



Prevalence of Academic Burnout and Its Related Factors among the Students of Kurdistan University of Medical Sciences

ARTICLE INFO

Article Type

Original Research

Authors

Rezaei Z.¹ MSc,
Karimianpour G.¹ MSc,
Latifi A.² PhD,
Azizyani R.¹ BSc,
Sayyadi M.³ BSc,
Vahabi A.^{*4} PhD,

How to cite this article

Rezaei Z, Karimianpour G, Latifi A, Azizyani R, Sayyadi M, Vahabi A. Prevalence of Academic Burnout and Its Related Factors among the Students of Kurdistan University of Medical Sciences. Health Education and Health Promotion. 2019;7(4):177-181.

¹Student Research Committee, Kurdistan University of Medical Sciences, Sanandaj, Iran

²Public Health Department, Health Faculty, Maragheh University of Medical Sciences, Maragheh, Iran

³Ghods Hospital of Paveh, Kermanshah University of Medical Sciences, Kermanshah, Iran

⁴Social Determinants of Health Research Center, Research Institute for Health Development, Kurdistan University of Medical Sciences, Sanandaj, Iran

*Correspondence

Address: Social Determinants of Health Research Center, Research Institute for Health Development, Kurdistan University of Medical Sciences, Sanandaj, Iran

Phone: -

Fax: -

vahabi1393@gmail.com

Article History

Received: June 22, 2019

Accepted: October 27, 2019

ePublished: December 21, 2019

ABSTRACT

Aims This study was carried out to determine the prevalence rate of academic burnout and its related factors among the students of Kurdistan University of Medical Sciences in 2017.

Materials & Methods The method of the present study was a descriptive survey method. The statistical community of this study included all students of Kurdistan University of Medical Sciences among whom 382 students. Maslach questionnaire of academic burnout (1999) was employed for data collection and data analysis was performed using SPSS 16 software, descriptive statistics (mean, standard deviation) and inferential statistics (Mann Whitney U, Kruskal-Wallis).

Findings The average age of the students under study was 21.51±2.08. Two hundred and sixteen participants (56.5%) were male and 166 (43.5%) were female. 22 participants (5.8%) had associate's degrees, 315 participants (82.5%) were undergraduate and 45 participants (11.8%) were studying in Master and higher levels. 357 students (93.5%) were single and 25 (6.5%) were married. Mean score of the academic burnout of students who participated in the study was 60.88±9.98. The results of data analysis showed that there has been a significant relationship between gender and place of university in one hand and academic burn out in another hand ($p \leq 0.01$) as well as between major of study and academic burnout ($p \leq 0.05$).

Conclusion A significant percentage of students are suffering from academic burnout. Also, students with different majors of study may experience a different academic burnouts.

Keywords Academic Burnout; Prevalence; Students; Medical Sciences; Iran

CITATION LINKS

[1] A study on level and sources of stress in nursing ... [2] The relationship between job stress, burnout and clinical ... [3] The association between burnout, depression, anxiety, and inflammation biomarkers: C-reactive protein and fibrinogen in men and ... [4] Examining the relationship of personality and burnout in college students: The ... [5] An assessment of burnout in graduate assistant certified ... [6] Burnout and engagement in university students ... [7] Burnout syndrome in senior undergraduate ... [8] The effects of justice and burnout on achievement ... [9] How obstacles and facilitators predict academic performance: The mediating role of study burnout and ... [10] An analysis of the reasons on learning burnout of junior high school students from the perspective of cultural capital theory: A case study of Mengzhe Town in Xishuangbanna, China ... [11] Related factors with academic burnout in nursing and paramedics students of Qom University of Medical Sciences in ... [12] The relationship between the quality of learning experiences and academic burnout martyr Chamran University graduate ... [13] A study of the relationship between regulation of positive and negative emotions and academic performance and burnout among university ... [14] Standardization of Maslach burnout inventory among female students at University of ... [15] Academic burnout among students at faculty of organizational ... [16] The effect of study-related burnout on student ... [17] Personal life events and medical student burnout: A multicenter ... [18] Factors affecting student burnout and academic ... [19] Burnout syndrome and associated factors among medical ... [20] Compare perceptions of the learning environment and ... [21] Assessment of burnout levels among working undergraduate ... [22] Burnout in medical students: Examining the prevalence ... [23] The relationship between career and couple burnout: Implications ... [24] Burnout risk in medical students in Spain using the ... [25] Burnout syndrome in ... [26] Comparing self-reported burnout of pharmacy students on the founding campus with those at distance ... [27] The relationship of self-concept and academic burnout with academic performance of girl ...

