A comparative study of depression level among male athletic students engaged in individual and team sports versus male non-athletic students of schools from the second board of education in Karaj, Iran

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Abstract

The present study is aimed at comparing the level of depression among male athletic versus non-athletic students of schools form the second Board of Education in Karaj, Iran. 40 male athletic students engaged in individual sports, 40 male athletic students engaged in team sports, and 80 male non-athletic students of the schools were involved in the study. The Aaron Beck Depression Inventory (1961) was used to collect the data. The results show that depression among non-athletic students is much more frequent than in athletic students. The research concludes that being engaged in sport activities and physical exercises regularly may relieve depression, or at least, make it controllable.

Keywords: Depression, athletic, non-athletic, inventory, individual sport, team sport;

1. Introduction

The expansion of cities and the emergence of new technologies, sciences and techniques have brought comfort and welfare for man and, despite the growing world population, have facilitated life for the earth’s residents. However, these factors have created new mental problems caused by distress and stress. Meanwhile, despite the success of medicine in preventing and treating many mental diseases and disorders, depression is still a very frequent disease in the world. This disease is not limited to one part of the world or to a certain period of time. Research conducted by psychologists shows that depression is a reaction to stress and may afflict any person.

Depression has a considerably wide and complicated range. Researchers have not yet succeeded to find out how various forms of depression and its causes may be understood. Besides, there are controversies among scientists and physicians over treatments. Depressed people view themselves as inefficient, incapable and worthless creatures, and deeper depression intensifies this belief. Beck concluded in her researches that 80% of depressed people deem themselves as incapable beings. She believes four feelings - being conquered, disability, incapability and depravedness - predominate the mind of depressed people. In fact, depressed people think they experience failure in any attempt or think they don't have the ability to do anything or are incapable of doing a task. Aaron Beck et al (1979) believe that, regarding this imagination, depressed people's behavior changes in some area, including

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negative emotions, negative cognitions, and negative motivations. Depressed people see no glimmer of hope and no matter and even can stimulate their interest. They have a very negative attitude towards everything around themselves. In the elderly, losing physical abilities and job may put on view symptoms of depression in these people. Finally, it can be concluded that practicing regular exercises suitable to physical conditions of person can improve physical state and as well regulate mental situation and create interest in life and having hope, high-spiritedness, have a sense of good, participation, cooperation, self-confidence, mental health and higher levels of conform.

Numerous investigations on sport-therapy and comparing it with other treatments have been made. In some researches, psychics and normal people have been studied. These researches show that aerobic activities alleviate depressive signs in patients because of encouraging the consumption of glycogen. For these reason, athletic people are usually happy and humorous. Psychiatrists and psychologists believe that physical exercises create the feeling of success in persons and play an essential role in curing the persons suffering from depression. They believe that physical activities bring health and freshness and help the persons lacking sufficient self-confidence and eliminate negative thoughts in them. Yousefi (1991) performed a research on depression among male students of the University of Tehran and found that there is a significant difference between athletic versus non-athletic students. Dang-Pyaei (1995) carried out a similar research on students in the fourth Board of Education in Karaj, Iran and showed a significant difference between athletic students engaged in team sports and non-athletic students in terms of depression. Homaei (1998) compared negative attitudes leading to depression in athletic and non-athletic children of martyrs in Tehran high schools and found similar results to those of researches already mentioned. Barghi Moghadam (1998) investigated the effect of physical activities on alleviating depression among students, and arrived at the conclusion that physical activities play a crucial role in preventing depression among students. Mazinani (1998) did a research on depression among athletic and non-athletic female students of Sabzevar University, Iran. The research showed the existence of a significant difference between the two groups. Puffer and McShane (1992) studied chronic depression and fatigue among athletes of the Family Medicine Section at the University of California and showed depression may be found among professional athletes who experience excessive stresses, severe fatigue and do not achieve expected successes. Babyak et al. (2000) aimed at examining the situation of 156 patients who suffered severe depression. These patients were randomly chosen to participate in four-month courses, including aerobic exercises and psychotherapy or both. The research showed the patients in the three groups engaged in physical exercises showed much less affliction with depression as compared to the groups that underwent only drug-therapy. It was shown that there is a direct relation between proper exercises and the treatment of the depression, especially if the exercises are performed regularly and continuously. Lawlor and Hopker (2001) studied the effect of physical exercises as an important tool to control depression. Reviewing researches and their results published in journals and magazines, they come to the conclusion that any therapy combined with physical activities is much effective than treatments without physical exercises.

2. Purpose and Hypothesis

Comparing the level of depression among male athletic versus male non-athletic students of schools is the general aim of this research. The hypotheses which orient the present study are: 1) Athletic students engaged in individual sports don’t suffer from depression, 2) Athletic students engaged in team sports don’t suffer from depression, 3) Non-athletic students don’t suffer from depression, 4) There is no significant difference between depression level among athletic students engaged in individual sports and non-athletic students, 5) There is no significant difference between depression level among athletic students engaged in team sports and non-athletic students, 6) There is no significant difference between depression level among athletic students engaged in individual sports and athletic students engaged in team sports, and 7) There is no significant difference between depression level among athletic and non-athletic students.
3. Method

The researcher aims to compare depression among male athletic versus non-athletic students of schools from the second Board of Education in Karaj. Thus, the study is more of a descriptive one.

3.1. Subjects

The population includes students of schools from the second Board of Education in Karaj in the academic year 2005-2006. Eighty male non-athletic students that did not engage in any sport activities were chosen randomly. Forty male athletic students of schools engaged in individual sports and forty male athletic students of schools engaged in team sports were chosen. All testees were voluntarily and interestedly involved in the research.

3.2. Measures

In this research, the Aaron Beck depression inventory (1961) has been used to collect the data. This inventory is a good scale to distinguish healthy people from patients.

3.3. Procedure

The questionnaire provided based on the Beck Depression Inventory was distributed among the testees. This inventory includes 21 four-answer questions. Scores ranging from one to three have been assigned to every question. Based on the testees’ answers they will be assigned scores out of 63.

4. Analysis and Results

According to the information collected, it seems that 28 athletic students engaged in individual sports out of 40 (equal to 70%), are affected by depression. 7 (17.5%) have developed mild depression. 3 (7.5%) suffer from relatively moderate depression, and finally 2 (5%) suffer from moderate depression. However, excessive depression was not observed in this group. This way, the first hypothesis is accepted. To verify the second hypothesis, the results made from the inventory show that out of the 40 people participating in the test, 30 (75%) have natural depression, 6 (15%) have developed mild depression while 3 (7.5%) have relatively moderate depression and 1 (2.5%) suffers from moderate depression. However, no one in this group was affected by excessive depression. In the group of non-athletic students, 25 (31.25%), 20 (25%), 26 (32.5%) and 3 (3.75%) have developed, natural, mild, relatively moderate and severe depression, respectively. No one was affected by excessive depression. Table 1 shows depression in the three groups of athletic students engaged in individual sports and athletic students engaged in team sports as well as the non-athletic students. Inevitably, the third hypothesis is verified.

<table>
<thead>
<tr>
<th>Depression Level</th>
<th>Score</th>
<th>Athletic Students Engaged in Individual Sports</th>
<th>Athletic Students Engaged in Team Sports</th>
<th>Non-Athletic Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural</td>
<td>1-10</td>
<td>70%</td>
<td>75%</td>
<td>31.25%</td>
</tr>
<tr>
<td>Mild</td>
<td>11-16</td>
<td>17.5%</td>
<td>15%</td>
<td>25%</td>
</tr>
<tr>
<td>Relatively Moderate</td>
<td>17-20</td>
<td>7.5%</td>
<td>7.5%</td>
<td>32.5%</td>
</tr>
<tr>
<td>Moderate</td>
<td>21-30</td>
<td>5%</td>
<td>2.5%</td>
<td>7.5%</td>
</tr>
<tr>
<td>Severe</td>
<td>31-40</td>
<td>-</td>
<td>-</td>
<td>3.75%</td>
</tr>
<tr>
<td>Excessive</td>
<td>41-63</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

In order to assess the fourth hypothesis, the level of depression among athletic students engaged in individual sports and non-athletic principals was compared (Table 2). It was found that there is a significant difference between depression among athletic principals of junior high schools and non-athletic principals, and that depression among
non-athletic principals is more frequent. Testing the fifth hypothesis shows that there is no significant difference between athletic students engaged in team sports and non-athletic students in depression (Table 3). Depression among non-athletic students is much more frequent than athletic students engaged in team sports.

Table 3. Comparison between mean values obtained from two groups of athletic students engaged in team sports and non-athletic students

<table>
<thead>
<tr>
<th>Error</th>
<th>Calculated T</th>
<th>Number</th>
<th>Standard Deviation</th>
<th>Average</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>α = 5%</td>
<td>6.74</td>
<td>40</td>
<td>6.84</td>
<td>7.58</td>
<td>Athletic students engaged in team sports</td>
</tr>
<tr>
<td></td>
<td></td>
<td>80</td>
<td>7.3</td>
<td>14.65</td>
<td>Non-athletic students</td>
</tr>
</tbody>
</table>

Regarding the sixth hypothesis, it was found that there is no significant difference between athletic students engaged in individual sports and those in team sports in terms of depression (Table 4). With regard to the seventh hypothesis, the comparison drawn between athletic students engaged in individual sports and athletic students engaged in team sports, on the one hand, and non-athletic students, on the other hand, shows a significant difference between the two groups from the standpoint of depression (Table 5).

Table 5. Comparison between mean values obtained from two groups of athletic students and non-athletic students

<table>
<thead>
<tr>
<th>Error</th>
<th>Calculated T</th>
<th>Number</th>
<th>Standard Deviation</th>
<th>Average</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>α = 5%</td>
<td>6.42</td>
<td>80</td>
<td>6.40</td>
<td>7.48</td>
<td>Athletic students</td>
</tr>
<tr>
<td></td>
<td></td>
<td>80</td>
<td>7.3</td>
<td>14.65</td>
<td>Non-athletic students</td>
</tr>
</tbody>
</table>

5. Discussion

This research is aimed at proving the postulation that there is a significant difference between athletic and non-athletic male students in terms of depression. The findings of this research agree with the results made by Yousefi (1991) in his research on comparing athletic and non-athletic male students of universities. Yousefi observed a significant difference between these two groups of students.

The results of this research also agree with the findings of the research conducted by Heydaritabar (1995) in which he studied depression among male students of universities engaged in individual and team sports. Heydaritabar noticed there is a difference between these two groups in terms of depression but this difference is not
significant. Another research by Yavari (1993) on the effect of swimming on relieving and controlling depression at the Tabriz University of Medical Science showed very favorable effects of swimming on controlling depression. The results of this research also show an agreement with Yavari’s research. Stein and Motta (1992) clearly showed effects of swimming and weightlifting on depression among 89 patients arranged in three groups. All the researches highlight undeniable good effects of sports, no matter what it may be, on the relief or control of depression. Analyzing the data gathered showed that none of the three groups studied revealed symptoms of excessive depression. However, making a final conclusion requires more extensive research.

A comparison of mean values obtained from non-athletic students and athletic students engaged in group and individual sports shows a significant difference between these two. Therefore, it can be said that depression is more frequent among non-athletic students as compared to athletic students engaged in individual and team sports. In fact, it seems that the distribution of depression among athletic students engaged in team sports is less than non-athletic students. Comparing mean values obtained from the two groups - non-athletic students and students engaged in individual sports - the hypothesis is refused. In fact, it can be said that there is a difference between athletic students engaged in team sports and non-athletic students and also between athletic students engaged in individual sports and non-athletic students at $a = 5\%$. It can be concluded that depression among non-athletic students is more frequent as compared to athletic students engaged in individual and team sports.

References


Yavari, A. (1993). Effects of swimming on relieving depression among male students of Tabriz University of Medical Sciences. Unpublished Master’s Thesis. Faculty of Physical Education, Tabriz University, Iran.