Investigating the Relationship between Mental Health and Academic Success of Students in Ahvaz Jundishapur University of Medical Sciences

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INTRODUCTION

Because of the special student life, it is associated with various stresses. Many students by entering the university environment and separation from the family, they feel a sense of isolation and loneliness. On the other hand, dealing with different personality types in this professional environment and also in dormitories, inadequate facilities, financial shortcomings, decreased sources of support and also lack of family supervision, they are exposed to psychological and social problems. Other hazards like; apathy and dissatisfaction with the field of study and profession that increase the possibility of mental health, Academic achievement, Students, Ahvaz Jundishapur university of medical and health services (AJUMS)

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academic failure, leaving the university and risky social behaviors.(1) Knowledge improvement and efficiency of the country is depended on this generation. In this regard, helping to improve the education and preventing the failure in education or leaving the school is required. Students who have experienced failure in education are susceptible to negative behaviors and making damages to their country or themselves.(2) According to the fact that our student community has formed a significant portion of the population and is growing each year so their health care is getting more and more important for the country(3). Mental health is an important aspect of the students' health as they are the future of the country. This group due to age conditions and social position are exposed to various kinds of stresses. Some factors such as being away from home, separation from the family, entrance to a new environment, problems with courses, competition with other students, job future anxiety and living in dorms are regarded as some of the stress factors. Stress can lead to mental and physical illnesses.(4) Including diseases and psychological symptoms of stress, depression and anxiety can be noted. Stress, anxiety and depression as mental health factors in addition to the problems that they create for students during the education would interfere with their professional role and taking responsibilities for community member's health in the future. Therefore, prevention of stress, anxiety and depression and reducing student’s mental pressure has an important role in increasing job interest, activation in groups and sense of responsibility. Various studies have shown that high levels of stress, anxiety and depression can leave negative effects on health, life quality, educational attainments and readiness to accept the professional roles in the community and paying attention to the aftermaths and taking appropriate strategies in order to emancipate from them, has a special importance(3). A society that thinks about their health and future generation health should check and fix the underlying factors and eliminate causing psychological and mental problems and taking care of their future generation so they can be able to take steps to the leaning ideal future.(4) Many factors can affect the mental health which in general can be divided into three groups: Personal factors, factors related to the university, social factors(6). ALIZADENAVAI and his colleagues in a research have discussed IRAN student’s mental health status in 2012 in a meta-analysis method and the mental disorders rate of between 22.7 and 52.3 has been achieved(7). SADEGHI and colleagues in a study entitled the relationship between mental health and academic success in Qom university of medical and health services in 2012 by studying the mental health of 240 students came to the conclusion that the majority of students (62.7 percent) who were in good mental health had a grade average of 14 or higher. Also in this study, statistically no relationship between mental health and academic achievement was observed (p> 0.05).(8) GHOMRI and colleagues in a research named the relationship between mental health, other personal characteristics and academic success in ARAK university students by studying the students of Arak university of medical and health services and basis sciences divided students into two groups successful (with a score of 15 and higher) and unsuccessful (with a score below 15) and they have studied and compared their mental health In this study there was a significant correlation between mental health and academic success of students(p>0.05). (9) JADIDI and colleagues in a research entitled study of mental health among the students as a predictor of academic performance, meanwhile studying the students in Islamic Azad University 11 (of Kermanshah, Kurdistan and Ilam) were in the 2008-2009 school year showed that 59 percent of students were eligible for mental health, and 41 percent were suspicious to mental disorders. Also in this study there was no significant and meaningful relationship between mental health and academic performance of students(10). NAMDAR and colleagues in a research known as mental health and its relationship with academic achievement in students of the Faculty of Nursing and Midwifery of Tabriz university of medical and health services, by studying the mental health of 251 students studying in this Faculty they observed a relationship between mental health and academic achievement as with the mental health improvement (Low overall score on the test) students average (as an indicator of academic achievement) has been risen(11). GILAVAND and colleagues in 2015 in a research entitled comparative evaluation of depression and anxiety among international and
native students in the Faculty of Dentistry Ahvaz Jundishapur university of medical and health services (AJUMS), depression and anxiety among the students have been reported normal. And one of the reasons for this was found as a lack of concern and anxiety among the dental students to find a job after graduation(12). AKKASHE in a study has measured the mental health of Kashan university of medical and health services students with the GHQ-28 questionnaire. His researches have shown that 28.4% of the students had mental disorders. This analysis showed a significant difference between mental health problems of males (20.6 percent) and females (31.3 percent), and, also the difference in single students (29.5%) and married individuals (12.4 percent) have been showed(13). BAGHERI YAZI and colleagues have evaluated the quality of mental health of 2321 students of Tehran University with a 12-item General Health Questionnaire form (GHQ). After data analysis, it was found that 30 percent of students have suffered from feelings of depression and isolation, and 26.8 percent from the conflict, and 4.3% had past history of neurological diseases. Hypothetic testing of this study has showed that at the beginning of the education from the mental health aspect there is no significant relationship between girls or boys, single or married, students with quotas or students in different age groups. But instead between accepted students of Tehran and accepted ones from other cities, interested or not interested in the field students and students with one or more than three ideals who has been accepted in this university, in terms of the mental health a significant difference has been observed. In addition in the relevant study 16.5% of the students were diagnosed to be suspicious to have mental disorders. The highest percentage of problems among them were financial issues (28.9 percent), academic issues (17.5%), family issues (13.6 percent), housing issues (13.4), and the rest were job problems, marriage and relationship with others(14). So paying attention to secure the health and mental health is one of the tasks of higher education institutions (universities). Also with the regard to the point that the educational improvement is the main educational system achievement and lack of success causes individual and social problems, deviation from achieving educational goals. So we should consider the impact of mental health on students' performances and its important role in promoting their educational condition and preventing the academic failure and school abundant. This study is aimed to study the mental health of students in Ahvaz Jundishapur university of medical and health services (AJUMS) and its relationship with academic achievement.

