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Investigating the Relationship between Mental Health and Academic Achievement of Dental Students of Ahvaz Jundishapur University of Medical Sciences

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ABSTRACT

Academic achievement is regarded among the important achievements of every educational system that the mental health of students can have important role in realizing these goals. So, this research has been performed aiming at investigation of the relationship between mental health and academic achievement of dental students of Ahvaz Jundishapur University of Medical Sciences (AJUMS). In the descriptive-analytical study, 120 dental students (professional doctorate) were selected as research sample by simple random method in 2016. The data collection tool was GHQ-28 questionnaire. The students' Grade Point Averages (GPA) of previous semester have been considered as their academic achievement indicator. Data analysis was performed by using descriptive statistics (frequency, mean, and standard deviation) and inferential statistics (t-test, analysis of variance, and correlation test). The results of research indicated that there is a significant difference between the mental health of married and single ($P < 0.05$) and female and male ($P < 0.05$) students under study. No significant relationship was observed between mental health dimensions and academic success either ($P > 0.05$), although there was significant and reverse relationship between the students' mean scores of mental health questionnaire and academic achievement ($R = 0.293$). It means that by mental health enhancement (the low total score in test) the students' GPA (as academic achievement indicator) increase. Thus, with regard to the point that providing students' mental health has important role in their academic achievement and also all-round development of every country, it is essential to consider special measures to provide it for the students appropriately.

Keywords: Mental Health, Academic Achievement, Students, Dentistry, AJUMS

INTRODUCTION

Considering that the position and role of higher education in the economic, social, political, cultural, and health development of every country is determinant and the professional and required human resources of various sections are trained by the universities and higher education institutes, strengthening and developing this section has very high importance [1]. Medical education is perceived as being stressful, and a high level of stress may have a negative effect on cognitive functioning and learning of students in a medical school [2]. Because of a series of attractions, dentistry is the main choice of volunteers for entrance to university and higher education institutions [3-5]. Even studies have shown that because after the graduation dental students do not have job concerns, they are in better mental condition [6]. Various researches have shown that high levels of stress, anxiety and depression can leave negative impact on the health, life quality, academic achievement, and also students' readiness ratio for accepting their professional roles, that considering them and their consequences and also taking appropriate

solutions to get rid of them has special importance [7]. The community that thinks about its health and its future generations should take step to reach the ideals more than ever by investigating and removing factors preparing and creating psychological problems or preserving the health of its future makers [8]. Numerous factors can impact on the students' mental health that can generally be divided into three groups: personal factors, factors related to the university, and social factors [9]. Studies showed that environmental factors has impact on learning and academic achievement of students [10-13]. AlizadehNavaeiet al. in a research have investigated the Iranian students' mental health status up to 2011 as a meta-analysis, and have obtained the students' mental disorders from 22.7 to 52.3 percent [14]. Sadeghiet al. in a research entitled as "Investigating the relationship between the students' mental health and academic success of Qom University of Medical Sciences in 2011", while investigating the mental health of 240 students of this university have concluded that the majority of students (62.7 percent) that had appropriate mental health, have had GPA more than 14. In this study no statistically significant relationship has been observed between mental health and academic success of students either [15]. Ghamariet al. in a research entitled as "The relationship between mental health and other personal characteristics with academic success in the students of Arak universities", while investigating the students of University of Medical Sciences and University of Basic Sciences of the city of Arak, divided the students into two successful (with GPA 15 and more) and unsuccessful (with GPA less than 15) students, and investigated and compared their mental health and in this investigation a significant correlation was observed between the mental health and academic success of students [16]. Yousefiet al. in a research entitled as "Investigating mental health among students as predictor of academic performance", while investigating 1028 students of Islamic Azad University, Region 11 (units of Kermanshah, Kurdistan, and Ilam) in educational year 2008-2009, showed that 59 percent of students had mental health, and 41 percent of them were suspicious to psychological disorders. In this study no significant relationship was observed between the mental health and academic performance of students either [17]. NamdarAreshtanabet al. in a research entitled as "Mental health and its relationship with academic achievement of the students of the Faculty of Nursing and Midwifery of Tabriz University", while investigating the general mental health of 251 students studying in that faculty, have observed significant relationship between their mental health and academic achievement, in a way that by increasing mental health (the low total score in test), the students' GPA (as academic achievement indicator) increase [18]. In a research performed among the students of Islamic Azad University of Ahvaz in 2014 Bostani et al. found a significant relationship between students' mental health and academic achievement [19]. Mirkamali et al. in a similar research in Birjand University observed a significant relationship between students' mental health and academic performance in 2015 [20]. Gilavand et al. in a research entitled as "Investigating and comparing the ratio of depression and anxiety among local and non-local students of the Faculty of Dentistry of Ahvaz Jundishapur University of Medical Sciences (AJUMS) in 2014", have reported the depression and anxiety of the students of this faculty as normal and considered the dental students' lack of having employment concern after graduation as one of its reasons [21]. Therefore, considering the mental health of students is one of the duties of higher education centers (universities). Considering that the students' academic achievement is regarded as one of the most important achievements of any educational system and lack of academic success leads to many personal and social problems, such as deviation from achieving the goals of educational system, and also with regard to the importance of the mental health of dental students that are often dealing with the patients, and require strong protection and should be psychologically prepared in a way that they accept this role adequately and reliably, hence with regard to the impact of mental health on the students' performance and the important role that it has in academic status advancement and preventing their academic failure and leave, the present study has been performed aiming at investigating the relationship between mental health and academic achievement of dental students of Ahvaz Jundishapur University of Medical Sciences (AJUMS).

