

## The Effects of Two Methods of Training on Depression and Anxiety of University Male and Female Students

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**Abstract:** Depression and anxiety are of personal and psychological characteristics that have considerable effects on mental health. In addition, there are some evidences that show relationship between physical activity and psycho logic situation. Since the above-mentioned psycho logic problems is increasing among young generation. The main goal of this study was measurement of two types of physical activity programs on depression and anxiety between girl and boy students. 484 students who registered in physical education 2 classes completed two questionnaires of the study. Then, according to scores, 82 students with depression scores between 14-40 were selected as subjects of study. 42 boys and girls participated at 4-6-week physical fitness program, 3 times per week, 60 minutes per session. Another 40 students participated at the same period, but 90 minutes per session in volleyball classes. According to results a significant difference was seen between the effects of two programs on depression and anxiety. No significant difference was shown between girls and boys in level of depression, but we saw a significant difference in anxiety among two sexes.

**Key words:** Depression • Anxiety • Physical activity girl and boy students • Volleyball physical fitness

### INTRODUCTION

Psychological problems such as depression and anxiety affect a life of millions of people in the world. It has a relationship with death increase and health services expenses [1]. Depression is a state of mood which is defined according to the feeling of incapability, hopelessness, decrease in action or reaction, pessimism, sadness and some other feelings [2]. Depression is also a natural response to life pressures such as unsuccessful in education or losing a job, these situations often lead to depression [3]. The meaning of anxiety in Persian is restlessness and confusion [4]. In most of psychological texts, it is also synonym with words such as stress and excited [5]. In fact, anxiety is a kind of independent exciting. Which is accompanied feeling and receiving mental, so anxiety has both psychological and biological aspects and both aspects appear in person when he/she is anxious. International institute of mental health (IIMH) said that physical exercises have positive effect a decreasing psychological pressure for example anxiety. Also participating in physical activities has positive effect on feeling ok/good and mental health. According to IIMH, depression and anxiety are related psychological problems which and decrease by exercises and physical

activities and finally, the clinical observation shows physical exercises as a treating method has positive effect on men and women of any age. The recent two decades are called the new stage of anxiety and depression. After the second world war, depression has taken the place of encouragement and anxiety and has considered as an important psychological problem which is common among adults. For this reason in mental melancholy it is called "common/ usual cold" Undoubtedly [6]. Health and freshness of youth, who are university students and are, going to form the future frame work of our country, guarantee a better future. So if they have mental problems, they will have some problems at their education and playing their role in the society. For this reason, students who have mental problems must be identified and then be treated [7]. Psychologists believe that physical energy effects on mental energy and a fit and ready body is the base of an unoccupied mind [8].

Findings of Anderson *et al.* [9] about effects of physical exercises on depressed patient who took part in a 24-week program of exercising showed that the experimental group had a "decreased/low score of depression in comparison with the control group. Another research by Wyshak [10] on the relationship between physical exercises of university women and depression

and mental problems showed a positive relationship which is decreasing mental problems and depression because of exercises.

Also Norris *et al.* [11] an experiment on depressed, anxious and aggressive persons and the results showed that respiratory exercises for two times in a week, each time for 25 to 30 minutes which lasted 10 weeks caused fitness of body and decrease in depression and anxiety [12]. In another research, case and adjectival anxiety of runners and team sports had investigated under STAI Ashpil berger and a significance decrease in the psychological disorders observed [13]. Research by Gerra *et al.* [14] showed that aerobic exercises have anti-depressive and anti-anxious effects. Cox *et al.* [15] compared mental skills of Chinese and American men and women of university athletes who were active at track and field, Basketball Volleyball and swimming and came to this conclusion that sportsmen has higher mental skills than sportswomen besides men who play volleyball make better use of the mental skills [16]. Peluso and Andrade [3] investigated the relationship, between physical exercises in treating and prevention of physical and mental diseases such a anxiety and depression at 400 persons who did daily exercise, the result showed that increasing physical exercises had positive effect on increasing mental health and high degree of physical exercises had conversed relationship with warm-up exercising. Takly [17] also says: Physical fitness decreases significantly danger of mental disorders of men and women. Regular exercising strengthens the body and effects on feelings so life's stress is taken positively and beared easily [11]. Ross and Hayes declared in their studies about exercises and mental health in all people that there is a positive correlation between exercising and mental health and exercises followed by depression anxiety and ill feeling of all people in the society [14]. Taylor [18] showed that young athletes who wore thinking, they will lose; they were more anxious than others. The results of Lantz *et al.* [13] researches indicated that those who exercise enough have less anxious.

