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**EFFECT OF PARTICIPATION IN LEISURE TIME ON DEPRESSION WITH
EMPHASIS ON THE SPORT PASTIMES**

**AFROUZEH M^{1*}, SHABANI JAHROMI M², ISLAMI JAHROMI MH²,
SABETGHADAM M³ AND AFROOZEH A⁴**

1: Young Researchers Club, Jahrom Branch, Islamic Azad University Jahrom, Iran

2: Department of Exercise Physiology, Jahrom Branch, Islamic Azad University, Jahrom, Iran

3: Department of Obstetrics and Gynecology, Jahrom University of Medical Sciences, Jahrom,
Iran

4: Department of Physical Education and Sport Science, Shahid Beheshti University, Tehran,
Iran

***Corresponding Author: E Mail: M_afrozeh@yahoo.com; Tel.:+989171910002**

ABSTRACT

The Purpose of this study was The Survey Aerobic and Anaerobic on the Level of Boys Students' Depression in Islamic Azad University Jahrom branch. The method of this investigation in field-quasi-experimental. Sixty subjects showing high depression level according to BDI were divided into three groups of aerobic, Anaerobic and control. Aerobic and Anaerobic groups took part in training protocol consisting of 10 weeks, 2 days a week and 60 minutes a day. The Beck Depression Inventory (BDI) whose reliability and validity were confirmed, was used Descriptive statistics, t-test, one -way ANOVA, Tukey test at $\alpha=0.05$ were used to analyze the data. The results showed that aerobic and anaerobic training significantly reduced the level of depression. The results of the present study indicated that different kinds of physical activity especially aerobic exercise had a positive effect on depression symptoms. Therefore, it can be suggested that physical activity can be used as a cheap and suitable methods to reduce depression symptoms in non-athlete males.

Keywords: Aerobic Exercise, Anaerobic Exercise, Depression

INTRODUCTION

Depression is a psychiatric disorder that characterized by despair, sadness, lack of any motivation and hope and decrease of confidence and pessimism [1]. The results show that 15 to 20 percent of society adults have different symptoms of vehement depression; at least 12 percent of developed countries population confers to experts because of vehement depression. It is estimated that 75 percent of those are admitted in mental institution, have some sort of depression, although only one-fifth of them are treated [2]. Mental diseases have long history and in fact, it existed from the beginning of mankind's life [3]. Although no body have security against mental problems and this risk may threat anyone, this inevitable reality should be accepted that if people boost their mental capability, they can learn the ways of problem solving and help themselves for preventing the afflicting of mental diseases. The condition and new life styles and piercing of machinery and modern ways caused that mental problems be prevalent among people even young and adolescent and they encounter with depression, seclude and closet and created complicate hinder in line with the mental and physical development and their social and academic development.

Students experienced special depression because of age condition and special circumstances such as study pressures, cultural differences, uniformity of work and education, uniformity of study and family life. Among these, some students go to university in a city other than their city that encounter special stresses because of separation of their family and friends, dormitory life and cultural and social differences that may overshadowed the performance of these students in terms of happiness. These changes lead to the destabilization of balance and harmony between body and mind that basically causes depression and anxiety. So, according to previous researches, it seems that physical activities and exercise converted depression to happiness and depleted many of internal conflicts and clashes that caused stress. Also, it can increase mental strength, helps the metabolism [4]. Therefore, this study tries to investigate the correlation between exercise and depression by considering the students of Islamic Azad University branch of Jahrom dormitory and in this way, clear the effect of exercise on depression rate. Special researcher sought to determine whether there is significant difference in reduction of

depression for the effect of aerobic and non-aerobic exercise or not.

MATERIALS AND METHODS

Present study is quasi-experimental field kind. The data are arranged to comprise all boy students of Islamic Azad University that 60 of them were selected as samples after completing depression survey. Then, they divided to 3 groups include aerobics, anaerobic and control group that any group has 20 members. The members of experimental groups participated in specific training programs for ten weeks and every week had two sessions and every session took 60 minutes, but the members of control group did not participate in any program. The Beck questionnaire was used to measure the subjects' level of depression. Reliability and validity of questionnaire is investigated in an

orientation study and are found 0.95 and 0.88 by using of Alpha-Kronbakh. Data analysis was performed using t- test and analysis of variance.

RESULTS

The findings indicate that aerobic and non-aerobic exercise is effective in reducing depression in female students. According to **Table 1** and using t-test for comparison of the average of pre-test and post-test at $\alpha=0.05$, it found that aerobic and anaerobic exercises can reduce the depression of female students significantly.

According to **Table 2**, Tukey test shows that the difference between the effects of aerobic and anaerobic exercise on depression is not significant, but there is significant difference between aerobic and anaerobic group and control group.

Table 1: Comparison of Pretest Average and Final Test Average of Samples

Level of significant	Calculated T	Standard deviation	Posttest average	Standard deviation	Pretest average	Group
*	88.2	15.1	18.12	11.2	86.18	Aerobic
*	23.2	58.1	21.15	58.2	91.19	Anaerobic
NS	21.1	25.2	85.19	65.2	28.21	Control

Table 2: Results of the Tukey Test for Samples

Level of significant	Standard deviation	Average difference	Statics Groups
24.3	72.1	-03.3	Aerobic and Anaerobic
24.3	72.1	-67.7*	Aerobic and Control
24.3	72.1	-64.4*	Anaerobic and Control

DISCUSSION AND CONCLUSION

Analysis of the data shows that aerobic and non-aerobic exercise reduces substantially

the depression of female students. The findings of this study suggest the effect of physical activity on depression of female that

is consistent with the results of [1, 5, 6]. While exercise is likely to affect brain chemicals such as serotonin and dopamine, physical activity may cause positive changes at the other parts. Depression is a condition that is characterized with low energy and some people called extreme tiredness, but the exercise has a mood influence that seems eliminate that concerns along with sensate. Light exercise such as 10 minutes walks per day lead to increased energy, although this amount is not enough to reduce the stress. More intense exercises such as aerobic are more effective in reducing stress even it may decrease your energy because that makes they think better about themselves [7].

The results show that anaerobic exercises can also reduce the depression significantly. These results are consistent with the results of Hosseini *et al.*, 1385 [8], Purmokhtar *et al.*, 1987 [9] Steech & Blomental, 2002, [10] and Netz & Leedro, 2003, [11].

Data analysis indicates that aerobic and anaerobic exercises are effective in reducing depression. Data from three group comparison show that aerobic exercise which is performed along with music, has had a greater impact on reducing depression. It is consistent with the results of Vilkinson 2003, [12] and Kull, 2000, [13].

Nowadays, planning for leisure and depleting emotions is essential and sports development is the basic mechanism. According to literature review, almost major scientific evidences and research findings noted that regular different physical exercises caused prevention of various physical and mental diseases and are involved in health and improve of other disorders. For recommendation of regular exercise to people, obviously referring them to research findings in different physical activities field was done that can be more effective and we should pursue female exercise as a clear strategy [14].

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