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**EFFECT OF CIRCUIT TRAINING ON RESTING PULSE RATE AND BREATH HOLD CAPACITY AMONG COLLEGE STUDENTS**<sup>p.p:82-85</sup>



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**ABSTRACT**

The purpose of the study was to know the effect of circuit training on resting pulse rate and breath hold capacity among college students. To achieve the purpose of the study, thirty (N = 40) female students aged ranged from 17 to 26 years studying in Pratapgarh college were randomly selected as subjects. They were equally divided into two groups of 20 subjects each. Group I (n=20) underwent aerobic circuit training for three session per week for eight weeks. Group II (n=20) acted as control group which did not participate in any special training programme. The data were collected prior to and immediately after the training programme on resting pulse rate and breath holding time. The ANCOVA was used as statistical tool. The result of the study reveals that due to the impact of eight weeks of aerobic circuit training the resting pulse rate and breath holding time of the college students have significantly altered.

**Keywords:** Aerobic circuit training, resting pulse rate & breath holds time.

**INTRODUCTION**

Aerobic exercise that intends to improve the oxygen system aerobic mean with oxygen aerobic exercise (also known as) is physical exercise of relatively low intensity that depends primarily on the aerobic energy generation process. Aerobic literally means living in air, and refer to the use of oxygen to adequately meet energy demands during exercise via aerobic metabolism. Generally, light to moderate intensity activities that are sufficiently supported by aerobic metabolism can be performed for extended period of time. The intensities should be between 60 and 85% maximum heart rate (en.wikipedia.org.).

**DESIGN OF THE STUDY**

The purpose of the study was to know the effect of circuit training on resting pulse rate and breath hold capacity among college students. To achieve the purpose of the study, thirty (N=40) female students aged ranged from 17 to 26 years studying in Pratapgarh college were randomly selected as subjects. They were equally divided into



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**Training Protocol:**


Exercise were dose over a period of twelve weeks week, at three sessions in a week with 60 min for each session in the presence of an experience trainer. In the first place for about 5 min warm-up and stretch was performed, then the rapid movements of the limbs and trunk in a combined manner were done for 50 minutes and at the final 5 min, light stretching was done go back to the original state. Once a week and also to increased the intensity. The control group II did not participate any activity.

**RESULTS**

From the table the mean values are clearly stated twelve weeks of aerobic circuit training decrease the resting pulse rate and improves breath hold time for experimental group than control group. Hence it was concluded that, aerobic circuit training decrease resting pulse rate and improves breath hold time of students.


**Table 1. Results of ANCOVA for resting pulse rate, breath hold time**

Variables	Test	Aerobic circuit training	Control group	Sources of Variances	Sum of Squares	df	Mean Square	Obtained 'F' Ratio
Resting pulse rate	Pre-Test Mean	74.6	73.3	Between	12.03	1	12.03	2.32
	S.D	2.32	2.32	Within	150.93	28	5.39	
	Post-Test Mean	70.13	72.27	Between	34.13	1	34.13	5.41
	S.D	2.20	2.79	Within	176.67	28	6.31	
	Adjusted	69.64	72.76	Between	67.58	1	67.58	21.40*




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	post test mean			Within	85.25	27	3.16	
	Pre-Test Mean	57.69	57.01	Within	3.37	1	3.37	0.21
	S.D	4.29	3.67	Between	446.28	28	15.94	
Breath hold time	Post-Test Mean	60.16	57.27	Within	62.70	1	62.70	4.37
	S.D	3.82	3.75	Between	402.01	28	14.36	
	Adjusted post test mean	59.87	57.57	Within	39.35	1	39.35	19.64*
				Between	54.10	27	2.00	

\*P>0.05, TV: df 1and 27=4.20


## DISCUSSION

The result of the study reveals that there was a significant reduction of resting pulse rate and improvement of breath hold time due to twelve weeks aerobic circuit training result of the present study was in conformity with the finds of Adenrian and Toriola (1988); Brar (1986); Michel *et al.* (1960) and Madamohan *et al.* (1992).


Basal metabolic rate (BMR) is the number of calories used by the body when it is at rest. Along with, burning more calories aerobic training increase the basal metabolic rate and the basal metabolic rate can remain increased after 30 minutes of moderate physical activity. For aerobic training more blood must be supplied to the working tissue. The aerobic training programme helps the person to achieve better oxygen, carbon-di-oxide exchange-resulting in better oxygen utilization, slower rate of breathing.

## CONCLUSION


The result of the study reveals that due to the impact of twelve weeks of aerobic circuit training the resting pulse rate and breath holding time of the college students have significantly altered.




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