

Access this article online
Quick Response Code:

Website: www.jehp.net
DOI: 10.4103/jehp.jehp_244_18

Assessing academic success rate and related factors among the students

Beyrambibi Bayat, Hamid Salehiniya

Abstract:

INTRODUCTION: One of the main criteria for students' merit in their study process and reaching the graduation step, is academic success. Therefore, identifying related factors can help the improvement of academic success rate. The aim of this study was to examine the academic success and related factors among the students of University of Tehran.

MATERIALS AND METHODS: This cross-sectional study was done on 384 students of Tehran University of Medical Sciences. Samples were selected through stratified sampling method. Data were collected through questionnaires of academic success scale 39 that reliability and validity of that were confirmed. Data analysis was done through SPSS18 software. Descriptive statistics and independent *t*-test, and correlation coefficient were performed at significance level of 0.05.

RESULTS: The mean academic success was 108.87 (standard deviation [SD] = 10.63) (69.78% of total score). The mean academic success in male was 110.04 (SD = 11.75) and in female was 108.20 (SD = 9.91). Independent *t*-test results indicate that there is a significant statistical relationship between marital status and the academic success ($P < 0.05$). The Pearson correlation test results showed that there was a statistically significant relationship between average with academic success ($r = 0.17$, $P = 0.001$).

CONCLUSION: Considering the effect of demographic variables on the academic success rate, academic success rate can be improved by planning to improve these factors.

Keywords:

Academic success, medical sciences, students

Introduction

One of the most important and prominent eligibility criteria among students during educational graduation is academic success.^[1,2] The sophistication of effective factors on academic success as well as the various definition of this issue has led to the necessity of several studies in this field.^[3] Nowadays, there is no obvious definition of academic success. Achievement or success is not just a final objective but an approach with various contributing factors which is really achieved by sensible, tangible, and objective results.^[4]

Obviously, there is no comprehensive definition of an academic success

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

including all major concepts; therefore, this is an important challenging issue should be evaluated from several aspects. Standards for medical education accreditation council (Accreditation Council for Pharmacy Education) with the main focus on communication skills, critical thinking, problem-solving, being professional and cooperation are the basics for dealing with intervention support for planned achievement.^[5-7] According to APCE definition, it could be said that academic success includes other structures, as socialization, individual adjustment, and academic skills acquisition which usually not considered for common measurement in academic success level.^[8,9]

The aim of the educational institution is rising the academic level which is the

How to cite this article: Bayat B, Salehiniya H. Assessing academic success rate and related factors among the students. *J Edu Health Promot* 2019;8:90.

Students' Scientific
Research Center, Tehran
University of Medical
Sciences, Tehran, Iran

**Address for
correspondence:**
Dr. Hamid Salehiniya,
Students' Scientific
Research Center, Tehran
University of Medical
Sciences, Tehran, Iran.
E-mail: alesaleh70@
yahoo.com

Received: 11-08-2018
Accepted: 02-02-2019

For reprints contact: reprints@medknow.com

indicator of educational objectives.^[10] The duration of university study, particularly among medical science students may cause serious impact on them. Depression, anxiety, life problem, and changes in lifestyle may lead to psychological trauma and consequently declining in academic performance.^[11] The result of other studies out of Iran demonstrated that gender, perceived social support, and status assessment predict 15% of academic success.^[12] The study by Glozah *et al.* indicated that health and well-being can predict academic success.^[13]

Furthermore, one study in Iran showed that there is a significant relationship between place of residence, diploma average score, employment, native, social-economical level, self-esteem, depression, intelligence interest, and educational progress.^[14] In addition, the study of Adib-Hajbaghery *et al.* Showed that there is a significant relationship between academic success and accommodation in dormitory.^[15] Academic success is the issue which provide proper background for student's success during and after education.^[16] There are various measurement methods for academic success which are mainly presented in objective and subjective field with multitude effective involved factors,^[4,17,18] which should be considered from different aspects.

Knowing the factors affecting the academic failure of students, who are future prospects and people in each country, can be programmed to help students succeed in acquiring scientific and specialized skills, and they can help with the educational process.^[19]

On the other hand, the most important indicator of university performance is student learning. Student education can be used to measure students' learning.^[20]

The goal of educational institutions is also to increase the level of academic standing, which itself is an indicator for the promotion of educational goals.^[12] According to the fact that majority of previous studies considered educational progress as success criteria and in some society particularly our society, this factors considered as dictated necessity, therefore this study presented with the aim of the assessment of academic success and its associated factors among Tehran Medical Science University students.

