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Original Article

Assessing the Quality of Life in Medical Students in Ardabil University of Medical Sciences

Raana Jafarizadeh[1], Somayeh Zeynizadeh-Jeddi [2], Akbar Pirzadeh[3], Mahzad Yousefian[4], Firouz Amani[5]*

[1]Department of Medicine, Ardabil Branch, Islamic Azad University, Ardabil, Iran.
[2]Department of Radiology, Alavi Hospital, School of Medicine, Ardabil University of medical science, Ardabil, Iran.
[3]Department of Otorhinolaryngology, School of Medicine, Ardabil University of Medical Science, Ardabil, Iran.
[4]Department of Anesthesiology, Alavi hospital, School of Medicine, Ardabil University of Medical Science, Ardabil, Iran.
[5]Department of Community Medicine, School of Medicine, Ardabil University of Medical Science, Ardabil, Iran.

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ABSTRACT

Introduction: Quality of life (QOL) is an important index in society that need for evaluation in all age groups people especially in medical university students as a people that their physical and mental health is related with community health. This study aims to investigate the quality of life (QOL) of Ardabil University of Medical Sciences.

Methods: This is a cross-sectional study that has been conducted on 200 students who selected by random sampling method from Ardabil medical university students. The QOL was measured by WHOQOL-BREF which its validity and Reliability were investigated and approved. This questionnaire include 26 questions in four dimensions (physical, mental, social and environmental health). Collected data we analyzed by statistical test such as t-test for compare the mean of QOL score among demographic data.

Results: Of all students, 57% were male and 91.5% were single. Of all students, 56% had desired quality of life. The relationships between QOL and variables such as gender, educational level, marital status and age of students wasn't significant. The mean difference of four dimension scores among two sexes was statistically significant. The mean of Physical health dimension score was 11.6±2.1, Psychological was 12.3±2.4, Social relationships was 13.1±3.4 and environment was 12.7±3.2. The mean of total score of QOL in all students was 12.4±2.3.

Conclusion: Results showed that the QOL of all students were in high level and in four dimension of QOL the female students had significant higher score than male students.

Introduction

The World Health Organization (WHO) defined Quality of Life (QoL) as "an individual's perception of their position in life, in the context of the culture and value systems in which they live, and in relation to their goals, expectations, standards and concerns".[1]

Today measurement the Quality of life (QOL) of medical students as a sample of society people in contact with more patients in future could be more importance because their poor QOL among medical students is associated with an unhealthy lifestyle, psychological distress, and academic failure, which could affect their care for patients in the future. Many studies measured the QOL of students especially medical university students and according

* . Corresponding Author: Email: firouz.amani@arums.ac.ir

to the WHO definition, QOL is an understanding that one person obtain from own life position based on cultural context and value system that live in it. In addition, QOL is related to a common concept of Physical, emotional well-being, level of independence, social relationships and their relationships with leading environmental funds. QOL is a range of human needs that achieved by personal understanding and feelings of well-being. All dimensions of QOL could be influenced by many factors such as marital status, age, sex, education level, residence and other factors that study their impact on QOL is important. Usually, the quality of life in medical students always due to exposure to multiple stressors such as academic problems, lack of job prospects, living in dormitories, work in hospital, exposure with patients and lack of recreational facilities, exams, homework and doing academic projects is affected . [2-4]

Many studies have reported decreased QoL scores among medical students during their training years, which is associated with several future adverse effects, including an unhealthy lifestyle, variable psychological problems, academic failure, and other negative impacts on the students' professional development.[3-5] Various factors might influence the QoL of medical students, such as a exposure with patients, environmental stereos, competition for academic excellence, the overwhelming load of new and massive information to learn, and of course the difficulty of balancing academic duties with day to day life activities.[6-7] A study from Saudi Arabia found that medical students experienced high levels of psychological distress and were found to suffer from higher levels of stress when compared to students in other programs, which can affect their QoL. [8-9] On the other hand, medical students with good physical and mental health are more capable of overcoming the problems within an academic environment. [10]

Overall medical students are samples of people in society that their QOL promotion is essential for healthy system and society.[11]

Medical sstudents are a sample of active and talented people and society which their physical and mental health is related with community health and their social relationships with hospital staff and patients is important.[12-16]

QOL of each person could be affected by many dimensions such as physical, psychological, social relationships and environmental indexes and could be defined as the satisfaction of each person from all above dimensions in their individual life.[17]

This study aims to investigate the quality of life (QOL) of Ardabil University of Medical Sciences' (ARUMS) medical students at different educational levels.

Materials and Methods

This is a cross-sectional study that has been conducted in May 2019 on a sample of 200 university students who selected randomly by random sampling method from Ardabil current medical university students in all medical and para-medical fields.

