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## Effects of aerobic exercise on anxiety

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### Abstract

The purpose of this study is to investigate the effect of aerobic exercise on anxiety . Statistical population consists of boys and girls in high school in 2009-2010 in Zanzan.

40 randomly selected from each group, then they were placed randomly in test and control groups. Experimental group undertook aerobic exercises for two days a week for two months. Results showed that aerobic exercise reduced a significant amount of anxiety in experimental group. But the reduction in the control group is not significant.

*Key words: aerobic; anxiety; Zanzan*

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### 1. Introduction

Published investigations conclude that individuals with improved levels of fitness are capable of managing stress more effectively than those who are less fit (Hassmen, Koivula & Uutela, 2000). The data suggest an inverse relationship: higher physical fitness is associated with lower levels of stress. It appears that the mode of exercise that most affects stress reduction is aerobic exercise. Studies describe the role of exercise as a preventive intervention in managing stress as opposed to a corrective intervention. The research indicates that moderate intensity exercise, performed three times a week (sessions lasting over 20 minutes) for up to 12 weeks, has the most influence on stress management. Although the specific mechanisms explaining the improved stress levels from aerobic exercise are unclear at this time, it appears that possible theories include the involvement of physiological, biochemical and psycho-social factors (Fox 1999). which copyright exists.

### 2. Methodology

This is a quasi-experimental research methodology with pre/post-test and control design and two test groups.

In this study, because the possibility of random selection of individual subjects was not possible, research was conducted in normal classes without changing the class status of participants . Although subjects were not randomly selected, but the replacement classes in experimental and control groups is random.

Table 1. Quasi-experimental design with pretest and posttest design with control group.

tsoP-Test	Independent variable	Pretest	random Assignment	Groups
T2	<b>Aerobic</b>	T1	R	test group( 2 classes)
T2		T1	R	control group(2 classes)

In this study, all male and female students in District 2 in 2010 are considered as the study population .

Given the above table, two classes of each grade were chosen as the experimental group and two classes were selected as control groups using cluster random sampling . It should be noted that assignment of each of the classes of the experimental and control groups was done randomly.

Table 2. Number of selected subjects in each experimental and control groups .

Total subjects	Number of participants	Total class	Groups	Grade
120	30	1	Test	Girl
	30	1	Control	
	30	1	Test	Son
	30	1	Control	

Experimental group undertook aerobic exercises two days a week for two months . Results showed that aerobic exercise reduced a significant amount of anxiety in experimental group. But the reduction in the control group is not significant.

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