

# The survey and identification of the effect of sports activities on non-active and active students' mental health

## Abstract

Mental disorders have harmful effects on individuals and society. A person who has not mental health suffers physical and mental symptoms, isolation, headache, worry, depression, anxiety, difficulty falling asleep and daily dysfunction. The purpose of this study was to survey and identify the effect of sports activities on non-active and active students' mental health. This study is a descriptive and ex-post facto research. The sample size was included 480 female students that they were randomly selected. The instrument of this study was included Goldberg's General Health Questionnaire-28 (GHQ-28). The collected data were classified by descriptive statistical methods (percentage, mean, standard deviation) and were analyzed by the T-test and the Chi-Square Test. The SPSS software (version 21) was used for data analysis ( $\alpha \leq 0.05$ ). Married athlete students' general health score was 19.36, married non-athlete students' general health score was 20.11, single athlete students' general health score was 19.16 and single non-athlete students' general health score was 21.11. Sport activities are a valuable tool for maintaining mental health and those are effective on the prevention of mental disorders. The university authorities are recommended to increase the time of sports activities, so that students have more physical activities.

**Keywords:** mental health, sports activities, students, depression, anxiety, functions

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## Introduction

The WHO expresses that health is the welfare state and mental, physical and social well-being and it is not only the lack of disease or body defects.<sup>1</sup> According to the definition of this organization, Health have physical, social, mental, emotional and spiritual components. All five components have the interaction with each other for a healthy and strong person, so that if we give up one of them, we will be out of balance and our health will suffer in all domains.<sup>2</sup> Therefore, dimensions of this definition (mental, physical and social well-being and not merely the lack of disease) have the interaction with each other and these dimensions cannot be distinguished with a clear boundary.<sup>3</sup> There are indicators for the physical health and social welfare in many countries that those are reviewed and revised every few years, but the complexity and difficulty of definition often leads to neglect and ignore this in mental health.<sup>4</sup> Mental disorders have destructive effects on individuals and society. In fact, a concept of mental health in the minds is a psychiatric concept that it considers persons as a sick or healthy person.<sup>5</sup> The mental health is one of the most important fields of sustainable development of health in human communities that is directly related to human health. In other words, mental health is one of the most important aspects of the evaluation of health of different communities and it plays an important role in the assurance of mobility and efficiency of any society.<sup>6</sup> Many life events and activities will have a profound effect on physical and mental health since the major part of individuals' life passes at work or academic environment and in different conditions from home.<sup>7</sup> The other hand also, the university environment that is an environment for social interactions can affect students' physical and mental health.<sup>8</sup> Mental health is very importance for students in every community, because they are the future of any society. Mental disorders can lead to academic failure or the dropout. Students due to the specific

conditions of students such as far away from family, getting into large and stressful collections, Economic problems and Lack of sufficient income, high volume courses and intense competitions are prone to lose their mental health. They need an appropriate intervention for coping with such stressful situations. Regular physical activity at a moderate level course is one of strategies that scholars and researchers recommend to maintain and promote mental health.<sup>9</sup>

The participation in sport activities as a scientific approach can increase individuals' happiness and mental health. The various studies have shown that sport activities have psychological, emotional and social benefits in addition to physical benefits, for example, the reduction of anxiety and depression, the increasing of sleep duration and better social relationships have been reported in different studies. The rapid development of technology that has emerged in the last three decades of the 20th century has caused that millions of people have realized that the coordination with these changes that is a feature of the present era is increasingly painful and this acceleration affects the depths of the soul in addition to the body and the process of adaptation against continuous changes needs the body's energy consumption.<sup>10</sup> If a human has not enough calm to draw lost physical and personal resources and exposed to these severe psychological pressures repeatedly, the process of destruction will begin and then he/she will be sensitive to the disease especially psychosomatic diseases.<sup>11</sup> Therefore, a human finds him/herself in anxiety without justification, fatigue, depression or feelings of dissatisfaction and aimless and he/she will hurt to relationships between individuals in the same way.<sup>12</sup> One of the ways that psychologists introduce for the prevention and treatment of mental health problems is the role of physical activities in mental health, because the industrialization of societies and the reduction of physical activity in individuals have been revealed the need of sport more than ever and an extensive attention has been paid

to exercise especially the role of exercise in psychological issues.<sup>13</sup> 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.<sup>14</sup> 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. 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.<sup>15</sup> According to the World mental Health Organization (WHO) someone who is not have a mental health, is not considered healthy. This message also is confirmed by Pan American Health Organization and World Federation of Mental Health.<sup>16</sup> 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.<sup>17</sup> Any move experience or physical change, have a mental change or experience as a outcome. Sport is one of important methods of physical, mental and social development, because participating in sport activities provide many opportunities to become skilled in community.<sup>18</sup> The purpose of this study was to survey and identify the effect of sports activities on non-active and active students' mental health. This study is a descriptive and ex-post facto research.

## Materials and methods

This study is a descriptive and ex-post facto research.

### Participants

The statistical population was female students of Islamic Azad University Branches of Guilan Province in 2016. 480 students were randomly selected. 240 subjects were athlete students and 240 subjects were non-athlete students. 500 questionnaires were distributed among the students to ensure the reversibility of the questionnaires.