Materials and methods

To evaluate this study, the general health questionnaire instrument GHO-28 (Gambol Health Questionnnaulne (GHO-28), Goldberg and Williams, and a demographic questionnaire; such as their gender, marital status, type of field of study, and the average grade in the university was used. General Health Questionnaire (GHQ) in 1972 by David Goldberg and to identify mental disorders in various centers and environments has been developed. The Questionnaire is to observe the mental state of the person concerned in the past four weeks, includes symptoms such as abnormal thoughts and emotions and aspects of behavior. Goldberg to choose the questions worked on four areas: the first area is depression, the second one is anxiety and feelings of psychological disorder, the third area is objectively observable behavior that questions related to social performance are meant here, and the fourth area includes a wide range of "hypochondriasis\" GHQ. To choose the Questions "member" Questions of Taylor Manifest Anxiety Scale, CMI, MMPI questionnaire and Eysenck Personality Inventory (MOCI) has been used. Ultimately, 140 primary questions were chosen. The questionnaire starts with physical questions and the more you go the psychiatric questions are increased. The reason for this is that such questions at the beginning of the questionnaire may disturb the subjects so that they won’t be willing to continue the cooperation. To evaluate the questionnaires, three groups of 100 normal subjects, patients with mild and severe disease (300 patients) and the primary form of 93 questions selected and after the analysis of Question it was performed on them. Principal components analysis has been done on 93 questions, but because it was considered that the questionnaire should be adopted of a wide range of community, 60 questions were selected with the increasing linear gradient. This questionnaire is in forms 60, 30.28 and 12 items, that it’s 28 questioned form (GHQ28) and its 12 questioned questionnaire is
applicable in Iran and in other countries. This questionnaire has 4 subscales that cover physical symptoms, anxiety, social malfunction and depression. One of these subscales has 7 questions. Scales questions are in a row, so that the questions 1 to 7 are on the scale indicate physical ways, the questions 8 to 14 are on a scale of anxiety, Questions 15 to 21 are on the scale of social malfunction and the questions 22 to 28 are on the scale of depression. The validity of the test has been reported at a rate of 86.5%. Various studies indicate high reliability of 0.8 of the test. GHQ scoring method is that from option A to D. The 0,1,2,3 is gained. As a result, each individual score in each of the subscales are of 0 to 21 and a total of 0 to 84. Scores on each one of the scales are calculated separately and then added together so the total score will be obtained. Results and interpretation: General Health Questionnaire test is one of the strongest tests to screen healthy and sick people. That is easy to implement. In the interpretation of this test we can conclude that if any individual scale of individual score is higher than 17 and in the overall scale the score is higher than 41 it shows the deterioration of the participants. But this is only about the test GHQ28. The validity and reliability of this questionnaire in multiple studies in Iran and abroad have been proved. In this study, student’s last semester average is considered as an objective indicator of their academic achievement. So the students based on the last semester point average Which are stated in their form, are divided in two groups of successful with 15 or higher and the un successful with under 15. A total 2079 of students (1542 females and 537 males) undergraduate students in various fields of medical, paramedical, nursing, midwifery, health, rehabilitation and medical school of Shushtar and Ahvaz Jundishapour ur university of medical and health services(AJUMS) Faculty are studying that 210 of them (about "ten per cent) were selected randomly classified and exampled for the research. The data was analyzed using descriptive statistics (frequency, mean and standard deviation) and inferential statistics (t-test, ANOVA and correlation coefficient) were performed. Ethical considerations are considered in this study.

