

Research Paper :

Analysis of glucose depletion levels and Vo_2 max among college women students

D. MANIAZHAGU, K. BALASUBRAMANIAM AND M. SAROJA

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See end of the article for authors' affiliations

Correspondence to:

D. MANIAZHAGU

Department of Physical Education and Health Sciences, Alagappa University, KARAIKUDI (T.N.) INDIA

ABSTRACT

Forty women students were selected as subjects at random from Selvam Arts and Science College at Namakkal and their age was 18 to 25 years. They were divided into four groups, such as Sprints, Jumps, Throws and distance run group. Prior to the treatment, all the subjects were medically tested and found physically fit. The two variables were selected. Dependent variables: 1. Glucose depletion 2. Vo_2 Max, Independent variables a. 100 metres sprint, b. Long Jump, c. Shotput, d. 1500 metres Run. 2x4 factorial design statistics technique was used to analyse the main and interaction effects of study. There was no difference in combined effect of glucose depletion level and Vo_2 max among the 100 meters days, Long jump, shot put and 1500 meter run athletes.

Key words : Glucose depletion, Vo_2 max, Variables, Treadmill

Health has been recognised from the time immemorial as the greatest wealth. It has rightly been said that, though health may not be everything, everything without health is nothing (Antle, 1986). The Three major pillars that have been identified as being essential for a healthy lifestyle, are exercise, nutrition and persons responsibility to preserve and promote health. The world over a certain healthy values has, for long been associated with exercise and that is termed as an "active" life. Exercise more than anything else, acts as a spur to good health, proper diet and regular exercise make a man healthy and active (Larry, 1982).

METHODOLOGY

Forty women students were selected as subjects at random from Selvam Arts & Science College at Namakkal and their age was 18 to 25 years. They were divided into four groups, such as sprints, jumps, throws and distance run group. Prior to the treatment, all the subjects were medically tested and found physically fit. The subjects were volunteered to participate in the experiment and individual concern were obtained before conducting the test. For selection of variables, the investigator reviewed the various scientific literature pertaining to the comparative analysis of blood glucose depletion and Vo_2 Max among college women Sprinters, Jumpers, Throwers and distance runners. The following variables were selected. Dependent variables a. Glucose depletion, b. Vo_2 Max, Independent variables a. 100 metres b. Long jump, c. Shotput, d. 1500 Metres run. Each subject was asked to stand on the treadmill and after the word of caution

"Ready" the investigator switched on the treadmill gradually increasing the speed 12km/hr as indicated by the speedometer. The speed was gradually increased so that it was 12km/hr after one minute. The electronic timer was started when the treadmill speed came up to 12km/hr. The subjects also gradually picked up the speed of running with the treadmill to 12km/hr. Each subject continued the treadmill running exercise at this speed for 5 minutes. Exactly after the 5 minutes of exercise the electronic timer and the treadmill were stopped. On the completion of aerobic exercise, 5ml of blood was taken from each subjects for analysis. 2x4 factorial design statistics technique was used to analyse the main and interaction effects of above study.

OBSERVATIONS AND DISCUSSION

The obtained F ratio of homogeneity of variance was 3.14 and the table F value was 3.26. Since the obtained F ratio was not statistically significant, we may proceed on the assumption that the variance of sample population was homogeneous (Table 1).

The obtained F ratio of homogeneity of variance was 2.21 and the Table F value was 3.26. Since the obtained F ratio was not statistically significant, we may proceed

Table 1 : Homogeneity test for the initial performance of Vo_2 , max among the groups

Source of variance	ss	df	ms	of
Between	60.1	3	20.1	3.14
Within	241.6	36	6.2	

Table F ratio at 0.05 level = 3.26