

## INTER COLLEGIATE KABADDI PLAYERS ANAEROBIC CAPACITY EXPLOSIVE POWER AS A RESULT OF MEDICINE BALL TRAINING

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### Abstract

Twelve (12) intercollegiate men's kabaddi players from the Salem, Tamil Nadu-based Vinayaka Mission College of Physical Education were chosen at random as topics to carry out the study's objectives. They were between the ages of 21 and 28. Randomly chosen participants in college-level competitions were the athletes. The chosen participants trained with medicine balls for an alternate third day of the week for a maximum of six weeks. Anaerobic capacity and explosive power were chosen as the criteria variables among the fitness-related factors. A standardized Test was used to evaluate the factors that were previously chosen. The twelve (12) intercollegiate men's kabaddi players make up the sample of the current study. Before and after the training session, all individuals underwent tests on a set of abilities. The pre-and post-test single-group design was used to choose the subjects. The single-group pre-and post-test design was used to choose the subjects.

**Keywords:** kabaddi, medicine ball, anaerobic capacity, explosive power

### INSTRUCTION TRAINING

"Since the dawn of time, humans have used the word training in their communication. It refers to the process of getting ready to do something. This process often took several days, sometimes even months or years. In sports, the word "training" is frequently used. However, there is significant debate over the precise definition of this phrase among sports scientists and coaches. Some professionals, particularly those involved in sports medicine, view physical activity as the foundation of sports training. This way of thinking is reflected in a number of training words, including strength training, interval training, and both technical and tactical instruction.

The most straightforward part of the training procedure is the training session. undergoing training. The real training method is implemented throughout the training session. Consequently, the popularity of sports The focus of sports pedagogy is on how well-planned and executed the training process is during training sessions (Singh, 1991).

### MEDICAL BALL PRACTICE

A weighted ball called a "medicine ball" can be used for a number of exercises to improve coordination, strength, and fitness. speed the healing process for athletes who have sustained injuries. This kind of ball is available in a wide range of weights, from 2 lb to 25 lb, and can be constructed of leather, nylon, vinyl, rubber, polyurethane, and other materials. There are numerous sizes available in addition to the 14-inch diameter of the typical medicine ball.

Persian wrestlers trained using sand-filled bladders approximately 3,000 years ago, which is the first known use of the medicine ball. Later, during the period of ancient Greece, renowned doctor Hippocrates made medicine balls by stuffing animal skins with sand. . His patients were required to throw the balls back and forth as part of their rehabilitation therapy for injuries. The phrases "medicine" and "health" started to be used interchangeably in the late 19th century, and the medicine

ball was employed to promote health. It grew to be known as one of the "4 Horsemen of Fitness," together with the dumbbell, wand, and Indian club. The current medicine ball was born out of this.

### STATEMENT OF THE PROBLEM

Modern sports have made medicine ball training more competitive and demanding in order to improve sports performance. As a result, players and coaches always strive to improve and maintain their playing skills in order to compete. Due to the rising level of competition, new approaches, skill development, and physical training may be necessary to raise the players' level of performance. In order to determine how intercollegiate kabaddi players' anaerobic capacity and explosive power as a result of training with medicine balls.

The study's objective was to determine how Intercollegiate kabaddi players' anaerobic capacity and explosive power as a result of medicine ball training.

### HYPOTHESES

It has long been established in science that consistent training and practice over time will result in changes in the chosen dependent variable. The investigator formulated the hypothesis and tested it at a 0.05 degree of certainty based on the research that was carried out and after studying the relevant literature that was accessible in the field.

1. As a result of medicine ball training, anaerobic capacity would significantly improve.
2. As a result of medicine ball training, explosive power would significantly increase.

### METHODOLOGY

#### SELECTION OF SUBJECTS

Twelve (12) intercollegiate men's kabaddi players from the Salem, Tamil Nadu-based Vinayaka Mission College of Physical Education were chosen at random as topics to carry out the study's objectives. They were between the ages of 21 and 28. Randomly chosen participants in college-level competitions were the athletes. The chosen participants trained with medicine balls for an alternate third day of the week for a maximum of six weeks. Anaerobic capacity and explosive power were chosen as the criteria variables among the fitness-related factors. A standardized Test was used to evaluate the factors that were previously chosen. The twelve (12) intercollegiate men's kabaddi players make up the sample of the current study. Before and after the training session, all individuals underwent tests on a set of abilities. The pre-and post-test single-group design was used to choose the subjects. The single-group pre-and post-test design was used to choose the subjects

#### SELECTION TESTS

S.No	Criterion Variables	Test Items	Unit of Measurement
1.	Anaerobic Potential	Margaria Kalamen Anaerobic Power Test	In Kilograms / Meter <sup>2</sup>
2.	Explosive Power	Vertical Jump	In Centimeters

