



THE COMPARISON OF SINGLE-FIELD AND TEAM ATHLETES AND NON-ATHLETIC STUDENTS' MENTAL HEALTH IN TARBIAT MODARES UNIVERSITY

Siavash Khodaparast Sareshkeh^{1*}, Sajjad Soleimani Keshayeh¹,
Vahid Bakhshalipour¹, Majid Keramati Moghadam²

¹Department of Physical Education and Sport Sciences, Lahijan Branch,
Islamic Azad University, Guilan, Lahijan, Iran

²M.Sc Sport Psychology, Karaj Branch, Islamic Azad University, Karaj, Iran

Abstract:

The purpose this study is to compare the mental health of single-field and team athletes, non-athletes, and MA with Ph.D. students. To this end 135 single-field athletes and 69 team athletes who were all students were selected as sample. The methodology adopted is causative-comparative and field work. The research population consists of all the students in Tarbiat Modares University. The population of its non-athletes is 6032 and that of athletes 298. On the basis of Morgan table, 680 non-athletes and 204 athletes who were in the university team were selected as the statistical sample. The instrument used in this study was General Health Questionnaire (GHQ). The statistical analysis used to compare groups was Kruskal-Wallis and Mann-Whittney U was used for two by two comparisons of groups. The results show there is no significant difference between the mental health scales of the single-field and team athletes. The single-field athletes in all scales and team athletes in general mental health scale and physical signs/social function disorder differed significantly from non-athletes in a way that single-field athletes and team athletes appeared to be mentally more healthy than non-athletes. Compare other MA and Ph.D. students in their mental health. Results revealed a significant difference between the groups in their general mental health and the two subscales of physical signs and social function disorder in a way that Ph.D. students turned out to have more mental health than M.A students.

Keywords: mental health, MA athletes, athletes, single-field and sport activities

Introduction

In past decades, huge changes were in the industrial world and considerably surround the lifestyle of many human communities. This has caused people to reduce physical activities, and have problems and diseases such as obesity, muscle weakness, cardiovascular and respiratory disease.

However, due to developments on the world health situation there is less risks to face this kind of problems. The considerable problem is emergence and growth of mental disorders (Park, Patton and Kim, 2010).

This is very import particularly in Graduate students. However, students often chosen people of the community and important role are considered of them in the structure of many social, cultural and economic, but several studies show that students also have a variety of disorders and emotional problems (Nariman, Akbarzadeh and Hamzeh, 2010). According to the World Health Organization (WHO) someone who is not having a mental health is not considered healthy. This message also is confirmed by Pan American Health Organization and World Federation of Mental Health (Rajmil et al., 2010).

Purpose of mental health is the certain aspects such as human intelligence, mind and thought. According to someone has mental health, that who has no symptoms of anxiety and disability, able to establish communication with others and able to deal with the pressures of life (Kamau, 2012). On the other hand, research and studies in the field of psychology and sport has shown that exercise and physical activity is one of the most effective methods to prevention and treatment of mental diseases.

McConville (2003) detected nine factors in creating the welfare and mental health, that one of the most important factors is doing sport and physical activity. Benton and Terry Levi (1997) have shown that participation in physical activity and increasing cardio-vascular preparation are seen an important factor in improving mental health and temperament. Ruth and Holmes (1985) observed that, students were engaged in physical sports compared with less physical activity have less health problems related to stress and symptoms of depression.

Falking and Sime (1981) believe that an anaerobic exercise is effective in removing anxiety and depression and general psychological discomfort. Narimani (2007) compared mental health (physical symptoms, anxiety, depression and dysfunction) of students in individual and team athletes with non-athletic and found out the amount of social dysfunction of team sports athletes than individual athletes and non-athletic and depression in non-athletes was more than two other groups. Also comparing each of the subscales between boys and girls athletes found that boys mean

depression was more than girls. Research results from Wang et al (2004) shows that any form of physical activity can protect and provide mental health. Sport is creating positive change, satisfaction with their sense of competence and efficiency play important role that are the component of mental health.

In his study concluded that following physical exercises, characters such as anxiety, depression and self-esteem varies to improvement (Macmahon, 2013). Cooper (1989) believes that without regard to types of exercise activities that classified as aerobic have the most effects in terms of physiological and psychological.

