



Effect Of Aerobic Capacity Tabata Training On Selected Neuro Muscular Activities of Adolescents Boys

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Abstract:

Background: the main aim of this research was to evaluate the effect of aerobic capacity tabata training on selected neuro muscular activities of adolescents boys.

Method: Therefore the purpose of the study was to investigate the effect of aerobic capacity tabata training on speed and agility of Adolescents boys. In this study thirty (30) subjects, of Adolescents boys were randomly selected from in and around the SRM Campus, Kattankulathur, Tamilnadu. Selected subjects divided into two groups namely such as aerobic capacity tabata training fifteen (15) and control group fifteen (15). **Timeline:** The aerobic capacity tabata training was consisted of 45-60 min/day, 3 days in a week till 8 weeks from in and around the SRM Campus, Kattankulathur. Neuro muscular activities completed of the both groups at zero time and after 8 weeks of aerobic capacity tabata training intervention group. Speed was tested by 50mts (Dash) in seconds and agility was tested by t-test mts shuttle run, Pre and post-test random group design was used for this study. The Paired 't' test was applied to determine the difference between the means of two group. To find out whether there was any significant difference between the experimental and control groups **Conclusion:** The advantage of aerobic capacity tabata training concluded that, there was a significant difference exists between experimental and control groups on speed and agility. The control group did not improve the selected criterion variables. Therefore aerobic capacity tabata training covered in this study are beneficial for the Adolescents boys.

Keywords: Aerobic Capacity Tabata, Paired 't' test, Neuro Muscular Activities, Adolescents boys.

Introduction

Malnutrition in all its forms, including overweight, obesity, and underweight forms, is the primary cause of global health deterioration. Currently, over-nutrition and under nutrition (especially in third world countries) are widespread across the globe and affect individuals in every country and region of the world. Both malnutrition problems (over- and underweight) are affecting healthcare costs. Scientific evidence suggests that the global trend of a steadily increasing percentage of both overweight and underweight individuals is increasingly affecting children and young people. Overweight, obesity, and underweight forms in childhood and adolescence may bring about numerous consequences and lead to health problems in adulthood. Being underweight increases the risk of infectious diseases. In girls, it often causes menstrual cycle disorders and increases the risk of miscarriage, preterm birth, and faster involution of the reproductive system in adulthood. Being overweight or obese in childhood often persists in adulthood and leads to



numerous diseases of affluence, such as type-2 diabetes, cardiovascular diseases, and metabolic diseases, and, consequently, leads to premature death.

Body weight is linearly related to body mass index (BMI). For this reason, BMI is an essential biological measure of a population’s biological condition and related social phenomena. Due to its strong relationship with physiological markers, BMI is a predictor of diseases of affluence. The categorization of BMI allows for the identification of subsets of the population prone to different health complications. Many researchers have focused on finding optimal methods to combat obesity and overweight. Results have shown that one of the most important and effective methods to address obesity and overweight is physical activity. Therefore the aim of this research to determine the effect of aerobic capacity tabata training on selected neuro muscular activities of Adolescents boys.

Methodology:

The purpose of the study was to find out the effect of aerobic capacity tabata training on selected neuro muscular activities of Adolescents boys. To achieve the purpose of the study, thirty Adolescents boys were selected from the SRM Campus, Kattankulathur. The subjects were randomly assigned in to two equal groups namely, Aerobic capacity tabata training group (ACTT) and Control group (CG) consist of (n=15). The respective training was given to the experimental group the 3 days per weeks (alternate days) for the training period of 8 weeks. **Design:** The neuro muscular activities such as agility and speed were selected as dependent variables. Speed was tested by 50mts (Dash) in seconds and agility was tested by t-test mtsshuttle run, Pre and post-test random group design was used for this study. After 8 weeks of aerobic capacity tabata training intervention group.

Statistical Analysis:

The collected data before and after training period of 8 weeks on the above said variables due to the influence of aerobic capacity tabata training was statistically analyzed with paired ‘t’ test to find out the significant improvement between pre and post-test. In all cases the criterion for statistical significance was set at 0.05 level of confidence. (P<0.05)

Table I: Computation of ‘t’ Ratio on Selected Neuro Muscular Activities of Adolescents boyson Aerobic capacity tabata training Group

Group	Variables	Mean	N	Std. Deviation	Std. Error Mean	t ratio	
Experimental Group	Speed,	Pre	7.82	15	0.50	0.00	13.03*
		Post	7.76	15	0.51		
	Agility,	Pre	8.96	15	0.99	0.071	4.54*
		Post	8.63	15	1.06		
Control group	Speed,	Pre	7.77	15	0.48	0.47	1.68
		Post	7.85	15	0.45		
	Agility,	Pre	8.90	15	0.96		

		Post	8.90	15	0.97	0.003	1.33
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*Significant level 0.05 level degree of freedom (2.14, 1 and 14)

Table I reveals the computation of mean, standard deviation and 't' ratio on selected bio motor fitness parameters namely speed and agility experimental group. The obtained 't' ratio speed and agility were 13.03, and 4.54 respectively. The required table value was 2.14 for the degrees of freedom 1 and 14 at the 0.05 level of significance. Since the obtained 't' values were greater than the table value it was found to be statistically significant. Further the computation of mean, standard deviation and 't' ratio on selected neuro muscular activities namely Speed and Agility control group. The obtained 't' ratio on Speed and Agility were 1.68, and 1.33 respectively. The required table value was 2.14 for the degrees of freedom 1 and 14 at the 0.05 level of significance. Since the obtained 't' values were lesser than the table value it was found to be statistically not significant.

