2025 Volume: 01 Issue: 06 www.ijrpa.com Review Article

International Journal Research Publication Analysis

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EFFECT OF AEROBIC TRAINING ON ARM POWER AND AGILITY AMONG COLLEGE-LEVEL WOMEN PLAYERS

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Article Received: 10 September 2025
Article Revised: 30 September 2025
Published on: 20 October 2025

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ABSTRACT

The purpose of the study was to investigate the effect of aerobic training on arm power and agility among college level Women players. It was hypothesized that there would be significant differences on selected physical variables due to effect of aerobic training among college level Women players. For the present study the 30 college level Women players from Arul Anandar college were selected at random and their age ranged from 17 to 21 years. For the present study pre test and post test random group design, which consists of control group and experimental group was used. The subjects were randomly assigned to two groups of fifteen each and named as Group 'A' and Group 'B'. Group 'A' underwent aerobic training, and Group 'B' underwent control group. Arm power was assessed by counts and Agility was assessed by seconds. The data were collected before and after six weeks of training. The data were analyzed by applying 't'-ratio. The level of significance was set at 0.05. The experimental group showed better improvement on arm power and agility among college level Women players than the control group.

KEYWORDS: Aerobic training, Arm power, Agility.

AEROBIC TRAINING

Aerobic means with oxygen and refers to the use of oxygen in the body's metabolic system or energy generating process. An aerobic exercise refers to exercise that involves or improves oxygen consumption by the body. Many types of exercise are aerobic, and by definition are performed at moderate levels of intensity for extended periods of time. To obtain the best results, an aerobic exercise session involves a warming up period, followed by at least 20

minutes of moderate to intense exercise involving large muscle groups, and a cooling down period at the end. Aerobic capacity describes the functional capacity of the cardio respiratory system which includes heart, lungs and blood vessels. Aerobic capacity is defined as the maximum amount of oxygen the body can use during a specified period, usually during intense exercise. It is a function both of cardio respiratory performance and the maximum ability to remove and utilize oxygen from circulating blood.

METHODOLOGY

The purpose of the study was to investigate the effect of aerobic training on arm power and agility among college level Women players. It was hypothesized that there would be significant differences on selected physical variables due to effect of aerobic training among college level Women players. For the present study the 30 college level Women players from Arul Anandar College were selected at random and their age ranged from 17 to 21 years. For the present study pre test and post test random group design, which consists of control group and experimental group was used. The subjects were randomly assigned to two groups of fifteen each and named as Group 'A' and Group 'B'. Group 'A' underwent aerobic training, and Group 'B' underwent control group. Arm power was assessed by counts and Agility was assessed by seconds. The data were collected before and after six weeks of training. The data were analyzed by applying 't'-ratio. The level of significance was set at 0.05. The experimental group showed better improvement on arm power and agility among collegelevel Women players than the control group.

Table 1: Analysis of T-ratio for the Pre and Post-test for Control and Experimental Group on Arm Power.

Variables	Group	Mean		SD		SD Error	df	't' ratio
		Pre	Post	Pre	Post			
Arm power	Control	14.47	14.33	2.03	1.95	0.50	14	1.47
	Experimental	14.13	17.93	1.78	2.43	0.63		**15.64***

