

Quality of Life of Medical Students in Tehran University of Medical Sciences

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Abstract- This study aims to investigate the quality of life (QOL) of Tehran University of Medical Sciences' (TUMS) medical students at different educational levels and specify the most important factors related to this quality. A sample of 242 medical students was selected randomly, given their number in three educational levels (basic sciences, physiopathology-stager and intern). The QOL was measured by WHOQOL-BREF. The students obtained average high score in two psychological and environmental health domains, and low score in physical health and social relationship domains. As the educational level of students increased their quality of life decreased at all four domains. At social relationship domain, the female students had overall better situation as compared to males ($p=0.009$). The female and male students had opposite condition at the level of basic sciences and internship, in a way that the female students earned higher marks at basic sciences level and the males at internship level ($P= 0.008$). The condition of female students in terms of environmental, physical and psychological health became static while their education rose. However, only environmental health of the male students reduced as their education level increased ($P= 0.05$). The students were of undesirable conditions in two domains of social relationship and physical health. Internship is a specific level in both groups which has a negative impact on the dimensions of quality of life and naturally needs more care for the students. Married status improved the students' QOL and could moderate the undesired effects of internship.

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Introduction

The aim of medical education is to train skillful, competent and confident physicians to promote and maintain society health. Therefore, their psychological health has been always the subject of studies (1). Given its long period of education, medical students' direct encounter with hospitals and large volume of lessons, medicine as a subject is of a special position and differs to some extent from other university courses. The results of a longitudinal study on medical students in the USA denoted that 10 percent of the students thought of suicide during their education. The students' quality of life (QOL) is one of the predicting indicators in these cases (2). Various studies pointed out high prevalence of stress (3-5), alcohol consumption (6) and depression

among these students. All of these have created such a necessity that around 90 percent of the medical students has requested some sort of physical and psychological care during their education (4). Such a situation among the students could result in an educational recession, different psychological disorders and even suicide attempts (7). A study on Canadian and American medical students illustrated that they experience higher levels of anxiety and stress as compared to other population and their age peer group. This was even severe when students were at clinical stage of their education (3).

World Health Organization has defined 'QOL' as the physical, psychological and social welfare which is understood by the person or people. According to this organization it can be assessed by measuring

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individuals' mental feelings toward their happiness or unhappiness about different aspects of life (8). The results of different studies indicate that the QOL both affects and is influenced by various aspects of people's life. For example, it affects on individuals' satisfaction of social support (9) severity of mental illnesses (10), educational success (11) and learning quality (12). It is correlated with relationship with families and friends (13), and the social capital (14-18).

Overall medical students are of outstanding position because of their importance for the future of the country (19). The number of medical students in and the quality of their education have an increasing trend over the past decades (20). Gaining the first rank among all universities of the country by Tehran University of Medical Sciences (TUMS) for several years is the sign pointing to TUMS' importance (21). A look into the studies conducted on medical students in other countries shows that they are of a specific status and different from other members of societies. In Lithuania, a study on humanities and medical sciences students revealed that the former were at a better position in social relationship and the latter in environmental health domain. They related this to the better position of humanity sciences students in terms of their social relationship, commitment and love to their society (22). Another study on students in Sao Paulo, Brazil, considered university as an environment that is able to increase or decrease the students' QOL and, as such, the relationship between lecturer and student could impinge on their QOL (23).

In Iran, the QOL of students, generally, and medical students, particularly, is hardly measured. Some studies have envisaged the period of academic education always in relation with the reduction of QOL and increase of stress and depression (24). This study conducted on the students of Tarbiat-e-Modares University showed that 51 percent were suffering from stress. He also concluded that the level of stress, anxiety and depression was higher among the female students, and their QOL was inversely related with stress, anxiety and depression (24). A study in University of Isfahan found a direct relationship between the students' QOL and their self-confidence (25). Sleep deprivation led to the reduction of QOL among the medical students of Zanzan University of Medical Sciences (26). In other universities, there was seen a direct relationship between the students' QOL and having an independent personality (27), but an inverse relationship with the level of anxiety (28). In most studies in the country, the relationship between the students' QOL is measured

with those issues which have been investigated before by other studies. However, the measurement of the students' QOL using an international tool and its comparison with that of other people and students of other countries has not been so far explored in relation to the country's medical students. Therefore, utilizing WHOQOL the current paper aims to measure the students' QOL at four domains of physical, social and psychological health and social relationship and determine the most important related factors. This could help clarify the status and identify the main elements affecting on the students' QOL. The study results are highly important as it is the first effort to investigate the QOL of medical students in Middle East countries using the foregoing questionnaire.

