



## EFFECTS OF PHYSICAL ACTIVITY ON DEPRESSION AND ACADEMIC PERFORMANCE OF MALE STUDENTS OF SECONDARY SCHOOLS IN KERMANSHAH PROVINCE

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### Abstract:

This paper aimed to investigate the effect of physical activity on depression and academic performance of male students of secondary schools in Kermanshah Province conducted. Research method is field and quasi-experimental. The study population consisted of secondary school students in Kermanshah province, the number is 45,000 and statistical sample was 450 randomly selected districts of the city in three groups of athletes (individual and group) and non-athletes group and individual athletes and two groups at least three sessions per week for eight weeks. In addition, each had a half hour of physical activity, while non-athletes in this period did not have any physical activity. In this study, the Beck Depression Inventory questionnaire to collect information needed to assess depression and for academic performance the mean students at the end of school year 2007-2008 used. Statistical methods, descriptive statistics and parametric and non-parametric correlation coefficient appropriate and one-way analysis of variance (ANOVA) and post hoc tests were used. The results showed that physical activity reduces depression and improves academic performance at the significance level ( $\alpha=0.5$ ).

**Keywords:** depression, Kermanshah Province, athletes, team discipline, academic performance

### Introduction

In all fields human knowledge is always in progress and scientific knowledge is one added on its scope is wider, science, physical education and sport is no exception.

Physical education is one of the phenomena that all communities, especially young people need it and can benefit from the valuable fruits, however, if this phenomenon with a set of ideas, beliefs and scientific achievements to be mixed sure, will have a double impact (2). Growing science and technology in the modern world, science is of extreme importance to have found each other. In fact, sciences such as psychology, sociology, medicine, education and physical training alone needs and their deficits are grown without the use of science and expand.

Physical education, in turn, takes advantage of the various sciences and that physical education is of great importance (9). Physical education considered as one of science that derives from human sciences such as psychology, education, sociology, psychiatric, or natural sciences such as physics, chemistry, mechanics, medical, etc. and in this way as new knowledge which, according to one research location was more. In certain fields of science and psychology, especially targeted and with the use of the scientific method, attempts to discover the physical laws of motion as well as various factors psychological, social, cultural, educational, medical, etc. The most effective and best advanced in global health and psychological problems and things that move or achieve will depend on the relationship between them. Science, physical education and sport sciences and also achieve further progress and rose in the community requires a lot of research in this field. Because the field is wide scope and has much in common with other sciences and principles of science is another widely and its principles have been divided thus: "Fundamentals of history, exercise physiology, sport psychology principles, Community Foundations of sport and exercise biomechanics" (3).

In today's world the advancement of technology and automation, has limited human movement and physical activity and sport as a powerful tool in creating mobility and social health, but human life is one of the effects of exercise and physical training on body and soul this shortcoming with the progress of science and research scholars. Researchers and specialists in physical education partly been met, and the role of physical activity in health and human physical and mental health is recognized and has no doubt about the effects of exercise in the prevention and treatment of many diseases. For example, in the prevention and treatment of cardiovascular diseases sports to be remembered as a very important factor, psychologists and psychiatric and neurological patients use it to reduce stress. The expansion of the role of physical activity and exercise in human life, physical education experts and researchers in the world in seeking the role of sport and physical activity and movement in the human brain are forming mental performance, through research the relationship between physical and mental activities to discover (9). Therefore, due to the impact of various aspects of the human mind and body in the task of teachers and trainers is clear and

various aspects of the education of the child shall be taken into account. Moreover, never pay attention to one of the aspects more than others and other aspects remain unaware, we believe in the principle when a reasonable person thinks. Life can be successful in solving problems have a healthy body. The simultaneous growth and health of humans realized returns; the new psychology has also proved that should never neglect the growth of the human body, because the body's growth and development, in the intellectual and character development of individuals is like the famous "healthy mind in a healthy body" confirmed (7).