## MATERIALS AND METHODS

In this research, the purpose in identifying the effect of two kinds of exercising programs on degree of depression and anxiety of girl and boy university students. The present research is a kind of experimental half in which two groups of boy and girl are participated. The data collection is based on two questionnaire, one was depression questionnaire and another was Ashpil berger survey your questionnaire. For finding the

relationship between variables, we mode use of illative statistics to identify the significant differences or no significant differences between variables. The researcher did not control any of the variables, just measured them. Statistical pool of this research consists of boy and girl university students of khalkhal Islamic Azad University. Samples of this research are 484 students of khalkhal Islamic Azad University who have registered in physical education 182. The average girls' height, age and weight was respectively 162.39, 21.02, 59.41 and the average height, age and weight of boys was 173.60, 21.14 and 73.46, respectively.

## Measurement Tools

**Depression Test One:** Depression test one is considered as a test of "culture examination". In the other words it is applicable for all people of any class of the society. Its validity has been achieved during several hours or months. Reliability of test showed that the average of depression test one increases with the general degrees of psychologist and has a positive/significant correlation with the degrees of clinical expert [6]. Ashpil Berger adjective anxiety test is applicable for a person or a group of persons. This test does not have any time limitation. The validity of the test is calculated through the internal correlation of the test (the degree of interference of questions) and cronbach alpha coefficients formula. For collecting data, first the questionnaires distributed among the university students, after filling them out, 82 students have chosen randomly, 21 were girls and 21 were boys whose depression scores were from 14 to 40. These students took part at physical exercises for six weeks, each week three times and each time one hour. Besides, 20 girls and 20 boys were chosen shoes depression scores were 40 to take part at volleyball exercising for 6 weeks, three times a week and 90 minutes for each session. After completion the post-test, the questionnaires of depression test one and Ashpil Berger adjective anxiety distributed among four groups and after answering collected at the same time. Then the results analyzed through dependent and independent t-test and all the statistics ran through SPSS and the following results obtained.

## RESULTS

After collecting questionnaires and finding the results, now tables indicate individual characteristics such as height, weight and age and then the descriptive static indexes of depression and anxiety of university student. Finally, data analysis and assessing the research

Table 1: Relationship between physical exercises and girls' and boys' depression

Group	Statistics indexes physical exercises					
	Number	Average	Standard	T	df	PValue
Pre-test anxiety group with boys volleyball	20	42.91	3.17	4.79	19	0.00011
Post-test anxiety group with boys volleyball	20	39.70	4.01			
Pre-test anxiety group with girls volleyball	20	48.50	7.17	5.60	19	0.00041
Post-test anxiety group with girls volleyball	20	42.40	7.76			
Pre-test group fitness depressed boys	21	19.57	4.38	3.91	20	0.0014
Post-test group fitness depressed boys	21	16.90	3.41			
Pre-test group fitness depressed girls	21	21.57	7.36	9.41	20	0.0009
Post-test group fitness depressed girls	21	16.33	7.40			

Table 2: Relationship between physical exercises and boys' and girls' depression

Group	Statistics indexes physical exercises					
	Number	Average	Standard	T	df	PValue
Girls depression average score	41	21.57	7.38	1.06	40	0.29
Boys depression average score	41	19.57	4.37			

Table 3: Relationship between volleyball exercises and anxiety in boys and girls

Group	Statistics indexes volleyball					
	Number	Average	Standard	T	df	PValue
Average scores of anxious girls	40	48.51	3.17	3.19	39	0.0031
Average scores of anxious boys	40	42.97	7.17			

hypothesis is going to be done. Based on the results, average height, age and weight of girls are 162.39, 21.02, 59, 41 respectively and their standard deviations are 5.01, 2.48 and 5.51. Also, average height, age and weight of boys are 173.60, 21.14, 73, 46 and their standard deviations are 4.44, 2.12 and 6.79.