Studies related to the impact of exercise on long-term personality traits and mental health has shown that sports and physical education not only are known as a recreational activity but also as a learning-educational tool, have plenty of social-psychological goals (Kamau, 2012).

Any move experience or physical change, have a mental change or experience as an outcome. Sport is one of important methods of physical, mental and social development, because participating in sport activities provides many opportunities to become skilled in community.

Carroll, (1979) refers some environmental conflicts affecting mental health of students, such as multiple social recreation desires interesting to study, interesting good physical condition rather than limbs limitation, need to progress in study and no have incompetent feel, fear of personality showing rather than self-expressing Occupation choice. The results Jahany-Hashemi (2005) showed that the disorder in men is 4/3 percent and 9/12 percent in women.

Anxiety and depression are considered as trends and common mental disorders. So, Ghaffari (2006) studies results shows that non-athletes depression is less than professional and non-professional athletes. Ainsworth and et al Studies (2005) suggests that physical activity and exercise has effect in promoting mental health, reducing depression, increasing welfare, mental and social health, self-confidence, self-believe and self-discovery. Morgan concluded using POM questionnaire that depression, anxiety, fatigue, confusion, fear of success are low in athletes but their potency is high.

Since many researchers have been emphasized physical activity and sport as a tool to prevent diseases and disorders and improving mental conditions, including physical symptoms, anxiety and sleep disorders, impaired social functioning and mental depression, and due to obvious differences in physiological and psychological characteristics of athletes of different sport fields and their differences with their non-athletic, in this study compared individual and team athletes mental health with non-athletic. So, by using the results of this study, it can be to have better program with

sport activities, to improve mental health dimensions and reduce mental and emotional stress of people.

Materials and Methods

Present study is causal-comparative. The statistical population include all of Tarbiat Modares University students in the 88-87 academic year that studying master's and Ph.D. The student population is 6337 people that non-athlete students are 3660 men and 2372 women and athletes student population are 220 males and 78 women.

Statistical sample of this study among non-athletic, including 350 males and 330 females and among athletes, including 140 males and 64 females which were selected random-class form based on the Morgan table. The tools used in this study is general health questionnaire with 28 questions (GHQ) that designed by Goldberg and Hillary (1979), and as a standard tool that used in 70 countries such as Iran.

Reliability of this questionnaire is calculated 91% by Palahang and et al, This questionnaire has 4 branches and each sub-scale has 7 questions that include:

- a. physical symptoms scale;
- b. anxiety and sleep disorders scale;
- a. impaired social interaction;
- b. depressive symptoms.

Different methods have been proposed for scoring this test Likert simple method has been used in this study. According to this method to score each answer zero to three (3-2-1-0) is belong. Overall score of each individual score is obtained sum of the four sub-scales.

Kruskal Wallis test used to compare groups as a statistical method and to demonstrate significant differences between the two - two groups, Mann-Whitney U test and Z are used.

Results

Total number of samples was 884 that average age is 26 years. Athletes includes two groups of, ((individual)) and ((team)) sports so that the individual were 135 and team fields is also included 69 people, including 11 individual and, 3 team fields (Table 1 and 2). 508 people (78.3 percent) of Non-athletic students and 141 people (1. 69 percent) athletes were Master students and 141 people (7. 21 percent) of non-athletic students and 63 patients (9.30 percent) of athletes were Ph.D. students.

Table 1: Frequency of individual students in a separate sports field

Fields	Yoga	Kong Fu	Aerobics	Fitness	Chess	Badminton	Fitness	wrestling	Field	Track and	Tennis	Rock climbing
Number of male students	2	4	--	13	3	--	36	4	5		6	2
Number of female students	6	--	12	12	3	9	5	--	--		2	1
Total	135											

Table 2: Frequency of students in a separate field sports team sports

Field and code	Football	Volleyball	Basketball
Number of male students	51	4	--
Number of female students	--	5	9
Total	69		

Based on Whitney U test, research results show that between mental health of team sports fields students comparing with individual sports fields students is no significant differences (Table 3).

