



EFFECT OF AEROBICS ON ENDURANCE PARAMETERS AMONG COLLEGE WOMEN STUDENTS

Dr. M. Madan Mohan

Associate Professor, Department of Physical Education, A.V.V.M. Sri Pushpam
 College, Poondi, Thanjavur, Tamilnadu

Cite This Article: Dr. M. Madan Mohan, "Effect of Aerobics on Endurance Parameters among College Women Students", International Journal of Multidisciplinary Research and Modern Education, Volume 8, Issue 2, Page Number 52-54, 2022.

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Abstract:

In this context, the investigator made an attempt to investigate the effect of aerobics on endurance parameters among college women students. To achieve the purpose of the study, thirty women were randomly selected as subjects from A.V.V.M. Sri Pushpam College, Poondi, Thanjavur. The age of the subjects were ranged from 18 to 21 years. The subjects selected for this study were divided into two groups of fifteen subjects each. The experimental group I underwent aerobics and group II acted as a control group. The subjects were exposed to a aerobics programme for six weeks. The training programmes were organized in a progressive manner. The obtained data from the experimental and control groups initial and final readings were statistically analyzed with 't' test. The level of confidence which was fixed at 0.05 levels was considered as an appropriate one for this study. It was observed that the six weeks of aerobics have significantly improved the endurance parameters.

Key Words: Aerobics, Endurance Parameters

Introduction:

"Aerobics" are a particular form of aerobic exercise. Aerobics classes generally involve rapid stepping patterns, performed to music with cues provided by an instructor. This type of aerobic activity became quite popular in the United States after the 1970 publication of *The New Aerobics* by Dr. Kenneth H. Cooper, and went through a brief period of intense popularity in the 1980s, when many celebrities (such as Jane Fonda and Richard Simmons) produced videos or created television shows promoting this type of aerobic exercise. Group exercise aerobics can be divided into two major types: Freestyle Aerobics and Pre-choreographed aerobics. Aerobics system of endurance exercises that promote cardiovascular fitness by producing and sustaining an elevated heart rate for a prolonged period of time, thereby pumping an increased amount of oxygen-rich blood to the muscles being used (Ozhan 2016).

Methodology:

In this context, the investigator made an attempt to investigate the effect of aerobics on endurance parameters among college women students. To achieve the purpose of the study, thirty women were randomly selected as subjects from A.V.V.M. Sri Pushpam College, Poondi, Thanjavur. The age of the subjects were ranged from 18 to 21 years. The subjects selected for this study were divided into two groups of fifteen subjects each. The experimental group I underwent aerobics and group II acted as a control group. The subjects were exposed to a aerobics programme for six weeks. The training programmes were organized in a progressive manner. The obtained data from the experimental and control groups initial and final readings were statistically analyzed with 't' test. The level of confidence which was fixed at 0.05 levels was considered as an appropriate one for this study.

Results:

Table 1: Computation of 't' Ratio of the Cardio Respiratory Endurance

S.No	Name of the Test	Mean	Standard Deviation	Mean Difference	σDM	't' value
1	Pre-test	8.23	0.24	0.69	0.3	4.25*
2	Post-test	7.54	0.53			

Required Table values for 14 degrees of freedom 2.14 at 0.05 level

It is observed from the table I that there is significant difference on cardio respiratory endurance. It is seen that the mean of the pre-test 8.23 and post-test 7.54 the standard deviation of the pre-test 0.24 and post-test 0.53, obtained 't' ratio is 4.25. The table value of 't' ratio is 2.14 the obtained 't' ratio is greater than the table value hence the obtained 't' ratio is significant at 0.05 level confidence.

Table 2: Computation of 't' Ratio of the Cardio Respiratory Endurance of Control Group

S.No	Name of the Test	Mean	Standard Deviation	Mean Difference	σDM	't' value
1	Pre-test	8.11	1.01	0.09	0.99	1.44
2	Post-test	8.02	1.05			

Required Table values for 14 degrees of freedom 2.14 at 0.05 level

It is observed from the table II that there is no significant difference on cardio respiratory endurance. It is seen that the mean of the pre-test 8.11 and post-test 8.02 the standard deviation of the pre-test 1.01 and post-test 1.05, obtained 't' ratio is 1.44. The table value of 't' ratio is 2.14 the obtained 't' ratio is less than the table value hence the obtained 't' ratio is no significant at 0.05 level confidence.