**TABLE I** ANALYSIS OF DATA FOR MEANS, STANDARD DEVIATIONS AND DEPENDENT 'T'-TEST FOR THE PRE AND POST TESTS ON ANAEROBIC CAPACITY OF EXPERIMENTAL GROUP

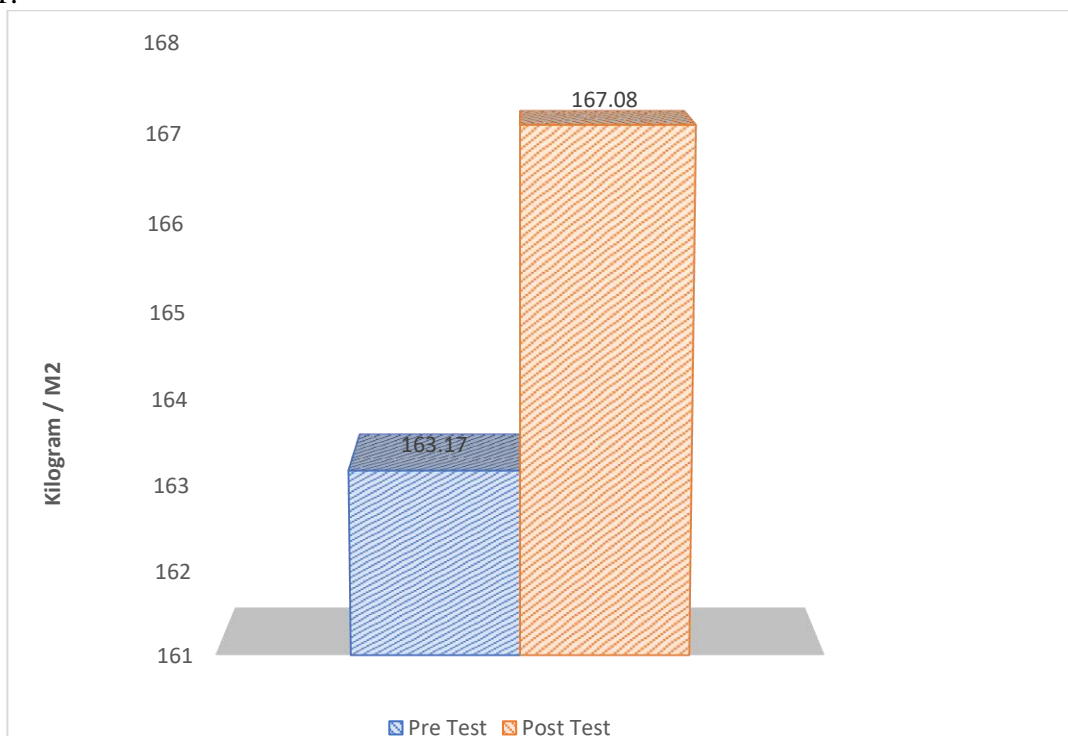
	Test	Number	Mean	Standard Deviation
Anaerobic Power	Pre test	12	163.17	2.41
	Post test	12	167.08	1.68
	't'-test	9.02*		

\*Important at the.05 level. (Performance of Anaerobic Capacity in Kilograms/M2) (With df 11, 2.14 is the table value required to reach the.05 level of significance.)

The acquired pre- and post-test mean values for the experimental group were 163.17 2.41 and 167.08 1.68, respectively, according to Table I. The experimental group's t-ratio values were obtained between the pre- and post-test means.

Were 9.02. The table value needed to show a difference with df 11 that is significant at the.05 level is 2.14. The performance on anaerobic capacity among college men's kabaddi players has been greatly enhanced by medicine ball training, as evidenced by the acquired The t-ratios between the pre- and post-test means were calculated.

The pre- and post-test mean values for collegiate kabaddi players' anaerobic capacity are shown in Figure 1.



**FIGURE - 1: MEAN VALUES OF MEDICINE BALL TRAINING GROUP ON ANAEROBIC CAPACITY.**

## RESULTS OF THE STUDY

According to Table I, the experimental group's obtained pre and post-test mean values 63.17 2.41 and 167.01 1.68, respectively, and the dependent 't'-ratio between the experimental group's pre-test and post-test means was 9.01. Value in the table needed to show a difference with df 11 that is significant at the.05 level is 2.14. Since the experimental group's achieved 't' ratio values are greater than the value in the table, it is clear that instruction with medicine balls considerably increased college kabaddi players' anaerobic capacity.

