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Effect of Aerobic Exercise on Endurance and Agility of College Level Girls of S.R.T.M University**Mr. Bhosale Vithal Ramkishanrao**Research Scholar,
Srtm University Nanded.**Background of study:-**

Aerobic means exercise with oxygen. It comprises all activities that cause the heart and process oxygen at a steady rate over a sustained period of time. It involves exercising large muscle groups for a continuous period and is the most effective way of increasing calories loss. Oxygen consumption is directly related to the amount of energy being expended, hence the more aerobic the activity, the more calories that will be burned. It is simple exercise that makes the muscles work hard, but not too hard that the heart and lungs cannot keep up with the oxygen demand. For this reason, aerobic exercise must be performed continuously and steadily, allowing for an increased heart to be sustained for an extended period.

Brisk walking, swimming, jogging, running, cycling, rowing and aerobic done are prime aerobic form of exercise. Aerobic exercise need not be heard and tough exercise; in fact it is not advisable to push yourself too hard, although you do need to make some physical effort to derive any benefit. Aim to build up the level of activity gradually. Once you start to become aerobically fit, you will find your exercise sessions less tiring and your normal day far less exhausting in general you should aim for between 20 and 60 minutes on three to five days of the week for optimum fitness. This should be done at between 60% and 90% of you normal maximum heart rate.

Objective of the Study:-

- The main purpose of this study was to measure by Pulse count and Shuttle Run of college level girls.
- To prepare aerobic exercises program for college level girls of S.R.T.M.U, Girls Hostel.
- To measure Pulse count and Shuttle Run after training program of four week.
- To compare pre-test and post-test of Pulse Count and Shuttle Run of college girls of S.R.T.M.U, Girls Hostel.

Purpose of the Study:-

The main purpose of the study is to find out the effect of aerobic exercise on endurance and agility of college level girls of S.R.T.M University.

Sources of Data:-

For the present study 30 Students from Swami RamanandTeerthMarathwada University, Nanded were source from different faculties of data.

Selection of Subjects:-

For the present study 30 students (Girls) were selected by using sample random sampling method from Swami RamanandTeerthMarathwada University, Nanded (Maharashtra) and their age group 18-26 years.

Selection of Tests:-

The data for the study were collection by administration of Harvard Step Test and Shuttle run.

Tools of the study: -

- 1) Endurance measure through pulse-rate. A stop watch, 18-inch high bench, metronome or tape-recorder (Optional), Stethoscope (Optional).
- 2) The Agility of students measure two blocks of wood, five centimetres by ten centimetres and a stop watch, track, lime powder etc.....

Training Programme:-

Training program was of 4 weeks. In each week 4 days training where given to the group and Sunday was given total rest. For warming up exercise to be taken are:jogging 5 minutes, Spot jumping-2sets of 15counts, for cooling down exercise to be taken are, slow stretching exercise of whole body, deep breathing for 2 minute30 seconds rest after each repetition.

Collection of Data:-

For data collection two tests was conducted as given below, administration of the test:Pre-test&Post-test: After four weeks training programmed final test was conducted for the result collected pre-test and post-test data was further put for analysis.

Table No. – 1.Indicates the Mean Scores and Standard Deviations of Morphological Characteristics of Girls students.

Sr. No.	Components	Means Scores	Standard Deviations
1.	Age (Year)	21.5	0.82
2.	Weight (Kg)	44.93	7.06
3.	Height (cm)	1.53	0.05

Table -1 indicate the morphological characteristics of Commerce and management students Subject, the age mean score was 21.5 and Standard Deviation was

(0.82) , same way mean score of weight was 44.93, Standard Deviation was (7.06) , and Height mean score was 1.53, Standard Deviation was (0.05) .

Table No. – 2.Description of Mean, Standard Deviation, SE and t-ratio of Endurance between Pre and Post Test of Girls students.

Test	Mean	SD	No of students	SE	t-ratio
Pre-Test	72.20	5.03	30	0.73	7.08*
Post-Test	67.03	4.68			

*Significant at 0.05 level.

Tabulated t 0.05 (28) = 1.701

Table No. 2 reveal that, the mean of Pre-Test of Endurance is 72.20 and after training program the mean value of post-test is 67.03 and the difference of the mean is 5.17. The standard deviation of pre test 5.03 and the post test is 4.68, here the standard error is found to be 0.73. After statistical analysis 't-ratio' is found to be 7.08, which is greater than tabular value t 0.05(28) = 1.701.

Table No. – 3.Description of Mean, Standard Deviation, SE and t-ratio of Agility between Pre and Post Test of Girls student.

Test	Mean	SD	No of students	SE	t- ratio
Pre-Test	12.96	1.08	30	0.24	4.12*
Post-Test	11.97	0.83			

*Significant at 0.05 level

Tabulated-t 0.05 (28) = 1.701

Table No.3 reveal that, the mean of Pre-Test of Agility is 12.96 and after training program the mean value of post-test is 11.97 and the difference of the mean is 0.99. The standard deviation of pre-test 1.08 and the post test is 0.83, here the standard error is found to be 0.24. After statistical analysis t-ratio is found to be 4.12, which is greater than tabular value t 0.05(28)= 1.701.

Discussion Of Findings:-

It has been observed from the analysis of data that there was significant difference on Endurance and Agility between the pre and post-test, hence such results occurred in the study. The finding also revealed that there was significant difference in Pulse count between the pre and post-test. It was hypothesized that would be significant effect of Aerobic Training on selected Physical Fitness Component. The effect of training shows the significant effect on Endurance and Agility.

Conclusion:-

After 4-week training the results were statistically analysed and conclusion was the study revealed that Aerobic Training have a considerable effect on Endurance and Agility of College girls after 4-week Training program.

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