Chronic Diseases Journal

DOI: 10.22122/cdj.v6i2.266

Abstract

Published by Vesnu Publications

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The relationship between the student stressor factors and academic burnout among the students in Kurdistan University of Medical Sciences, Iran, in year 2016

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Original Article

BACKGROUND: Burnout is a state of mental and emotional fatigue; and is a result of chronic stress syndrome, high pressure, time constraints, and lack of necessary resources to perform the assigned duties and tasks. The present study aimed to determine the relationship between student stressor factors and academic burnout among the students in Kurdistan University of Medical Sciences, Iran, in year 2016.

METHODS: In this cross-sectional study, the study population was the students in Kurdistan University of Medical Sciences. Among them, 500 persons were selected using stratified sampling method with proportional allocation. The research tools were student stressor factors and academic burnout questionnaires. The collected data were analyzed using SPSS software.

RESULTS: There was a positive and statistically significant relationship between academic burnout with three domains of stressors for students including academic stressors (r = 0.32, P < 0.01), learning environment stressors (r = 0.34, P < 0.01), and graduation stressors (r = 0.36, P < 0.01), as well as the overall stressors (r = 0.42, P < 0.01).

CONCLUSION: The results of this study indicated the important role of stressors in academic burnout; so, it is expected that educators have always reflect the practices reduce stress, and create a suitable environment for education. **KEYWORDS:** Stress, Burnout, Medical students

Date of submission: 22 Sep. 2017, Date of acceptance: 03 Nov. 2017

Citation: Vahabi A, Vahabi A, Sayyad S, Kashefi H, Vahabi B. **The relationship between the student stressor factors and academic burnout among the students in Kurdistan University of Medical Sciences, Iran, in year 2016.** Chron Dis J 2018; 6(2): 45-52.

Introduction

In the recent years, attention has been paid by higher education professionals to academic performance, and the factors influencing it.^{1,2} This is especially important for medical students who play a key role in the health of the community; because any shortcomings in this field can lead to irreparable damage for medical graduated, the patients, and consequently to the

Corresponding Author: Ahmad Vahabi Email: vahabiahmad@gmail.com whole community. These issues have caused in the fields of medicine and medical sciences universities, dangerous and problematic factors in students' academic achievement to be considered more sensitive. Therefore, providing the efficient and effective ways to eliminate these factors is one of the most important duties for authorities, trainers, and academic teachers of medical sciences universities.³

Burnout is a form of mental and emotional exhaustion that results from chronic stress syndrome, and caused by high pressure, time limitation, and lack of necessary resources to perform duties and assignments.^{4,5} Academic burnout among the students means feeling tired of doing homework and studying, pessimistic attitudes toward education, and textbooks academic failure.⁶ In fact, burnout is a negative reaction to acute and severe stresses that are often created due to the high and unwanted demands of individuals, and creates emotional and physical exertion in people.⁷

Educational burnout has three dimensions including emotional tiredness (feeling of pressure, especially chronic fatigue due to excessive work in the training activities), pessimistic (pessimistic attitude and indifference to lessons, lack of interest in studying, and meaningless thinking about them), and lack of efficiency (feeling of low sufficient, low progress, and lack of sense of success in academic assignments).8 Academic burnout have many negative can consequences, and lead to lack of participation and reduction of energy needed for activities.9 Students with academic burnout do not have the motivation to engage in classroom activities, and show behavioral characteristics such as absenteeism, late class attendance, and early class abandonment. In addition, they do not listen to textbooks, and do not participate in classroom activities. They often do not respect to class and their teachers, to make excuses for their poor performance. So, they do sense of responsibility not have and responsiveness to their poor performance.¹⁰

