Mental health of faculty members of physical education and other fields in Islamic Azad University

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Abstract:

Introduction:
Many researchers believe that mental challenges, such as anxiety, depression, low self-esteem, and physical and social dysfunction may be improved with physical training. The aim of the present study is to compare faculty members of Islamic Azad University in physical education and other field in terms of mental health.

Material and Methods:
This is a descriptive analytic survey on 600 male and female faculty members of the eleven branches of Islamic Azad University in physical education and other fields. Participants were selected through multistage cluster sampling. We used general health questionnaire (GHQ-28) with its 28 questions to measure the participants’ mental health, and independent t-test to compare means.

Results:
Statistical analysis indicated that faculty members of physical education and other fields are significantly different in depression, social dysfunction and anxiety; however, no significant difference was found in somatization. Moreover, the rate of depression and anxiety was significantly lower in faculty members of physical education compared to those in other fields.

Conclusion:
Considering the role of physical exercise in maintenance of physical-mental health and prevention of mental disorder, as well as the fact that faculty members of physical education are more involved in physical training compared to other faculty members, the former are less likely to suffer from depression and anxiety and have better mental health. Thus, it is recommendable to instructors of other fields to participate in physical training programs.

Keywords: Mental Health, Faculty Member, Physical Education

Introduction:
Health is a basic need of mankind and a cornerstone of stable development in all societies (1). Reports of World Health Organization estimate an increase in mental and behavioral problems in developing countries which is greatly a consequence of population growth and rapid social changes such as urbanization, disintegration of large families, lifestyle changes and the related economic problems (2). Health, particularly mental health, is the optimal approach for encountering these human challenges (3). The concept of mental health, as one aspect of general health, encompasses all methods and measures used for prevention of mental
disorders. The Canadian Mental Health Institute has recently expanded this definition in three categories of attitudes towards self (control over one’s emotions, awareness of one’s weaknesses, and satisfaction with simple pleasures), attitudes towards others (inclination towards long and profound friendships, feeling of belonging to a group, and feeling responsible in human and material environments), and attitudes towards life (accepting responsibilities, motivation for developing one’s desires and facilities, ability of making personal decisions, and motivation for working efficiently) (4). The World Health Organization reported that in 2001 about 45 million people are suffering from mental disorders worldwide and one out of four people experience some mental disorders in some stage of life (5). Review studies in 2005 indicate that 27% of European adults experience at least one mental disorder in 12 months (6).

Physical training has been reported to improve longevity and physical fitness. In other words, people with appropriate physical training live longer than others. One reason for such longevity is the improved physical resistance against diseases (7). A comparison of mental health between students of physical education and students of other fields revealed that the former are significantly in better conditions. Furthermore, they were significantly superior in subscales of depression, social dysfunction and anxiety (8). The mental aspect of exercise has attracted the attention of researchers during recent years. Mental health has been reported essential in all aspects of life, including professional life. University instructors encounter various stresses which endangers their mental health, thus compromising the quality of their education and students’ satisfaction. The aim of the present study is to compare mental health between faculty members in physical education and other fields in Islamic Azad University.

**Material and Methods:**
This is a descriptive-analytic survey. Our study population includes all male and female faculty members in physical education and other fields employed in the eleven branches of Islamic Azad University. 600 participants were recruited through randomized multistage cluster sampling. We used general health questionnaire (GHQ-28) with its 28 questions to measure the participants’ mental health. This questionnaire evaluates four groups of non-psychotic disorders including somatization, anxiety and sleep disorders, social dysfunction, and depression. Each group is scored from 0 to 3 according to Likert’s scale. Scoring is based on severity of symptoms and a higher score indicates more severe symptoms. Thus, an individual scoring 23 or less is considered normal, while one scoring 24 or higher is considered suspicious for disorder. Using Cronbach’s α to determine the reliability of general health questionnaire, we found r value to be equal to 0.86. Basic characteristics of participants were collected using a questionnaire developed by researcher. We used independent t-test to compare means between the two groups.