Depression is a disorder that is very common in the community and especially students in the class can be excellent opportunities for progress and future job placement completely take them.

The necessity of educating students for the future that would guarantee the future of a society, this creates the need to eliminate or reduce them strive mental disorders. One of the ways to reduce depression in students is concerned, their leisure time in various activities including sports activities center is programs focus on sports and sports activities for the students is a special place. Several research results rates of depression in people participating in sports activities compared to non-athletes and athletes have shown (1).

## **Review of Literature**

### **Internal investigations**

Mohammad Safdar Nia in 2008 examined the effect of regular physical activity in individual and team sports centers on the academic achievement of male students in the first year of the new system Abo Rayhan high school, Region 2 Education in Tehran. The effect of regular physical activity on academic achievement measured, the regular activities on two groups of students applied to one group served as the control group is selected. However, the average decline in the group of athletes than non-athletes as well as lower average grade population while reducing the average non-athlete group is greater than the natural average and anyway athletes have higher grade point averages than non-athletes.

Mir Massoud Mirzadeh (1994) in a study entitled "Effects of Exercise on a select group of academic achievement of students in elementary boys Anzali city since religious education as an integral component of a comprehensive education in any accepted, it is appropriate. The unknown effects of the courses also help contribute to the teaching and learning experience is better. Thereby enabling to increase efficiency in education can be attained. This study looked at the effect of exercise to examine student

achievement with regard to the various effects of exercise training in social and cultural life and experimental exercise began on student achievement. The fourth grade students in 17 September, which there are 32 students, were randomly selected and then randomly divided into two experimental and control groups for 10 weeks between first and second was third. The control group did not do any exercise as a result, the experimental group exams after the second third of the mean 1.30 on average achieved while the control group was only 4, which was statistically significant from the point of view (4).

Esmail Nasiri between the public body fitness and academic performance of students in gifted and ordinary first-class high school in Tehran "did, it conclude that: first, students move between school performance and fitness level is not normal. Secondly, on average, there is no significant difference recessions gifted students and ordinary first-class motor fitness tips. Thirdly significant correlation between academic performance and overall fitness level of the gifted students observed, while there was no such communication in relation to the average student (11).

Mohammad Shabani to obtain a master's degree in 1998 to examine the relationship between motor activity and academic performance of their payments concluded that there is a significant relationship between dynamic equilibrium and fourth and fifth grade student's academic performance. While there is no significant correlation between the static balance, coordination, speed, accuracy and perceptual abilities and academic performance motion (6).

Although several studies have shown, there is a relationship between physical activity and academic performance. However, the results show that there is correlation between physical activity and academic performance. However, the results are different in the sense that the correlation between physical activity and academic performance in various studies are not the same, but the level of depression in athletes than non-athletes is low and partly reflecting the effect of exercise on depression.

### **Foreign research**

Backyt Bro, assistant professor of sociology at Wittenberg University in Ohio, in the year (2005), a treatise published sociological education, which concluded that participation in sports activities are more than any other extracurricular activity, improved education is high school teens. Singer first year (1968), a study concluded that the test Stanford-Binet and Wechsler IQ test both highly correlated with the performance (10).

Arendtt (1968) examined the relationship between physical fitness and academic performance of the contract. His analysis concluded, those in higher education are more

successful than physical fitness (10). Kagerze (1970) on the importance of physical activity in the growth and development of children and adolescents concluded that the correlation between physical activity and academic performance is significant (1). The findings of Kirkendal (1986) represent a moderate positive correlation between movements and academic performance (14).

"Sloosh" (1964) the academic performance of different groups of high school athletes and non-athletes compared with 100 people. He used Lorg Thorndiktest test. Players group including 100 baseball player, 100 basketball players, 50 swimmers, 50 wrestler and football player was 100. The results show that non-athlete academic performance of students is significantly higher than in athletes (8). Palmer J.A.L.K; Michiels, Thighben (1995) America about the effects of these structural exercise (aerobic, fitness and circuit training) have started research on depression, and the results showed significant reduction in depression bodybuilding program a sample is triggered (12).

