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Original Article

Happiness, Spiritual Health and Academic Self-Efficacy among Students of Guilan University of Medical Sciences

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A B S T R A C T

Background: Academic self-efficacy is an important prerequisite for academic achievement of students. This study aimed to determine the association between happiness and spiritual health with academic self-efficacy among students of Guilan University of Medical Sciences (GUMS), Iran.
Methods: Using quota sampling method, 250 students studying at different filed of medical sciences at GUMS were selected. The Oxford Happiness Questionnaire, Ellison and Paloutzin spiritual well-being scale, and Owen & Froman's Academic Self-Efficacy Questionnaires were used to measure happiness, spiritual health, and self-efficacy, respectively. Data were analyzed using t-test, analysis of variance, and multivariate linear regression model in Stata version 14.
Results: The mean score of happiness, spiritual health, and self-efficacy was 68.7 (SD = 13.2), 84.7 (SD = 17.3), and 96.7 (SD = 15.9), respectively. there was moderate significant correlation between happiness with spiritual health (r = 0.59, P-value = 0.001) and self-efficacy (r = 0.58, P-value = 0.001). Spiritual health and self-efficacy had a weak correlation (r = 0.28, P-value = 0.001). Linear regression analysis showed that happiness was independently associated with self-efficacy. The mean score of self-efficacy increased by 0.75 per unit of increase in the happiness score (P-value = 0.001).
Conclusion: This study revealed a moderate level of happiness and self-efficacy among students of Guilan University of Medical sciences. Happiness was the only significant predictor of self-efficacy.
Keywords: Happiness, Spiritual Health, Self-efficacy, Student
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Introduction

Academic achievement that is the level of engagement in purposeful educational activities and acquisition of desired knowledge, skill and competencies is the ultimate goal of any educational system as it plays a vital role in students' life and their future success. This issue is influenced by several factors among which is the students' point of view. Students' belief about their abilities to engage in academic activities are related to their motivation. It is shown that improving academic self-efficacy beliefs can enhance academic motivation (1, 2). Academic self-efficacy refers to a student's assurance of successfully attaining a designated level of certain action in specific subject area. Several studies showed strong association between academic self-efficacy and components of learning including learning motivation, vitality, academic burnout, academic success, attachment styles and meta-cognitive skills (2, 3). Happiness is an important psychological needs of human being and is a main component of subjective well-being and as a source of energy, vitality, and protection against stress can influence both physical and mental health (4). previous studies also showed a relationship between happiness and self-efficacy through some mechanisms such as positive feeling and optimism (5, 6). Furthermore, spiritual health is another

aspect of well-being that has strong association with population health (7, 8) and has been considered as the forth aspect of holistic concept of health (9). Considering the importance of self-efficacy in academic achievement and multiple potential factors associated with, this study was aimed to elaborate the association of happiness and spiritual health with self-efficacy among students of Guilan University of Medical Sciences.

Methods
This cross-sectional study was conducted on students studying at Guilan University of Medical Sciences (GUMS), Iran. Using non-probability quota sampling method, a total of 500 students were selected from different fields of medical sciences including medicine, dentistry, nursing and midwifery, public health, pharmacy, and paramedicine. Those students who were not interested to participate or filled the questionnaires incompletely were excluded from the study. The study protocol was approved by Institutional review board of GUMS and all students.

Data collection form consisted of demographic characteristics and three questionnaires for spiritual health, self-efficacy, and happiness scale. Spiritual health was evaluated by Ellison and Paloutzin spiritual well-being scale which was included 20 items in two domains of existential and religious health (10). The items were scored with 6 choice Likert scale ranging from "strongly disagree" to "strongly agree". Total score was obtained from the sum of 20 items ranging from 20 to120. The score has also reported categorically as low (scores 20-40), moderate (scores 41-99), and high spiritual health (scores 100-12). The psychometric properties of the Persian version of the questionnaire was validated in Iran (11). The Cronbach's alpha was reported as 0.82.