Materials and Methods

This is a cross-sectional study in which a sample of 242 students is chosen out of the TUMS' medical students by simple random sampling method. After preparing a list of students and setting the criteria (i.e. having been at least one year in the TUMS), a number of 200 students from both 'basic sciences' and 'physiopathology-stager' levels and 100 in internship were randomly chosen. The study used WHOQOL questionnaire for QOL measurement. The validity and reliability of its Farsi version is previously investigated and approved (29). The students could obtain a score ranging from 4 to 20 for each domain.

In coordination with the center for talented students of TUMS' Medicine School, a number of students were selected to collect data. These students were trained in terms of the study structure and objectives as well as questionnaire's contents. They were asked to respect the respondents' confidentiality and privacy and provide them with enough time to respond the questionnaire. The participant students were notified to fill the questionnaire carefully and contact and get consultation from the researcher if they face any problem. Meanwhile, a present was given to the respondents upon returning the questionnaire to both boost their cooperation and compensate their time for answering the questions. The questionnaires were checked at the time of collection in terms of mistakes, and the reason was asked if there was any question unanswered (whether it was forgotten or intentionally left unanswered). The field survey was undertaken in the first half of March and April, 2010.

T-Test and one-sided ANOVA were used to test quantitative variables and linear regression for

investigating the effects of different factors on the dimensions of QOL by inputting the variables in the model in the form of backward method. In this model, four domains of QOL constituted the dependent variables and independent were those which had a p-value less than 0.2 in the one-variable analysis, including age and economical status inputted quantitatively and gender, education, parents' education, marital status nominally.

Ethical considerations: the respondents were reassured that their information will be treated confidentially, and the results will be disseminated collectively. Meanwhile, their informed consent was obtained.

Results

Out of 300 students, response rate was 78 percent

(78 students) at basic sciences stage, 81 percent at physiopathology-stager and 75 percent at internship level. Overall, 242 students out of 300 answered to the questionnaire. Table 1 shows the basic characteristics of the students studied. Female and male students constituted 43 (104 students) and 57 (138 students) percent, respectively; of them 14.6 percent (35 students) were married, 83.8 percent single, 1.3 percent divorced and 0.4 percent widowed. The average age of the respondents was 23.03, with SD of 3.38 year. As to the education of their father, they ranged from 5 illiterate (2.1%) to 163 (67.9%) with academic education. As such, with regard to their mother's education, with some difference, there was a similar situation, ranging from 9 illiterate mothers (3.7%) to 142 (58.7%) with academic education.

Table 1. Student under study age, mothers' and fathers' education according to their gender and educational level

Gender	Educational level	Age		Mothers' education number (percent)				Fathers' education number (percent)			
		Mean	SD	Illiterate	Elementary	High school	University	Illiterate	Elementary	High school	University
Female	Basic sciences	19.84	0.72	0 (0.0)	4 (10.8)	6 (16.2)	27 (73.0)	0 (0.0)	0 (0.0)	9 (24.3)	28 (75.7)
	Physiopathology – stager	21.74	3.57	0 (0.0)	1 (3.3)	14 (46.7)	15 (50.0)	0 (0.0)	1 (3.4)	10 (34.5)	18 (62.1)
	Internship	25.47	1.38	2 (5.4)	1 (2.7)	11 (29.7)	23 (62.2)	2 (5.4)	1 (2.7)	9 (24.3)	25 (67.6)
	Total	22.35	3.21	2 (1.9)	6 (5.8)	31 (29.8)	65 (62.5)	2 (1.9)	2 (1.9)	28 (27.2)	71 (68.9)
Male	Basic sciences	20.54	1.00	1 (2.4)	3 (7.3)	13 (31.7)	24 (58.5)	1 (2.4)	2 (4.1)	9 (22.0)	29 (70.7)
	Physiopathology-stager	23.8	1.93	2 (4.0)	5 (10.0)	14 (28.0)	29 (58.0)	0 (0.0)	2 (4.1)	12 (24.5)	35 (71.4)
	Internship	26.7	3.43	4 (8.5)	7 (14.9)	12 (25.5)	24 (51.1)	2 (4.3)	4 (8.5)	13 (27.7)	28 (59.6)
	Total	23.54	3.43	7 (5.1)	15 (10.9)	39 (28.3)	77 (55.8)	3 (2.2)	8 (5.8)	34 (24.8)	92 (67.2)