Figure 1: Bar Diagram Showing the Mean Difference of Pre-Test and Post Test of Experimental and Control Group in Cardio Respiratory Endurance

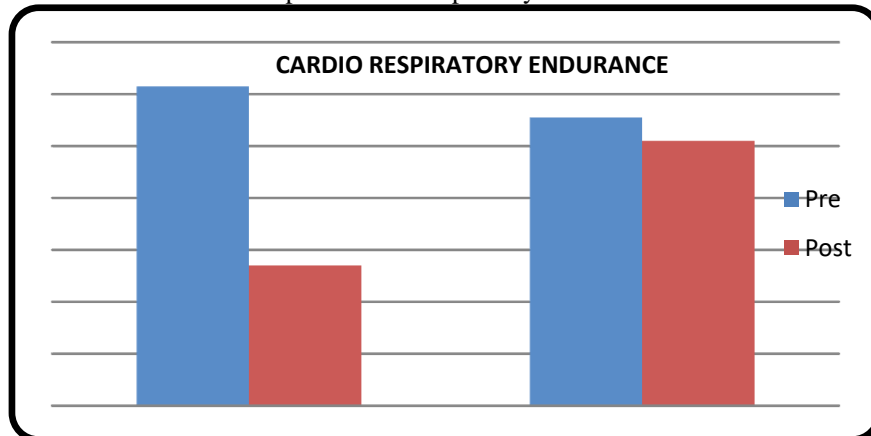


Table 3: Computation of 't' Ratio of the Abdominal Muscular Endurance Experimental Group

S.No	Name of the Test	Mean	Standard Deviation	Mean Difference	σ_{DM}	't' value
1	Pre-test	25.33	0.81	4.20	1.71	2.41*
2	Post-test	29.53	1.51			

Required Table values for 14 degrees of freedom 2.14 at 0.05 level

It is observed from the table III that there is significant difference on flexibility. It is seen that the mean of the pre-test 25.33 and post-test 29.53 the standard deviation of the pre-test 0.81 and post-test 1.51 obtained 't' ratio is 2.41. The table value of 't' ratio is 2.14 the obtained 't' ratio is greater than the table value hence the obtained 't' ratio is significant at 0.05 level confidence.

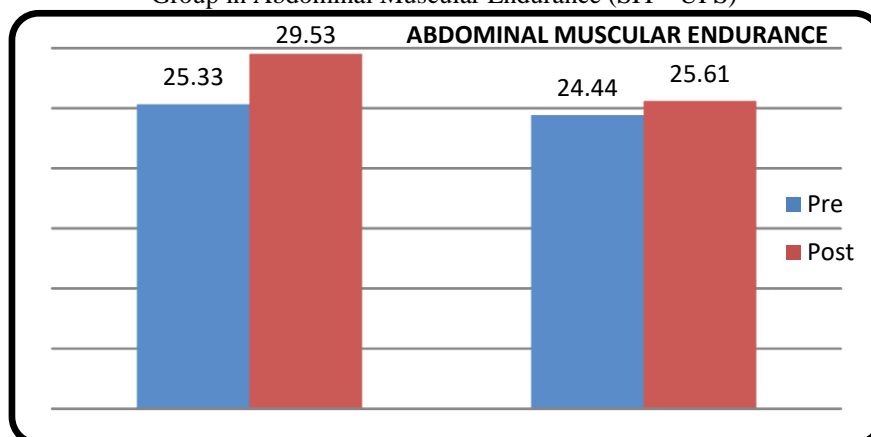
Table 4: Computation of 't' Ratio of the Abdominal Muscular Endurance Control Group

S.No	Name of the Test	Mean	Standard Deviation	Mean Difference	σ_{DM}	't' value
1	Pre-test	24.44	1.25	1.17	1.5	1.09
2	Post-test	25.61	1.72			

Required Table values for 14 degrees of freedom 2.14 at 0.05 level

It is observed from the table IV that there is no significant difference on flexibility. It is seen that the mean of the pre-test 22.44 and post-test 25.61 the standard deviation of the pre-test 1.25 and post-test 1.72 obtained 't' ratio is 1.09. The table value of 't' ratio is 2.14 the obtained 't' ratio is less than the table value hence the obtained 't' ratio is no significant at 0.05 level confidence.

Figure 2: Bar Diagram Showing the Mean Difference of Pre-Test and Post Test of Experimental and Control Group in Abdominal Muscular Endurance (SIT - UPS)



Conclusion:

It was observed that the six weeks of aerobics have significantly improved the endurance parameters.

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