Owen & Froman's Academic Self- Efficacy Questionnaire included 33 items with 5 point Likert scale to rate the importance of different behaviors in academic success such as taking note, asking questions, participating in group discussion, writing paper, doing mathematical computation and so on. The respondents rate the item from very high to very low. The scale was also categorized into low (32-52), moderate (53-105), and high (106 and higher) self- efficacy (12). The internal consistency of the questions using Alpha Cronbach was 0.91. The validity of the questionnaire was examined using concurrent validity by two different criteria of enjoyment and frequency of performing of each task. The correlation coefficient with two criteria was estimated 0.78 and 0.72, respectively. Validity of the Persian version of the questionnaire was approved by exploratory factor analysis. The internal consistency of the Persian version was 0.91 (13).

The Oxford Happiness Questionnaire was used to measure subjective happiness (14). The Questionnaire Has 29 items with 6-point Likert type scale to rate each item from "strongly disagree" to "strongly agree". The respondents were asked to provide the first answer that comes their mind without taking too long over each individual question. Total score calculated as the sum of all items were ranged from 0 to 87. Validity and reliability of the Persian version was approved by previous reports in Iran (15, 16).

Data were described as mean and standard deviation or frequency and percent according to the type of the variables.

The normal distribution of continues variables was assessed using histogram graph and skewness indices. The mean score of self- efficacy by the variables were compared using t-test, Analysis of variance according to the number of categories of independent variable. Multivariate linear regression was applied to estimate the independent association of happiness and spiritual health with students' self-efficacy. Variables with P-value less than 0.1 entered the multivariate regression model. All statistical analysis was performed in Stata version 14. A P-value less than 0.05 was considered as significant.

Results
The mean age of respondents was 22.01 (standard deviation (SD) = 2.97) with a minimum of 18 and maximum of 55 years old and 56% were mal. More than half of them resided in dormitory or rent house without their parents. The majority of them (62.8%) did not respond to the economic status of their family. Thirteen percent were the single child of their parents, 48.2% were the first children of their family, and 5.2% had a deceased parent. The mean score of happiness, spiritual health, and self-efficacy was 68.7 (SD = 13.2), 84.7 (SD = 17.3), and 96.7 (SD = 15.9), respectively. Happiness showed a moderate significant correlation with spiritual health (r = 0.59, P-value = 0.001) and self-efficacy (r = 0.58, P-value = 0.001). Spiritual health and self-efficacy had a weak correlation (r = 0.28, P-value = 0.001). According to the score classification of spiritual health and self-efficacy, 79% of students had a moderate spirituality and 69% had a moderate self-efficacy. The proportion of students with high spirituality and self-efficacy were 20.5% and 29.6%, respectively.

Table 1 shows the mean score of self-efficacy in terms of study variables. There were no significant association between self-efficacy score and study variables except for household economic status. Students in low and high economic status had significantly higher self-efficacy score (P-value = 0.002).

Multivariate adjusted association of happiness and spiritual health with self-efficacy are shown in table 2. Happiness was the only independent predictor of self-efficacy. The mean score of self-efficacy increased by 0.75 per unit of increase in the happiness score (P-value = 0.001). The model coefficient of determination was 39% and happiness accounted for 39% of variation in self-efficacy.

Discussion
This study revealed that the majority of students had moderate level of happiness and self-efficacy. The mean score of happiness among students was higher compared to previous studies (17-19). The mean score of self-efficacy was similar to previous (18, 20).

In this study happiness was the only significant independent predictor of self-efficacy. This finding is in agreement with previous studies (18, 21). Previous studies also showed that happiness is related to other areas in life such as self-esteem, success in occupation, hope for future, optimistic view, effective management of problems in life, and physical health (23-25). In fact, positive attitudes and judgements of happier individuals enable them to maintain their positive moods when they face with the problems (26).