Stress is a complex multi-dimensional phenomenon that focuses on dynamic relationship person between and environment.11 Stress is defined by the perceptions his/her person's and interpretation of a situation beyond his/her abilities that can disrupt his/her health.12 Evidences have shown that often human achievements are created in stressful situations; but high stress levels have many consequences including physical and mental illnesses, anxiety, depression, sleep disorders, restlessness, irritability, forgetfulness, abnormal fatigue, reduced resistance and frequent infections, headache, decreased focus, memory impairment, and reduced ability in problems solving.^{12,13}

Researches have shown that medical students experience a lot of stress throughout their academic years. These factors are generally classified into three categories, the factors related to university education, and clinical, and personal-social factors.14-16 Research by Jones and Johnston has shown that university stresses are included in job dissatisfaction, lack coordination of of theoretical and clinical education, exams, inappropriate study methods, high volume of assignments, lack of time, and fear of falling in the courses.17 A study in China has shown that women suffer from stress more than men.13 A study conducted among medical students in the University of Malaysia showed that 41.9% of them had specific psychological stresses and mental disorders.¹⁸ suspected А study conducted in Kerman University of Medical Sciences, Iran, showed that 28% of the studied students had mental disorders, which was higher in women than men.¹⁹ Some studies revealed that there was a relationship between educational stressful factors and academic burnout, and the most stressful factor in their view was uncertain future job.20-23 In a study, it has been argued that various factors such as depression can play an important role in the health status of students.24 Abbasi et al. conducted that increasing of each student stressful factor including educational environment, academic conditions, graduation and dwelling environment, as well as them totally, increased the degree of procrastination, academic burnout, and its dimensions including emotional exhaustion, disinterestedness, and ineffectiveness of the course.³

Given that the causes of stress will affect academic achievement among the students,

and considering that students' views about their own problems and the factors affecting their academic achievement have been studied in several studies,²⁵⁻³² and considering the lack of a study on stressor factors in the educational environment of universities in Sanandaj City, Iran, this study seemed necessary. In this study, we sought to prove the hypothesis that stressors would exacerbate students' academic burnout. So, this research was carried out to determine the relationship between student stressors factors and academic burnout among the students in Kurdistan University of Medical Sciences in year 2016.

Materials and Methods

In this cross-sectional study, the study population consisted of the students in Kurdistan University of Medical Sciences. Using the standard deviation of a similar study,33 among about 3000 students, 500 cases were selected via stratified sampling method with proportional allocation. Each faculty was considered as a class. The next step was determined by the number of students in each faculty. At the next step, using random sampling method, a sample of the selected students surveyed. Inclusion criteria were as being student of Kurdistan University of Medical Sciences, willing to participate in the study, and spent at least two semesters at the university. Not having any of the inclusion criteria was considered as exclusion criterion.

Two questionnaires were used in this research. The first questionnaire was about student stressors factors, contains 42 questions. This questionnaire had 3 domains including academic conditions stress (15 items), educational environment stress (15 items), and graduation stress (12 items). The reliability coefficient of these domains was calculated by using Cronbach's alpha, and reported as 0.84, 0.83, and 0.79, respectively.³ This questionnaire was based on a 4-point Likert score from never (0) to most times (3). The lowest and highest scores for this questionnaire would be 0 and 126, respectively. Earn score 0 to 42 represented low stress, score 42 to 63 meant moderate stress, and score more than 63 represented high stress. The second questionnaire used in this study was burnout questionnaire, which had 15 questions. The lowest and highest scores for this questionnaire would be 0 and 90, respectively. Getting a score of 30 or less meant lack of academic burnout, and the score more than 30 meant that he/she had academic burnout.

To collect the data, three classrooms in each faculty were selected randomly, and the questionnaires were given to the students. At first, descriptions about the importance of the study, and how to fill the questionnaires, were presented for the students. Then, they were asked to fill the questionnaires, if they wished to cooperate in the study, and if they were not willing cooperate, returned to the questionnaires. The studied students did not need to write their names, and they were assured that all of their information will remain confidential.

The collected data were entered on the computer and analyzed using SPSS software (version 16 SPSS Inc., Chicago, IL, USA). To describe the data, frequency, mean and standard deviation were used, and for statistical analysis, t-test and ANOVA were used. Pearson statistical test was used to examine the relationship between academic burnout and stressors factors.