However, individual athletes in all scales and group athletes' scale overall mental health, general physical symptoms and social function impairment, had significant differences compared with non-athletic. So, the individual and group athletes had better mental health than non-athletic students ($p < 0.05$), (Table 4, 5).

Table 3: static related to mental health and the scale between individual and team athletes

Degree Indices of mental	Individual athletes	Athletic team	z	Significant level
	Average Rating	Average Rating		
Mental health	30.100	80.106	-0.74	0.45
Physical symptoms	29.101	92.101	-0.07	0.94
Anxiety and sleep disorders	23.100	00.104	0.43	0.66
Impaired social functioning	18.99	99.108	-1.13	0.25
Depression	84.98	14.108	-1.10	0.26

Lower average represents better mental health

Table 4: static related to mental health and the scale between individual athletes and non-athletic

Degree Indices of mental	Individual athletes	Non-athletic	z	Significant level
	Average Rating	Average Rating		
Mental health	19.220	09.279	-3.87	0.000
Physical symptoms	22.225	58.276	-3.40	0.001
Anxiety and sleep disorders	31.234	48.273	2.58	0.001
Impaired social functioning	02.216	52.280	-4.28	0.000
Depression	62.229	08.275	-3.28	0.002

Lower average represents better mental health

Table 5: static related to mental health and the scale between team athletes and non-athletic

Degree Indices of mental	Athletic team	Non-athletic	z	Significant level
	Average Rating	Average Rating		
Mental health	75.197	85.236	-2.25	0.02
Physical symptoms	98.195	49.236	-2.33	0.02
Anxiety and sleep disorders	46.207	50.234	-1.52	0.12
Impaired social functioning	16.202	08.236	-1.96	0.04
Depression	93.213	01.234	-1.17	0.24

Lower average represents better mental health

Research findings in relation to student educational level and the significance average of the mental health scores is presented in Table 5. As you consider, scores mean in all scales for Undergraduate Ph.D. is lower than master students in athletic group.

This difference in mental health scale and general physical symptoms and **Impaired social functioning** scales are significant ($P < 0.5$) and showed better mental health for doctoral students than master student in this scale.

Table 6: Central indicators for mental health status of athlete's student with Degree separation

Degree Psychological indicators	Masters	Ph.D.	Z	Significant level
	Average Rating	Average Rating		
Mental Health	23.107	85.88	-2.07	0.03
Physical symptoms	93.106	52.86	-2.34	0.01
Anxiety and sleep disorders	96.103	19.93	-1.21	0.22
Impaired social functioning	78.107	65.87	2.28	0.22
Depression	56.102	50.97	0.58	0.55

Discussion and Conclusion

The statistical analysis results showed that psychological scales between students participating in team sports and individual sports are no significant differences ($p < 0/05$). This is consistent with the results of some studies. Singer believes that the personality dimensions are similar for individual and team in Athletic group except self-confidence factor.

Sharifi (2010) in his study as the relationship between the amount of participation in sports activities and public health concluded that there is no significant difference between the public health and group and individual athletic fields. Aslasher and colleagues compared the wrestling fields, football, basketball and swimming athletics and concluded that football and wrestlers are similar in the psychological characteristics. In other words, there is no difference between the psychological characteristics of team sports fields (football) and individual (wrestling). While in basketball, team was a mild depression.

Nourbakhsh (2007) compared Women's mental health of participating athletes in individual and team fields of fifth Students sport Olympiad, and showed that basketball as well as trace and field athletes rather than handball athletes have better mental health.

Considering no clear difference in psychological characteristics of individual and team sports, it can be expressed that the impact of individual and team sports of students on mental health is a same. The results of these findings match with results of Aslashr and colleagues (2005) and Sharifi (2010) and do not match with the results of Narimani (2012).

Also, individual athletes in all scales and group athletes' scale overall mental health, general physical symptoms and social function impairment, had significant differences compared with non-athletic. So, the individual and group athletes had better mental health than non-athletic students.

According to the results of these findings, it seems that one of the factors that cause student athletes have better mental health than non-athletic students is their participating in healthy activities such as sport activities. Tuckers research results showed, that physical fitness significantly reduces mental disorders in people. Research has shown that sports such as yoga and deep breathing exercises in the open air, increase alpha brain wave activity and creates relaxation.

