

Effect of Training Methods on Physical Fitness Variables among Tribal And Non-Tribal Volleyball College Students of Khammam District in Telangana State

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Abstract

Physical fitness analysis of training methods in this programme. Training methods are particularly study on comparison physical fitness between circuit training methods and fartlek training method.

Circuit training is an excellent means to improve endurance, speed and strength. Circuit training involves six to twelve exercise stations with exercises for various muscle groups of the abdomen, back, legs, and arms arranged in a circle. Circuit training is based on the principle of easy to severe, simple to complicated and general to specific exercises. In addition to endurance, speed and strength, circuit training can also help develop resistance power with the help of a partner. Circuit training is a type of exercise also known as interval training. It combines resistance exercise with aerobic exercise that is performed in intervals. Circuit training gyms have stations set up in an alternating fashion from a resistance machine to a jogging platform or bike for cardio exercise. This type of exercise can be done outside of a circuit training gym by simply alternating between resistance and cardiovascular exercise.

Fartlek training method is challenging workout that pushes runners outside their comfort zone fartlek combines a mix of warm-up pace, speed work, sprinting and cool downin to a constant interval session designed to increase your heart rate.

Fartlek training improves speed and muscular endurance. It supported aerobic and anaerobic fitness. It involves alternating between periods of hard exercise and rest.

Physical fitness is a multifaceted continuum extending from birth to death, affected by physical activity; it ranges from optimal activities in all aspects of life through high and low levels of different physical fitness to serve disease and dysfunction. A fit nation can be economically progressive if the citizens have sufficient capacity to work efficiently and gain in productivity. So, health must be regarded as a normal and primary need of the community. It is a primary factor it helps the growth and development of the body. An optimum growth is important for efficient existence in a biologically adverse and economically competitive world. Health is a basic need for the development of physical skills, agility, strength and endurance necessary to execute the daily routine work. Health is required to plan a daily programme of healthful physical activities, so that people develop vitality and skills for an efficient and economic adult life.

It is through health education that people can gain the knowledge and the insight by which adult life is rendered fruitful and satisfying. The opportunities for practicing proper health habits are provided in schools by a good programme of 'health education'. Health education may help the pupils to continue to strive during adult life to maintain their capacity for work and gain resistance and immunity against

avoidable diseases.

PHYSICAL FITNESS:

The physical fitness and wellness are inter-related to each other. Physical fitness is the sum of the fine motor abilities namely strength, speed endurance, flexibility and coordinative abilities. The most important aim of the sports exercise is to improve and maintain the physical fitness and wellness of the human being. Exercise is an essential element in the achievement and maintenance of physical fitness and wellness of human being. Physical fitness covers organic fitness as an individual. The main components of physical fitness are speed, strength, endurance, flexibility, agility, cardiovascular fitness and co-coordinative ability.

THE STUDY FOCUSED ON PHYSICAL FITNESS INTERLINKED SCIENTIFIC PRINCIPLES OF ANATOMY AND PHYSIOLOGY:

Human physiology is the science of the mechanical, physical and biochemical functions of humans in good health, their organs, and the cells of which they are composed. The principal level of focus of physiology are closely homologous to corresponding aspects of animal of human physiological, and animal experimentation has provided much of the foundation of physiological knowledge. Anatomy and physiology are closely related fields of study: anatomy, the study of form, and physiology, the study of function, are intrinsically tied and are studied in tandem as part of a medical curriculum. Traditionally, the academic discipline of physiology views the body as a collection of interacting systems, each with its own combination of functions and purposes.

SIGNIFICANCE OF THE STUDY:

The various actions in sports and games are so fast it is difficult to justify the performance of a player without analysing them. It is also essential to ascertain development of players in various factors affecting performance. The top most teams in national or international have come up because they have evaluated performance of their players in training and competitions and worked hard to reach world level through long term systematic and scientific training. This study is to analysis the effect of circuit training and fartlek training on physical fitness variables on tribal and non tribal college students of Khammam District in Telangana state.

