Academic Sports Scholar ISSN : 2277-3665 Impact Factor : 2.1052(UIF)
Volume-4 | Issue-4 | April-2015 Available online at www.lsrj.in

COMPARISON OF AEROBIC, ANAEROBIC OF DEFENDERS AND ATTACKERS IN FEMALE SOCCER PLAYER

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Short Profile

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ABSTRACT:
Football is a wonderful game, a sport which knows no boundaries of race, age, wealth, sex or religion. Football is a sport, which reaches everyone, all over the world. People of young, old play it, watch it and read about it. People often forget that for all its drama and beauty. Football is a simple skill built on a set of individual skill allied to work together as a team.

Professionalism starts the inspiration not only in players but also the team official. The coaches also came to the limelight, according to their ability to coordinate the team for victory. Mostly the team management starts preferring the coach, who has the scientific knowledge of human body, as well as human behavior.

KEYWORDS
Aerobic, Anaerobic , Football, Professionalism.

INTRODUCTION:

This provide a great change in the result of matches and the standard of the game also become remarkable. Some of the researchers have started to work about player's fitness components especially aerobic capacity and anaerobic capacity. Other area of sports science i.e., Anthropometrics (Kinenthropometry) also actively share its contribution now a days. The area includes, body composition, body proportion and our body type. Among these body composition attracts more attention from the scientists, because they find out a muscular sportsman having a remarkable advantage over fatty persons.

Statement of the problem

The purpose of this study was to find out the Aerobic, Anaerobic and Body composition difference between defenders and attackers female soccer.

Delimitations

The study was delimited to female football players of Jhansi of 15 to 22 years of age. Five defenders and 05 attackers were selected.

Definition and Explanation of the Terms

Aerobic Capacity

Any Physical activity in which metabolic demands can be met by the Oxygen system i.e.; Oxygen supplied by respiration during activity provides sufficient energy for executing the activity.

Anaerobic Capacity

The activity, which exceeds the ability of Oxygen transport system to supply energy. Energy liberation by breakdown of substances not involving composition of Oxygen is necessary for the completion of the activity.

Vo2 max (Maximum Oxygen consumption)

The maximum rate at which the oxygen can be consumed per minute; the power or capacity of aerobic or oxygen system.

SELECTION OF SUBJECTS

All the subjects had soccer as their match practice and their age ranged between 17 to 22years.

CRITERION MEASURES

The following variables were selected for testing the hypothesis:-

1. Aerobic Capacity: It was measured by means of Cooper's 12 minute run/walk test and the scores were recorded in meters.
2. Anaerobic Capacity: It was measured by using 50 meters dash. It was recorded in 1/100th of a second.

COLLECTION OF DATA

The data were collected by administering the specific tests and by taking specific measurements on different days. Test pertaining to Body composition were conducted in the Research laboratory and hostels. Test for Aerobic capacity & Anaerobic capacity were conducted in the university track. The raw data pertaining to tests are given in appendices. Time for taking test was from morning 6AM to 8AM.

TABLE NO : 1
RELIABILITY COEFFICIENT OF TEST-RETEST METHOD

S.NO	ITEMS	Coefficient of correlation
1	Aerobic Ability (12 min run/walk)	0.823
2	Anaerobic Ability (50 meter)	0.906

ADMINISTRATION OF TEST

Aerobic Capacity

Purpose:

Cooper's 12-minute run/walk was used for measuring aerobic capacity of the subjects.

Equipment:

Stop watch, Steel tape, Lime, Score sheet and Whistle.

Procedure:

The UNIVERSITY track was used to conduct the test. The track was divided into 20 zones of 20 meters each and lines were marked. A stopwatch was used to operate the time. The subjects were asked to run for a period of 12 minutes continuously. At the end of 11 minute a long whistle was blown, so that the subjects could understand only one minute is left and could perform their best. At the end of the 12th minute the final whistle was blown and the subjects were asked to stop were they were. The research scholar measured distance from the nearest last Zonal line crossed by the athlete to the exact spot at where the player stopped. This distance was added to the total number of Laps and Zones ran by the subjects and entered into the score sheet.

Anaerobic Capacity

Purpose:

50 meters dash was used for measuring the anaerobic capacity

Equipment:

Stop watch, clapper/starting gun, lime and score sheet.

Procedure:

The university track was used to conduct the test. A straight was chosen where the 50 meters distance was marked. The stopwatch was used to calculate the time. At a time, two subjects were tested on clapper voice. Time taken up to cover the finishing line. The time scored in seconds

STATISTICAL PROCEDURE

To compare the Aerobic capacity, Anaerobic capacity and Body composition of defenders and attackers in football 'T' test was used to test the hypothesis. The level of significance for the 'T' test was .05.

STATISTICAL ANALYSIS OF DATA AND RESULT OF THE STUDY

Table No. 1
COMPARISON OF AEROBIC ABILITY BETWEEN ATTACKERS AND DEFENDERS

Criterion Variables	Mean		T - Ratio
	Attackers	Defenders	
Aerobic Ability	3048 M	3028 M	.354

N = 10
Tab t = (.05)38 = 1.686

An examination of Table No.2 reveals that there is no significant difference in the Aerobic ability between Attackers and Defenders, as the cal: t was .354 which is less than Tab: t =1.686 at .05 level of significance.

TABLE NO: 2
COMPARISON OF ANEAEROBIC ABILITY BETWEEN ATTACKERS AND DEFENDERS

Criterion Variable	Mean		T - Ratio
	Attackers	Defenders	
Anaerobic Ability	6.5550 m/s	6.6800 m/s	1.522

N= 10
Tab: t = (.05)38 = 1.686

An examination of Table No:2 reveals that there is no significant difference in Anaerobic Ability between Attackers and Defenders as the cal: t was 1.522, which is less than Tab: t = 1.686 at .05 level of significance.

DISCUSSION OF FINDINGS

This study revealed that no significant difference exists in the Aerobic ability between Attackers and Defenders. This may be due to the similar pattern of training undergone by both the groups. The findings of the insignificant difference in Aerobic capacity were supported by the studies of Hunter, Sharma and Narayan Menon V.A.

CONCLUSION

On the basis of the findings of the study the following conclusions were drawn:

1.Attackers and Defenders have no significant difference in Aerobic ability.
2.Attackers and Defenders have no significant difference in Anaerobic ability

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