### Instruments and Tasks

The instrument of this study was a demographic questionnaire and General Health Questionnaire (GHQ-28) and a demographic questionnaire. GHQ-28 had four subscales (physical dysfunction, anxiety, social dysfunction and depression) that it was scored the basis of 4-point Likert scale from 0 to 3 points. The validity and reliability of this questionnaire has been approved in more than 70 countries around the world.

### Procedure

The athlete individuals are students who participate in sports programs at least three times during and non-athlete individuals are students who do not have any physical activity or their activity is limited to the daily work, education and life is in this study. The purpose and the process of study were explained to subjects. The participants were assured that their data will be kept confidential and those will not be available to anyone. Then all subjects completed a consent form to participant in this study and they attended with the complete satisfaction in this study. Researchers distributed questionnaires among subjects. The subjects completed questionnaires without name due to the subjects' security sense.

## Data analysis

The collected data were classified by descriptive statistical methods and was analyzed by T-test and Chi-Square test ( $\alpha \leq 0.05$ ). SPSS software (version 21) was used to analyze the collected data.

## Results

See the tables below (Table 1) (Table 2).

**Table 1** The mean and standard deviation of general health in female athlete and non-athlete students on the basis of demographic characteristics

Male students' Demographic characteristics	Athlete	Non-athlete	T-Test	Sig
	SD ± Mean	SD ± Mean		
Marital status				
Married	19.36± 8.14	20.11± 9.11	-3.8	0.13
Single	19.16± 7.3	21.11±11.12	-5.7	0.12
Education				
Bachelor's degree	17.90±12.11	19.28±10.11	-4.11	0.08
Associate's degree	15.78±8.41	20.11±19.11	-6.14	0.11

**Table 2** The mean and standard deviation of general health in female athlete and non-athlete students

Variable	Athlete SD ± Mean	Non-athlete SD ± Mean	T-Test	Sig
General Health	20.94 ± 10.11	26.4 ± 12.01	-2.711	0.004
Physical dysfunction	5.11 ± 9.7	9.7 ± 1.3	-2.51	0.03
Social dysfunction	5.11 ± 2.16	4.29 ± 1.7	-1.408	0.21
Depression	5.61 ± 3.01	6.29 ± 2.1	-3.211	0.04
Anxiety	4.11±2.7	6.12 ± 1.7	-2.207	0.04

## Discussion

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 research results Showed, that physical fitness significantly reduces mental disorders in people.<sup>8</sup> The results of this study is consistent with the results of Bakhshalipour et al. study that they examined the effect of aerobic training on non-athlete postmenopausal women's mental health.<sup>14</sup> They stated that female athlete students who participate regularly in physical activities such as walking, jogging, swimming, aerobics, or playing in sports teams can be able to do boring tasks in a longer period than inactive female students that this can be due to adaptive responses in a body as a result of regular exercise.<sup>14</sup> There is a lot of evidence about the benefits of regular physical activity for general health. Studies show that intense and regular exercise is associated with less stress and anxiety.<sup>6,12,17</sup> Also, people who participate in fitness and exercise programs report that their attitudes and efficiency are better at work, for example, they make less mistakes.<sup>19</sup> It seems that exercise can play an important role in students' physical and mental health due to all subjects are students who study at master's level and they do many research works and modern life conditions that have physical abnormalities such as back pain, joint damage and diseases such as obesity and cardiovascular diseases.<sup>20</sup> Therefore, the increasing of motivation through culture and the promotion of general knowledge about the benefits of physical activity can be considered as one of the options for the improvement of student sport.<sup>14</sup> 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 that the individual and group athletes had better mental health than non-athletic student.<sup>16</sup>

Research evidence show some environmental controversies that affect students' mental health such as the desire for different social entertainments against willingness to study, the desire for physical superiority against organ limitations, the need to the lessons development against the feel of incompetence, the fear of personality expression against the desire for self-esteem and job selection.<sup>21</sup> According to researchers' idea who has mental health is a person that is distant from anxiety and disability symptoms and she/he can establish a constructive relationship with others and is able to cope with life stresses.<sup>22</sup> On the other hand, conducted studies in the field of psychology and exercise have shown that exercise and physical activities are one of the effective methods for the prevention and treatment of mental illnesses.<sup>23</sup> Scientific evidences have shown that the participation in physical activities and the increasing of cardiovascular fitness are considered as an important factor in the improvement of mental health and mood. Nine factors are important in the creation of happiness and mental health that the participation in physical activities and exercise is one of the most important factors.<sup>11</sup> Bakhshalipour et al. studied psychological and physical indexes in women that they concluded that aerobic activities and trainings had many benefits for behavior and mood. Also, they stated that physical activities s were associated with the reduction of stress, tension and the increasing of self-esteem.<sup>14</sup> Wang et al. expressed in their study that physical activity can play a role in the maintaining of securing mental health.<sup>10</sup> The results of their study showed that exercise played an important role in the change of the positive mood, self-satisfaction, sense of competence and efficiency that are components of individuals' mental health.<sup>24</sup> Conducted Studies by Ainsworth et al. showed that physical activity and exercise were effective on the promotion of mental health, the reduction of depression and the increasing of well-being, mental and social health, self-esteem and self-discovery.<sup>9</sup>

## Conclusion

Generally, Athletes that, participate different sports field based on personal interests and tastes the exposure groups and 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.

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## Conflict of interest

The authors declare no conflict of interest.

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