OBJECTIVES OF THE STUDY:

The purpose of the study is to find whether or not any significant difference found on physical fitness variables of tribal and non tribal college students of Khammam District in Telangana state in relation to their circuit training and fartlek training.

HYPOTHESIS:

- There may not be any significant difference on pre test and post test of physical fitness variables of tribal college students in relation to their circuit training.
- There may not be any significant difference on pre test and post test of physical fitness variables of tribal college students in relation to their fartlek training.
- There may not be any significant difference on pre test and post test of physical fitness variables of non tribal college students in relation to their

circuit training.

- There may not be any significant difference on pre test and post test of physical fitness variables of tribal college students in relation to their fartlek training.

DELIMITATIONS:

The study is delimited in the following aspects.

- The study was confined to the tribal and non tribal high schools students of Khammam District in Telangana State.
- The study was selected from Khammam District in Telangana State.
- The study is restricted to physical fitness variables.
- The test is administered on the boys who are within the age group 16 to 20 years.
- Numbers of samples are restricted to 80 members from each group and 40 tribal and 40 non tribal College Students in Telangana State.

LIMITATIONS:

The things concerned to climate conditions, health habits and physical fitness variables are beyond the control of the investigator.

OPERATIONAL DEFINITIONS:

1. Circuit training is a form of body conditioning or Endurance training/resistance training using high-intensity aerobics. It targets strength building or muscular endurance. An exercise "circuit" is one completion of all prescribed exercises in the program.

2. Fartlek training is simply defined as periods of fast running intermixed with periods of slow running. Fartlek training runs are very simply form of a long distance run.

Fartlek training means "Speed play" this is Swedish word its continues training with interval training.

3. Physical fitness fitness is the total functional capacity (adaptation of various systems of the body) to perform a specific task.

4. Physiological and behavioural variables (activity, bed occupancy, heart rate (HR) and respiration during night, HR during day, blood pressure, steps, weight, room, illumination, and temperature) were measured with different unobtrusive wireless sensors.

Chapter II REVIEW OF RELATED LITERATURE

INTRODUCTION:

In the chapter, the researcher has presented the review of literature and review of related literature to the problem under study.

Maity (1983) conducted a study to compare physiological and physical fitness variables between tribal and non tribal High school students of Murekatha Nehru Bidya Bhawna shown in Midnapur district of West Bengal. The subjects chosen for the study were between the age of 16-20 years. It was observed that tribal students were significantly superior in peak respiratory flow rate and speed endurance and anaerobic lower than non tribal's.

Brar (1985) conducted a study on the comparative effect of circuit training and

interval training method on selected physiological measurements and running performance of females, age ranging between 16 to 20 years. The training methods are effective in lowering conventional resting pulse, conventional resting systolic and diastolic blood pressures. These training methods also brought about improvement in haemoglobin content. The two methods of endurance development have similar training effects with respect to running performance, cardio vascular blood pressure, haemoglobin fat percentage. The control group did not show any significant change in running performance in 800 meters, cardiovascular endurance and selected physiological measurement.