Physical health

In this domain, the students' score was at least 6.29 and at most 18.29 (mean=13.32 and Standard Deviation (SD) equal to ۰.۱۴). The comparison of the individuals' physical health in terms of their gender showed no significant difference between female and male students (Table 2). As regards, marital status, no difference was seen among the groups of students. Overall, no difference was seen among three educational levels. After stratifying on the basis of education level, and repeating the test, a difference between two genders was seen. While at basic sciences level, female students owning a mean of 13.9 and Standard Error (SE) equal to 0.25 were of better physical health (p=0.04) as compared to male students (with a mean=13.8 and

SE=0.29), physiopathology-stager and internship stages there was observed no difference between the female and male even after stratification (Table 3).

As regards, marital status, no difference was seen among the groups of students, even though the physical health of married students was slightly higher than singles (Table 2). Overall, no difference was seen among three educational levels, however, after stratification on the basis of education level and redoing the test separately for every level this result emerged; among students in basic sciences females were significantly physically healthier than the males (p=0.04) (Table 3). Nonetheless, among the other two educational levels there were no significant difference between males and females.

In the investigation of the regression model of this domain of QOL into which the variables of fathers' education and marital status had been inputted, it

emerged that their fathers' academic educational level significantly affected the students' physical health ($p=0.02$) (Table 4).

Table 2. Quality of Life of Tehran University of Medical Sciences' medical students in different domains in terms of gender, marital status and educational level

		Sample size	Quality of life domains							
			Physical health		Psychological health		Social relationships		Environmental health	
			Mean(SE)	P-value	Mean(SE)	P-value	Mean(SE)	P-value	Mean(SE)	P-value
Gender	Female	104	13.51(0.21)	0.29	13.73(0.27)	0.68	14.13(0.35)	0.09	13.29(0.26)	0.45
	Male	138	13.21(0.19)		13.87(0.23)		13.41(0.25)		13.05(0.20)	
Marital status*	Married	35	13.81(0.31)	0.19	14.32(0.38)	0.25	14.30(0.47)	0.16	12.75(0.51)	0.38
	Single	205	13.26(0.16)		13.73(0.20)		13.54(0.23)		13.22(0.16)	
	Basic sciences	78	13.53(0.19)		14.23(0.32)		14.00(0.38)		13.93(0.24)	
Educational level**	Physiopathology-stager	80	13.40(0.26)	0.46	13.90(0.28)	0.14	13.83(0.33)	0.30	13.29(0.26)	<0.001
	Internship	84	13.11(0.27)		13.34(0.31)		13.24(0.37)		12.39(0.28)	

* T-test was performed for gender, and marital status

** ANOVA was performed for assessment of relation of quality of life domains with educational levels

Table 3. Tehran University of Medical Sciences' medical students' Quality of Life in different domains in terms of gender and marital status according to educational level

	Gender	Quality of life domains							
		Physical health		Psychological health		Social relationships		Environmental health	
		Mean(SE)	P-value	Mean(SE)	P-value	Mean(SE)	P-value	Mean(SE)	P-value
Basic sciences	Female	13.94(0.25)	0.04	14.62(0.39)	0.24	15.12(0.45)	0.03	14.04(0.33)	0.66
	Male	13.15(0.29)		13.88(0.49)		13.17(0.53)		13.83(0.34)	
Physiopathology-stager	Female	13.86(0.38)	0.16	14.20(0.49)	0.42	14.64(0.61)	0.22	13.78(0.46)	0.16
	Male	13.11(0.34)		13.72(0.35)		13.41(0.37)		13.00(0.32)	
Internship	Female	12.80(0.42)	0.31	12.43(0.49)	0.01	12.65(0.61)	0.13	12.16(0.48)	0.63
	Male	13.35(0.35)		14.04(0.39)		13.57(0.46)		12.44(0.34)	
Basic sciences	Married	14.57(0.28)	0.41	15.33(0.66)	0.01	16.00(2.66)	0.28	15.75(1.23)	0.07
	Single	13.47(0.20)		14.17(0.33)		13.30(0.49)		13.82(0.24)	
Physiopathology-stager	Married	14.09(0.38)	0.36	13.80(0.74)	0.82	14.53(1.02)	0.22	12.65(1.03)	0.35
	Single	13.33(0.30)		13.98(0.32)		13.33(0.37)		13.40(0.27)	
Internship	Married	13.51(0.49)	0.34	14.38(0.52)	0.06	14.66(0.66)	0.007	12.20(0.61)	0.81
	Single	12.90(0.33)		12.98(0.39)		12.35(0.48)		12.36(0.33)	