Results

Out of 500 distributed questionnaires, 468 (93.6%) were filled completely. The mean age of the samples was 22.27 ± 3.34 years. Their minimum and maximum age was 18 and 46 years, respectively. The mean \pm standard deviation (SD) scores of stressors for academic conditions, educational environment, and graduation were 21.68 ± 10.02 , 27.48 ± 9.31 , and 15.35 ± 8.13 , respectively. The total mean of

student stressors score was 64.51 ± 22.22 .

Table 1 shows the mean and standard deviation of students' scores for the surveyed stressors.

Table 1. The mean and standard deviation of student stressors scores among the students in Kurdistan University of Medical Sciences, Iran, in year 2016

Examined areas	Mean ± SD					
Academic conditions stress	1.44 ± 0.67					
Educational environment stress	1.83 ± 0.62					
Graduation stress	1.28 ± 0.68					
Total	1.54 ± 0.53					

SD: Standard deviation

Among the studied students, 68 (14.5%) had low stress, 146 (31.2%) had moderate stress, and 254 (54.3%) had high stress. Moreover, only 44 students (9.4%) had no academic burnout; while 424 (90.6%) had academic burnout. Students of epidemiology and nursing had the highest burnout, and operating room and medical emergencies students had the lowest burnout.

In tables 2 and 3, the frequency, percentage, mean and SD of students' academic burnout scores, and its relationship with different variables are shown.

As shown in table 2, academic burnout was significantly different between the native and non-native students. Those who were nonnative had a higher score of burnout. Moreover, although the mean scores of men and single students were higher, but there was no significant difference between the academic burnout with sex and marital status. Table 3 shows that academic burnout was significantly different according to parents' literacy (P = 0.01). The samples that had parents with academic literacy had higher burnout than the others. Moreover, although the mean scores of Bachelor students and residents in the student dormitory were higher, but there was no significant difference between academic burnout according to the grade and current location.

Based on Pearson correlation statistical analysis, there were positive and significant relationships between academic burnout and three areas of student stressors including educational stressors (r = 0.32, P < 0.01), educational environment stressors (r = 0.36, P < 0.01), as well as overall stressors (r = 0.42, P < 0.01).

Discussion

This research, which studied the relationship between student stressor factors and academic burnout among the students in Kurdistan University of Medical Sciences in 2016, revealed that, stressor factors had a direct and positive effect on academic burnout among the studied students. This finding is consistent with the results of Abbasi et al., that all stressors including educational environment, academic conditions, and graduation have a positive and significant correlation with students' academic burnout.³ This finding is also consistent with the results of Brown et al.¹ and Santen et al.²⁰

gender, marital status, and being native, in year 2016							
Variable		n (%)	Mean ± SD	Т	Р		
Gender	Men	228 (48.7)	2.89 ± 0.74	0.18	0.86		
	Women	240 (51.3)	2.87 ± 0.65				
Marital status	Single	426 (91.0)	2.89 ± 0.69	0.62	0.53		
	Married	42 (9.0)	2.82 ± 0.72				
Being native	Native	288 (61.5)	2.83 ± 0.63	-2.10	0.04		
	Non-native	180 (38.5)	2.96 ± 0.78				

Table 2. The frequency, percentage, and mean scores of academic burnout among the students in Kurdistan University of Medical Sciences, Iran, and their relationship with gender, marital status, and being native, in year 2016