Table 1. Self-Efficacy Score According to the Demographic Characteristics of the Study Participants

Variables	Frequency (%)	Self-efficacy Mean (SD)	P-value
Age group			
= < 20	66 (26.4)	98.4 (13.7)	0.61
21-25	166 (66.4)	96.1 (16.7)	
> 25	11 (4.4)	98.0 (13.5)	
Ns	7 (2.8)	90 (20.7)	
Sex			
Male	141 (56.4)	96.9 (1.4)	0.79
Female	109 (43.6)	96.3 (1.4)	
Field of study			
Public health	47 (18.8)	95.5 (12.7)	0.36
Dentistry	28 (11.2)	91.3 (17.7)	
Pharmacy	21 (8.4)	96.8 (18.8)	
Nursing	70 (28)	97.2 (16.4)	
Medicine	65 (26)	97.4 (14.1)	
Paramedicine	19 (7.6)	101.8 (19.6)	
Marriage status			
Single	241 (96.4)	97 (15.6)	0.053
Married	9 (3.6)	86.6 (19.1)	
Residency			
Dormitory	138 (55.2)	95.8 (16.8)	0.45
Rent house	30 (12)	99.9 (14.8)	
With family	82 (32.8)	96.8 (14.7)	
Household income			
Low	29 (11.6)	100.52 (13.2)	0.002
Middle	20 (8.00)	94.2 (15.9)	
High	44 (17.6)	103.6 (14.3)	
Ns	157 (62.8)	94.05 (16.2)	
Job			
Occupied	64 (25.6)	99.2 (16.3)	0.16
Unemployed	186 (74.4)	95.9 (15.6)	
Place of parents' residence			
City	209 (83.6)	97.5 (15.7)	0.06
Village	41 (16.4)	92.1 (16.1)	
Number of sibs			
0	33 (13.2)	93 (12.8)	0.14
1	111 (44.4)	98.8 (16.4)	
2 and more	106 (42.4)	95.5 (16.02)	
Parents status			
Both alive	237 (94.8)	96.9 (16)	0.38
One of them alive	13 (5.2)	92.9 (13.6)	
Birth order			
First	119 (48.2)	97.4 (15.2)	0.69
Second	78 (31.6)	96.6 (17.0)	
Third and more	50 (20.2)	95 (16.05)	

SD, Standard deviation; Ns, Non stated

The association of self-efficacy and happiness might be bidirectional as some previous research found that higher self-efficacy predict both happiness and higher satisfaction in life in both gender (27). Exploring the exact nature of the relationships among these constructs needs further structural equation modeling based on conceptual framework.

Table 2. Association of Study Variables and Self-Efficacy Using Multivariate Linear Regression

Variables	B Coefficient	Standard error	95% confidence interval	P-value
Marriage status				
Single	Reference			
Married	-5.7	6.27	-17.9, 6.9	0.38
Household income				
Low	Reference			
Middle	-5.69	3.05	-12.7, 1.31	0.11
High	-0.44	3.05	-6.53, 5.64	0.88
Place of parents' residence				
City	Reference			
Village	3.63	3.92	-4.17, 11.42	0.36
Happiness	0.75	0.13	0.49, 1.02	0.001
Spiritual health	-0.07	0.09	-0.26, 0.11	0.42

In the present study, there was also a significant association between happiness and spiritual health that was in accordance with previous report (19, 28). But, the association of spiritual health and self-efficacy was not significant after multivariate adjustment for happiness and other demographic variables. This finding is in contrast with previous reports by Hasanshahi et al., (20), and Chabok et al. (29). However, they did not consider happiness in their study that seems to be an important confounding variable between spiritual health and self-efficacy. In fact, in our study the significant association between spiritual health and self-efficacy was not remained after accounting for happiness that is in agree with previous report by Amiri et al. (18).

In this study, no significant association was found between age, sex, marital status, household size and filed of study with self-efficacy. Household economic status was the only significant variable associated with self-efficacy in univariate analysis. Some previous report also found that social class correlate positively with the self-efficacy of persons (30). However, in our study the majority of subjects did not respond the household economic status and the association was not significant in the multivariate model. The present study found no significant association between demographic variable and self-efficacy. Some previous studies found relationship between gender and self-efficacy in which women had higher self-efficacy compared to men (18).