Introduction

Teaching and learning are stressful experiences. This kind of stress is more highlighted in the case of medical sciences fields which are, in nature, among the most stressful occupations. The students, in addition to stresses of theoretical learnings, are under the high stress of working in hospitals which can over time lead to academic burnout^[1]. Burnout is a state of mental and emotional fatigue which is the result of chronic stress syndrome and is originated by the high pressure of time limitation and lack of necessary equipment for fulfilling the assigned responsibilities^[2, 3]. Students' academic burnout means feeling tired towards studying and doing homework, pessimistic view towards education and academic curricula and feelings of academic inadequacy^[4]. In fact, it is the negative response to the acute and severe stresses which is often the consequence of overwhelming expectations from the individuals^[5]. Academic burnout has three dimensions including emotional fatigue (pressure feeling and especially chronic fatigue caused by working too much in school activities), pessimism (pessimistic view together with indifference and lack of interest towards the educational activities) and lack of efficacy (conditions such as feeling of low competence, low progress and lack of success feeling towards assignments)^[6]. Many reasons can be affective in result of academic burnout. The students' concern about their future carrier and their satisfaction with the learning environment^[7], challenging and competitive academic programs and students' perceived injustice by the teachers all would increase stress levels and lead to the development of academic burnout^[8]. On the other hand, the academic burnout can bring about many negative consequences leading to non-participation of the students in carrying out their activities^[9], such that they lose their motivation the signs of which can be observed in non-attending the classes, attending with delay, leaving the class earlier, etc. In addition, they no longer pay attention to the lessons and do not participate in group activities, do not respect the class and the teacher and always try to make excuses for their weak performance. Accordingly, a sense of responsibility is the thing that no longer can be found in such students^[10]. They and group classes do not participate in activities. They often have no respect for class and professor excuses for their poor performance, so a sense of responsibility and accountability to the poor performance in the subjects'^[10]. There have been carried out some researches in relevance to academic burnout and its related factors. Sharifi *et al.* have shown that 24.1% of students suffer from high level academic burnout and 46.6% from medium one^[11]. Naami found out that there was a negative correlation between the domains of learning experiences (content resources, learning flexibility, and student-teacher relationship)

with academic burnout^[12]. Mikaeili *et al.* have shown that there is a negative relationship between academic burnout and academic performance^[13]. Students 'academic burnout is one of the most important issues about which the authorities of supreme education institutes should concern because academic burnout not only affects the scientific future of the students but it can also lead to damage their mental health whether during the education period or later in their personal and occupational lives. While improving academic conditions, including learning environments at the university, it can provide the opportunity for students to develop their skills in various scientific and social areas to help reduce student burn out. Considering the negative consequences of academic burnout and the need to identify predictors of this variable, this study was carried out to determine the prevalence rate of burnout and its related factors among the students of Kurdistan University of Medical Sciences in 2015.

