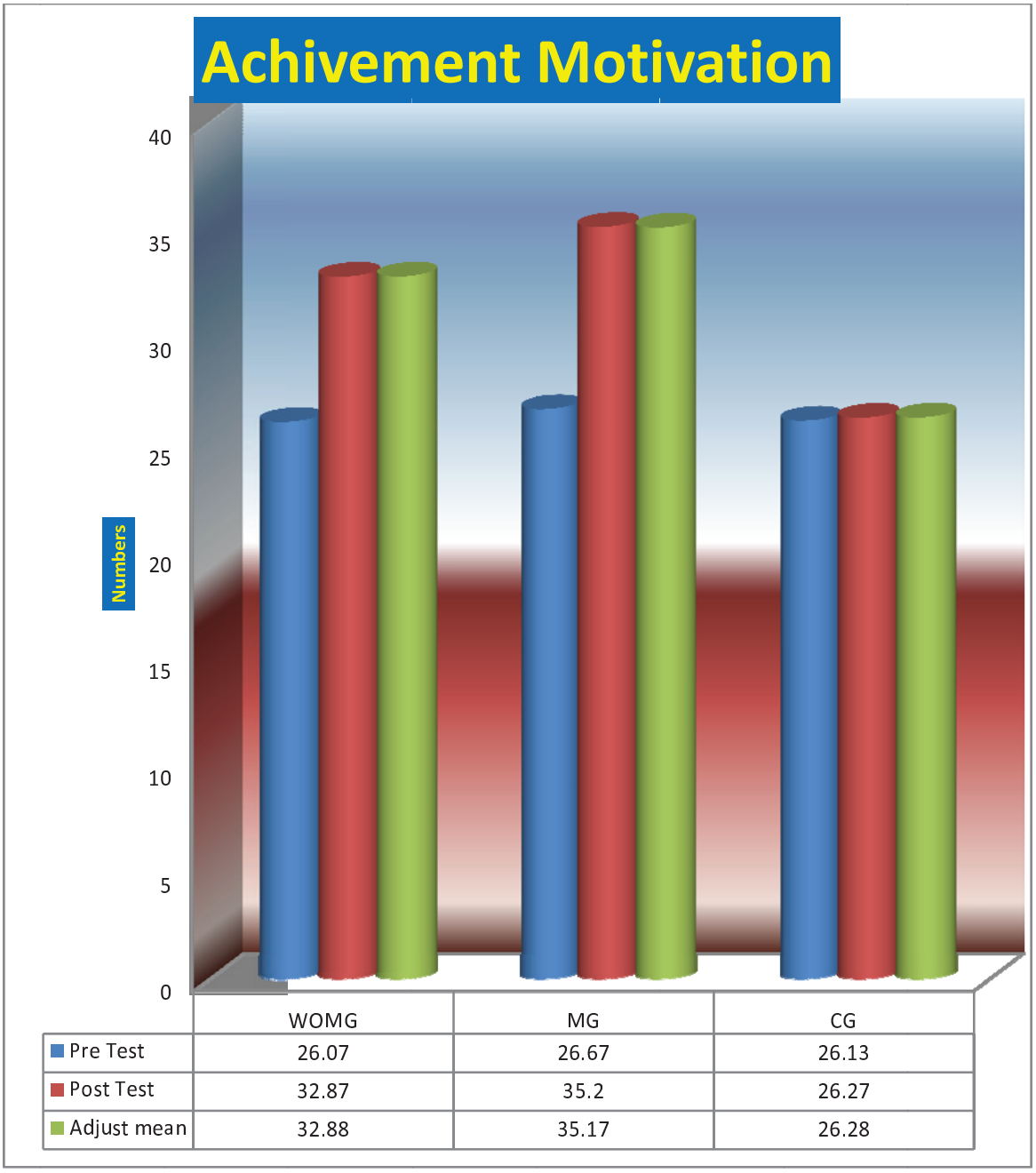
Table XXXII shows that the adjusted post test mean differences in Achievement motivation between Without Music Group and Control is 6.60 which are greater than the

confidence interval value of 1.60 which is statistically significant at 0.05 level of confidence. Therefore it is proved that there is significant difference found in Achievement motivation between Without Music Group and control group.

Table XXXII shows that the adjusted post test mean differences in Achievement motivation between Without Music Group and Music Group is 2.29 which are greater than the confidence interval value of 1.60 which is statistically significant at 0.05 level of confidence. Therefore it is proved that there is significant difference found in Achievement motivation between Without Music Group and Music Group.

Table XXXII shows that the adjusted post test mean differences in Achievement motivation between Music Group and Control group is 8.89 which are greater than the confidence interval value of 1.60 which is statistically significant at 0.05 level of confidence. Therefore it is proved that there is significant difference found in Achievement motivation between Music Group and Control group

The ordered pre-test, post-test and adjusted post test mean values of experimental and control groups on Achievement motivation are graphically illustrated through bar diagram for better understanding in Figure IX.



	WOMG	MG	CG
Pre Test	26.07	26.67	26.13
Post Test	32.87	35.2	26.27
Adjust mean	32.88	35.17	26.28

FIGURE: IX MEAN VALUES AND ADJUSTED POST MEAN VALUES OF ACHIEVEMENT MOTIVATION WITHOUT MUSIC GROUP, MUSIC GROUP AND CONTROL GROUP

4.3.9.1 DISCUSSION ON THE FINDINGS OF ACHIEVEMENT MOTIVATION

The result of the study on diastolic blood pressure indicates that all the experimental groups namely Without Music group (WOMG) and Music Group (MG) brought about significant improvement after the training. The analysis of the data indicates that there was significant difference on diastolic blood pressure Without Music group (WOMG) and Music Group (MG) Based on the mean value, the Music group (MG) was found to be better in reducing on diastolic blood pressure than the Without Music group (WOMG). Systematic training improves the diastolic blood pressure. The result of this study on Achievement Motivation has in line with the study conducted by **Loizou and Karageorghis (2014)**

4.4 DISCUSSION ON HYPOTHESES

It was hypothesized that there would be significant improvement on physiological variables namely heart rate, breathe rate, sweat rate, body mass index and blood pressure due to the effect of with and without music among obese students. The result of the study indicated that the both training programme improved the physiological significantly by undergoing respective training programme for twelve weeks. At the end of the training period, without music group (WOMG) as well as the music group (MG) showed significant improvement in physiological and psychological variables when compared to the control group (CG). Hence Null Hypothesis accepted at 0.05 levels confidence.

It was hypothesized that there would be significant improvement on psychological variables namely self-concept, stress and achievement motivation due to the effect of with and without music among obese students. The result of the study indicated that the both training programme improved the physiological significantly by undergoing respective training programme for twelve weeks. At the end of the training period,

without music group (WOMG) as well as the music group (MG) showed significant improvement in physiological and psychological variables when compared to the control group (CG). Hence Null Hypothesis accepted at 0.05 levels confidence.

It was hypothesized that there would be significant improvement between two experimental groups and control group due to the effect of with and without music among obese students. The result of the study indicated that the both training programme showed improvement between two experimental groups and control group at the end of the training period, without music group (WOMG) as well as the music group (MG) showed significant improvement in physiological and psychological variables when compared to the control group (CG). Hence Null Hypothesis accepted at 0.05 levels confidence.