This study suffered from some limitations. First, the non-probability sampling of study population may induce some selection bias favoring to participation of those who have more life satisfaction and happiness. And second, the cross sectional nature of the study prohibits us to evaluate the temporal association between variables.

Conclusion
The findings of this study revealed that happiness was the only significant predictor of self-efficacy. Therefore, it is highly recommended that the authorities of educational system pay more attention to this issue in educational programming for universities and reconsider some recreational activities that improve subjective well-being and feeling of happiness among students.

Ethical consideration
The protocol of this study had been approved by Ethical Review Board of Guilan University of Medical Sciences, Rasht, Iran. Ethical code: IR.GUMS.REC.1397.405.

Conflicts of interests
Authors declared no conflict of interest.

References
1. Bong M. Academic motivation in self-efficacy, task value, achievement goal orientations, and attributional beliefs. J Educ Res. 2004; 97(6):287-298. doi: 10.3200/JOER.97.6.287-298.
2. Roohi GH, Asayesh H, Bathai SA, Shouri Bidgoli AR, Badeleh MT, Rahmani H. The relationship between self-efficacy and academic motivation among students of medical sciences [in Persian]. J Med Educ Develop. 2013; 8(1):45-51.
3. Tavakolizadeh J, Tabari J, Akbari A. Academic self-efficacy: predictive role of attachment styles and meta-cognitive skills. Procedia Soc Behav Sci. 2015; 171:113-120. doi: 10.1016/j.sbspro.2015.01.096.
4. Veenhoven R. Greater happiness for a greater number. J Happiness Stud. 2010; 11(5):605-629.doi: 10.1007/s10902-010-9204-z.
5. Hojati H, Emadi Zyarati N, Hadadian F, Rezaee H. Effect of training Fordyce happiness on iIncrease students' self-efficacy. Elixir Psychology. 2013; 57:14268-14270.
6. Magaletta PR, Oliver J. The hope construct, will, and ways: Their relations with self-efficacy, optimism, and general well-being. J Clin Psychol. 1999; 55(5):539-351. doi: 10.1002/(sici)1097-4679(199905)55:5<539::aid-jclp2>3.0.co;2-g.
7. Chen Y, Harris SK, Worthington EL, Jr., VanderWeele TJ. Religiously or spiritually-motivated forgiveness and subsequent health and well-being among young adults: an outcome-wide analysis. J Posit Psychol. 2019; 14(5):649-658. doi: 10.1080/17439760.2018.1519591.
8. VanderWeele TJ, Balboni TA, Koh HK. Health and spirituality. JAMA. 2017; 318(6):519-520. doi: 10.1001/jama.2017.8136.
9. World Health Organization. Promoting mental health: concepts, emerging evidence, practice: a report of the World Health Organization, Department of Mental Health and Substance Abuse in collaboration with the Victorian Health Promotion Foundation and the University of Melbourne: Geneva, Switzerland: World Health Organization; 2005.
10. Bufford RK, Paloutzian RF, Ellison CW. Norms for the spiritual weil-being scale. J Psychol Theol. 1991; 19(1):56-70. doi: 10.1177/009164719101900106.
11. Biglari Abhari MMD, Fisher JWP, Kheiltash AMD, Nojomi MMDMPH. Validation of the Persian version of spiritual well-being questionnaires. Iran J Med Sci. 2018; 43(3):276-285.doi: 10.30476/ijms.2018.40539.
12. Owen SV, Froman RD. Development of a college academic self-efficacy scale. Annual Meeting of the National Council on Measurement in Education NewOrleans, LA. April 6-8; 1988.
13. Asghari F, Saadat S, Atefi Karajvandani S, Janalizadeh Kokaneh S. The relationship between Academic Self-Efficacy and Psychological Well-Being, Family Cohesion, and Spiritual Health Among Students of Kharazmi University [in Persian]. Iranian J Med Edu. 2014; 14(7):581-593.
14. Hills P, Argyle M. The Oxford Happiness Questionnaire: a compact scale for the measurement of psychological well-being. Personality and Individual Differences. 2002; 33(7):1073-1082. doi: 10.1016/S0191-8869(01)00213-6.
15. Liaghatdar MJ, Jafari E, Abedi MR, Samiee F. Reliability and validity of the Oxford happiness inventory among University Students in Iran. Span J Psychol. 2008; 11(1):310-313. doi: 10.1017/s1138741600004340.
16. Alipoor A, Noorbala AA. A preliminary evaluation of the validity and reliability of the Oxford Happiness Questionnaire in Students in the Universities of Tehran [in Persian]. Iranian J Psych Clin Psuchol. 1999; 5(1-2):55-66.
17. Barati F, Ashrafi Z, Najafi F, Karimi A, Sharifzadeh GH. The investigation of happiness status and its related factors in students of birjand university of medical sciences in 2013 [in Persian]. J Torbat Heydariyeh Univ Med Sci. 2015; 3(2):26-30.
18. Amiri M, Chaman R, Mohammadnejad F, Khosravi A. The correlation between happiness and spiritual health with academic self-efficacy among medical sciences students