Materials and Methods

The present study is descriptive-analytical and the statistic community covered all the students of Kurdistan University of Medical Sciences. Samples were selected using a simple random sampling method. In order to estimate the sample size, having $p=0.5$, the confidence level of 95%, the accuracy rate of 0.05 and a confidence interval of 95%, a sample including 385 individuals was obtained. Considering the fact that some students may fail to complete the questionnaires, 10% were added to samples and finally, 450 individuals were selected as the samples of the study. Of the total questionnaires distributed among the students, 382 questionnaires met the criteria to enter the study and were analyzed thereafter. Maslach academic burnout questionnaire was employed for data collection. This questionnaire has two parts included demographic questions (age, sex, level of education, university, marital status, place of residence, major, average, and income rate) and also 15 main questions of the research which were graded from never to always (0-6) using Likert rating 7. Of these 15 questions, 5 were about academic fatigue (questions 1, 4, 7, 10, and 13), 4 were about academic no interestedness (questions 2, 5, 11, and 14) and the 6 remaining questions were about academic inefficiency (questions 3, 6, 8, 9, 12, and 15). Grading questions of academic inefficiency were done reversely. The validity and reliability of this scale have been approved by Rostami *et al.* on female students of Isfahan University with Cronbach's alpha equal to 0.89 for the emotional fatigue subscale, 0.84 for and doubt and 0.6 for self-efficiency^[14]. SPSS 16 software was used for data analysis. The descriptive statistics (mean, standard deviation, and frequency) and inferential statistics

(Mann-Whitney U and Kruskal-Wallis) were also employed.

Findings

The present study was carried out to investigate the prevalence rate of academic burnout and its related factors among the students of Kurdistan University of Medical Sciences. The highest and lowest scores of the questionnaire were 89 and 15, respectively. The mean and standard deviation of students' academic burnout was 60.88 ± 9.98 which indicates that academic burnout level is higher than average. Among the burnout dimensions, the highest average was the one in academic inefficiency 25.88 ± 5.00 and the lowest was the one in academic no interestedness 15.44 ± 4.86 .

The results showed that 216 participants were male and 166 participants were female (Table 1).

Table 1) Frequency and percentage of demographic characteristics of participants (N=382)

Parameters	Frequency	Percent
Gender		
Male	216	56.5
Female	166	44.6
Place of residence		
Family	81	20.9
Dormitory	292	76.2
Home alone	9	2.4
Field		
Nursing	78	20.4
Medicine	12	3.1
Dentistry	26	6.8
Medical Emergency	26	6.8
Laboratory Sciences	18	4.7
Public Health	20	5.2
Occupational Health	39	10.2
Environmental Health	16	4.2
Midwifery	25	6.5
Anesthesia	28	7.3
Surgical Technology	57	14.9
Radiology	23	6
Radiotherapy	14	3.7
Faculty		
Medicine	71	18.6
Dentistry	23	6
Nursing and Midwifery	25	6.5
Paramedical	156	40.8
Health	107	28
Marital status		
Single	357	93.5
Married	25	6.5
Education level		
A.D. student	22	5.8
B.S. student	315	82.5
MSc and PhD student	45	11.8
Average		
Under14	3	11.8
14-17	290	0.08
17 and up	89	75.9

The results showed that there is a significant relationship between gender and academic burnout

($p \leq 0.02$) and the academic burnout mean was higher in male students than the female ones (Table 2).

Table 2) The mean and standard deviation of academic burnout

Parameters	Mean	Statistics
Gender		
Male	61.93 ± 9.40	$p=0.024$
Female	59.51 ± 10.56	$Z=-2.25$
Field		
Nursing	61.50 ± 6.68	
Medicine	62.30 ± 7.65	
Dentistry	57.03 ± 10.86	
Medical Emergency	59.88 ± 3.17	
Laboratory Sciences	55.55 ± 7.73	
Public Health	54.43 ± 10.71	$\chi^2=14.30$
Occupational Health	57.12 ± 8.38	$df=12$
Environmental Health	62.00 ± 10.08	$p=0.001$
Midwifery	59.32 ± 7.46	
Anesthesia	63.01 ± 10.93	
Surgical Technology	62.34 ± 9.31	
Radiology	62.85 ± 7.41	
Radiotherapy	65.05 ± 10.45	
Faculty		
Medicine	60.82 ± 8.90	
Dentistry	61.88 ± 7.75	$\chi^2=34.19$
Nursing and Midwifery	63.84 ± 10.52	$df=4$
Paramedical	60.14 ± 8.39	$p=0.001$
Health	60.88 ± 9.56	

The results showed that there is a significant relationship between the type of university and academic burnout ($p < 0.001$). The highest academic burnout mean was the one related to the students of nursing faculty with the mean and standard deviation 83.48 ± 10.52 and the lowest academic burnout mean was the one related to the students of the faculty of allied medicine with the mean and standard deviation of 06.41 ± 8.39 (Table 2).