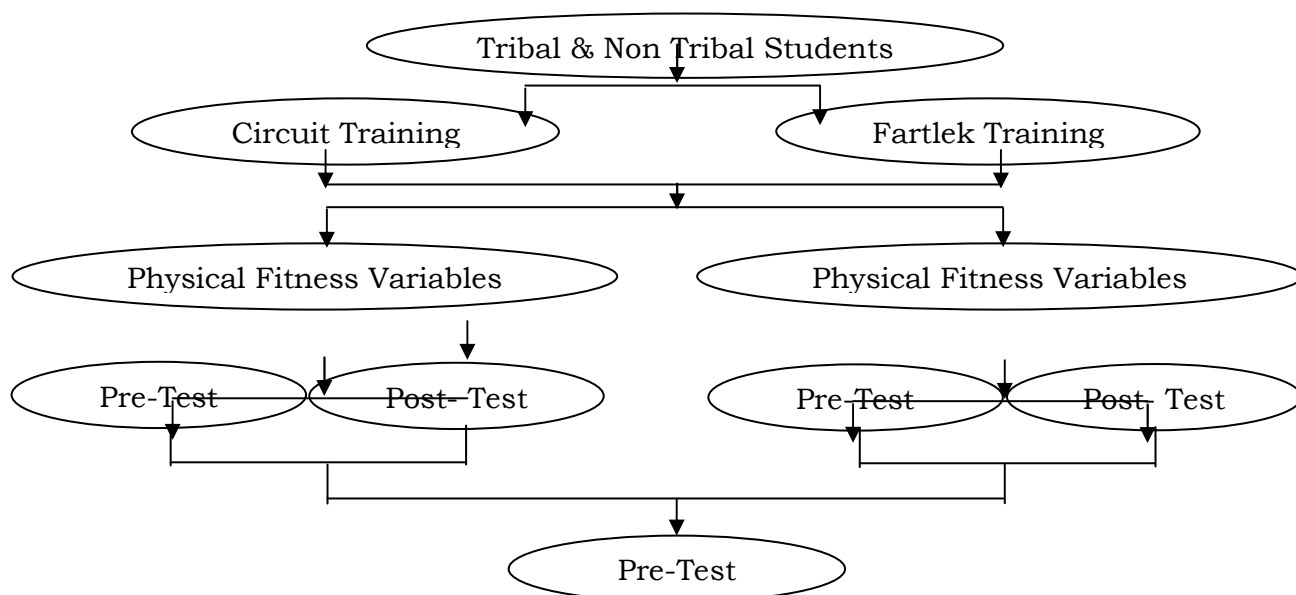
Chapter – III METHODOLOGY

INTRODUCTION:

In the preceding chapters, the researcher has presented introduction and the review of literature and review of related literature which is supporting and substantiating the present research study. The study under report forces on effect of training method on physical fitness variables among tribal and nontribal college students of Khammam District in Telangana state on basis of their performance the team or individual players selected of the sports and game, which is the order of the day in everlasting sports scenario.

DESIGN OF THE STUDY:

The study has focused the diagrammatic presentation experimental design hereunder.



SAMPLE OF THE STUDY:

The study was formulated based on the simple random sampling. The samples were collected from the 80 tribal and non tribal high school students. There were divided into two equal groups 40 tribal and non tribal circuits training group and 40 tribal and non tribal fartlek training group of 16-20 years were considered for the study.

SHOWING THE SAMPLE OF THE STUDY:

Sl. No.	Groups	Category of the subjects	Number of subjects
1	Circuit Training	Tribal	20
		Non Tribal	20
2	Fartlek Training	Tribal	20
		Non Tribal	20
Total			80

TOOLS USED:

The following physical fitness parameters were administered on tribal and nontribal high school students after systematic training of circuits training and fartlek training.

➤ Physical Fitness variables

- | | | |
|--------------|---|--|
| 1. Strength | - | Standing broad jump |
| 2. Speed | - | 50 meters flying start |
| 3. Agility | - | Shuttle Run |
| 4. Endurance | - | Cooper test (12 Minutes Run / Walking) |

DATA COLLECTION PROCEDURE:

80 tribal and non tribal high school students have been selected for the study and they have undergone circuit training and fartlek training for 45 days. The pre-test was taken, and then the post test was administered after the systematic training of circuit training and fartlek training. The following test was administered on tribal and nontribal high school students are physical fitness variables.

STATISTICAL TECHNIQUES USED:

The investigation under will study the effect of training methods on physical fitness variables among tribal and non nontribal college students of Khammam District in Telangana state. To find out the difference between tribal and nontribal college students and nontribal students of physical fitness variable among the selected variables the means, requires deviation and finally-‘t’ test was computed. The study under the report requires multidimensional statistical procedures which will result into the minute finding of the research study.

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