**Results:**
The mean age of male and female faculty members was 41 ± 5 and 37 ± 5 years. 58.2% of them were aged 31-40 years, 31.9% were aged 41-50 years, 8.7% were aged less than 30 years, and 1.2% were aged 51-60 years. 223 (37.4%) of participants were educated in physical education, and 377 (62.6%) were educated in other fields. 59.6% had doctorate, 6.2% were Ph.D. students, and 34.2% had master’s degree. 67.71% of faculty members in physical education were men and the rest were...
women. Out of 223 questionnaires distributed in this group, 23 questionnaires were not returned. Other faculty members consisted of 62.25% men and the rest were women. Out of 377 questionnaires distributed in this group, 49 were not returned.

According to the findings of our study, the mean score of the GHQ-28 was 22.57 for faculty members of physical education, with 65 individuals (32.28%) of them falling in the abnormal range, and 135 (67.72%) in the normal range of mental health. For faculty members in other fields, the mean score was 29.18, with 96 individuals (48.51%) in the abnormal range and 232 (51.49%) in the normal range of mental health.

Statistical analysis revealed that faculty members in physical education and other fields were significantly different in terms of depression ($p<0.05$). Similarly, the two groups were significantly different in social dysfunction ($p<0.05$). However, the difference in somatization was not significant ($p<0.05$). In anxiety, faculty members of physical education and other fields were significantly different ($p<0.05$) (Tables 1, 2). In general, faculty members of physical education and other fields were significantly different in mental health (Table 3).

### Table 1: Results of t-test regarding dimensions of mental health in male faculty members

<table>
<thead>
<tr>
<th>Parameters of mental health</th>
<th>Male faculty members in physical education (n=136)</th>
<th>Male faculty members in other fields (n=213)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>2.91 ± 1.24</td>
<td>4.81 ± 3.21</td>
<td>0.02</td>
</tr>
<tr>
<td>Social dysfunction</td>
<td>9.91 ± 4.14</td>
<td>12.23 ± 6.60</td>
<td>0.03</td>
</tr>
<tr>
<td>Somatization</td>
<td>5.38 ± 3.35</td>
<td>5.45 ± 4.51</td>
<td>0.057</td>
</tr>
<tr>
<td>Anxiety</td>
<td>3.12 ± 3.58</td>
<td>5.98 ± 3.89</td>
<td>0.01</td>
</tr>
<tr>
<td>Total</td>
<td>21.32 ± 8.68</td>
<td>28.47 ± 9.24</td>
<td>0.02</td>
</tr>
</tbody>
</table>

### Table 2: Results of t-test regarding dimensions of mental health in female faculty members

<table>
<thead>
<tr>
<th>Parameters of mental health</th>
<th>Female faculty members in physical education (n=64)</th>
<th>Female faculty members in other fields (n=115)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>2.99 ± 1.81</td>
<td>4.98 ± 3.47</td>
<td>0.000</td>
</tr>
<tr>
<td>Social dysfunction</td>
<td>10.65 ± 4.25</td>
<td>14.81 ± 6.71</td>
<td>0.01</td>
</tr>
<tr>
<td>Somatization</td>
<td>5.97 ± 3.87</td>
<td>5.25 ± 4.35</td>
<td>0.059</td>
</tr>
<tr>
<td>Anxiety</td>
<td>4.21 ± 3.69</td>
<td>5.89 ± 3.48</td>
<td>0.01</td>
</tr>
<tr>
<td>Total</td>
<td>23.82 ± 10.18</td>
<td>30.90 ± 11.27</td>
<td>0.02</td>
</tr>
</tbody>
</table>

### Table 3: Results of t-test regarding dimensions of mental health in faculty members of physical education and other fields