In 1995 Coyle C. P. Santiago M.C in a study of aerobic training and treatment of depression in adults with disabilities did. In addition, the researchers concluded that aerobic training increases aerobic fitness and reduced depression (12). Night and Coln (1983) experimental study with twenty students to performance for the treatment of depression, and they believe were started in Pennsylvania that problems are solved in an acceptable and counselor reported the Group also confirms this point (13).

McMahon (1990) Effects of physical exercise on anxiety, stress, depression and self-confidence investigated. According to the results of the data analysis, he believes the intensity of training with the improvement in sample group members had no direct relationship (5).

## **Methods**

In this study, the academic performance of student athletes and depression groups (a noticeable statistical) compared with the non-athlete. Minister correlation between depression and academic performance of its collections in three groups of subjects have been obtained is quasi-experimental research method. To make these comparisons on school performance and depression in three groups under consideration is the best way ANOVA post hoc tests were used. In addition, try to be as much as possible the number of sessions at the center of sports, exercise three times a week for eight weeks done.

For the academic performance of the students' average grade of group activities (150) singles (150) and 150 disabled athletes extracted scale of 0 to 20 degree in the 2008-2007 school years in selected secondary schools in the city are studying. The rate of depression for selected students groups and individual and non-athletes of the Beck

Depression levels from the point that subjects filling out the questionnaires used Beck Depression Inventory obtained. The researchers are working and that is the type of physical activity on academic performance and depression is effective or not?

### **Population**

The population of this study included all middle school students in Kermanshah province, 2008-2007 academic years to a total of 45,000 people.

### **Sample**

According to its vast population, after coordination with the Department of Education in Kermanshah province cities - Qasr-e Shirin, Gilan Gharb, Sarpoolzahab, Islamabad Gharb, Gahvareh, Karand Gharb, Gavavr, Mahidasht, Rawansar randomly chosen that (10) city of the province are appropriately qualified and researchers to choose samples in the early years of secondary school. The second and third goals of the research outlines deals and in relation to the characteristics of the subjects mentioned. Accordingly, the total numbers of 450 students, high school students qualify are listed. In three groups of 150 people in individual and team sports athletes elected by non-disabled students this is the condition for both groups of students. Individual sports in the regular raising of the 2008-2007 school years in sports associations to participate in physical activities and other groups do not participate in physical activity or possibly have no desire to engage in physical education classes.

### **Methods of data collection**

To collect information on this study, three groups of students used, two groups of students are regular physical activities and athletic fields and individual sports associations are active in the academic year 2008-2007 and the third group of non-athletes who formed and they do not do regular exercises. For the academic performance of the subjects that the average grade mined and used their qualification and also to measure the Beck depression score that is elected by filling out the questionnaires used Beck Depression Inventory obtained.

### **Results**

#### **Inferential analysis of data**

In this segment by using inferential statistics and analytical processes, assess the statistical hypotheses concerning the purposes of research. Generally in this section are presented separately for each of the goals. Computer calculates Pearson correlation

coefficients of correlation coefficients and a significant amount of the resulting probability tables.

**Table 1:** Correlation between variables in terms of sport and academic performance, depression

Depression intensity Kind of sport	Lack of depression	Borderline depression	Mild depression	Moderate depression
Group				
R	068.0	-246.0	866.0	-
r 2	0046.0	060.0	75.0	-
p	492.0	142.0	005.0	-
N	105	37	8	-
Single				
R	-046.0	-224.0	536.0	-396.0
r 2	0021.0	050.0	28.0	157.0
p	659.0	234.0	036.0	257.0
N	95	30	15	10
Athlete				
R	-019.0	082.0	203.0	131.0
r 2	00036.0	0067.0	041.0	015.0
p	863.0	665.0	404.0	629.0
N	85	30	19	16

### Study of special purpose (2)

Calculating the correlation between lack of depression and academic performance in the subjects of team sports, individual and non-athletes

- Calculating the correlation between lack of depression and academic performance in the subjects of team sports:

According to the findings of the table 1, a significant amount table (0.492) at 5% level is not significant ( $0.492 < 0.05$ ) and therefore, there is no correlation between these two variables in the subjects of this group.