Table 1 show that there is a significant difference between physical exercises and girls and boys depression. Also, there is a positive correlation between volleyball exercises and boys and girls anxiety. So it can be said that physical and volleyball exercises had an effect on decreasing the anxiety and depression of both boys and girls.

Table 2 shows that there is not a significant difference between physical exercises and girls and boys depression. So it can be said that boys and girls depression average scores is not significant with physical exercises.

Table 3 shows that there is a significant difference between volleyball exercises and anxiety in boys and girls. As you see in the table, volleyball exercises effects positively on boys' and girls' anxiety average.

## DISCUSSION

There is a significant relationship among physical and volleyball exercises and depression and anxiety of boys' and girls'. Wyshak [10] and Norris *et al.* [11] who declare that exercising once a week can lead to the improvement of person's mood and decrease their depression, anxiety and stress. Improving the exercises is related to the improving the psychological factors which are anxiety, concentration, depression and mental preparation and personality. These factors have a direct relationship with the results of working out [10]. Taking into consideration the results of other researches and valid scientific references and the present research with investigates the results of physical and volleyball exercises, in can be declared that not only exercises decrease depression and anxiety but also they palace the mental and psychological factors. So different physical activities have positive effect on decreasing the depression and anxiety.

It seems that every person of any age in any time can benefit from psychological effect of physical activities

and this implies that there is concordance between the present study and previous researches. The lifestyle of university students has- a role in the degree of depression in general. Factors such as class presence, exam participation, homework and projects fulfillment, absence, high expenditure, being far from the family, university and family expectation, brining up the children, taking care of the family, vague future. The relationship between exercises and anxiety is rooted in theoretical and experimental studies. Indeed, most of experiment studies have focused on two questions. The first question is about the relationship between anxiety of athletes and its degree during competition and the second question is about the effect of competition anxiety on the real capability of the person.

Anyway, there was a little attention on the competitive conditions and anxiety from the point of experimental and also the understanding of real potential of a person is investigated a little too. Psychologists believed that physical activities are a fulfillment of a person's psychological need. In fact, achieving psychological, social and mental characteristics is vital for surviving. The product of such an interaction is the adjustment of behavior [19]. From the psychological point of view, sports or other physical activities increase the person's superiority feeling and skills which is of high importance for both health people and those who are suffering from anxiety and depression and feel the lack of life control. Healthy entertaining programs, increasing believes, valuing the youth and their abilities, having programs for future, believing in good life in future, filling the free time, having an education are positive factors which are involved in preventing the psychological pressures. So experts and executors should think of programs to solve such psychological problems. In different researches, different physical activities are investigated to show the decrease in psychological pressures and their component factors and all these studies showed the positive effect of exercise on psychological problems. It seems that there is a serious need of investigation on the effect of each and every exercise on psychological problems. So for achieving physical and mental health of all the society people, we should develop and equip all the gyms and also encourage and guide all people to regular and continues exercise and prevent wasting the potential and capabilities of people and convert the capabilities and potential into dynamic and useful actions. So we can conclude that group sports because of their social and psychological nature lead to mutual agreement, social collaboration and

respecting oneself and others, so the degree of anxiety of those who took part in group sport decrease in comparison with (it is beter to participate in group sports) those who took part in individual one. Fore this reason, it is suggested that those who are suffering from anxiety. It is suggested that people make great use of physical activities as a good means of decreasing anxiety and depression.

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