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## Effect of tabata training on selected physical and physiological variables of school level Kabaddi players

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### Abstract

Man is being known as bracket together in tending maneuver living things. He's respond to his atmosphere by possessing capability want throw physical movement. Throughout movement he's rely upon his skeletal muscle, his nervous systems, his vascular system and lots of different a part of the body. All parts of his body area unit item dependent upon movement for his or her continuing vigor, health and development. Physical activity is one amongst varied factors that influence the expansion and developments by children's and adolescents. It's of the utmost important to understand the physiological mechanism that sustains act because the, basic of everyone response to exercises. Within the course of work up variety of co-ordinates and counteractive changes manifest itself throughout the body. It's the overall agreement that endurance advantages to health in respect of fascinating body compositions need the incorporation of habituate physical activity from bracket together in tending maneuver early age. The purpose of the study was to investigate effect of tabata training on selected physical and physiological variables of school level Kabaddi players. A total of sixty 60(N=60) school students aged between 14 and 17 years were selected from D.G Higher Secondary School, Seeliyer and SRSI Higher Secondary School, Karamadai. The subjects were divided into two groups such as experimental and control group. The experimental group was asked to take part in tabata training for six weeks. After consulting experts in the field and also going through the available literature on the subject the following physical and physiological variables were selected for this study. Such as endurance, agility and physiological variable Breath holding capacity. The analysis of data revealed that the training programmer showed significant changes in some selected variables in endurance, agility and Breath holding capacity due to six weeks of training programmer for tabata training.

**Keywords:** Endurance, agility and breath holding capacity

### Introduction

Man is being known as bracket together in tending maneuver living things. He's respond to his atmosphere by possessing capability want throw physical movement. Throughout movement he's rely upon his skeletal muscle, his nervous systems, his vascular system and lots of different a part of the body. All parts of his body area unit item dependent upon movement for his or her continuing vigor, health and development.

### Training Procedure

The programmers of different physical activities were prepared with great care. Exercises were chosen primarily to warm-up the complete body. The following selected physical activity for the study. General warming up: 10 minutes. The experimental group underwent tabata training for the period of six weeks of period in addition to their routine activities as per the curriculum. Experimental group underwent training programmer for one session in a day, four days in a week for six weeks of period. Each workout consisted of eight sets of 20-seconds of exercises at maximum effort each followed by a 10-second rest. To do the math  $(8*20) + (8*10) = 240$  seconds (4 Minutes). The maximum duration of training session in all the days (School time) was lasted 40 to 50 minute in each section. The entire subject of the experimental group involved in this study was carefully monitored throughout training programmer.

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**Selection of Subject**

The subject were selected from D.G Higher Secondary School, Seeliyur and SRSI Higher Secondary School, Karamadai, the average age of the subject was ranging between 14 to 17 years. The subjects were divided into two groups such as experimental group and control group, each consisting of thirty (30) subjects.

**Statistical Technique**

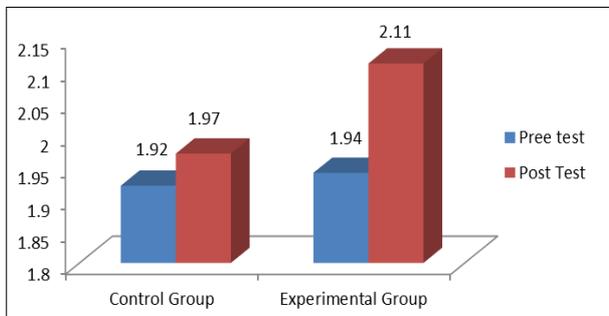
The investigator conducted a pre-test and post-test for the selected subjects and the result obtained were analyzed statistically using descriptive analysis such as mean, standard deviation and t-test was applied to find out the level of significance.

**Table 1:** Computation of ‘t’ ratio between Per-test and Post-test of control and experimental group on Endurance

Group	Test	Mean	Standard Deviation	Standard Error	Mean Difference	‘t’ Ratio
Control Group	Pre-Test	1.92	0.21	0.03	0.04	1.2
	Post-Test	1.97	0.27			
Experimental Group	Pre-Test	1.94	0.18	0.02	0.17	7.1*
	Post-Test	2.11	0.20			

Table- I received that the obtained t-ratio of control group on endurance was 1.2, which was lesser than the required table value of 2.04 at 0.05 level of significance for the degree of freedom 29. So it was proved to be insignificant and also the table reveals that the obtained t-ratio of experimental group on endurance was 7.1, which was greater than the required table value of 2.04 at 0.05 level of significance for the degree of freedom 29. So it was proved to be significant.

on agility was 6.2, which was greater than the required table value of 2.04 at 0.05 level of significance for the degree of freedom 29. So it was proved to be significant.

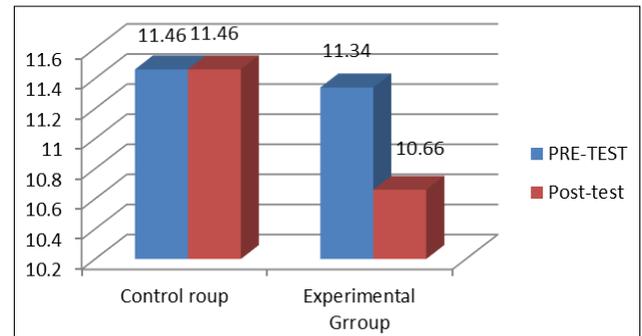


**Fig 1:** Bar diagram showing the mean difference between the pre-test and post-test of control and experimental group on Endurance (Endurance was measured in Kilometer)

**Table 2:** Computation of ‘t’ Ratio between Per-test and Post-test of control and experimental group on Agility

Group	Test	Mean	Standard Deviation	Standard Error	Mean Difference	‘t’ Ratio
Control Group	Pre-Test	11.46	0.81	0.01	0.002	0.14
	Post-Test	11.46	0.78			
Experimental Group	Pre-Test	11.34	0.76	0.11	0.68	6.2*
	Post-Test	10.66	0.68			

Table- I received that the obtained t-ratio of control group on agility was 0.14, which was lesser than the required table value of 2.04 at 0.05 level of significance for the degree of freedom 29. So it was proved to be insignificant and also the table reveals that the obtained t-ratio of experimental group

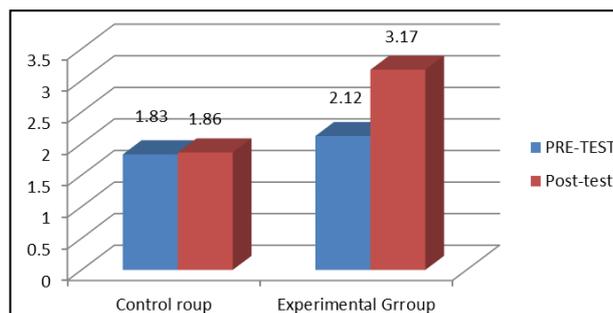


**Fig 2:** Bar diagram showing the mean difference between the pre-test and post-test of control and experimental group on agility (Agility was measured in seconds)

**Table 3:** Computation of ‘t’ ratio between Per-test and Post-test of control and experimental group on Breath holding capacity

Group	Test	Mean	Standard Deviation	Standard Error	Mean Difference	‘t’ Ratio
Control Group	Pre-Test	1.83	1.16	0.03	0.03	0.73
	Post-Test	1.86	1.10			
Experimental Group	Pre-Test	2.22	1.42	0.21	1.5	4.93*
	Post-Test	3.17	1.17			

Table- I received that the obtained t-ratio of control group on Breath holding capacity was 0.73, which was lesser than the required table value of 2.04 at 0.05 level of significance for the degree of freedom 29. So it was proved to be insignificant and also the table reveals that the obtained t-ratio of experimental group on Breath holding capacity was 4.93 which was greater than the required table value of 2.04 at 0.05 level of significance for the degree of freedom 29. So it was proved to be significant.



**Fig 3:** Bar diagram showing the mean difference between the pre-test and post-test of control and experimental group on breath holding capacity (Agility was measured in seconds)

### **Conclusion and Recommendations**

The study documented that there was a significant improvement in the endurance and agility of physical fitness components and breath holding capacity of physiological variables of Kabaddi players due to the influence of tabata training for the period of six weeks. The study also proves that there was no improvement in the endurance and agility of physical fitness components and breath holding capacity of physiological variables of Kabaddi players from the control group. Hence, the gym trainers and physical education coaches should adapt such tabata training to improve other sports activities. A similar study may be conducted by selecting biochemical and other performance factors as criterion variables.

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