The results also showed that there is a significant relationship between the students' major of study and academic burnout ($p < 0.001$). Nursing students with a mean and standard deviation of 45.10 ± 05.65 had experienced a higher academic burnout than the students with other majors and the students majoring in medical sciences with mean and standard deviation of 70.10 ± 43.54 had experienced the lowest academic burnout (Table 2).

Based on data analysis, no significant relationship was observed between demographic variables of marital status, place of residence, income, average, and education level in one hand and academic burnout on the other hand ($p \geq 0.05$). In relation to marital status of students, the highest mean score of the total academic burnout was the one related to single students with a mean of 60.97 ± 20.10 . In terms of place of residence, the highest mean score was the one related to those living single with mean and standard deviation of 64.77 ± 9.01 and the lowest academic burnout was the one related to married participants with a mean and standard deviation of 60.17 ± 10.38 . In relation to income rate, the highest

mean score of the total academic burnout was the one related to income rate below seven million Rials with a mean and standard deviation of 61.90 ± 9.29 and the lowest academic burnout was the one related to income rate above fifteen million Rials with mean and standard deviation of 60.29 ± 10.67 . In relation to the average, the highest mean score of the total academic burnout was the one related to averages 14-17 with a mean and standard deviation of 61.10 ± 9.29 and the lowest academic burnout was the one related to averages below 14 with a mean and standard deviation of 59.00 ± 6.08 . In relation to the education level, the highest mean score of the total academic burnout was the one related to M.S. and higher levels with a mean and standard deviation of 31.31 ± 7.97 and the lowest academic burnout was the one related to associate's level with a mean and standard deviation of 58.27 ± 11.88 .

Discussion

The mean score of academic burnout in the students of Kurdistan University of Medical Sciences was reported as 60.88 ± 9.98 . Regarding the mean score of the total academic burnout, this score indicates that students' academic burnout is higher than the average level and more students of Kurdistan University of Medical Sciences have experienced the medium academic burnout. This finding is consistent with results of Nikodijevic *et al.* [15], Kuittinen and Merilainen [16], and Dyrbye *et al.* [17]. Education is a stressful learning experience and the related stress is higher in case of the students majoring in medical sciences due to the nature of their fields of study and specific internship conditions during the education. On the other hand, with variety of reasons such as learning pressures and challenging assignments, living in a dorm, perceived injustice as well as the low quality of students' life, the students are under a high pressure which, in long term, can affect their motivation to do the assignments that ultimately leads to failure in education academic tasks and makes them pessimistic towards education. All these finally have led them to experience above medium level academic burnout.

The findings of the present study showed that the rate of academic burnout between males and females is different ($p < 0.001$) and it is more prevalent among which is consistent with Yang [18], Costa *et al.* [19], Uludag and Yaratani [8] and Zainali [20], but this finding is in conflict with the results of Sharifi Fard *et al.* [11], Akansel *et al.* [21], Santen *et al.* [22], Pines and Nunes [23], and Galan *et al.* [24]. These conflicts might be related to unknown confounding variables such as different community unstandardized tools used in previous researches which might have affected the relationship between gender and academic burnout. In this study, no significant relationship was observed between the rate of academic burnout in one hand and the students' age and marital status on

the other hand ($p \leq 0.05$) and this is consistent with the findings of Sharifi Fard *et al.* [11], Costa *et al.* [19], Akansel *et al.* [21] and Mollaoglu *et al.* [25].