In other words, the null hypothesis of no correlation between these two variables or ( $R=0$ ) in this group will not be rejected at the significant level 0.05. Coefficient of determination (0.0046) in the table is very small and is almost close to zero, indicating no relationship between these two variables in this group.

- Calculating the correlation between lack of depression and academic performance in the subjects of single sports:

According to the findings of the table 1, Pearson correlation coefficient (0.046), significant quantities table (0.659) was not at 5% level significant ( $0.659 < 0.05$ ) and therefore, there is no correlation between these two variables in the subjects of this group. In other words, the null hypothesis of no correlation between these two variables or ( $R=0$ ) in this group will not be rejected at the significant level 0.05. Coefficient of determination (0.0021) in the table is very small and is almost close to zero, indicating no relationship between these two variables in this group.

### **Study of special purpose (3)**

- Calculating the correlation between lack of depression and academic performance in the subjects of non-athlete sports:

According to the findings of the table 1, Pearson correlation coefficient (0.019), significant quantities table (0.863) was not at 5% level significant ( $0.863 < 0.05$ ) and therefore, there is no correlation between these two variables in the subjects of this group. In other words, the null hypothesis of no correlation between these two variables or ( $R=0$ ) in this group will not be rejected at the significant level 0.05. Coefficient of determination (0.0036) in the table is very small and is almost close to zero, indicating no relationship between these two variables in this group.

### **Study of special purpose (4)**

Calculating the correlation between borderline depression and academic performance in the subjects of team sports, individual and non-athletes

- Calculating the correlation between borderline depression and academic performance in the subjects of team sports:

According to the findings of the table 1, Pearson correlation coefficient (0.226), significant quantities table (0.334) was not at 5% level significant ( $0.234 < 0.05$ ) and therefore, there is no correlation between these two variables in the subjects of this group. In other words, the null hypothesis of no correlation between these two variables or ( $R=0$ ) in this group will not be rejected at the significant level 0.05. Coefficient of determination (0.0046) in the table is very small and is almost close to zero, indicating no relationship between these two variables in this group.

- Calculating the correlation between borderline depression and academic performance in the subjects of non-athlete sports:

According to the findings of the table 1, Pearson correlation coefficient (0.082), significant quantities table (0.665) was not at 5% level significant ( $0.665 < 0.05$ ) and therefore, there is no correlation between these two variables in the subjects of this group. In other words, the null hypothesis of no correlation between these two



variables or ( $R=0$ ) in this group will not be rejected. Coefficient of determination (0.05) in the table is very small and is almost close to zero, indicating no relationship between these two variables in this group.

### **Study of special purpose (5)**

Calculating the correlation between mild depression and academic performance in the subjects of non-athlete sports:

- Calculating the correlation between mild depression and academic performance in the subjects of team sports:

According to the findings of the table 1, Pearson correlation coefficient (0.866), significant quantities table (0.005) was not at 5% level significant (0.05 and 0.005). In other words, the null hypothesis of no correlation between these two variables or ( $R = 0$ ) in this group will not be rejected. Coefficient of determination (0.75) in the table is remarkable and indicating relationship between these two variables in this group.

- Calculating the correlation between mild depression and academic performance in the subjects of single sports:

According to the findings of the table 1, Pearson correlation coefficient (0.536), significant quantities table (0.039) was not at 5% level significant ( $0.039 < 0.05$ ) and therefore, there is no correlation between these two variables in the subjects of this group. In other words, the null hypothesis of no correlation between these two variables or ( $R=0$ ) in this group will not be rejected. Coefficient of determination (0.28) in the table is small, indicating weak relationship between these two variables in this group.