MATERIALS AND METHODS

In this descriptive-analytical study, 120 dental students (professional doctorate) of Ahvaz Jundishapur University of Medical Sciences (AJUMS) were selected as research sample by simple random method in February 2016. To assess the students' mental health, the measurement tool of Goldberg and Williams "General Health Questionnaire ((Gambol Health Qusstlonnaulne)(GHQ-28))" along with researcher made demographic questionnaire in which some characteristics such as gender, marital status, type of the field of study, educational GPA of students were mentioned, were used. The validity and reliability of these questionnaires have been proved and confirmed in numerous studies such as Mirkamali(2016) in Iran and abroad[20]. In this research the students' GPA of previous semester have been considered as objective indicator of their academic achievement. On this basis, according to the score of previous semester that have mentioned in the questionnaire, the students have been divided into two successful group with GPA of 15 and more, and unsuccessful group with GPA less than 15. Data analysis was performed by using descriptive statistics (frequency, mean, and standard deviation) and inferential statistics (t-test, analysis of variance, and correlation test) in SPSS version 21. The ethical considerations for students participating in the study including obtaining verbal consent from the participants, not registering the real name of participants on the questionnaires, coordinating with the participants in terms of the time and place of completing questionnaire,

maintaining the information confidential, and maintaining withdrawal from the study were observed. For data collection, after offering necessary descriptions, the questionnaires were given by the researcher to the dental students who have signed the form of entering the study consciously, and they were collected after completion. Distorted or incomplete questionnaires were excluded from the study.

Hypotheses:

1. There is a significant difference between female and male students in respect of mental health.
2. There is a significant difference between married and single students in respect of mental health.
3. There is a statistical significant relationship between mental health dimensions and students' academic GPA.

RESULTS

Ahvaz Jundishapur University of Medical Sciences (AJUMS) has: 650 faculty members, 7000 students in 163 different fields, and 15000 staff. The university is one of the most prestigious universities in Iran and is type one university based on the rating of the Ministry of Health and Medical Education. The statistical population consists of all 484 students who study dentistry professional doctorate at the University that is all 220 tuition-paid dentistry students and all 264 tuition-free professional doctorate students. In this descriptive-analytical study, 120 dental students of Ahvaz Jundishapur University of Medical Sciences (AJUMS) were selected as research sample by simple random method in February 2016.

Table 1. Demographic specifications

Variables	Number and percentage of individuals
Gender	***
Male	(50)- 42%
Female	(70) -58%
Total	(120)-100.0%
Marital Status	***
Single	(82)-68%
Married	(38)-32%
Total	(120)-100.0%
School year	***
3	(6)-12.7
4	(24)-15.3
5	(82)-12.7
6	(8)-6.8
Total	(120)-100.0
Age	***
Under 20 years old	(6)-5%
21-25	(72)-60%
26-30	(26)-.22%
31-35	(11)-9%
36-40	(5)4%
Total	(120)-100.0

Hypotheses Test

First Hypothesis: There is a significant difference between female and male students in respect of mental health.

Table 2: Results of the Mean Difference between Male and Female Students in Providing Mental Health Assessment

Statistical Indicators of Variable	Frequency	Mean	Standard Deviation	Test result	Significance Level P-Value
Female	70	1.84	1.01	Therer is difference	0/00
Male	50	2.35	1.10	Therer is difference	

Analysis: Evaluating T test shows that there is a significant difference between the total mean scores of providing students' mental health.