Significance at 0.05 level of confidence

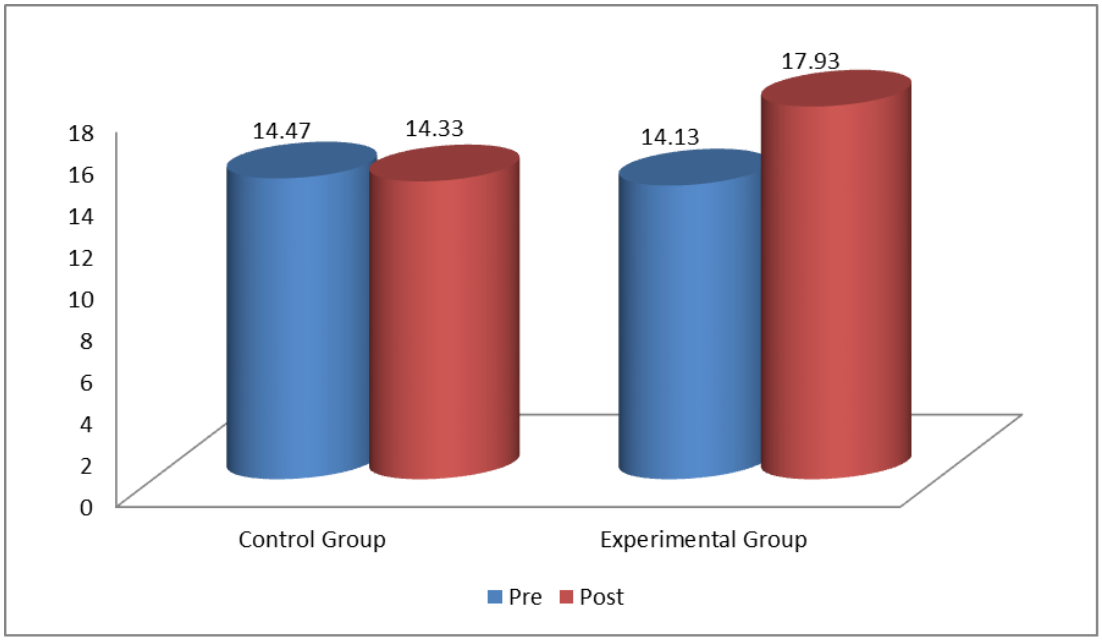

Fig. 1: Cylinder Diagram Shows the Mean Values of Pre and Post Tests of Control and Experimental group on Arm Power.

Table 2: Analysis of T-ratio for the Pre and Post-test for Control and Experimental Group on Agility.

Variables	Group	Mean		SD		SD Error	df	't' ratio
		Pre	Post	Pre	Post			
Agility	Control	14.30	14.94	1.52	1.34	0.35	14	1.46
	Experimental	15.89	13.60	1.78	2.43	0.41		**3.68***

Significance at 0.05 level of confidence

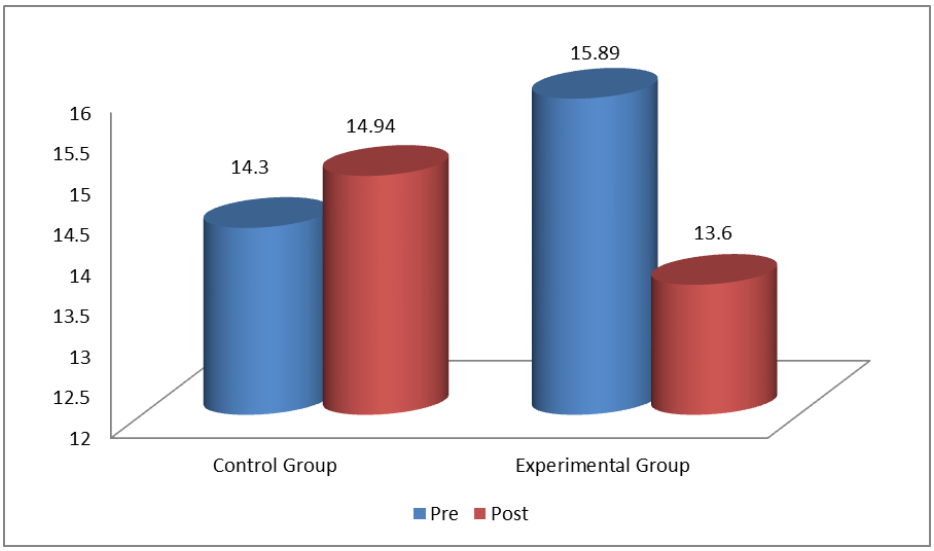

Fig. 2: Cylinder Diagram Shows the Mean Values of Pre and Post Tests of Control and Experimental group on Agility.

DISCUSSION AND FINDINGS

In case of aerobic training performance i.e. arm power and agility performance the results between pre and post (6 week) test has been found significantly higher in aerobic training group in comparison to control group. This is possible because due to regular aerobic training which may also bring sudden spurt in physical performance in collegelevel Women players. The findings of the present study have strongly indicates that aerobic training of six weeks have significant effect on selected aerobic training i.e., armpower and agilityof collegelevel Women players. Hence the hypothesis earlier set that aerobic training programme would have been significant effect on selected aerobic training components in light of the same, the hypothesis was accepted.

CONCLUSIONS

On the basis of findings and within the limitations of the study the following conclusions were drawn:

1. The aerobic training had positive impact on armpower and agilityamong college level Women players.
2. The experimental group showed better improvement armpower and agilityamong college level Women players than the control group.

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