**ANALYSIS OF THE DATA FROM THE MEANS, STANDARD DEVIATIONS, AND DEPENDENT 'T'-TEST FOR THE PRE- AND POST-TESTS ON THE EXPLOSIVE POWER OF THE EXPERIMENTAL GROUP IS PRESENTED IN TABLE II.**

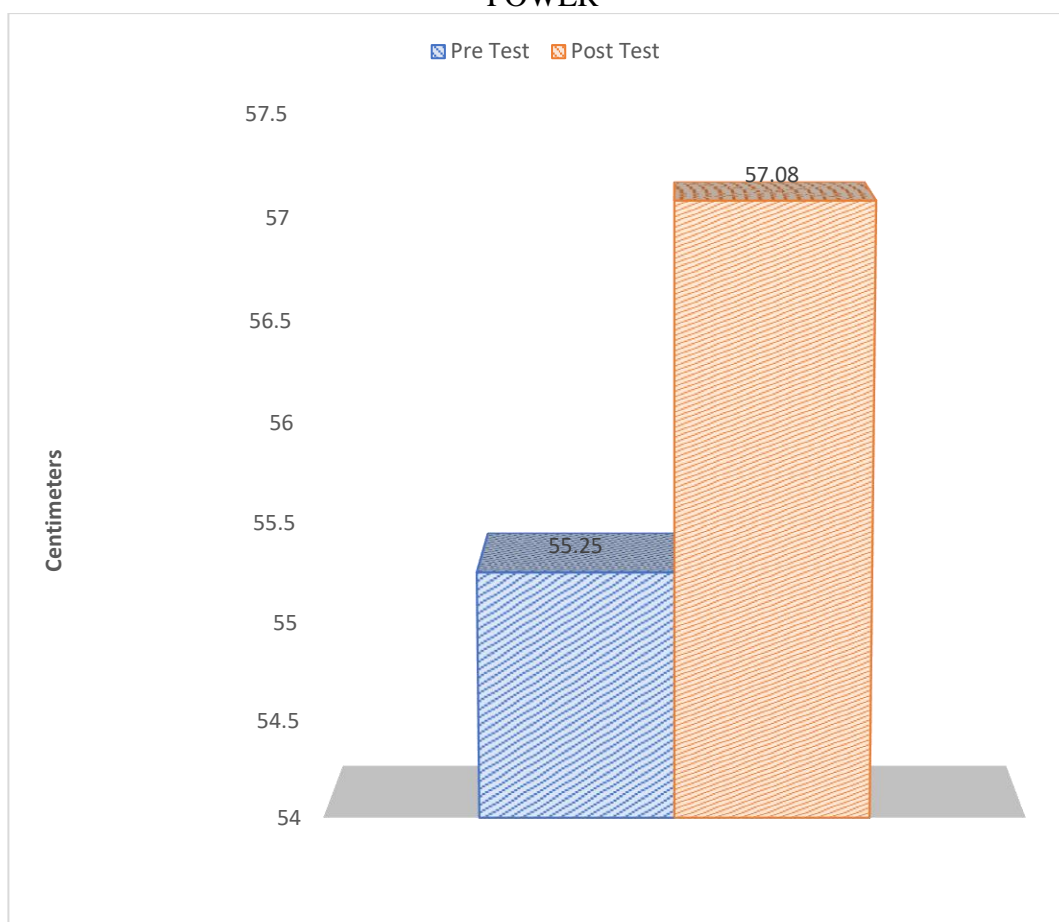
	Test	Number	Mean	Standard Deviation
Explosive Power	Pre test	12	55.25	2.42
	Post test	12	57.08	2.02
	't'-test	8.45*		

\*Important at the.05 level. (Performance of Explosive Power in Centimetres) (With df 11, 2.14 is the table value required to reach the.05 level of significance.)

The collected pre- and post-test means for the experimental group were 55.25 2.42 and 57.08 2.02 respectively, as shown in Table II, and the determined dependent 'to-ratio values between the pre-and post-test averages for the experimental group were 8.45. For a significant difference with df 11 at the.05 level, a table value of 2.14 is needed. Since the experimental group's 't' ratio values are greater than the figures in the table, it is evident that training with medicine balls helped college kabaddi players execute more explosively.

The pre- and post-test mean values for college kabaddi players' explosive power are shown in Figure 2.

**FIGURE - 2: MEAN VALUES OF MEDICINE BALL TRAINING GROUP ON EXPLOSIVE POWER**



### RESULTS OF THE STUDY

Table II displays the pre-and post-test means for the experimental group as well as the obtained dependent 'to-ratio values between the experimental group's pre- and post-test means. were 8.45. For a significant difference with df 11 at the.05 level, a table value of 2.14 is needed. Since the experimental group's 't' ratio values are substantially greater than the numbers in the table, it is obvious that training with medicine balls helped college kabaddi players execute more explosively.

### DISCUSSION OF RESULTS

It was anticipated that collegiate kabaddi players' anaerobic capacity would increase during the course of the trial. would significantly increase as a result of medicine ball training. The findings of the current investigation support the idea. As a result, the investigator's null hypothesis was refuted, and the research hypothesis was accepted.

According to the second hypothesis, college-level kabaddi players' explosive power would significantly improve as a result of medicine ball training. The findings of the current investigation support the idea. As a result, the investigator's The research hypothesis was confirmed, and the null hypothesis was found to be incorrect.

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