The validated WHOQOL-BREF (Persian version) was used to measure QOL. It consists of 26 items to assess perception of quality of life in four domains, including physical health with 7 item, psychological with 6 item, social relationships with 3 item and environmental with 8 item and two items on overall QOL and general health which these two items not included in the scoring. Each question has score from 1 to 5 based on Likert scale. Total score of each dimension and also total score of QOL after collecting transformed to scale 0-100. Total score of QOL classified in three groups based on total score: In low (<48), moderate (48-72) and high >72). Collected data

analyzed by using statistical methods such as table, graph and statistical test such as t-test in SPSS.16. The $p<0.05$ was set as significant.

Results

Of all students, 57% were male, 83% had age less than 23, 91.5% was single and 84.5% had MD education level. (Table 1)

Of all students, 46% had moderate quality of life (Figure 1).

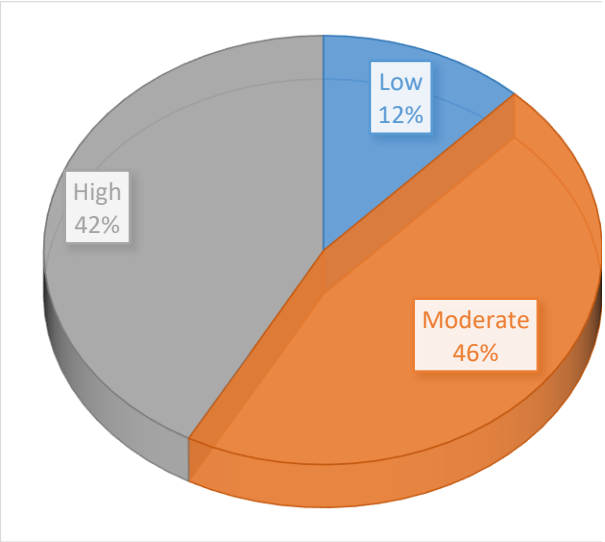

Figure 1. The QOL levels among students

The mean of total QOL score in female students with 71.7±15.3 significantly higher than male students. Also, the mean of total QOL score in BA students significantly higher than MD students. Also the difference between age groups, single and married students in term of total QOL score wasn't significant (Table 2).

The mean of total QOL score in all students was 64±23.5. In term of QOL dimensions, the highest score was seen in social relationship dimension with 56.4±21.1 and the lowest was seen in physical health dimension with 46.6±13.2 (Table 3).

By comparing the mean of QOL four dimension scores between age groups results showed that the only significant difference was seen in social relationship dimension and other dimensions hadn't significant difference between two age groups. The difference between single and married students and also students with BA and MD education levels in term of four QOL dimension score wasn't significant. Except psychological dimension in other three dimensions the difference of QOL score between male and female students was significant (Table 4).

Table 1. Demographic characterized of all students

Variables	Groups	n	%
Age groups	<=23	166	83
	>=24	34	17
	Total	200	100
Marital status	Married	17	8.5
	Single	183	91.5
	Total	200	100
sex	Male	114	57
	Female	86	43
	Total	200	100
Educational level	Medical Doctorate (MD)	169	84.5
	BA	31	15.5
	Total	200	100

Table 2. Relation between QOL in students and demographic information

Variables	Groups	n	QOL score	p-value
Age groups	<=23	166	65±22.3	0.19
	>=24	34	59.2±29	
Marital status	Married	17	59.6±12.1	0.41
	Single	183	64.5±24.3	
sex	Male	114	58.3±26.9	0.001
	Female	86	71.7±15.3	
Educational level	Medical Doctorate (MD)	169	62.4±24	0.021
	BSc	31	73±18.6	

Table3. Mean of QOL and dimensions between university students

QOL dimensions	Min-score	Max-score	Mean ± SD
Physical health	10.7	71.4	46.6±13.2
Psychological	16.7	83.3	53±15
Social relationships	0	100	56.4±21.1
Environment	6.25	100	53±20.2
Total QOL	0	100	64±23.5

Table 4. Compare the QOL score in four dimensions in students by demographic data

Variables	Groups	n	Physical health	p-value	Psychological	p	Social relationships	p	Enviroment	p
Age groups	<=23	166	46.2±14	0.38	53±16	0.86	57.9±21.6	0.024	53.1±21	0.77
	>=24	34	48.4±8.7		52.5±9.9		49.3±16.5		52±17.4	
Marital status	Married	17	49.6±7	0.33	53±15.7	0.68	56.2±21.4	0.62	52.7±21	0.61
	Single	183	46.3±13.6		54.4±5.8		59±16.8		55.3±6.4	
sex	Male	114	43±12	0.001	51.4±13	0.09	49.6±20	0.001	47.8±19	0.001
	Female	86	51.3±13		55±17		65.4±19		59.8±19	
Educational level	Medical Doctorate (MD)	169	47±13.4	0.28	53±15.8	0.78	56±21.5	0.73	52.8±21	0.75
	BSc	31	44±11.7		53±11		57.5±19		54±16.5	

Physical health

In this domain, the mean of students' score in QOL was 46.6±13.2 in range (10.7-71.4). The comparison of student's physical health in term of their gender showed significant difference between female and male students but the difference of QOL score among age groups, married and single students and also BA and MD students wasn't significant.

