ORIGINAL RESEARCH PAPER

Physical Education

EFFECT OF AEROBIC TRAINING ON SELECTED PHYSIOLOGICAL VARIABLES AMONGST INTER COLLEGIATE LEVEL NETBALL PLAYERS

KEY WORDS:

Avijit Deb* SACT Reacher r, Krishnath College, Berhampore, Murshidabad. *Corresponding Author

Dr. Amit Banerjee Assistant Professor, Post Graduate Government institute for Physical Education, Banipur, India.

ABSTRACT

This study explored the result of aerobic training on selected physiological variables amongst inter collegiate level netball players. Thirty male netball players were selected as subjects. Tre age of the subjects ranged from 20 to 25 years. The selected subjects were haphazardly separated into two groups with fifteen subjects in each group (n=15). The groups were named experimental group and control group The experimental group underwent an aerobic training program for the duration of six weeks. The collected data was statistically analysed through using request paired 't' tests. The results of the present study have powerfully indicated that participation in six weeks of aerobic training program resulted in important differences on selected physiological variables.

OUTLINE

Aerobic Training

The word aerobic means oxygen to epitomize ideas. Even the dynamic forces of the idea are more complex than implied by the definition. Aerobic can be viewed as a difficult system of physical supply and demand. That is the body requires energy for any kind of activity and the need is occupied by boiling of the foods that it eats. Oxygen is the trigger the fuel is burned irrespective aerobic is the word in general use. The fact is that Cooper collated and organised what fitness means to many people. He is generally credited with being one of the main forces of the current fitness craze. The majority medical opinion is that aerobic programmes reinforce cardiac muscle, increase efficiency of lungs and offer other wonderful benefits.

Training with definite effect depends upon many factors such as training loads, means of recovery, valuation of load and presentation capacity, sports, equipment, nutrition, psychological characteristics and method accepted for imparting theoretical instruction. Physical education and sports are a thirsty area which needs many kinds of training means and methods to improve the overall performance of the sportsperson. To improve the sports performance the athlete needs to take part in methodical training by the scientific method of training. Actual effect of training depends upon numerous factors such as training loads means recovery, valuation of load and performance capacity, sports equipment, nutrition, psychological characteristics and method accepted for imparting theoretical instruction. Physical education and sports are a thirsty area which needs many kinds of training means and methods to progress the overall performance of the sportsperson. To improve the sports performance the athlete needs to take part in methodical training by the scientific method of training.

Benefits of Aerobic Training

The major benefits of aerobic exercises are stronger and more efficiently operating heart and lung. More energy physical flexibility, conditioned muscle, proper use of fats and effective burning of calories. The increased oxygen flow gained through aerobic re-energies by giving any one more energy and a "reawakening" of his senses.

1.Reduce your stamina, fitness and strength
2.Manage chronic conditions
3.Ward off viral illnesses.
4.Strength your heart.
5 boost your mood.
6.Manage chronic condition

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In other words, as the heart pumps more blood fewer beats the body system allowing the subject to take in more oxygen. When everything is operating smoothly, body can efficiently transport and utilize oxygen with no obstruction. The nucleus of this whole system is the heart. Each heart beat is responsible for propelling the oxygenated blood through the proper blood vessels aerobic training will produce and increased capacity for pumping larger volumes of blood to accommodate the need for extra energy and extra 02. Other than running aerobic dance, aerobic exercise also involves jumping, rope climbing, swimming, cross country, skiing, stationary cycling, walking etc. An aerobic exercise is any activity that can be sustained for at least 20 minutes at your target heart rate.

Statement Of The Problem

The purpose of the study was to find out "Effect of aerobic training on selected physiological variables Amongst on inter-collegiate level netball players from Murshidabad University".

Methodology

This study examined the effect of aerobic training on selected physiological variables Among inter collegiate level netball players. Thirty male netball players studying at University were selected as subjects and their age ranged from 20 to 25 years. The selected subjects were randomly divided into two groups with fifteen subjects in each group (n=15). The groups were named experimental group and control group. The experimental group underwent an aerobic training program for the duration of six weeks and the control group did not undergo any training. The subjects were tested on blood pressure by a sphygmomanometer and vital capacity by a wet spirometer. The subjects were tested on selected criterion variables directly after the six weeks of the training programme for post-tests data. The results of pre and post-test were statistically analysed by using submission paired 't' test.