- Calculating the correlation between mild depression and academic performance in the subjects of non-athlete sports:

According to the findings of the table 1, Pearson correlation coefficient (0.203), significant quantities table (0.404) was not at 5% level significant ( $0.404 < 0.05$ ) and therefore, there is no correlation between these two variables in the subjects of this group. In other words, the null hypothesis of no correlation between these two variables or ( $R=0$ ) in this group will not be rejected. Coefficient of determination (0.041) in the table is small and is almost close to zero, indicating no relationship between these two variables in this group.

### **Study of special purpose (6)**

Calculating the correlation between moderate depression and academic performance in the subjects of non-athlete sports:

- Calculating the correlation between moderate depression and academic performance in the subjects of single sports:

According to the findings of the table 1, Pearson correlation coefficient (0.396), significant quantities table (0.257) was not at 5% level significant ( $0.05 < 0.257$ ) and therefore, there is no correlation between these two variables in the subjects of this group. In other words, the null hypothesis of no correlation between these two variables or ( $R=0$ ) in this group will not be rejected. Coefficient of determination (0.15) in the table is remarkable and indicating relationship between these two variables in this group.

- Calculating the correlation between moderate depression and academic performance in the subjects of non-athlete sports:

According to the findings of the table 1, Pearson correlation coefficient (0.131), significant quantities table (0.629) was not at 5% level significant ( $0.629 < 0.05$ ) and therefore, there is no correlation between these two variables in the subjects of this group. In other words, the null hypothesis of no correlation between these two variables or ( $R=0$ ) in this group will not be rejected. Coefficient of determination (0.015) in the table is small, indicating weak relationship between these two variables in this group.

### Study of special purpose (7)

The correlation between depression and academic performance in the subjects of team sports, individual and non-athletes

The correlation between depression and academic performance in the subjects of team sports:

**Table 2:** Correlation between depression and academic performance variables depending on the type of sport

Kind of sport	Depression / Academic performance
Group	
r	-160.0
r <sup>2</sup>	0256.0
p	048.0
N	150
Single	
r	047.0
r <sup>2</sup>	001.0
p	569.0
N	150

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Non-athlete	
r	<b>-117.0</b>
r <sup>2</sup>	<b>0136.0</b>
p	<b>152.0</b>
N	<b>150</b>

According to the findings of the table 2, Pearson correlation coefficient (-0.168), significant quantities table (0.048) was not at 5% level significant ( $0.048 < 0.05$ ) Therefore, due to the proximity of the two values between these two variables in the subjects of this group, and a weak inverse correlation can be observed. In other words, the null hypothesis of no correlation between these two variables or ( $R = 0$ ) in this group will not be rejected. Coefficient of determination (0.256) in the table is small, indicating weak relationship between these two variables in this group.

- Calculating the correlation between depression and academic performance in the subjects of team sports:

According to the findings of the table 2, Pearson correlation coefficient (-0.047), significant quantities table (0.569) was not at 5% level significant ( $0.569 < 0.05$ ) and, there is no correlation between these two variables in the subjects of this group. In other words, the null hypothesis of no correlation between these two variables or ( $R = 0$ ) in this group will not be rejected at the significant level 0.05. Coefficient of determination (0.001) in the table is very small and is almost close to zero, indicating no relationship between these two variables in this group.

- Calculating the correlation between depression and academic performance in the subjects of non-athlete sports:

According to the findings of the table 2, Pearson correlation coefficient (0.117), significant quantities table (0.152) was not at 5% level significant ( $0.152 < 0.05$ ) and therefore, there is no correlation between these two variables in the subjects of this group. In other words, the null hypothesis of no correlation between these two variables or ( $R = 0$ ) in this group will not be rejected at the significant level 0.05. Coefficient of determination (0.136) in the table is very small and is almost close to zero, indicating no relationship between these two variables in this group.