Athletes that, participate different sports field based on personal interests, tastes the exposure groups, sports cooperation, and cooperation with them and enjoy the new friendships. This may be cause removing such feelings and dissociable and helps create collective spirit, while non-athletic students deprived this opportunity. Another objective of this research was determining mental health of Ph.D. student athletes and master students. Result showed doctoral students compared to master students are better in scales of physical and mental health and social performance.

Jahani Hashemi (2009) conducted research on the mental health of Qazvin University of Medical Sciences and concluded that the average prevalence of mental disorders in Ph.D. students is less (6/2) compared with undergraduate students (6/9) and Associate (3/14). In other Research, the effect of mental health status for academic progress were studied and showed students who were high levels of mental pathology experience, have less ability to do their academic assignments.

Seems to psychological difference between the two sections can be due to the sensitive situation in terms of cultural- social and economic situation M.Sc. students. that is still limited stabilization of the job and financial community rather than (Ph.D.) students and dependent family, and also little experience in basic life issues such as marriage and various stress, such as Ph.D. and researchers tests are entitled, thus they follow the goals and expectations are irrational in the face of the facts, feelings of competence and will be losers. Masters students probably due to more opportunity and time rather than doctoral students and using the virtual environment such as the Internet and computer games and lack of adequate mobility, benefit low mental health. Results of this findings matches with results of Hosseini (2012) and Masudzadeh (2007).

References

1. Brackney. B., E. Karabenhc. (2011). Psychopathological and academic performance. The role of motivation and learning strategies. *Journal of Counseling Psychology*, 42(4): 460-465.

2. Kamau CW. Burnout. (2012). locus of control and mental health of teachers in eastern province of Kenya, Unpublished PhD. Thesis in Education submitted in Punjab University Chandigarh, Chandigarh, 123-129.
3. Katrien Wijndaelea, Lynn Mattonb, Nathalie Duvigneaudc, Johan Lefevreb, Ilse De Bourdeaudhuija, William Duquetc, Martine Thomisb, Renaat M. Philippaerts. (2007).
4. Macmahon J. (2013). The Psychological benefits of exercise and the treatment of delinquent adolescent. *Sport Med.* 1990, 83: 344-351.
5. Martin Prince, Vikram Patel, Shekhar Saxena, Mario Maj, Joanna Maselko, Michael R Phillips, Atif Rahman. (2010). No health without mental health. *Global Mental Health* www.thelancet.com Vol 370:120-131.
6. Mc Convill, B. (2003). Revealed nine ways to find your inner happiness, www.Thecostman.co.uk/in;e.cfm?id:12627.
7. Mc Convill, B. (2009). Revealed nine ways to find your inner happiness, www.Thecostman.co.uk/in;e.cfm?id:12627.
8. Nariman A, Akbarzadeh M, Hamzeh M. Evaluation of general health in medical students of AJA University of Medical Sciences, 2009. *HBI_Journals.* 2010; 8 (1), 49-55 [In Persian].
9. Park YD, Patton LL, Kim HY. Clustering of oral and general health risk behaviors in Korean adolescents: A national representative sample. *J Adolesc Health* 2010 Sep; 47 (3): 277-81.
10. Rajmil L, Roizen M, Psy AU, et al. Health related quality of life measurement in children and adolescents in Ibero-American countries, 2000 to 2010. *Value Health* 2012 Mar-Apr; 15 (2): 312-22.
11. Shephard, R.J.K. (2007). Exercise and relaxation in health promotion, *Sports Med*, 23/4:211-217.
12. Silva John. M, Weinberg Roberts. (2007). "Psychological foundation of sport" Philadelphia, W. B. Saunders Company, 186-198.
13. Tasai Eva. (2005). A cross cultural study of the influence of perceived positive outcome participation in regular active recreation: Hong Kong and Australian University Students. *Leisure Sci.* Vol.27, (5):385-404.
14. Tyack, D.B. (2005). Health and Social Services in Public Schools: Historical Perspectives the Future of Children, 2, 19-31.