No relationship between age and academic burnout may be due to that most participants of this study were almost the same age. Ried *et al.* carried out a study on pharmacy students and found out that academic burnout is more prevalent among older participants [26]. Major of study is another effective variable on the academic burnout. In this study, it was found out that there is a significant difference in experienced academic burnout by the students regarding their majors of study ($p < 0.001$) with the highest burnout in the nursing major. The relationship between academic burnout and the major of study can be associated with the nature of the majors of study, educational workload, stresses related to responsibilities, etc.

The findings of the present study revealed that there is no significant statistical relationship between mean and academic burnout ($p \geq 0.05$) which is in conflict with the findings of Sharifi Fard *et al.* and Mikaeili *et al.* [11,27]. Also, there was not any significant relationship between students' academic burnout and the place of residence which is consistent with the results of Sharifi Fard *et al.* ($p \geq 0.05$) [11]. It seems that the difference was not significant because most of the students were residents of the province. The results of this study showed that there is no significant difference among students of different faculties in terms of academic burnout and the highest academic burnout was the one related to the students of nursing and midwifery faculty ($p < 0.001$) given that the students of this faculty are majoring in nursing, midwifery and surgery room and they have to begin their internship period from the second semester, the rate of academic burnout is higher among them. The limitations of the present study are that it is a self-report and students may not have completed the questionnaires with sufficient.

Conclusion

Based on the findings of the present study, a considerable number of students suffer from academic burnout. Also, students with different majors of study may experience different levels of academic burnout and in this regard, the students of nursing faculty experienced the highest rate of academic burnout. Accordingly, providing facilities and special trainings in order to reduce the academic burnout among the most vulnerable students would be most effective so as to promote the educational performance of the students and motivate them to resist the academic burnout.

Acknowledgments: The authors would gratitude all the participant students who completed and handed in the questionnaires. Also, the research committee of Kurdistan University of Medical Sciences would be most appreciated for their cooperation in approving and funding this study.

Ethical Permission: Ethical permissions code of the present study was IR.MUK.REC.1394/163.

Conflicts of Interest: There are no conflicts of interests.

Authors' Contribution: Zahed Rezaei (First Author), Introduction Writer/Main Researcher (20%); Ghaffar Karimianpour (Second Author), Methodologist (10%); Arman Latifi (Third Author), Introduction Writer/Main Researcher (20%); Ramin Azizyani (Fourth Author), Assistant Researcher (20%); Mahnaz Sayyadi (Fifth Author), Statistical Analyst (10%); Ahmad Vahabi (Sixth Author), Discussion Writer (20%)

Funding/Support: This study has received funding from the Department of Science and Technology of Kurdistan University of Medical Sciences with Grant No. 94.100.