Psychological health

The earned score of students in this domain was at least 4 and at most 20 (mean= 13.7 and SE= 0.17). As three other domains, a comparison was made between female (mean=13.7, SE=0.27) and male (mean= 13.8, SE=0.23) students but no significant difference was seen (Table 2). No significant result came out of comparing

single and married students. There was seen no significant difference among students at three educational levels in terms of their psychological health, although the basic sciences students obtained higher mark. After stratifying and separating the students on the basis of education level, in internship stage, it was seen that the married with a mean of 14.3 and SE of 0.38

were psychologically healthier than the single students who had a mean of 13.01 and SE equal to 0.20 (p=0.04) (Table 3). It was also observed that among three educational levels in intern, female students were psychologically healthier than males (p=0.01).

The educational level variable inputted into the

regression model of this domain, which revealed that out of physiopathology-stager and internship educational levels, only the latter had a negative, though significant, effect on the students' psychological health (p=0.05) (Table 4).

Table 4. Linear regression on the Quality of Life domains of the Tehran University of Medical Sciences' students

Dependent variable	Inputted variables in the model	Variables remained in the model	Beta coefficient t	Standard error of variable coefficient	Standardized beta coefficient	P-value
Physical health	Father's education (university/high school)	Father's education (university/high school)	-0.68	0.30	-0.14	0.02
	Marital status (single/married)					
Psychological health	Educational level (internship/basic sciences)	Educational level (internship/basic sciences)	-0.72	0.37	-0.12	0.052
	Educational level (physiopathology-stager/basic sciences)					
Social relationship	Mother's education (university/ high school)	Marital status (single/married)	1.02	0.55	0.12	0.067
	Gender (male/female)					
	Economic status					
Environmental health	Marital status (single/married)	Mother's education (university/ high school)	0.75	0.42	0.13	0.025
	Educational level (internship/ basic sciences)					
	Educational level (physiopathology-stager/basic sciences)					

Social relationships

The earned score of students in this domain were at least 6.4 and at most 20 (mean= 13.7 and SE= 0.20). As regards social relationships, comparing two groups of male and female students it was found that the female owning a mean of 14.1 and SE equal to 0.35 were at a higher level than the male owning a mean of 13.4 and SE of 0.25 (p=0.09) (Table 2). In terms of marital status, the observations showed that the single students were less social than the married; however, the difference was not significant. In the comparison of three educational levels from the perspective of their social relationships, no significant difference was seen among the students. After stratifying and separating the students on the basis of education level, in internship stage married students have significantly better social relationship than females (p=0.007) (the highest percentage of married students belonged to interns) (Table 3). However, after separating three educational levels and performing the test between males and females in the level of basic sciences females have higher scores than the males (p=0.03) (Table 3).

In the investigation of the effects of different

variables on the social relationships, a simple model of regression was used within which marital status, economic status, age and mothers' education were inputted into the model by backward method. The results showed that out of all inputted variables, those of marital status (p=0.06) and mothers' academic education (p=0.02) had a positive significant effect on this domain of the students' QOL. Of them, the effect of mothers' academic education was more strong (standardized coefficient =0.12) (Table 4).

Environmental health

The score of students in this domain was between 5.5 and at most 20 (mean= 13.1 and SE= 0.16). No significant difference was seen between the female and male students in terms of environmental health level, as such, between the married and single students. As to educational level of the students, it was seen that basic sciences students (mean= 13.9 and SE= 0.24) were of the highest environmental health and internship students (mean= 12.3 and SE= 0.28) were of the lowest level of environmental health (p<0.001) (Table 2).

In the regression analysis of the different variables

on this domain of QOL, age and educational level variables were inputted into the model, of them only the age had a negative significant effect on the students' environmental health ($p < 0.001$) (Table 4).

Discussion

The students' QOL are good in two environmental and psychological health and poor in physical health and social relationships. As the educational level goes up in all four domains, the QOL decreases and internship level found to be of a crucial position as the QOL in that stage reaches to its lowest level.