Hypothesis:

First hypothesis: There is a significant difference between male and female students in the assessment of mental health

Second hypothesis: There is a significant difference between married and single students in terms of mental health.

Third hypothesis: There is a significant difference between married and single students in terms of mental health.

Fourth hypothesis: There is a significant relationship between mental health and GPA of students.

Findings:

Hypothesis test:
First hypothesis: There is a significant difference between male and female students in terms of mental health provision.

Table 1: Results of the difference between the mean of male and female students in the assessment of mental health

<table>
<thead>
<tr>
<th>Variable statistical indicators</th>
<th>Frequency</th>
<th>mean</th>
<th>standard deviation</th>
<th>T</th>
<th>Significance level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>140</td>
<td>20.08</td>
<td>12.14</td>
<td>2.01</td>
<td>0.05</td>
</tr>
<tr>
<td>Male</td>
<td>70</td>
<td>19.09</td>
<td>10.25</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Analysis: evaluation of T at 95% level shows a significant difference between students' mental health provision,

Second hypothesis: There is a significant difference between married and single students in terms of mental health.

Table 2. The mean difference results of single and married students, in providing mental health evaluation:

<table>
<thead>
<tr>
<th>Variable statistical indicators</th>
<th>Frequency</th>
<th>mean</th>
<th>standard deviation</th>
<th>T</th>
<th>Significance level</th>
</tr>
</thead>
<tbody>
<tr>
<td>single</td>
<td>164</td>
<td>22.82</td>
<td>12.9</td>
<td>1.05</td>
<td>0.05</td>
</tr>
<tr>
<td>married</td>
<td>46</td>
<td>22.51</td>
<td>14.3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Analysis of the T test results (at 95% level) shows that there is no significant difference between the average test scores of mental health provision in single or married students.

Third hypothesis: There is a significant difference between undergraduate students of
different disciplines in terms of health status and mental health.

Table 3. Univariate variance results of students with different majors in provision of mental health test

<table>
<thead>
<tr>
<th>Variable statistical indicators</th>
<th>Total square</th>
<th>Degree of freedom</th>
<th>Mean square</th>
<th>F</th>
<th>Significance level P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>interaction of different majors undergraduate</td>
<td>702.2</td>
<td>2</td>
<td>342.1</td>
<td>3.0</td>
<td>0.089</td>
</tr>
</tbody>
</table>

Table 3. Univariate analysis of variance measurement results show that there are no difference between Students from different majors in providing mental health tests.

Forth hypothesis: There is a significant relationship between mental health and GPA of students.

Table 4. Results of the mean difference of unsuccessful and successful students in mental health providing evaluation:

<table>
<thead>
<tr>
<th>Variable statistical indicators</th>
<th>Frequency</th>
<th>Mean</th>
<th>Deviation</th>
<th>T</th>
<th>Significance level P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unsuccessful students (based on GPA below 15)</td>
<td>52</td>
<td>23.22</td>
<td>13.45</td>
<td>2.59</td>
<td>0.001</td>
</tr>
<tr>
<td>Successful students (based on GPA over 15)</td>
<td>158</td>
<td>19.16</td>
<td>14.63</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5. T-test results indicated a significant difference between the mean scores of mental health provision test between unsuccessful and successful students. Also there was a significant and reverse correlation between the mean scores of students' mental health questionnaire and academic achievement (R= 0.219, p <0.001). This means that an increase in mental health (lower overall score in test) increased mean scores of students (as an indicator of academic achievement).