Comparing the academic performance of team sports, individual and non-athletes:

**Table 3:** Descriptive statistics related to the variable of academic performance based on sample groups of subjects

Kind of sport	Number	Average	Standard deviation	Standard error	Confidence level 95% of the average	
					Upper limit	Lower limit
Group sport	150	5893.15	36654.1	11158.0	8098.15	3688.15
Single sport	150	1676.15	56887.1	12810.0	4207.15	9145.14
Non-athlete	150	1372.14	42088.1	11601.0	3664.14	9076.13
<b>Total</b>	<b>450</b>	<b>9642.14</b>	<b>57458.1</b>	<b>07423.0</b>	<b>1106.15</b>	<b>8188.14</b>

**Table 4:** ANOVA to compare the academic performance of the students in the sample group

	Sum of squares	Degrees of freedom	Mean Square	Statistics about Fisher F	A significant amount
Intergroup	405.167	2	703.83	559.39	001.0
Intergroup	807.945	447	116.2		
<b>Total</b>	<b>212.1113</b>	<b>449</b>			

According to the table 4, as you can see value ratio statistics Fisher ( $F=7.58$ ) and a significant amount equal to (0.001), which is statistically significant at the 5% level ( $0.001 < 0.05$ ) and thus it can be concluded that physical activity affect academic performance of subjects. In other words, assuming that the academic performance of students in three different groups (group athletes - individual athletes and non-athletes) at significance level of 5% is strongly rejected. LSD post hoc test to identify differences in the (Post hoc) used SPSS software, which the following have been dealt with.

**Table 5:** Task-state tuition mean difference post hoc test subjects sampled on LSD

Kind of sport (I)	Kind of sport (J)	Amount of (I-J) Mean differences	Standard error Average	Significance level
Group sport	Single sport	0.4217*	0.16796	0.012
Group sport	Non-athlete	1.4521*	0.16796	0.001
Single sport	Non-athlete	-0.4217*	0.16796	0.012
Single sport	Group sport	1.0304*	0.16796	0.001
Non-athlete	Group sport	-1.4521*	0.16796	0.000
Non-athlete	Single sport	-1.304*	0.16796	0.001

According to Table 5, the second column mean mass values are two-by-two. Items that are marked with an asterisk indicate a significant difference between the two groups is average academic performance. Based on the significant amount obtained from the last column, academic performance between students who have done physical activity for group exercise at the 5% significance level with the other two groups, respectively (0.012 and 0.001) are significant difference. (0.012 <0.05) and 0.001 <0.05) academic performance among students as well as individual athletes with non-athletes with a value of 0.000 is significant at the 5% level. In other words, according to the mean difference (+ 0.4217 + 1.45 and +1.03), it can be concluded that the academic performance of students who do physical activity for team sport compared with students who are doing individual sports and non-athletic students at a higher level and this difference is statistically significant. Students work individually and compared with non-athletes also seen significant and individual athletes have better academic performance compared to non-athletes.

**Review of specific objective (8) (check the effect of exercise on depression in students)**

Comparing rates of depression among a group of athletes, individual and non-athletes

**Table 6:** Descriptive statistics related to variable rates of depression in a sample of subjects

Kind of sport	Number	Average	Standard deviation	Standard error	Confidence level 95% of the average	
					Upper limit	Lower limit
Group sport	150	6.7067	4.81545	0.39318	7.4836	5.9297
Single sport	150	8.4133	6.75872	0.55185	9.5038	7.3229
Non-athlete	150	9.6333	7.70463	0.62908	10.8764	8.3903
<b>Total</b>	<b>450</b>	8.2511	6.63302	0.31268	8.8656	7.6366

**Table 7:** One-way analysis of variance for comparing the average rate of depression in the test sample groups

	Sum of squares	Degrees of freedom	Mean Square	Statistics about Fisher F	A significant amount
Intergroup	648.324	2	324.162	7.584	<b>001.0</b>
Intergroup	1916.300	447	42.743		
<b>Total</b>	19754.624	449			

According to the table 7, as you can see value ratio statistics Fisher ( $F=7.58$ ) and a significant amount equivalent to ( $0.001$ ), which is statistically significant at the 5% level ( $0.05 < 0.001$ ). Thus, it can be concluded that physical activity can affect the amount of depression or in other words, assuming that the rate of depression in three different groups of students (athletes - individual athletes and non-athletes group) there are significant at the level of 5% strongly rejected. LSD post hoc test to identify differences in the (Post hoc) SPSS software we use that has dealt with.