Materials and Methods

This study is a cross-sectional study which is conducted among bachelor degree and MD students in Tehran University of Medical Science during the academic year of 2016–2017. The assessed sample in this study was 384 students who are chosen from seven faculties (medicine, dentistry, pharmacy, health, paramedicine,

nursery, midwifery, and rehabilitation) with stratified sampling method. The sample size was divided according to number of students in each faculty, randomly. The criterion of entering the study was the willingness to participate in the study. Exit criteria were also unwilling to participate in the study.

Data collection tools were based on academic success questionnaire with 39 items, in Adib-Hajbaghery *et al.* study^[15] with the title of 'Assessing Academic Success and Its Predictors from the Perspective of Nursing Students in Kashan University of Medical Sciences.

The result of Adib-Hajbaghery *et al.*'s study revealed that Cronbach's alpha coefficients in academic success questionnaire were 76% and scoring question based on the Likert spectrum were ranged from score 1 (completely disagreement) to 4 (completely agree). Validity and reliability approved by the Adib-Hajbaghery *et al.*'s study. In this questionnaire, item 9, 19, 24, 26, 27, 36, 37, 38, 39 evaluated in reverse mode. The range of score in each section was 39–156. Ten main components of this questionnaire include general academic skills (item 1–7), instructor's effectiveness (item 8–11), career decision (item 12–14), external motivation for the future (item 15–18), trust (item 19–23), personal adjustment (item 24), self-regulation (item 25–27), socializing (item 28–31), intrinsic motivational interest (item 32–36), and lack of anxiety (item 37–39).^[15]

The applicable question includes demographic question (age, gender, field study satisfaction, total grade, college degrees, marital status, and place of residence status).

Statistical analysis method

After data collection, the analysis was performed by SPSS (PASW Statistics for Windows, Version 18.0, Chicago: SPSS Inc., USA). Data analysis was applied by descriptive statistics, independent *t*-test and Pearson correlation coefficient at meaningful level <0.05.

Ethical consideration

This analytical cross-sectional study was approved in Students' Scientific Research Center of TUMS in 2016 by ethic code of IR. TUMS.VCR.REC.1395.1071. In case of participant's willingness and satisfaction, they included in the study and the data were reserved by researcher confidentially, so there is no limitation in ethical consideration.

Results

A total of 384 participants included in this study. The average age of students and standard deviation was 22.23 and 2.38 years, respectively. The age of participants ranged from 18 to 30 years. Female students constituted

245 (63.8%) of the participants, and the rest were males. In this study, 349 (90.9%) of students were single and 35 (9.1%) were married.

In terms of college degrees, 153 participants (39.8%) were in bachelor degree, and the rest of them were in M.D. Meanwhile, 319 students (83.1%) were satisfied with their field of academic study, 65 (16.9%) were dissatisfied. Majority of participants (210 [54.7%]) live in dormitory, and 174 (45.3%) of them live with their family.

According to coefficient correlation test, there is statistically significant relationship between academic success and average students score. In other words, the more academic success achieved, the more average score earned ($r = 0.17, P = 0.001$).

Based on the results, there was no difference between genders, residency, and educational status with academic success score ($P > 0.05$).

It was observed that the average score of academic success in single individuals was higher than married ones ($P = 0.016$) [Table 1].

Discussion

This study assessing academic success rate and related factors among the students. According to coefficient correlation, increasing trend in average scores was observed in case of academic progress. In Sadeghi Movahed *et al.* study, there was a positive significant relationship between diploma average score and student's educational progress; therefore, it can be said that by studying and focusing more on the courses, one can see an increase in students' grade.

However, in Adib-Hajbaghery *et al.* study, this statistical significance between academic success and average score not observed. In the present study, the average

Table 1: Comparing the mean score of academic success in terms of gender, marital status, place of residence status, and college degrees in participants

Variable	Mean±SD	P
Gender		
Male	110.04±11.75	0.122
Female	108.20±9.91	
College degrees		
B.S	109.33±12.41	0.515
M.D	108.56±9.29	
Place of residence status		
Dormitory	109.18±10.48	0.527
Being with family	108.49±10.83	
Marital status		
Single	109.28±10.53	0.016
Married	104.74±10.91	

score of academic success was higher than that in Adib-Hajbaghery *et al.*^[15] and Wharrad *et al.*^[21] studies.

