



Influence of Aerobic Training and Skill Training on Resting Pulse Rate among Basketball Players

Dr. R. Ambethkumar¹ & Dr. M. Senthilkumar²

¹Director of Physical Education, Anbil Dharmalingam Agricultural College and Research Institute, Tiruchirappalli, Tamilnadu, India.

²Assistant Director of Physical Education, Agricultural College and Research Institute, Madurai, Tamilnadu, India.

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Abstract

The researcher investigated the influence of Aerobic training and skill training on resting pulse rate among basketball players. To achieve the purpose of the study, Sixty Basketball collegiate players were randomly selected from Tiruchirappalli city colleges, Tamil Nadu. Their ages ranged from eighteen to twenty three years. Selected subjects were randomly divided into three experimental groups and one control group of 15 basketball players each namely aerobic training (AET), skill training (SKT) and control training (CNT). Of the three experimental groups, AET (15) group was assigned aerobic training programs, the SKT (15) group was assigned skill training programs, the subjects of the control group were not allowed to participate in any of the training programs except in their routine activities. Subjects were informed to abstain from any additional specific training during the course of the study. 't' test was used. All of the statistical analysis tests were computed at 0.05 level of significance ($P < 0.05$). The analysis made on resting pulse rate indicates that there is no significant difference between the post – test mean scores of experimental and control groups.

Keywords: Aerobic Training, Skill Training, Resting Pulse Rate, Basketball.

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Introduction

Sports training are done for improving sports performance. The sports performance, as any other type of human performance, is not the product of one single system or aspect of human personality. In contrast, it is the product of the total personality of the sports personality. The personality of a person has several dimensions like physical, physiological, social and psychic. In order to improve sports performance, the social and psychic capacities of the sports person also have to be improved in addition to physical and physiological ones. In other words the total personality of a sports man has to be improved in order to improve his performance. Sports training, therefore, directly and indirectly aim at improving the personality of sports the man. No wonder, therefore, sports training is an educational (i.e., pedagogical) process. Sports' training is a systematic process extending over a long period. For best results the system of training has to be based and conducted on scientific lines. Where it is not possible to do that, the training has to be based on the results of successful practice which has withstood the test of time. Sports science has still not been able to provide a scientific base for all the aspects and elements of training. Many things are still based on the results of

successful practice which on deeper analysis is also a method science to prove or disprove a theory. Moreover, the principal characteristic of a science is the existence of a systematized body of knowledge. The science of sports training has its own systematized body of knowledge and hence is a science in itself (Hardayal Singh, 1996).

Aerobic Exercises

Aerobic refers to a variety of exercises that stimulate heart and lung activity for a time period sufficiently long and produce beneficial changes in the body. Aerobic basically means living or working with oxygen. Aerobic or endurance exercises are those in which large muscle groups are in rhythmic repetitive fashion prolonged periods of times.

Skill Training

The word "Training" occupies an indispensable part of human language since ancient time. It denotes the process of preparation for some task. This process invariably extends to a number of days and even months and years. The word "Training" is widely used in sports. There is, however, some disagreement among sports coaches and sports scientists regarding the exact meaning of this word. Some experts, especially belonging to sports medicine, understand sports training basically doing physical exercises. Several terms used in training, like strength training, interval training, technical and tactical training reflect this line of thinking.

Correspondence

Dr.M.Senthil Kumar

E.Mail: senthilagrpd@gmail.com

Statement of the Problem

The literature in the area of testing impact of aerobic training is not sufficient in Indian context. Hence, it is felt that scientific investigation in this area is of great importance to the physical education and coaches to reinforce their view and conviction in imparting training to the subjects. Hence, an attempt was made to investigate the influence of Aerobic training and skill training on resting pulse rate among basketball players.

Hypothesis

The following Hypothesis were drawn in connection with the training influence of Aerobic training, skill training and combined aerobic and skill training programmes, It was hypothesized that

1. There is no significant influence of Aerobic training on resting pulse rate among Basketball Players.
2. There is significant influence of skill training on resting pulse rate among Basketball Players.
3. There is significant influence of combined aerobic and skill training on resting pulse rate among Basketball Players.

Significant of the Study

A major objective for Physical Educators and coaches is to construct the most effective training programmes for sports persons. Fitness and health professionals are interested in the development of

Results

Table 1. *Selected Criterion Variable*

S.No.	Variable	Test Items	Unit of Measurement
1	Resting Pulse Rate	Manual	Beats per Minute

Table 2. *Summary of mean standard deviation and dependent ‘t’ test the pre post and adjusted post tests on resting pulse rate of experimental and control groups (Resting Pulse Rate scores are expressed in beats per minute)*

		Aerobic Training Group	Skill Training Group	Combined Training Group	Control Group
Pre Test	Mean	69.657	70.119	69.257	69.578
	SD	1.030	1.124	0.868	1.249
Post Test	Mean	70.316	69.846	69.828	69.916
	SD	1.241	1.016	0.981	1.070
Adjusted Post Test	Mean	70.314	69.840	69.833	69.917
‘t’ test		1.665	0.630	1.702	0.853

(significant at .05 level. The table value required for .05 level of significance with df15 is 1.761)

Conclusions

The analysis made on resting pulse rate indicates that there is no significant difference between the post – test mean scores of experimental and control groups.

lifetime exercise patterns among young and adults in our society. This concept relating to the development of fitness for health will help the coaches and physical educators to develop the physiological fitness potential for students and athletes. Through the findings of the study, physical education teachers and coaches would come to know the importance of Aerobic training and skill training in various games.

Methodology

To achieve the purpose of the study, Sixty Basketball collegiate players were randomly selected from Tiruchirappalli city colleges, Tamil Nadu. Their ages ranged from eighteen to twenty three years. Selected subjects were randomly divided in to three experimental groups and one control group of 15 basketball players each namely aerobic training (AET), skill training (SKT) and control training (CNT). Of the three experimental groups, AET (15) group was assigned aerobic training programs, the SKT (15) group was assigned skill training programs, the subjects of the control group were not allowed to participate in any of the training programs except in their routine activities. Subjects were informed to abstain from any additional specific training during the course of the study.

Statistical Technique

‘t’ test was used. All of the statistical analysis tests were computed at 0.05 level of significance ($P < 0.05$).

Recommendations

1. A similar study may be conducted on players on national level Basketball team to assess speed, agility, cardio respiratory endurance, respiratory rate and skill performance (shooting, passing and dribbling).

2. A similar study may be conducted among women Basketball players.
3. A similar study may be conducted on Basketball players as it is also a speed and endurance dominated games.
4. A similar study may be conducted on players of various games.
5. Comparative effects may be studied on assess the efficiency of various methods like aerobic training, interval running, polymeric and combination of training on the development of aerobic, skill and combined related variables.

6. A similar study may be conducted in greater details to assess change on physiological and bio motor variables.

Reference

1. Dr. Kenneth Cooper's "The Aerobics Programme for total well-being" The Cooper's Aerobic Center, 1988.
2. Singh, Hardayal. "Sports Training General Theory and Methods" Patiala: NetajiSubas National Institute of Sports, 1984.