As compared to Tehran's general public, the medical students stood at the lower level in relation to physical health and social relationships and at a higher level in environmental and psychological domains, even though the difference was not significant in the psychological health domain. As compared to the students of Lithuania, similar result emerged, that is at the lower

level in relation to physical health and social relationships and at a higher level in environmental and psychological domains (Table 5). Weak social relationships of the students point to the lack of sufficient attention of the education authorities to transferring communication skills to students. This matters as the university is considered to be a place that different cultures and various opinions meet. In addition, students enter to this place at their young age which is a vulnerable and sensitive stage of their life as a related study shows that experiencing an independent life, stress and being far from family is positively related with lower QOL and gender also does not adjust this relationship (30). It should be mentioned that only those between ages 21 to 30 years who are somehow at the same age with the students were chosen from Tehran's general public for the purpose of comparison. As regards Lithuania, the QOL was only considered among the medical sciences students which the same tool has been used for its measurement.

Table 5. Comparison of various domains of the Quality of Life scores of Tehran University of Medical Sciences' (TUMS) medical with Tehran's general public and Lithuanian medical students

	Sample size	Physical health	Psychological health	Social relationships	Environmental health
Tehran's general public (20 to 30 years)	223	15.0(2.3)	13.7(2.5)	14.0(2.5)	12.5(2.4)
TUMS medical students	242	13.3(2.1)	13.8(2.7)	13.3(3.1)	13.1(2.4)
Lithuanian medical students	919	15.0(2.0)	13.4(2.3)	14.0(2.9)	12.3(2.5)
P-value of the difference between TUMS students and Tehran's population		<0.001	0.64	<0.001	0.003
P-value of the difference between TUMS students and Lithuanian students		<0.001	<0.001	0.064	<0.001

Since in comparing with Tehran population, as mentioned earlier, only it was conducted with those between 21 to 30 years, it could be argued that other factors than those affecting the ordinary life of the general public might affect the students' life. These factors are mostly related to the university environment and student life. On the other hand, as the QOL of Tehran population is lower than other countries of the world (29), it seems some part of this issue results from people's psychological conditions in Iran.

One of the strengths of this study was giving present to the respondents in return for their effort to fill the questionnaire, which was thought by the researchers. The present was offered to them after returning the questionnaire. Before administering the questionnaires, they were also asked to complete the questionnaire carefully. The time chosen for data collection was

immediately before and after New Year holidays during which, naturally, most of the people are happier than other time of the year. This helps the researchers to understand that if there is any recession in the students' QOL, the study does not only rely on that passing and temporary period and creates reality-based results about the students' QOL. The researchers saw that even in the best time of the year and most joyful days of the students, they stood at a lower stage in physical and social relationships domains than the selected population of Tehran and Lithuanian medical students. The physical health of the students appeared worse than Lithuanian students. The psychological health of medical students was overall worse than non-medical students as indicated by a study on the students of Military University in which social performance disorder was related with internship (31).

Sampling method differs based on the students' attendance in the school and their practical work, as random sampling technique was used for students in the basic sciences and physiopathology and stager phases. The students received questionnaires and in the dormitory and or school at any time they agree, it was collected from them. However, in the case of interns, given the difficulty of access to the randomly selected students, the non random sampling technique was decidedly used. For this purpose, some were chosen in the interns' resting rooms in hospitals and some in their dormitory because there was a possibility that those who are absent in their shift time in the hospital might be also absent in the given sample and a bias appears. This issue was to a large extent prevented by researchers' effort.

The fact that by the promotion of educational stage of the students, their QOL decreases is based on a cohort analysis of the students and on this premise that the interns are the same as the basic sciences students, and a long period of education in the medical school has weakened their QOL. While our study was a cross-sectional and the interns are not the same as those of basic sciences students. We also cannot ignore the cohort effect, meaning that the new students of each year are of special characteristics that have kept them all the time and are not related to the school and its condition.

In terms of social relationships domain within which the students had poorer status as compared with Tehran's population and Lithuanian students, with an increase in educational level, the social relationships has reduced among the female students while it was vice versa among the male students as they had better social relationship at internship stage. It seems at internship stage, the students have completely different experiences as compared with other periods of their student life (32). The result, from social relationship perspective, will result in the improvement of the male students' QOL status and aggravation of the QOL in the female. Other studies conducted inside the country have also warned of the exacerbation of students' psychological status at internship stage; such as the increased depression prevalence (33), and negative attitudes of the students toward their discipline and economic situation in future (34).