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

Table 3: Results of the Mean Difference between Married and Single Students in Providing Mental Health

Statistical Indicators of Variable	Frequency	Mean	Standard Deviation	Test result	Significance Level P-Value
Single	82	2.87	0.81	Therer is difference	0.00
Married	38	3.39	0.71	Therer is difference	

Analysis of T test results shows that there is a significant difference between the total mean scores test of providing married and single students' mental health.

Third Hypothesis: There is a significant statistical relationship between mental health dimensions and students' academic GPA.

Table 4: Results of the Mean Difference between Successful and Unsuccessful Students in Providing Mental Health Assessment

Statistical Indicators of Variable	Frequency	Mean	Standard Deviation	Test result	Significance Level P-Value
Unsuccessful students (based on the GPA less than 15)	28	3.35	0.71	Therer is no difference	0.09
Successful students (based on the GPA more than 15)	92	3.57	0.51	Therer is no difference	R=0.293

Table 4 of T test results show that there is a significant difference between the total scores of providing mental health of successful and unsuccessful students.

There was also a significant and reverse relationship between the students' mean scores of mental health questionnaire and academic achievement (P=0.09, R=0.293). It means that by mental health enhancement (the low total score in test), the students' GPA (as academic achievement indicator) increase.

DISCUSSION

With regard to table 2, there is a significant difference between providing mental health status of female and male students and the results of this research correspond with the results of Yousefi *et al* [17], Bagheri-Yazdi, *et al* [22], Rezaei-Adryaniet *al* [23]., Adham *et al* [24].and Grant [25].With regard to the results of table 3, there is a significant difference between married and single students' mental health, that in this case it correspond with the results of researches of .Sadeghi *et al* [15] Yousefi *et al* [17] and Bagheri- Yazdi, *et al* [22]. With regard to the results of table 4, no statistical significant relationship was observed between mental health dimensions and academic achievement and correspond with the study results of Yousefi *et al* [17], Sadeghi *et al* [15], Parvizrad *et al* [26], Sheeri *et al* [28] and Sabia [27]. And does not correspond with the studies of Ghamari *et al* (16), NamdarAreshtanabet *al* [18]. Bostaniet *al* [19]., Mirkamaliet *al* [20]., Abolghasemiet *al* [29]., Ghamariet *al* [30] and Eideet *al* [31]. There was also a significant and reverse relationship between the students' mean scores of mental health questionnaire and academic achievement (R=0.293). It means that by mental health enhancement (the low total score in test), the students' GPA (as academic achievement indicator) increase. The students' mental health was also reported at desirable limit in this research.

CONCLUSION

Mental health process and regarding this issue in the university as a major factor is not a problem that can be dealt with only by considering several solutions in the university environment. But all intervening factors in the university whether professors, managers, or natural and mental environment governing the behavior, parents, and most importantly the student him/herself should consider this problem and provide the conditions for performing this issue in a continuous interaction. Acknowledging this point will not be unpleasant that provided that creating necessary context in the University for promoting mental health is not considered, both the student and ultimately the community will suffer irreparable damages. Nowadays the industrial countries have understood the point that considering the mental health of university has been regarded as an essential and inevitable issue in all-round development of those countries. And they have considered this issue as one of the major indicators of development, and now considering this issue has also manifested its importance in Iran, and all have the duty that along with feeling responsibility towards the community, create the context of thoughts and ideas of health in the community, so that they hopefully reach their real competence and ability in various fields and this issue is realized through laying the groundwork for the creation of healthy and creative thoughts in the university.

LIMITATIONS

This research had limitations as well. As it has already been observed people act very cautiously in showing their emotional characteristics and do not like revealing their hidden secrets, while they do not have this precaution to show their talents and intelligence, and it is suggested to give necessary descriptions to them about the test and the goals of test in future researches, so that they acquire necessary assurance and do not avoid giving information. The (economic, social, cultural, ideological, and etc.) class status of sample members and lack of controlling it is itself an important factor in increasing the impact of out of control factors on the research results. The psychological modes of individual in the time of completing questionnaire, spending time, honesty in responding, and understanding and comprehending themselves appropriately that are the basic conditions of research accuracy and safety can be mentioned among other limitations of this research, and some of these factors might have distorted the issue. Another limitation of this study can be regarded as using self-reporting method for assessing the students' psychological variables. It is suggested to use interview and clinical examination for diagnosing students' psychological problems along with self-reporting tools in the next studies as well.

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