



## Effect of Interval Training on Selected Physical Fitness Variables among Kabaddi Players

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### ABSTRACT

The goal of the study was to determine how interval training affected several physical fitness factors in kabaddi players. For this study, 40 (n=30) kabaddi players from the Erode district area were randomly selected. The individuals were between the ages of 16 and 18. Experimental and control groups of subjects were created. There were 20 (n=15) participants in each group. The experimental group underwent interval training over a period of twelve weeks on three different days. The only activities the control group engaged in were those that were part of their regular routine. The chosen criteria components, such as speed, agility, and cardiovascular endurance, were examined using the standard test. A random group experimental design was used for this inquiry. Results from the pre- and post-tests were gathered before and right away after the eight weeks of instruction. The data were statistically analysed using the dependant "t" test. The level of significance was fixed at 0.05 in each example. The results of the study showed that speed kabaddi players considerably improved after twelve weeks of interval training.

**Keywords:** *Interval Training, Speed, Kabaddi*

### 1. Introduction

Interval training, **method of competitive training in which rest and exercise intervals of controlled duration are alternated**. Rest intervals allow time for the athlete's pulse rate to return to near normal before beginning the next exercise period. Interval training alternates brief to moderate periods of effort with brief to moderate periods of rest or reduced activity. The notion is founded on physiological concepts. Athletes may execute a significantly greater volume of work by splitting the overall labour into short, intense bursts with rest, or reduced activity, intervals interspersed between consecutive work bouts, according to research. Work and rest intervals are normally equal and might range from a few seconds to five minutes or more. Aerobic interval training involves repeated short runs or swims at just below race pace, with very brief rest intervals of five to 15 seconds. This type of interval training requires oxygen uptakes of approximately 65 to 75 percent of vo2 max and heart rates to this type of an aerobic interval training workout. Anaerobic interval training requires training at an intensity which exceeds race pace, but with even shorter work intervals and rest intervals of two minutes. Heart rate and oxygen uptake during these anaerobic intervals are similar to those observed in the aerobic – anaerobic intervals, but the blood lactate responses are much higher. Aerobic interval training builds a strong aerobic base, aerobic – anaerobic interval training develops speed and a sense of race pace, and anaerobic interval training develops leg strength, increases muscle buffering capacity, and increases the ability to clear lactate from the muscles, (Balasingh et al., 2018).

#### Statement of the Problem

The purpose of the study was to determine the effect of interval training on speed of kabaddi players

#### Objectives of the study

1. To assess the effect of interval training on speed kabaddi players.
2. To find out the differences between experimental and control groups on speed kabaddi players.

### 2. Materials and Methods

The purpose of this study was to find out the effect of interval training on selected physical fitness variable of kabaddi players. To achieve the purpose 30y college men (Erode district) kabaddi players were selected in the age group of 18-25 years. The subjects were divided in to four groups randomly 15 in each group. Experimental group I (Interval training group) and group IV act as a Control group they were not participated in any specific training.

Three experimental groups underwent training for a period of 12 weeks.

The subjects were tested on selected on Physical fitness variables namely speed of college level men kabaddi players.

### Statistical Analysis

The analysis of covariance was used to find out the significant difference if any, among the experimental group and control group 'F' ratio were computed to the variation on the groups.

## 3. Results and Discussions

The analysis of covariance was applied to find out the significant mean difference among experimental group I (Interval training group) and control group they were not participated in specific training. The results were presented in the following tables.

### ANALYSIS OF COVARIANCE AMONG INTERVAL TRAINING GROUP AND CONTROL GROUP ON SPEED

	Interval training group	Control group	Source of Variance	Sum of square	Degrees of freedom	Mean square	F-value
Pre test mean	8.34	8.31	Between	0.008	1	0.008	0.40
			Within	0.527	28	0.019	
Post test mean	8.03	8.29	Between	0.502	1	0.502	30.58*
			Within	0.459	28	0.016	
Adjusted post mean	8.02	8.30	Between	0.591	1	0.591	98.10*
			Within	0.160	27	0.006	

\*Significant At 0.05 Level.

## 4. Discussion on findings

On the basis of the result it was conducted that the effect of interval training improved speed, kabaddi players. The findings revealed that twelve weeks of interval raining had a substantial influence on speed. Interval training causes various physiological changes, including enhanced cardiovascular efficiency (the ability to transport oxygen to working muscles) and tolerance to lactic acid build-up. these modifications result in increased performance, speed, agility, and endurance (velmuragan, 2016). interval training most likely improved speed. The interval may have boosted the speed of message flow from muscle to nerve centre and vice versa, resulting in higher speed test results (silva et al., 2017). When athletes respond or react as a result of improved coordination between the CNS signal and proprioceptive feedback, neural changes normally occur. We couldn't figure out whether the neurological alterations were produced by synchronised firing of motor neurons or by increased facilitation of neural signals to the spinal cord. As a result, more research is needed to determine brain changes caused by interval training and how they affect speed and agility (farjin et al., 2018). It was found that systematically structured interval training should be included in all disciplines' training programmes in order to obtain peak performance.

## 5. Conclusions

1. In conclusion, it was shown that twelve weeks of interval training increased the speed of kabaddi players.
2. In conclusion, twelve weeks of interval training increased the speed of kabaddi players.

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