References

- 1- Abazari F, Abbaszade A, Arab M. A study on level and sources of stress in nursing students. *Strides Dev Med Educ.* 2012;1(1):e57356. [Persian]
- 2- Iacovides A, Fountoulakis KN, Kaprinis S, Kaprinis G. The relationship between job stress, burnout and clinical depression. *J Affect Disord.* 2003;75(3):209-21.
- 3- Toker Sh, Shirom A, Shapira I, Berliner Sh, Melamed S. The association between burnout, depression, anxiety, and inflammation biomarkers: C-reactive protein and fibrinogen in men and women. *J Occup Health Psychol.* 2005;10(4):344-62.
- 4- David A. Examining the relationship of personality and burnout in college students: The role of academic motivation. *Educ Measurement Eval Rev.* 2010;1:90-104.
- 5- Mazerolle SM, Monsma E, Dixon C, Mensch J. An assessment of burnout in graduate assistant certified athletic trainers. *J Athl Train.* 2012;47(3):320-8.
- 6- Schaufli WB, Martinez IM, Pinto AM, Salanova M, Bakker AB. Burnout and engagement in university students: A cross-national study. *J Cross Cult Psychol.* 2002;33(5):464-81.
- 7- Oliveira RD, Caregnato RC, Câmara SG. Burnout syndrome in senior undergraduate nursing. *Acta Paulista de Enfermagem.* 2012;25(2):54-60.
- 8- Uludag O, Yaratan H. The effects of justice and burnout on achievement: An empirical investigation of university students. *Croat J Educ.* 2013;15(2):97-116.
- 9- Salanova M, Schaufeli W, Martínez I, Bresó E. How obstacles and facilitators predict academic performance: The mediating role of study burnout and engagement. *Anxiety Stress Coping.* 2010;23(1):53-70.
- 10- Qinyi T, Jiali Y. An analysis of the reasons on learning burnout of junior high school students from the perspective of cultural capital theory: A case study of Mengzhe Town in Xishuangbanna, China. *Procedia Soc Behav Sci.* 2012;46:3727-31.
- 11- Sharifi Fard F, Norouzi K, Hosseini MA, Asayesh H, Norouzi M. Related factors with academic burnout in nursing and paramedics students of Qom University of Medical Sciences in 2014. *Nurs Educ.* 2014;3(3):59-68. [Persian]
- 12- Naami A. The relationship between the quality of learning experiences and academic burnout martyr Chamran University graduate students. *J Psychol Stud.* 2009;5(3):117-34. [Persian]
- 13- Mikaeili L, Rajabi S, Abbasi M, Zamanlou K. A study of the relationship between regulation of positive and negative emotions and academic performance and burnout among university students. *J Educ Psychol.* 2014;10(32):31-53. [Persian]
- 14- Rostami Z, Abedi MR, Bischofli V. Standardization of Maslach burnout inventory among female students at University of Isfahan. *J Mod Educ Approaches.* 2011;6(1):21-38. [Persian]
- 15- Nikodijević A, Labrović JA, Đoković A. Academic burnout among students at faculty of organizational sciences. *J Theory Pract Manag.* 2012;64:46-53.
- 16- Kuittinen M, Meriläinen M. The effect of study-related burnout on student perceptions. *J Int Educ Bus.* 2011;4(1):42-62.
- 17- Dyrbye LN, Thomas MR, Huntington JL, Lawson KL, Novotny PJ, Sloan JA, et al. Personal life events and medical student burnout: A multicenter study. *Acad Med.* 2006;81(4):374-84.
- 18- Yang HJ. Factors affecting student burnout and academic achievement in multiple enrollment programs in Taiwan's technical-vocational colleges. *Int J Educ Dev.* 2004;24(3):283-301.
- 19- Costa EF, Santos SA, Santos AT, Melo EV, Andrade TM. Burnout syndrome and associated factors among medical students: A cross-sectional study. *Clinics.* 2012;67(6):573-80.
- 20- Zinali S. Compare perceptions of the learning environment and academic burnout in male and female high school students Grade [Dissertation]. Tehran: Allameh Tabataba'i University; 2013. [Persian]
- 21- Akansel N, Tunk GÇ, Ozdemir A, Tugutlu Z. Assessment of burnout levels among working undergraduate nursing students in Turkey: Being a full time employee and student. *Int J Caring Sci.* 2012;5(3):328-34.
- 22- Santen SA, Holt DB, Kemp JD, Hemphill RR. Burnout in medical students: Examining the prevalence and associated factors. *South Med J.* 2010;103(8):758-63.
- 23- Pines AM, Nunes R. The relationship between career and couple burnout: Implications for career and couple counseling. *J Employ Couns.* 2003;40(2):50-64.
- 24- Galán F, Sanmartín A, Polo J, Giner L. Burnout risk in medical students in Spain using the Maslach Burnout Inventory-Student Survey. *Int Arc Occup Environ Health.* 2011;84(4):453-9.
- 25- Mollaoglu M, Yilmaz M, Kars T. Burnout syndrome in nurses. *Commun Phys.* 2003;18(4):288-92.
- 26- Ried LD, Motycka C, Mobley C, Meldrum M. Comparing self-reported burnout of pharmacy students on the founding campus with those at distance campuses. *Am J Pharm Educ.* 2006;70(5):114.
- 27- Mikaeili N, Afrooz G, Gholizade L. The relationship of self-concept and academic burnout with academic performance of girl students. *J Sch Psychol.* 2013;1(4):90-103. [Persian]