This could be due to different time and place of studies. Although in this study, there is no statistical significance between gender and academic success, the latter rate was higher among male students than female one. Similar to the present study, In the study of Sadeghi Movahed *et al.*,^[14] the academic success rate for male students was higher than that of female students.

However, in terms of academic success, there is no significant statistical relationship neither in male nor in female students. In Mills *et al.* study^[22] male academic success was higher among male students than female one which are in agreement with the result of our study. It should be noted that the reason for the lack of meaning in the students in terms of gender is the same conditions in the university and dormitory.

Various studies found higher academic success among participants who live with their family rather than those who live in dormitory. Some of them are Sadeghi Movahed *et al.* study,^[14] Gheibi *et al.*^[23] and Roudbari and Asl Marz^[24] which show significant relationship between place of residence status and academic success compare to students who do not live in dorm obtain academic progress, but in this study, there is no difference between place of residence status and academic success, which is in agreement with Kebria *et al.* study.^[25] It could be mentioned here that these findings may due to the fact that, although the students are far away from their family and live in dormitory condition, they may adjust to dormitory environment with enough time to study their course.

Furthermore, in this study, there is a significant statistic relationship between marital status and academic success which shows single students have more academic success than married students. The reason for this difference can be from the involvement of married people in their lives and professions. The similar results were observed in Emam *et al.*,^[26] Motlagh *et al.*,^[20] Adib-Hajbaghery *et al.*^[15] which show married participants have less academic achievement than single one.

In the present study, there is no significant relationship between college degrees and academic success. There are few studies about academic success among the university students. Some studies demonstrate that students at the graduating years suffer from health disorders due to academic condition and pressure which leads to problems in academic failure.^[27,28] Motivation at the beginning of education and interest in the field of study can be the factors that will end in academic success. According to condition and time lapse, academic failure

could be observed, which no comparison was possible due to the limited study among medical and paramedical students.

The strength of this study is appropriate sample size which could be generalized to other students. One of the limitations of this study can be self-expression of the questionnaire, since read question causing bias of respondent's mind, and other limitation could be lack of economic situation in the demographic section which could be effective factor on academic success.

Conclusion

Based on the results of the study, it can be said that the academic success status of the students is relatively favorable. Moreover, given the impact of variables, such as marital status and the average, we can say that these factors play a decisive role in the academic success rate of individuals. Therefore, considering the role of the impact of demographic factors on academic success, planners, and policymakers are recommended to consider these factors.

It is also suggested that researchers study the academic success rate with other variables related to educational factors and economic factors.

Acknowledgment

This article is the result of a research project approved by the Students' Scientific Research Center of Tehran University of Medical Sciences with this code: 32088. Furthermore, we appreciate the Students' Scientific Research Center of Tehran University of Medical Sciences, as well as all students who participate and provide their information in this study.

Financial support and sponsorship

This article is the result of research project approved with code of 32087 from Students' Scientific Research Center Tehran University of Medical Sciences.

Conflicts of interest

There are no conflicts of interest.

References

1. Soares AP, Guisande AM, Almeida LS, Páramo FM. Academic achievement in first-year portuguese college students: The role of academic preparation and learning strategies. *Int J Psychol* 2009;44:204-12.
2. Davis KD, Winsler A, Middleton M. Students' perceptions of rewards for academic performance by parents and teachers: Relations with achievement and motivation in college. *J Genet Psychol* 2006;167:211-20.
3. Urwin S, Stanley R, Jones M, Gallagher A, Wainwright P, Perkins A, *et al.* Understanding student nurse attrition: Learning from the literature. *Nurse Educ Today* 2010;30:202-7.