The earned mark of the female students at this educational stage was even lower than multiple sclerosis patients (35) pointing to the aggravation of this dimension of the female interns and merits a serious and prompt attention and more research on this group of students. Here exist two important points; first at two

stages of basic science and physiopathology, the female students obtained higher mark than the male. And the second, at both female and male students, they have better social relationships in basic sciences stage as compared to next stages of their educational level. This eludes to a fairly negative effect of early years experiences on the students' QOL at next stages (30). The reasons seem to be ending their theoretical courses and attending in different hospital wards and encountering with stressful situations, as the stress level of medical students in a study was found to be higher than the general public (36). In a study on the psychological status of Ardebil medical university' students, it was seen that the most important disorder of the students was their fear of speaking in public (37). This is highlighting the importance of training communication skills and social capital among students which are not attended as much as they need.

As to the different effect of time on the female and male students' QOL, a study conducted on Texas University's medical students clarified that their psychological health did change over time and two groups have different status in this regard (38). Another reason for a better social relationship among interns, as also achieved in the regression model, was their marital status (i.e. being married) at this stage of their education which had a positive effect. That is the married students were found to be at a better position in the analysis of the relationship of marital status with social relationship. However, the relationship is significant when they move to internship, which is because the students mostly get married at internship stage and there are very few married students at prior educational stages.

Environmental health domain is one of the domains in which the students obtained higher marks than Tehran's selected population and Lithuanian students. They seemingly had fairly appropriate conditions in this domain which could be resulted from the university scientific environment and the students' distance from general public ordinary and daily problems. As it is clear, the best circumstances are in basic sciences stage and the poorest one at internship, which is obvious, both among the female and male students. One of the reasons for this could be spending a large amount of their time in hospitals away from their school by these students whose effect would be severe on the female students (36). The comparison of the female and male students also showed that the married students had better position than single students. This begs the question that whether the married status of the interns has caused this or the life circumstances of internship stage, regardless of the

students' marital status, is the main cause. The answer to this question is obtained in the regression model and shows that irrespective of their marital status, the internship stage is attached with some experiences that they could cause the reduction of the students' environmental health score.

With the increase of educational level among the male students, the environmental health has not had any significant change while it has changed among the female students, in a way that they have obtained higher mark than the male in basic sciences. Indeed, the married students are of better status which is much more obvious among the interns. The male students' interest in physical exercise and its lack among the female could be a cause for this difference that over time has resulted into the reduction of the high preliminary health of the female students. Alternatively, with a rise in age and further physiologic differentiation of the female and male students, we might witness a reduction an increase, respectively, in the female and male students' health. In any case, the female physical health is an issue that needs more care at higher educational levels.

In the students psychological health, it can be seen that moving from basic sciences educational stage to internship among the male students has been coincided with the increase of psychological health, while this has given rise to the relatively sharp diminution of the female students' psychological health, and only the significant difference between two genders could be only seen at internship stage. One of the reasons for the low QOL of the students at this stage, particularly the dire status of the female students, could be their deprivation of the university campus and beautiful and green environment and permanent presence in a tense and stressful place of hospitals as approved by a similar study in Texas University (39). Long and repetitive shifts by the students and shortage of sleep also could to some extent justify this issue (40). The married have better position than the single. The protective role of marriage has been somewhat corroborated by different studies in improving people's psychological health. Finally, the multivariable regression analysis in this domain of QOL showed that being an intern could reduce the QOL. Given the undesired condition of the students at this educational level and a search for a solution for this problem, strengthening the social capital in the students could reduce the negative effects of this period, because the positive effect of social capital on psychological health is real as also indicated by other studies about other populations and in other places (9, 13-15, 41-42).

Since measuring the QOL by WHOQOL in the medical students of other countries has rarely conducted and has not inside Iran and there is a limited opportunity for comparing comprehensively and carefully, by moving to higher educational levels, the female students' QOL worsen and the male students' will improve. At both groups, the internship stage is regarded as a particular level and has a negative effect on the QOL dimensions and naturally requires more care for students. Being married boost the QOL and could adjust the effects of undesired conditions of internship stage. University environment can result in brightening the students' talents or their regression and this depends on the life conditions in this environment and authorities' plan for controlling unwanted factors and also on the students' assistance. As such, a good relationship with the university professors and regular meetings with them could be helpful (23). Since the effect of the internship is much more serious than other levels, the university authorities are better to measure the students' QOL at the beginning of this time and introduce the vulnerable students for consultation and other supportive services. Indeed, the temporary study is not able to prove the causal relationship between related variables and QOL and it is advised to use a cohort study structure for clarifying the various points of this important issue in the students. In addition, since the QOL is a type of feeling which might be impossible to measure by the questionnaire, undertaking qualitative studies in this regard could largely facilitate this process.

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