Result of depression post hoc test for multiple comparisons among sample groups of subjects:

**Table 8:** Results of post hoc test for multiple comparisons rates of depression among the subjects of the sample

Kind of sport (I)	Kind of sport(J)	Amount of (I-J) Mean differences	Standard error Average	Significance level
Group sport	Single sport	-1.7067*	0.75493	0.024
Group sport	Non-athlete	-2.9267*	0.75493	0.001
Single sport	Non-athlete	1.7067*	0.75493	0.024
Single sport	Group sport	-1.2200	0.75493	0.107
Non-athlete	Group sport	2.9267*	0.75493	0.001
Non-athlete	Single sport	1.2200	0.75493	0.107

According to Table 8, in the second column mean values of the groups listed items are marked with an asterisk indicate a significant difference between the two groups is average depression based on the significant amount obtained from the last column. The rate of depression among subjects who have done a team sport and physical activity for the 5% level with the other two groups, respectively ( $0.024$  and  $0.001$ ) differed. ( $0.024 > 0.05$ ) and ( $0.001 < 0.05$ ). In other words, according to the mean difference ( $1.7067$  and  $-2.92$ ) we can conclude that depression in students who are doing physical activity for team sport compared with students who are doing individual sports and non-athlete students is at a lower level. This difference is statistically significant and perhaps dynamism resulting from participation in team sports was the cause of it. Students work individually compared with non-athletes are not significant, given the significant amount ( $0.107 > 0.05$ ) difference in the rate of depression is not significant at 5% level.

## **Discussion and Conclusion**

Given the importance of physical activity in improving depression and academic performance, here, results and important data from this study and similar studies will be examined. As a result of data describing the research shows that the average variable rate of depression among students who are doing the exercise group compared to students who are doing individual sports and non-athletes is at a lower level that could result from the impact of physical activity on a significant reduction of depression.

### **Result of special purpose (1)**

Students who do individual and group physical activity for better academic performance compared to non-athletes is due to the impact of physical activity. The result is consistent with the result of research Ahmed Farokhi in (1998) Najarian (2006) Ayzemoor (1964), Ascorbic (1956) and Bidaloof (1954) and is inconsistent with the result of research Hassan Khalaji (1998) and Klio Johnson (1967).

### **Result of special purpose (2)**

The correlation between depression and academic performance in subjects absence of team sports, individual and non-athletes. The correlation between depression and academic performance in the subjects of the lack of team sports, individual and non-athletes are not significant at the alpha level of 5%. The absence of depression and academic performance in the subjects of team sports, individual and non-athletes, there is no correlation, which show that the relationship between these two variables in the three groups of subjects. The result is consistent with the result of research Susan Rafee (2007) Vazligman (1979) the result is inconsistent with the result of research Hadi Soltani (1994) William Nelson (1980).

### **Result of special purpose (3)**

The correlation between depression and academic performance in the subjects of border team sports, individual and non-athletes. The calculation of cross-border solidarity between depression and academic performance in the subjects of team sports, individual and non-athletes show the alpha level of 5 percent was not significant, correlation between these two variables there in three subjects. Border, indicating no relationship between depression and academic performance in the subjects of team sports, individual and non-athletes. The result is consistent with the result of research Rahimian (1996) and the result is inconsistent with the result of research of the investigation Ramirez (1987).