[in Persian]. Inter J Health Stud. 2018; 4(1):19-24.

19. Ebadi BN, Hosseini MA, Rahgoi A, Fallahi Khoshknab M, Biglarian A. The relationship between spiritual health and happiness among nursing students [in Persian]. J Nurs Edu. 2017; 5(5):23-30.

20. Hasanshahi M, Amidi Mazaheri M, Baghbanian A. Relationship between spiritual health, hopelessness, and self-efficacy in medical sciences students. Iran J Psychiatry Behav Sci. 2018; 12(2):e2071. doi: 10.5812/ijpbs.2071.

21. Abdel-Khalek AM, El Nayal M. Happiness and its relation with self-efficacy among university students. Youth and Society :Current Issues; State of Kuwait -Kuwait University; 2014.

22. Brebner J, Donaldson J, Kirby N, Ward L. Relationships between happiness and personality. Personality and Individual Differences. 1995; 19(2):251-258. doi: 10.1016/0191-8869(95)00022-X.

23. Cheng H, Furnham A. Personality, self-esteem, and demographic predictions of happiness and depression. Personality and Individual Differences. 2003; 34(6):921-942. doi: 10.1016/S0191-8869(02)00078-8.

24. Suldo SM, Huebner ES. Does life satisfaction moderate the effects of stressful life events on psychopathological behavior during adolescence? Sch Psychol Q. 2004; 19(2):93-105. doi: 10.1521/scpq.19.2.93.33313.

25. Veenhoven R. Healthy happiness: effects of happiness on physical health and the consequences for preventive health care. J Happiness Stud. 2008; 9(3):449-469. doi: 10.1007/s10902-006-9042-1.

26. Lyubomirsky S, Tucker KL. Implications of individual differences in subjective happiness for perceiving, interpreting, and thinking about life events. Motiv Emot. 1998; 22(2):155-186. doi: 10.1023/A:1021396422190.

27. van Zyl Y, Dhurup M. Self-efficacy and its relationship with satisfaction with life and happiness among university students. J Psychol Africa. 2018; 28(5):389-393. doi: 10.1080/14330237.2018.1528760.

28. Faribors B, Fatemeh A, Hamidreza H. The relationship between nurses' spiritual intelligence and happiness in Iran. Procedia Soc Behav Sci. 2010; 5:1556-1561. doi: 10.1016/j.sbspro.2010.07.325.

29. Chabok M, Kashaninia Z, Haghani H. The Relationship Between Spiritual Health and General Self-Efficacy in the Iranian Elderly. Journal of Client-centered Nursing Care. 2017; 3(2):125-132. doi: 10.32598/jccnc.3.2.125.

30. Quiroga-Garza A, Garcia-Sanchez E, Trevino FA, Willis GB. Relation between subjective social class and self-efficacy: Effect of social comparison. Anal Psicol. 2018; 34(2):314-323. doi: 10.6018/analesps.34.2.266611.