4. Haghdoost A. Qualitative study of Ph. D. student scholarship systems in developing and developed countries. *Strides Dev Med Educ J* 2005;1 (2):73-84.
5. Accreditation Council for Pharmacy Education. Accreditation Standards and Guidelines for the Professional Program in Pharmacy Leading to the Doctor of Pharmacy Degree: Adopted January 15, 2006: Released February 17, 2006: Effective July 1, 2007: Accreditation Council for Pharmacy Education; 2006.
6. Accreditation Council for Pharmacy Education. Accreditation Standards and Key Elements for the Professional Program in Pharmacy Leading to the Doctor of Pharmacy Degree. Accreditation Council for Pharmacy Education; 2015.
7. Moser L, Berlie H, Salinitri F, McCuiston M, Slaughter R. Enhancing academic success by creating a community of learners. *Am J Pharm Educ* 2015;79:70.
8. Welles TL. An Analysis of the Academic Success Inventory for College Students: Construct Validity and Factor Scale Invariance: Florida State University; 2010.
9. Prevatt F, Li H, Welles T, Festa-Dreher D, Yelland S, Lee J. The academic success inventory for college students: Scale development and practical implications for use with students. *J Coll Adm* 2011;211:26-31.
10. Lancia L, Petrucci C, Giorgi F, Dante A, Cifone MG. Academic success or failure in nursing students: Results of a retrospective observational study. *Nurse Educ Today* 2013;33:1501-5.
11. Hazavehei SM, Fathei Y, Shamshirei M. Study on the causes of students' academic probation in Hamadan University of Medical Sciences, 2001-2002. *Strides in Dev Med Educ* 2006;3:33-42.
12. Bahar HH. The effects of gender, perceived social support and sociometric status on academic success. *Procedia Soc Behav Sci* 2010;2:3801-5.
13. Glozah FN, Pevalin DJ. Social support, stress, health, and academic success in ghanaiian adolescents: A path analysis. *J Adolesc* 2014;37:451-60.
14. Sadeghi Movahed F, Molavi P, Samadzadeh M, Shahbazzadegan B, Yousefi K. The study of individual and environmental factors affecting achievement of ardabil medical students. *J Health Care* 2013;15:38-47.
15. Adib-Hajbaghery M, Sadeghi Gandomani H, Aminolroayae Yamini E. Assessing academic success and its predictors from the perspective of nursing students in Kashan University of Medical Sciences. *Iran J Med Educ* 2016;15:510-20.
16. Karami MB. The Study of Relationship Between Personal Characteristics of Nursing Students and Their Educational Achievement in Tehran University of Medical Sciences in 1996; 2000.
17. Kobal D, Musek J. Self-concept and academic achievement: Slovenia and France. *Pers Individ Differ* 2001;30:887-99.
18. Haghdoost AA, Sadeghirad B, Shams AA, Nafisi Y, Dehghani MR, Ayat EM. Academic achievement and its indicators among students awarded scholarship in medical fields. *Hakim Health Sys Res.* 2010; 13 (1):1-10.
19. Bakouei F, Khairkhan F, Salmillian H, Omidvar S. Studying the factors affecting academic status of midwifery students of Babol University of Medical Sciences. *Strides Dev Med Educ* 2010;7:44-50.
20. Motlagh M, Elhampour H, Shakournia A. Factors affecting students' academic failure in Ahvaz Jundi Shapur University of Medical Sciences in 2005. *Iran J Med Educ* 2008;8:91-9.
21. Wharrad HJ, Chapple M, Price N. Predictors of academic success in a bachelor of nursing course. *Nurse Educ Today* 2003;23:246-54.
22. Mills C, Heyworth J, Rosenwax L, Carr S, Rosenberg M. Factors associated with the academic success of first year health science students. *Adv Health Sci Educ Theory Pract* 2009;14:205-17.
23. Gheibi S, Mahmudlu R, Musavivaezi J, Yekta Z, Purali R, Kofeili M. Drop rates of medical students of Urmia University. *Strides Dev Med Educ* 2010;7:141-6.
24. Roudbari M, Asl Marz B. The academic progress of students in

Bayat and Salehiniya: Academic success rate and associated factors among students

- Zahedan University of Medical Sciences and its associated factors. *Strides Dev Med Educ* 2010;7:147-52.
25. Kebriaei A, Roudbari M, Rakhshani Nejad M, Mirlotfi P. Assessing quality of educational services at Zahedan University of Medical Sciences. 2005;7 (2):139-146.
26. Emamghorashi F, Heydari ST, Najafipour S. Evaluation of effecting factors on educational status of medical students in Jahrom Medical University during 1994-2003. 2010; 12 (1): 40-45.
27. Movlazzadeh AR, Hamaieli Mehrabani H, Gholami MS, Mortazavi AR, Dovlatkhah HR, Ghodsi R. Relationship of general health and improvement motivation with educational success among the students of Fasa University of Medical Sciences in 2013. *J Neyshabur Univ Med Sci* 2014;2:54-61.
28. Hamaideh SH, Hamdan-Mansour AM. Psychological, cognitive, and personal variables that predict college academic achievement among health sciences students. *Nurse Educ Today* 2014;34:703-8.