SD: Standard deviation

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Kurdistan University of	Medical Sciences, Iran, ar	ia their relationsh	ip with different v	/ariables, li	1 year 2016
Variable		n (%)	Mean ± SD	Т	Р
Grade	Assistant	34 (7.3)	2.80 ± 0.79	0.49	0.61
	Bachelor	316 (67.5)	2.90 ± 0.69		
	Masters and higher	118 (25.2)	2.85 ± 0.68		
Father's education	Illiterate	58 (12.4)	2.68 ± 0.62	1.13	0.01
	Elementary	84 (17.9)	2.87 ± 0.68		
	Guidance	48 (10.3)	2.69 ± 0.51		
	High school	118 (25.2)	2.97 ± 0.75		
	Academic	160 (34.2)	2.95 ± 0.71		
Mather's education	Illiterate	102 (21.8)	2.76 ± 0.63	3.20	0.01
	Elementary	142 (30.3)	2.84 ± 0.70		
	Guidance	48 (10.3)	2.79 ± 0.55		
	High school	90 (19.2)	3.09 ± 0.76		
	Academic	86 (18.4)	2.91 ± 0.71		
Current location	With family	128 (27.4)	2.82 ± 0.70	1.01	0.37
	Single house	8 (1.7)	2.70 ± 0.86		
	Student dormitory	332 (70.9)	2.91 ± 0.68		

 Table 3. The frequency, percentage, and mean scores of academic burnout among the students in

 Kurdistan University of Medical Sciences, Iran, and their relationship with different variables, in year 2016

SD: Standard deviation

The results of our study showed that students with stressors had higher academic burnout. This finding is consistent with the results of other studies.34-38 In addition, other researchers have found that many factors, such as social support failures, family pressures, the atmosphere of the faculty, positive motivation received from professors, social relationships, and social environments, can play an students' academic important role in burnout.39,40 Continuing stressful situations exacerbate emotional exhaustion among the students; it manifests as low self-esteem, low self-efficacy, and unwillingness. It can be said that burnout causes students to be at a lower level of emotion. This can be due to inadequate education: so, the students who evaluate their academic situation stressful, less believe in themselves in control of environment, and success in studying, and less use the strategies for reducing academic stress, and less feel educational self-efficacy. Therefore, perceived negative emotions such as self-efficacy stress are found.41

The presence of stressors and their severity increase the feeling of lack of control on environmental conditions, and helplessness. In this case, as in other cases, decreasing of selfesteem is the basis of many problems. Possibly, when a student feels incapacitated to overcome stressful academic situations, he/she postpones assignments and academic tasks, and it is expected that emotional exhaustion resulting from such situation leads to academic burnout.42 This is also confirmed bv Abolghasemi. He believes that stressors have negative effects on the sources of student's personal and social coping, and reduce his/her resistance. He emphasizes on positive role of religion in confronting stressors.43 Zahiri Naw and Rajabi also report that stressors have reduced students' academic motivation. They emphasize that motivation plays a major role in seriously addressing academic tasks, and dealing with stress correctly.44

One of the strengths of our study is that for the first time, such a study was done among the students in Kurdistan University of Medical Sciences. In the present study, students of different field of the study were studied, and the role of stressors and individual factors were studied on academic burnout. These factors had not been mentioned in similar studies, and their role had not been studied, before.

The limitation of this study is that it was based on self-report questionnaires; and students might not have completed the questionnaires with sufficient accuracy.

Conclusion

Given that stressor factors can predict the rate of academic burnout among medical students, educational professionals should always think of the ways to reduce stressors, and create a calm and suitable environment for their study. It is hoped that teaching stress coping strategies, and increasing academic motivation, will be on the agenda of academic counseling centers, and improve the quality of the students' education. Familiarizing students with university facilities and deficiencies at the beginning of university entrance, organizing amusement camps between semesters, paying special attention to various artistic programs, and providing appropriate recreational and sports facilities in the university environment can prevent students' burnout.

Conflict of Interests

Authors have no conflict of interests.

Acknowledgments

We would like to thank all the students who helped us to complete this research. We are also grateful to the Student Research Committee of Kurdistan University of Medical Sciences for their cooperation in approving this project, and funding this research in the form of a student research project. This paper is a result of a research project with approval number 95/19, supported by Vice Chancellor for Research and Technology, Kurdistan University of Medical Sciences.

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