Psychological

In this domain, the mean of students' score was 53±15 in range (16.7-83.3). The comparison of student's psychological score in term of their gender showed no significant difference between female and male students. In married students the mean of psychological score was more than single students but the difference wasn't significant. Also in MD students the Psychological score was similar to BA students.

Social relationships

In this domain, the mean of students' score was 56.4±21.1 in range (0-100). The comparison of student's social relationships score in term of their gender showed that there was a significant difference between female and male students. In married students the mean of social relationships score was more than single students but the difference wasn't significant. Also in MD students the social relationships was slightly lower than BSc students but the difference wasn't significant. In age group <=23 the mean of social relationships score was higher than age group >= 24 and the difference was significant.

Environment

In this domain, the mean of students' score was 53±20.2 in range (6.25-100). The comparison of student's environment in term of their gender showed significant difference between female and male students. In married students the mean of environmental health score was slightly more than single students but the difference wasn't significant. Also in MD students the environmental health was lower than BSc students but the difference wasn't significant.

Discussion

In this study we investigated the QOL score of Ardabil medical university students and results showed that the total QOL in 46% of students were in moderate level. In all of four QOL dimensions, the most score was in social relationship with 56.4±21.1 and the lowest score was in physical health with 46.6±13.2. In our study, 42% of students had QOL in high level which was higher than Amiri and Soltani et al study. [17-18]

In our study, all of QOL score in four dimensions among female students significantly higher than male students and also the mean of QOL in social relationship dimension among students in age group <= 23 significantly higher than students in age group >= 24 and the results of this study not confirmed by study of heidari and Amiri and Salehi et al. [11,18-19]

In our study, social relationship domain had the highest overall mean score of 56.4±21.1 followed by environmental domain (53±20.2), psychological domain (53±15) and physical health domain (46.6±13.2). The overall scores in all domains were higher than in studies done in Brazil et al and Nassem et al.[20-21]

Males were found to have a significantly higher score ($p<0.05$) in all dimensions compared to female medical students. This finding were in line with many other studies.[20-27]

However, female students scored higher than males in our study in the social relations domain |(P=0.001) which was in line with other study results and this result could be due to the ability of women in dealing with different relationships when compared with men.[21, 28-29]

Also Pasdar and Amiri and et al in their study showed that the mean score of QOL in girl students in three dimensions physical health, psychological and social relationships was higher than our study results but in the environment domain was similar to our study results. There wasn't

any significant relation between economic and social status and the score of QOL in students. In this study 43% of university students were female and rest of them were male and score of QOL in female students was higher than male students.[4,18]

Gholami et al in a study showed that the QOL of students was in undesired level but in our study and Amiri et al study the QOL was in desired level .[18,30]

In this study similar to other studies the mean of QOL in younger students were more than other students but the difference wasn't significant. Also, in our study the mean score of QOL in all domain in female students was more than male students but this results not in line with other studies.[17-19,30]

In this study similar to other studies there was a significant relation between gender of students and QOL but in Amiri et al study this relation wasn't significant.[18,31-32]

Soltani and et al in a study showed that most of students have QOL in moderate level and in all OOL dimensions there were significant differences between two sexes. Makvandi and et al in a study showed that the total score of QOL in male and female university students was similar and upper score of QOL as to physical health and lower score as to environmental health. [17,33]

The results of this study similar to other studies showed that the QOL of married students was significantly higher than single students.[18-19,30,32]

The QOL of MD students in all domain of QOL were similar to other students and difference wasn't significant and this result not in line with Amiri et al study because they concluded that the QOL in MD students was higher than other students.[18]

Conclusion

Results of this study showed that the total QOL of students in all dimensions in compare to other studies in Iran were in desired level. The difference between male and female students in term of mean score of QOL in four dimensions was statistically significant. So, setting up psychological counseling centers in university for promotion their QOL and increasing facilities, sports and recreation programs for enhancing their physical health score and also by periodic clinical examination of students in term of promotion their QOL is essential in future. Also, doing more studies in other age groups and among students in other places of province is suggested in future.

Conflict of interest:

none- declared

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