RESULT AND STATISTICAL ANALYSIS

Table I: Difference In Mean Score Of Experimental And Control Group Of Systolic Blood Pressure (Score In Mm/Hg)

Group		No	Mean	S E	't' ratio
Experimental	Pre	15	117.13	0.5762	-0.091
	Post	15	117.20	0.5871	
Control	Pre	15	117.06	0.5206	0.491
	Post	15	116.66	0.6448	

*Significant at (0.05 level 't' Table value for 14 d *f* is 2.145)

The above table shows the mean score of experimental and the control group in Systolic Blood Pressure. In the case of

experimental and control groups there were no significant differences seen between the pre and post mean scores that are 117.13, 117.20 and 117.06, 116.66 respectively. The calculated 't' ratio of the experimental and control group were -0.091 and 0.491 is lesser than the required table value of 2.145 at 0.05 level of self-confidence. This indicates that the random selection of the subject is homogeneous with respect to their Systolic Blood Pressure.

Table II: Difference In Mean Score Of Experimental And Control Group Of Diastolic Blood Pressure (Score in Mm / Hg)

Group		No	Mean	S E	't' ratio
Experimental	Pre	15	80.46	0.3361	1.871
	Post	15	80.26	0.3304	
Control	Pre	15	79.80	0.3266	1.468
	Post	15	79.66	0.3473	

*Significant at (0.05 level 't' Table value for 14 d *f* is 2.145)

The table shows the mean score of experimental and the control group in Diastolic Blood Pressure. In the case of experimental and control group have no significant differences were seen between the pre and post mean scores that is 80.46, 80.26 and 79.80, 79.66 respectively the calculated 't' ratio of experimental and control group were 1.871 and 1.468 is lesser than the required table value of 2.145 at 0.05 level of confidence. This indicates that the random selection of the subject is homogeneous with respect to Diastolic Blood Pressure.

Table III: Difference In Mean Score Of Experimental And Control Group Of Vital Capacity (In Millilitre's)

Group		No	Mean	S E	't' ratio
Experimental	Pre	15	1772.66	57.22	6.985
	Post	15	2130.66	70.48	
Control	Pre	15	1831.33	52.83	1.051
	Post	15	1889.33	39.80	

Significant at (0.05 level 't' table value for 14 d *f* is 2.145)

The above table shows the mean score of experimental and the control group in Vital Capacity. In the case of the experimental group significant differences were seen between the pre and post mean scores that is 1772.66 and 2130.66 respectively the obtained 't' value was 6.985 which was greater than the table value is 2.145, significant at 0.05 level. There are no significant differences noticed between the pre and the post mean score in the case of control group.

DISCUSSION

The findings of the present study revealed that there was no significant change in blood pressure (systolic and diastolic blood pressure) after a six weeks aerobic training programme. It might be the cause why all the subjects are healthy and they have a normal range of blood pressure. Also due to aerobic training their fitness level enlarged so the results show insignificant as far as anxiety in systolic and diastolic blood pressure.

The result of the study showed significant in vital capacity. It shows the aerobic training programme improved the vital capacity of the subjects. The control group did not show any significant improvement on the vital capacity.

The findings concerning the variable of blood pressure are in contrast with the findings Cornelissen and Fugard (2005) and Cornelissen. V.A, et. al., (April 2006) (2003). and in the cast of vital capacity is agreement with the findings of Danglingly, et. al., (2009) and Chandler (1994).

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CONCLUSIONS

On the basis of present study following conclusion were drawn

1. Practice of a six weeks aerobic training programme increased the vital capacity.
2. The result shows that there was no significant improvement on blood pressure (systolic and diastolic blood pressure) after six weeks of aerobic training programmes.
3. There was no significant improvement on the selected variables for the control group.

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