#### **Result of special purpose (4)**

Calculation between mild depression and academic performance in the subjects of team sports, individual and non-athletes. In the calculation of mild depression and academic performance in the subjects of team sports, individual and non-athletic, but in non-athletes between mild depression and academic performance is not significant at the alpha level of 5 per cent and there is no correlation between the two variables, indicating no relationship between mild depression and academic performance in non-athletes. The result is consistent with the result of research Mehdi Mohammad Nejad (1993) Taban Alian (2006) Daniel Tar Mast (2007) and Slimagan (2000) and the result is inconsistent with the result of research Strand and Knife (1955) and Farvardin Ramazani (1997).

#### **Result of special purpose (5)**

The correlation between moderate depression and academic performance in the subjects of team sports, individual and non-athletes. The correlation between moderate depression and academic performance in the subjects of team sports, individual and non-athletic, the two variables in team sports is not a lack of measurable frequency. Non-athletes in calculating the average between depression and academic performance is not significant at the alpha level of 5% and there is no correlation between the two variables in this group, which represents the average relationship between depression and academic performance in non-athletes. The result is consistent with the result of research Saeed Pahlevanzadeh and Mahmood Nassiri (2006) and McCann (1984) the result is inconsistent with the result of research Behnam Qasemi (2000).

#### **Result of special purpose (6)**

The correlation between depression and academic performance in the subjects of team sports, individual and non-athletes. By calculating the correlation between depression and academic performance in the subjects of team sports, individual and non-athletes show that team sports inverse relationship between depression and poor academic performance. This means that to some extent we can say that students who are doing group activities. But the correlation between depression and academic performance testing of individual sports and athletes are not significant at the 5% level between depression and academic performance in individual subjects and non-athlete there is no correlation, which represents the relationship between depression and academic performance in individual subjects and non-athletes. The result is consistent with the result of research Morteza Naghibi (2006), Soleimoni (1994), Biti - Yi - Yi (1995) the



result is inconsistent with the result of research Aslan Zadeh (1996), Hoshang Mehryar (1994), Roach Vebrown (1970), Duane E. Ji (1978).

### **Result of special purpose (7)**

Comparison between the academic performances of team sports, individual non-athletes is one of the main objectives of the study. By comparing the academic performance of athletes in a group, individual non-athletes show that in terms of academic performance between students that physical activity as a group have done at the level of alpha 5% to group individual physical activity are the non-athlete group there is a significant difference and is located at a higher level of academic performance. The result is consistent with the result of research Ahmad Farokhi, Nasser Soleimani, Gholam Reza Seraj Zadeh, Esmail Nasiri, Mohammad Shabani, and Beckett Boro associate professor at the University Ou Yu (2005) on teenagers in high school in AIDS Moore (1951) Veltsoon (1964), Bidaloof, Ascorbic, Milroodizni (1963), Bengestoon (1966), Arendt (1968), Kajrz (1970), Cair Kendall (1968) and Chang and Chang (1967). The result is inconsistent with the result of research Esmail Nasiri, Shafi Nia (1987), Keillor and Johnson (1967), Davis and Berger (1973), Sloosh (1964).

### **Result of special purpose (8)**

Compare rates of depression among athletes of group, individual and non-athletes is one of the main objectives of the study. By comparing rates of depression among a group of athletes, non-athletes solo show that the depression of physical activity as a group have done and the alpha level of 5% of those who have done physical activity and non-athletes, there is a significant difference due to the dynamism arising out of participation in physical activity group.

### **Suggestions**

1. Due to a decrease in average non-athlete students, recommended parents and coaches have paid more attention in this field and the possibility of their participation in sporting activities provide.
2. Due to the influence of physical activity on reducing depression; authorities need to review hours of physical education and leisure students seem necessary.
3. It is recommended to coaches and sports teachers with lesson plans suitable physical activity in physical education classes in schools to implement on a regular basis.

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STUDENTS OF SECONDARY SCHOOLS IN KERMANSHAH PROVINCE

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