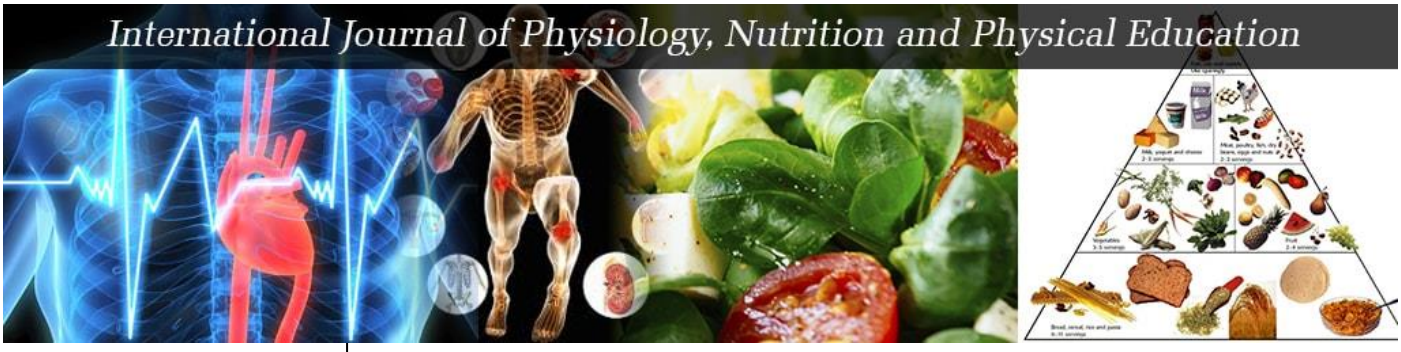

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Effect of anaerobic training on stride length among college men students

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Abstract
The purpose of present study was to find out the effect of anaerobic training on stride length among college men students. To achieve this purpose, thirty men students chosen from Dr. Sivanthi Adithanar College of Physical education, Tiruchendur, Tuticorin, Tamil Nadu, India were selected as subjects. The selected thirty subjects were randomly divided into two groups of fifteen each, out of which group - I (n = 15) underwent anaerobic training (short bursts of high intensity movement) for three days (alternative days) per week, group - II (n = 15) remained as control. Prior to and after the training period the subjects were tested for, stride length. stride length was assessed by 50 meters run with video analysis. The statistical tool were used for the present study is 't' ratio and Analysis of covariance (ANCOVA). The result of the study was a significant altered on stride length after twelve weeks of anaerobic training. However the different was favour of experimental group.

Keywords: Anaerobic training, stride length

Introduction
Physical training aims at improving the performance of sports persons. Several factors influence ties sports performance. The performance of sports primarily depends on his performance capacity, such as speed, strength and endurance. All these factors therefore are the principal aims of physical training.
Anaerobic means 'without oxygen'. During anaerobic work, involving maximum effort, the body is working so hard that the demands for oxygen exceed the rate of supply and the muscles have to rely on the stored recoveries of fuel. In this case waste product accumulate, the chief one being lactic acid. The muscles, being starved of oxygen, take the bodies into a state known as oxygen debt. The body's stored fuel soon runs out and activity ceases with pain.
Many workout routines utilize periods of intense activity as a part of their regimen. Increasing anaerobic capacity has been shown to have a number of health benefits, including better athletic performance and increased metabolism.
Stride length is the distance between successive points of initial contact of the same foot. Right and left stride lengths are normally equal. A stride length is the distance from the toe of one foot to the toe of your other foot as you run.

Statement of the problem
The purpose of present study was to find out the effect of anaerobic training on stride length among college men students.

Methodology
The purpose of present study was to find out the effect of anaerobic training on stride length among college men students. To achieve this purpose, thirty men students chosen from Dr. Sivanthi Adithanar College of Physical education, Tiruchendur, Tuticorin, Tamil Nadu, India were selected as subjects. The selected thirty subjects were randomly divided into two groups of fifteen each, out of which group - I (n = 15) underwent anaerobic training (short bursts of high intensity movement) for three days (alternative days) per week, group - II (n = 15) remained as control.

Analysis of data

Table-1 presents pre and post-test means, standard deviations and dependent t- test values on stride length of anaerobic training and control group.

Table 1: Summary of means, standard deviation and dependent t-test values on stride length of anaerobic training and control group

Tests	Anaerobic Training Group		Control Group	
	Mean	SD	Mean	SD
Pre test	1.5913	0.3441	1.6140	0.2746
Post test	1.6700	0.3606	1.6133	0.3016
T-Test	8.56*		0.61	

*Significant at .05 level. The table value required at .05 level with df 14 is 2.14.

From the table-1 shows that the obtained dependent t-test values between pre-test and post-test means of anaerobic training and control group are 8.56 and 0.61 respectively. The table value required for significant difference with df 14 at .05 level is 2.14. Since, the obtained t-test value of anaerobic training group is greater than the table value, it is understood that anaerobic training programme had significantly improved the performance of stride length and the control group has not improved as the obtained t-test value is lesser than the table value because they were not subjected to any specific training. The analysis of covariance on stride length of anaerobic training and control group have been analysed and presented in table - 2.

Table 2: Analysis of covariance on stride length of anaerobic training and control group

Adjusted post-test mean		Source of variance	Sum of squares	Df	Mean square	F-ratio
Anaerobic Training Group	Control Group	Between	0.044	1	0.022	37.743*
1.677	1.601	Within	0.024	27	0.11	

*Significant at .05 level of confidence. The table value required at 0.05 level with df 1 & 27 is 4.21.

Table- 2 shows that the adjusted post-test means of anaerobic training and control groups are 1.677 and 1.601 respectively. The obtained f-ratio value is 37.743 which is higher than the table value 4.21 with df 1 and 27 required for significance at .05 level.

It was concluded that anaerobic training is better than control groups in improving stride length.

Figure 1: illustrates the pre, post and adjusted post-test means of anaerobic training and control groups on stride length among college men students.

Fig 1: Pre, post and adjusted post-tests mean values of anaerobic training and control groups on stride length

Conclusions

The anaerobic training group has remarkably increase stride length when compared with the control group. In addition, the results of the tests shows that there was significant difference established between experimental and control groups.

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