Discussion and conclusion:
According to Table 1, there is a significant difference between male and female students' provision of mental health (P = 0.05) which the results of this study corresponded with results of Bagheri Yazdi (2005) and Rezai Adriany et al (2007), Adham et al (2008) Gilavand (2015) and Grant (2002). (14), (4), (19), (20) and (21)

According to the results in Table 2, there is no significant difference in mental health of married and unmarried students ((P = 0.05) which in this respect is incompatible with the research results of Akasheh (2000) Bagheri Yazdi (2005) Ansari et al. (2007) and Mehri et al. (2011) and sadeghian et al (2009). (13), (14), (22) and (23)

According to the results of Table 3, there is no significant difference in the mental health of Students from different majors (P = 0.089) and also in evaluating the different components of the test (Somatic symptoms and social behaviors, depression, anxiety ...) which is identical to the research of Bolhari et al (2005). (24)

According to the results in Table 4, a significant relationship between mental health and Grade Point Average was observed (p = 0.001) which average mental health of unsuccessful students (22.23) and successful students (16.19) was in accordance with results of Abolqasemi et al (2010), Qamari et al. (2010), Kahrazzy et al (2005), Shaeeri et al (2004) , Id et al (2009), Salool et al (2007), Aspernak et al (2006) and do not match with studies of Sadeghi et al (2013), Parvizrad et al (2014), jadidi et al (2011), Shaeeri et al (2006), Sabiya (2007) and Grazm et al (2008). (25), (26), (27), (28), (29), (30), (31), (8), (32), (10), (34) and (35).

Also there was a significant and reverse correlation between the mean scores of students' mental health questionnaire and academic achievement (R= 0.219, p <0.001).This means that an increase in mental health (lower overall score in test) increased mean scores of students (as an indicator of academic achievement).

Mental health trends and attention to this problem at the university as a major factor, is not a simple problem that just by applying some solutions in the university campus can be solved. But shall at all the factors involved, including teachers, administrators, and mental environment governing the behavior of parents, and most
importantly, we should pay attention to the student in a continuous interaction and provide the conditions for implementing it. Acknowledging the fact that if the university was inattentive to create the conditions for improving the mental health of the individual student attention both individual students and society will suffer an irreparable damage. The industrialized countries have realized that the mental health care as is necessary and inevitable in the development of those countries should be considered. And in this regard as one of the main indicators of development this factor in our country due to the importance of this problem has manifested itself. And we have a duty with a sense of responsibility towards the society, create the thought and ideas about health in the community. So And God willing in various fields we deserve and can achieve our real potential so this is the context for the development of healthy and creative ideas that should be realized at the university. The study had some limitations. As has been observed before, people are not willing to show their emotional characteristics and are cautious not to reveal their hidden secrets, but people are not cautious about showing their talent and intelligence and it is recommended that in the future researches the details about the test objectives and test should be given to them to make them sure, so they do not refuse to give their information. Also the basic status (economic, social and cultural, religious, etc.) of the samples and lack of self-control is an important factor in increasing the impacts of out of control factors on the results. Other limitations of this study can be a psychological state of the person at the time of questionnaire filing. Integrity, accountability and proper time and your understanding is noted that health research is an essential conditions of the research health and it is possible that some of the factors may distorted this issue. Another limitations of this study can be named as the use of self-report method for measuring psychological variables. It is recommended that in the future studies in addition to the means of self-report and interview, the physical examination in order to detect psychological problems of the students should be done too. One of the significant aspects of Iran's ancient civilization is pay due attention to the medical knowledge the turning point of which is establishment and development of Academy of Gondishapur (GS) in Khuzestan province of Iran in 1744. GS was a city built on the orders of the Sassanid Shapur I (241 to 272) by the Roman and Greek prisoners in 271 AD, to celebrate his victory over Valerian (Roman Emperor). The University of Medical Sciences and Health Services in Jondishapour of Ahvaz is already inherited of Gondishapur University located near its former and with more than 650 faculty members, 7000 students studying in the undergraduate, graduate, MD, PhD, Specialist, fellowship in 163 kind of courses and specialty and 15,000 non-academic staff, is one of the most prestigious and type one universities of Ministry of Health and Medical Education of Iran. Therefore, to be noted that the population studied in this research is limited and only "it has studied the university's undergraduate students he results are not generalizable to other levels of education and should be interpreted with caution.

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