Figure-1 : SHOWING THE BAR DIAGRAM PRE AND POST EXPERIMENTAL AND CONTROL GROUP MEAN VALUES ON SPEED

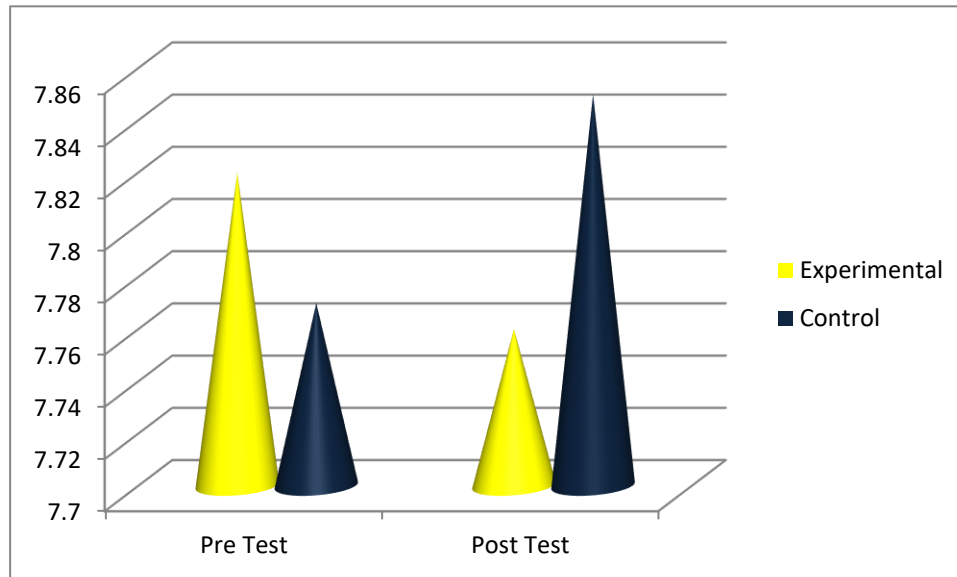
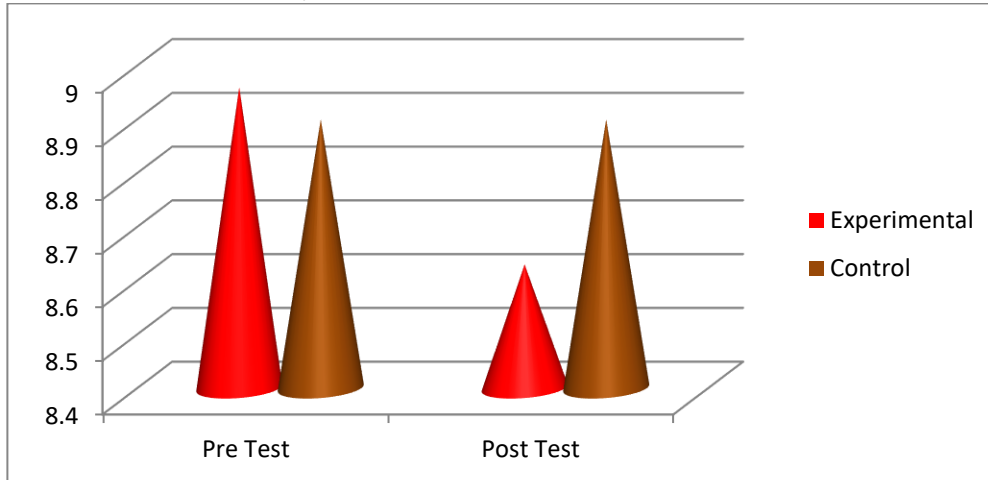


Figure-2: SHOWING THE BAR DIAGRAM PRE AND POST EXPERIMENTAL AND CONTROL GROUP MEAN VALUES ON AGILITY



Discussion on Findings

The present study experiment the effect of aerobic capacity tabata training on neuro muscularactivities of Adolescents boys. The result of the study indicated that the aerobic capacity tabata training improved the neuro muscular activities such as speed and agility.

The findings of the present study had similarity with the findings of the investigations referred in this study. However, there was a significantly changes of subjects in the present study the speed and agility was significantly improved of subject in the group may be due to the in aerobic capacity tabata training. K.Devaraju et al., (2014) reported that twelve impact of aerobic capacity tabata training, the group improved significantly on all functional fitness components. showed that significant improvement in all the selected physical variables namely agility, explosive power, muscular strength endurance and flexibility among handball players. Collectively, it appears that, from a theoretical standpoint, the inclusion of cluster set configurations has the potential to alter the training stimulus and ultimately magnify the adaptive response.

Conclusion:

There was a significant improvement takes place on selected neuro muscular activities due to the effect of eight weeks aerobic capacity tabata training. There was a significant difference exists between experimental and control groups on selected neuro muscular activities such as speed and agility. Therefore aerobic capacity tabata trainingincluded in this study are helpful for the Adolescents boys.

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