<table>
<thead>
<tr>
<th>Parameters of mental health</th>
<th>Faculty members in physical education (n=200)</th>
<th>Faculty members in other fields (n=328)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>2.95 ± 1.41</td>
<td>4.89 ± 3.58</td>
<td>0.03</td>
</tr>
<tr>
<td>Social dysfunction</td>
<td>10.28 ± 5.68</td>
<td>13.52 ± 6.41</td>
<td>0.02</td>
</tr>
<tr>
<td>Somatization</td>
<td>5.67 ± 2.67</td>
<td>5.35 ± 4.89</td>
<td>0.052</td>
</tr>
<tr>
<td>Anxiety</td>
<td>3.66 ± 2.24</td>
<td>5.93 ± 3.61</td>
<td>0.02</td>
</tr>
<tr>
<td>Total</td>
<td>22.57 ± 9.14</td>
<td>29.68 ± 10.71</td>
<td>0.01</td>
</tr>
</tbody>
</table>
Conclusion:
The findings of the present study indicate that faculty members of physical education are significantly in better conditions of mental health compared to faculty members of other fields. As these findings suggest, presence in sportive environments has a significant role in improving mental health, which is consistent with findings of previous studies. For instance, Hosseini et al. conducted a study to investigate the relationship between physical exercise and mental health in university students, and they found a significant relationship in only the depression subscale (9). Similarly, Martinsen et al. compared the impact of aerobic and anaerobic exercise on clinical depression and found an antidepressant effect for exercise, which is in line with our findings (10). As for social dysfunction, Poormokhtar et al. compared mental health between students of physical education and other fields to find significant differences in depression, social dysfunction and anxiety subscales (7). In addition, Salehi Tuka believes that public exercise improves social relationships (11). Isfahani compared athlete and non-athlete women and reported significant differences in all four scales of mental health (12). Paluska et al. conducted a study titled “Physical activity and mental health: current concepts” and indicated that physical activity plays an essential role in controlling and reducing mental disorders, especially depression and anxiety. This is also consistent with our findings. The study by Poormokhtar et al. indicated no significant difference in somatization (8) which is also in line with our findings.

Previous studies indicate that physical activity and sports diminish depression and anxiety significantly. Furthermore, regular sport exercises are related to reduced depression (14). In addition to being a valuable tool for maintaining physical health, exercise is closely related to mental health and particularly prevention of mental disorders. Exercise diminishes anxiety and depression and improves self-esteem. Intense physical exercise boosts endorphin release which accounts for the euphoric sensation felt by athletes after a bout of exercise. Considering the similarities between endorphins and opiates, exercise may be an alternative among substance abusers (15). Researchers have suggested that exercise not only modifies chemical substances in brain such as serotonin and dopamine, but also exerts positive changes in other parts of body. Depression is a state of low energy and some even call it severe fatigue. However, exercise has a mood effect which appears to resolve anxiety and lethargy. Baydel and Fox reported that the relationship between exercise and mental health is well established and exercise reduces anxiety and depression and enhances self-esteem and self-confidence, particularly in physical aspects (16).

Another remarkable finding of our present study is the better mental state of female faculty members of physical education compared to other fields. Previous studies suggest that mental disorders are twice as frequent in women compared to men. This may be due to the heavy daily schedule of women which creates a state of unbalance between social and personal needs. Other factors, such as menstruation, birth, menopause, sex roles, domestic conditions, workplace conditions, sedentary lifestyle etc, create dissatisfaction in long term, compromising women’s mental health (17). Planning for leisure and emotional discharge is indispensable in the modern world and advocating exercise is a major mechanism for this purpose. Almost the entire literature of scientific evidence concur that regular exercise prevents different physical and mental disorders and contributes to resolution of other diseases (17).
Considering the findings of the present study, as well as similar studies on sports and physical exercise, we may conclude that exercise is a major factor for reducing anxiety and depression and improving mental health. Therefore, it is necessary for faculty members to include diverse physical exercise programs in their professional activities.

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References: