ORIGINAL ARTICLE   **OPEN ACCESS**

Quality of Life and Individual factors

1. Baniaghil, Asieh Sadat*, 2. Salehi Omran, Ebrahim, 3. Fazeli, Mohammad , 4. Fallah, Vahid
1. Faculty Member, Counseling and Reproductive Health Research Centre, Golestan University of Medical Sciences, Gorgan, Iran.
2.Faculty Member of Humanities and Social Science, Mazandaran University, Babolsar, Iran.
3.PhD in Educational Science, Mazandaran, Iran.
4. Department of Educational Sciences, Sari branche, Islamic Azad University of Sari.Sari, Iran.

ABSTRACT
Quality of life and effort to its improvement has an important role in the personal and social well-being of the students who makes the future of country. This study was conducted to determine student's quality of lifeand some of it's relative factors. This cross-sectional study used Sf12 quality of life standardized questionnaire for 126 students in Golestan University of Medical Sciences in 2013whomhad at least 3 years' experience of studying in this college, They had no physical or mental disorder and also no history of family death in the previous 3 months. Samples were selected by stratified proportional to the number of students per colleges then randomized sampling design. Quality of life and both physical and mental components Summary as well as 8 subscales which are physical functioning, role limitations due to physical problems, bodily pain, general perceptions of health, vitality, social functioning, role limitations due to emotional problems, and mental health was measured according to the WASTAT Ealgorithm. In this study, SPSS data analysis software, the statistical tests of the frequency distribution and paired T test, Wilcoxon, Kruskal-wallis at the level of 95 percent confidence level was used. The results showed that the score mean of students quality of lifewere73±15, while the score mean of 6 percent of students were lower than 50. Also the score of mental and physical components of 49 percent of students were lower than 50.Also results showed that the score mean of quality of life in men was significantly higher than women and other factors such as place of residence, educational level, marital status, family income and parental job had no relation with student's quality of life.
The findings of this study showed that the quality of life of some students and its physical and mental components was lower than mean.
Keywords: quality of life, mental and physical components, students

INTRODUCTION

Students are one of the major, talented and dominant part of society that because of the age and their social position in a new environment are susceptible to be under stress such as separation from their family, financial and educational problems, competition with other students, exams, ambiguity of future job, inability to make decisions,big amount of lesson and classes [1-2]. Marriage problems, social problems, lack of support, custom and cultural differences, lack of leisure and so on. The stresses mentioned may have a negative impact on students' personal and social coping resources and leading to functional and adaptation dysfunction which bring students a poor quality of lifelike. Quality of life has a complex, abstract [3], wide concept with different meanings, multi-dimensional, interdisciplinary and comparative measures which is under the effect of time, place, individual and social values that has both objective and subjective dimensions [4-6].

Quality of life is a dynamic state which enables individuals to develop their potential, work with productivity and creativity ,have strong and positive interaction with others and participate in their community(7).

Bahmani [8]Showed that the quality of life of approximately half of Tehran Islamic Azad University students was in an average level or slightly higher than it, but about25 percent of them had a more unfavorable situation which needed some serious changes.Rezaei Adaryani [1]reported that the quality of life of 32/2 percent of male and female students living in the Tarbiat Modares University dormitories was

in the average level and 4/9 percent was lower than it. Soltani [9]showed that the quality of life of 4 percent of Gilan university students was highly desirable,34percent was favorable,51percent was in the average level and11percent was unfavorable.

According to the importance of the university students as major subgroup (4 million members) of the Iran educational system and their role in national development, hence the aim of this study was to dreaming the quality of life and some of it's relative factors in students of Golestan University of Medical Science.

MATERIALS AND METHODS

This cross-sectional study was done in 2013.The study population was consisted of all students(2010 subjects)of Golestan University of Medical Sciences(Research Environment).

The number of samples to reject the null hypothesis was estimated at least 116 students (confidence level of 95% and the power of 80%).According to some quality of life researchers, unanswered question of SF12quality of life questionnaire which is measured only with a questioning the subscale of bodily pain, vitality and social functioning may Cause result distortion so it would be better to exclude such a sample from the study and also by considering the probability of 10percent dropout rate, the sample size was estimated140.At the end 126 students gave the complete questioners back.

Include criteria was the tendency to participate in the study, not guest students, those who completed the questionnaires, with no known physical or mental disorder, with no misadventure or death of a loved one in the last 3 months, at least 3years study in the university and attending to the university at time of study.

Golestan University of Medical Sciences had 5Colleges (Medicine, Dentistry, Nursing and midwifery, New Technologies and Paramedical). Researchers were interested in the stratified and proportional selection in the 5colleges. In each college students were selected randomly based on random number table with attendance list of the students.

In this study genericSF12 questionnaire (version2)containing 12 self-report questions was used. This questionnaire has mental and physical component and 8 subscales including general perception of health (1 question), Physical functioning (2questions), Role limitations due to physical problems (2questions),bodily pain (1question), Role limitations due to emotional problems(2 question), Energy or vitality(1question), Mental health (2questions)and social functioning(1question).Two questions of physical functioning were in3degree scales (1to3)and other questions were in 5degree scale(1to5).The answering time for the questionnaire was approximately 2 to 3 minutes [9].

The quality of life scores which were obtained from the sum of 12 questions of the questionnaire were converted to scores from zero to100 [10].Higher scores indicated higher quality of life [11, 12]. Recommended WASTATE Syntax was used to analyze two components of physical and mentaland8 subscales. Base on WASTATE recommendation, 1, 8, 9 and 10 questions were scored reversely(10). So obtained scores were determined from 0 and 100 [13].

data was entered into SPSS software(SPSS-version 19) and analyzed in assurance level of 95 percent by statistical test of frequency distribution, paired T test, Wilcoxon, Kruskalwallis.

RESULTS

Results from demographic data analysis are in table 1.

Table(1): Demographic Data							
Variable		number	Percent	Variable		number	Percent
Gender	The man	41	32/5	Family income	Under Poverty line	78	61/9
	The woman	85	67/5		Above Above Poverty line	48	38/1
Race	Persian	103	81/7	Father's Job	Employee Or Retired	77	61/1
	Turkmen	23	18/3		self-employee	38	30/1
MaritalStatus	Single	97	77		Unemployed	4	3/2
	Married	27	21/4		Dead	7	5/6
	Other	2	1/6	Mother's Job	The house keeper	87	69
Educational level	undergraduate	33	26/2		Employee Or Retired	33	26/2
	Ms	9	7/1		Free	6	4/8
	Ph.D.	84	66/7	Location of Residence	City	114	90.5
					rural part	12	9/5

The results showed that the score mean of students quality of life in Golestan University Of Medical Sciences was 73±15(36-100), and for both mental and physical components summary were respectively50±10 (18-77) and 50±8 (30-68). Also the score mean of8quality of life subscales including physical functioning, role limitations due to physical problems, role limitations due to mental problems, vitality, mental health, social functioning, bodily pain and general health perception are approximately 90, 76, 67, 71, 71, 73, 83 and 72 respectively. Physical functioning and role limitation due to mental problems respectively obtained the highest and lowest score (table2).

Table (2): mean quality of life, components and subscales		
Variable	Mean	Standard Deviation
Quality of life	73/25	15
Physical component	50	8
Mental component	50	10
Role limitations due to physical problems	76/28	22
Bodily Pain	82/61	20
General Health perception	71/82	20
vitality	71/34	18
Social functioning	73/41	25
Role limitations due to mental problems	66/86	25
Mental Health	71/11	19
Physical functioning	90/47	21

The results showed that the mean quality of life and its 2 physical and mental components in 6percent, 49 percent and 49 percent were lower than 50 respectively (table 3).

Variable	upper than50		lower than 50	
	number	percent	number	Percent
Quality of life	118	94	8	6
Physical component	64	51	62	49
Mental component	64	51	62	49

In investigating the relationship between individual factors and quality of life, results showed that the mean quality of life in men was significantly higher than women. In spite of this fact that urban, Persian, married, Ms and PhD students as well as those who had employed parents had high score but it was not significant.

The results also showed that the mean physical function component was higher in rural students significantly and other factors had no significant relationship with it.The mean of mental functioning in all students based on demographic data was not different significantly (Table 4).

Table(4):the Relationship between quality of life score mean and its demographic data		Quality Of Life		Physical component		Mental component	
Variable		mean	Standard Deviation	mean	Standard Deviation	mean	Standard Deviation
Gender	The men	78	15	52	7	52	12
	The women	70	15	49	8	49	10
Race	Persian	74	14	50	8	50/3	10
	Turkmen	70	20	50	8	48	12
Marital Status	Single	73	15	50/5	7	49	11
	Married	74/6	15	49/4	6	52	9
Education Level	Undergraduate	71/3	15	48	8	50/2	10
	Ms and PHD	74	15	50/6	7	50	11
Location of Residence	Urban part	73	15	48	8	50	10
	Rural part	77	13	52	4	51/3	10
Collage Generation	First-generation	74	14	50/6	5	50/7	9
	Second-generation	73	15	50	8	49/7	11
Father's Job	Unemployed Or Dead	68	13	50	8	46	13
	Employee	74	15	52	10	50	12
Mother's Job	The housekeeper	74	15	50	7	50/6	11
	employee	71	14	50	8	48/5	8
Family Income	Under Poverty Line	73/2	16	50	7	49	11
	Above Poverty Line	73/2	15	50	7	50	10

DISCUSSION

The results showed that the mean quality of life and its two physical and mental components summary students of Golestan University of Medical sciences were respectively 6 and 49 percent lower than 50.Nikbakht Nasrabadi [14] also showed that about a quarter of Tehran University of Medical Sciences had problems in quality of life. in the investigation of previous papers, Paro [15]stated that student's low score in quality of life may occurred due to the high volume of course curriculum, poor academic performance, the stress along with the transition period to the clinical education and sleep disorders and emotional experiences associated with the onset of contact with patients, dealing with illness and death.

The results showed that the mean quality of life of student's in Golestan university of Medical Sciences were 73±15, and the mean of both mental and physical components summary were respectively 50±10 and 50±8.Paro [15] indicated that the mean quality of life of medical students in the physical component was 55 and in the mental component was 48/5. Mohammad Alikhani [16] also reported that the mean quality of life of Qazvin university of medical sciences students in the physical component was 73 and in the mental component was 63.

The investigation results of the 8 quality of life subscales in Golestan University of Medical Sciences indicated that the mean of physical health subscale (90) was the highest and the other mean subscale scores approximately were respectively bodily pain (83), role limitations due to physical problems(76)and social functioning(73), general health(72), vitality (71), mental health (71)and role limitations due to mental problems(67).Nikbakht Nasrabadi [14]also showed that the mean different subscales of quality of life inTehran University of Medical Sciences students varied from 62±10in vitality to 92±11 in physical functioning. The mean quality of lifein the physical functioning subscale was highest and the others were respectively bodily pain, role limitation due to physical problems, social functioning, role limitation due to emotional problems, mental health, general health perception and vitality.Montazeri (17) reported in his survey study that the mean of 8 quality of life subscales in 15- 24 year old Tehranian citizens were respectively physical functioning (93/8), physical problems (81), physical pain (87/2), general health (75/5), energy or vitality (70/2), social functioning (82/9), mental problems (73/4) and mental health (71/1).

The results of investigation in the relationship between quality of life and demographic factors showed that the mean quality of life of men was significantly higher than women. Paro [15]and Zielin´ska [18] also showed that there wasa significant difference between the mean scores of male and female students but Bahmani and Zaki stated that there was no significant difference in between [8,19].

The results showed that even though the quality of life of urban students with Persian language, who are married,with Ms and PhD degrees and those with employed parents was higher but it was not significant. Madjedi [20]also obtained similar results and showed that there was no significant relationship between quality of life and level of education, parent's occupation and the mean of family education. Mohammad Alikhani [16] showed that there was no significant difference between quality of life of Qazvin University of Medical Sciences students with their marital status and location of residence. Kiani(21)also showed that there is no significant relationship between quality of life of the students and age, gender, race and etcbut it has a significant relationship with the field of education. Zielinska [18] indicated that there is no significant relationship between student's quality of life and age, gender and marital status but it has a mild relationship with the level of education. Henning [22]showed that medical students are exposed to numerous challenges throughout their education, and graduating from this major is a complex and difficult process which can affect their quality of life.

CONCLUSION

Based on the results of this study which showed that the mean of quality of life in 6 percent of students are lower than 50, and the mean of two physical and mental components summary in 49% of subjects are lower than 50, considering the quality of life and effort in its promotion and development is recommended.

ACKNOWLEDGMENTS

REFERENCES
1. Rezaeiadaryani M, Azadi A, Ahmadi F, Vahedian-azimi A. (2007). Comparison of depression, anxiety, stress and quality of life in dormitories students of Tarbiat Modares University.IJNR.; 2 (5):31-38. [In Persian]
2. Gammon, J. Morgan, S H. (2005). A study to ascertain the effect of structured student tutorial support on student stress, self-esteem and coping.Nurse Education in Practice. 5: 161-171.
3. CIRRIE. Aging and quality of life.(2010). Http://Cirrie.buffalo.edu.
4. Rezvani, A. Mottaki, A A. Mansorian, H. Sattari, M H. (2009).Development and Assessment of indicator of Urban Life Quality. Journal of Urban - Regional Studies and Research. 1 (2): 87-110.
5. Lotfi, S. (2009).The concept of urban quality of life: definitions, dimensions and measuring in urban planning. Journal of human geography. 1 (4): 65-80.
6. Agha Yousefi, AR. Sharif, N. (2011). Correlation between psychological well-being and sense of coherence in the students of Islamic Azad University-Central Tehran Branch. Pejouhandeh. 15 (6): 273-9.
7. Field, J. Well-being and Happiness. (2009). National Institute of Adult Continuing Education (NIACE). ISBN: 9781862014169.
8. Bahmani, B. Tamadoni, M. Asgari, M. (2004). Quality of life and its relation to religion attitude in students of south unite of Azad University in Tehran. TebvaTazkieh. 53: 32-44. [In Persian]
9. Soltani R, Kafee, M, Salehi, E, Karashki H, Rezaee,S. (2010). Survey of life in Guilan university students. Journal of Guilan University of medical sciences.; 75: 25-35. [In Persian]
10. Wittrup -Jensen, ku. Pedersen, KM.(2009). Estimation of a Preference-based Index Measure of Health for SF-12 by Applying Multi-Attribute Utility Theory (MAUT) - an experiment. Health Economics Papers. 8: 1-24.11-Rahimi ZH, baljani S, Zadgasem Z.(2008). Investigating the relationship between illness perception and quality of life in hemodialysis patients. Iran J Crit Care Nurs. 5 (3): 151-158.
11. Gray, A, Clarke, P. Rivero, O. Estimating the association between SF-36 responses and EQ-5D utility values by direct mapping. CES-HESG Workshop. 2004.1st Franco-British Meeting in Health Economics.
12. wastat. Mental Health Treatment Study. 2011. Prepared for: Social Security Administration.
13. Nikbakht, Nasrabadi, A. Mazloom, S R. Nesari, M. Goodarzi, F. (2009). Relation between worry domains and health related quality of life in medical sciences students. ; 1: 85-92. [In Persian]
14. Paro, BMSH, Morales, MO N. Silva, CH M. et al. Health-related Quality OfLife of Medical Students. Med Education.2010;44:227-235.
15. Mohammad Alikhani, S. Asefzadeh, s. JahaniHashemi, H. (2012).Evaluation of Quality of life of Qazvin university students. Edrak; 22. 5-11. [In Persian]
16. Montazeri, A. Vahdaninia, M. Mousavi, S J. Omidvari, S. (2009). The Iranian version of 12-item Short Form Health Survey (SF-12): factor structure, internal consistency and construct validity. BMC Public Health, 9: 341: 1-10.doi: 10.1186 / 1471-2458-9-341.
17. ZielinskaCzkowska H, Ke ̧ Dziora-Kornatowska K, Ciemnoczo owski W. Evaluation of quality of life (QOL) of students of the University of Third Age (U3A) on the basis of socio-demographic factors and health status. Archives of Gerontology and Geriatrics.2011; 53: 198-202.
18. Zaki M. (2008). Quality of Life and its Relationship with Self-esteem in Male and Female Students of Isfahan University.IJPCP.; 13 (4): 416-419. [In Persian]
19. Madjedi, SM; Lahsaee, AA. (1995) ̧ The relationship between background variables, social capital and life satisfaction); Rousta& Touseye .1385; 4: 91-136. [In Persian]
20. Kiani, F. Balochi, A. Sargolzaei, N. kiani, M. (1999). A comparative study of quality of life and non-medical students in dormitories Zahedan. Zahedan Journal of Research in Medical Sciences.Special Letter.2011; 5. [in Persian]
21. Henning, Marcus. Kr ä geloh, Christian. Hawken, Susan. Et al. (2010). Quality of life and motivation to learn: A study of medical students. Issues in Educational Research, 20 (3), 244- 256.