The Impact of Socio-Demographic Characteristics on Quality of Life Among Dental Students in Iraq

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Abstract

The purpose of this study was to assess the impact of socio-demographic factors on quality of life among dental students in three governorates in Iraq.

This observational study included 1364 dental students aged 18–22 years from three governorates. Information on socio-demographic and quality of life was obtained from a structured, self-administered questionnaire from the students who were willing to participate in the study. The data was collected, summarized and statistically analyzed. The percentage of fair scores for the four domains was higher among dental students. Socio-demographic characteristics (age, gender and smoking status) were closely associated with quality of life except the area of residence showed no statistical significant differences with quality of life.

The socio-demographic characteristic had some effect on quality of life of dental student

Keywords: *quality of life; dental students.*

Introduction

Quality of life is defined as individuals' perceptions 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. This definition reflects the view that quality of life refers to a subjective evaluation which is embedded in a cultural, social and environmental context [(1,2)]. The choice of instrument depends on the reason for measurement [(3)].

Dental students are expected to be more conscious of health-related issues, including dental health. Moreover, these students tend to have a higher socioeconomic background, which in turn, may lead to better self-reported oral health and clinically-assessed OH and, eventually, to a higher quality of life but there were little studies reported the opposite aspect of this finding [(4,5,6)].

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According to current knowledge, there is no previous Iraqi study concerning the quality of life assessment among dental students in Iraqi populations. This study was administered to a random sample at public Universities with a demographic profile.

The aim of this study was to investigate how socio-demographic factors, include negative life events; education and others are related to quality of life measured by WHOQOL-BREF Field Trial Version among dental students in Iraq.

MATERIALS AND METHODS

This observational study was conducted at the three universities (Basra, Anbar, Mosel), during the period between March 2018 to March 2019. Approximately 1364 dental students aged 18-22 years old mainly from the randomly selected governorates in Iraq attended the colleges of dentistry were examined.

The sample included both genders dental students (636 males and 728 females) with age range 18-22 years old. The participants should not have chronic medical disease or physical handicapped and

not exposed to psychological trauma during the last six months.

Self-Administered WHOQOL-BREF (Field Trial Version) was used to evaluate the quality of life for dental students into three group poor, fair and good scores. It is possible to derive four domain scores (physical, psychological, social and environmental domains). Domain scores are scaled in a positive direction (i.e. higher scores denote higher quality of life). Responses to the questions using a 5-point Likert scale. In the present sample, WHOQOL-BREF domain scores discriminated statistically highly significantly between contrasted groups of dental students at P-value <0.05 (n=736, df=734). The reliability index for the WHOQOL-BREF assessment by using Cronbach's alpha was 0.98. As the result of that, the indicator stayed on its version without drop of any item.

Data were statistically analyzed using SPSS version 22 software and the following statistical tests were carried out: Means, standard error. The Independent-Samples T Test ANOVA (one way) P-values less than 0.05 were considered as statistically significant and P-

Results

The data of present study illustrates that the percentage of fair scores for physical domain was higher among dental students than that of other scores in the same domain fallowed by good score. The same picture was found concerning social and environment domains except that of psychological domain where fair score followed by poor score and the good score in this domain showed the lower percentage (fig 1).

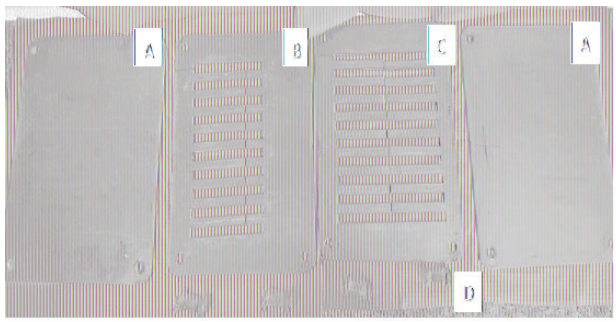

Figure 1: The distribution of total sample according to WHOQOL-BREF domains scores.

Regarding the three governorates, the data of this study showed no statistical significant differences in means scores of the four domains as illustrated in Table 2. However, the mean scores of physical domain was the predominant type in the three governorates.

Table 2: Mean score of WHOQOL-BREF domains by governorates.

Governorate		WHOQOL-BREF domains (mean ± SE)			
		Physical	Psychological	Social	Environment
Anbar N=464		56.95 ± 0.85	50.30 ± 0.63	50.28 ± 0.80	47.88 ± 0.75
Mosel N= 352		58.10 ± 1.00	50.77 ± 0.75	51.28 ± 0.91	48.60 ± 0.85
Basra N= 548		58.22 ± 0.80	51.19 ± 0.61	51.39 ± 0.72	49.22 ± 0.68
Anova df= 2	F	0.66	0.51	0.61	0.88
	Sig.	0.52	0.60	0.54	0.42

Regarding the age groups, the mean scores of the physical domain was highest in the all age group and showed statistical significant differences among the age groups. However, the mean scores of the environment domain were lowest in the all age group and showed statistical significant differences as illustrated in Table 3.

Table 3: Mean score of domains by age.

Age groups		Physical	Psychological	Social	Environment
18 years N= 295		58.82 ± 1.02	49.06 ± 0.73	50.01 ± 0.93	45.42 ± 0.92
19 years N= 270		54.04 ± 1.07	49.83 ± 0.73	50.15 ± 0.79	44.89 ± 1.00
20 years N= 274		56.61 ± 1.19	51.47 ± 0.85	52.65 ± 1.17	47.24 ± 1.10
21 years N= 265		57.37 ± 1.14	50.00 ± 0.94	50.87 ± 1.05	47.93 ± 1.03
22 years N= 260		57.92 ± 1.20	50.63 ± 0.88	51.35 ± 1.07	48.63 ± 1.17
Anova df= 4	F	2.64*	1.25	1.14	2.37*
	Sig.	0.03	0.29	0.34	0.05

***=Significant at P≤0.05.**

Regarding the gender, the mean score showed no statistical significant differences between males and females in all domains except that for the physical domains showed high statistical significant difference as illustrated in Table 4.

Table 4: Mean score of WHOQOL-BREF domains by gender.

Gender		WHOQOL-BREF domains (mean ± SE)			
		Physical	Psychological	Social	Environment
Male N= 648		58.62 ± 0.70	49.68 ± 0.50	51.04 ± 0.65	46.41 ± 0.69
Female N= 716		55.49 ± 0.71	50.63 ± 0.53	49.75 ± 0.64	47.12 ± 0.64
t-test df= 1362	t	3.11**	-1.30	1.41	-0.76
	Sig.	0.002	0.20	0.16	0.45

***=Significant at P≤0.05, **Highly significant=H.S at P≤0.01.**

Regarding smoking status, the data of the present study showed that the mean scores of four domains were higher among nonsmoking students and the statistical highly significant differences were observed in Table 5.

Table 5: Mean score of WHOQOL-BREF domains by smoking status.

Smoking status		WHOQOL-BREF domains (mean ± SE)			
		Physical	Psychological	Social	Environment
Non smoker N= 866		63.72 ± 0.56	53.91 ± 0.49	55.13 ± 0.61	50.84 ± 0.64
Smoker N= 498		45.25 ± 0.72	43.70 ± 0.40	42.08 ± 0.50	39.72 ± 0.50
t-test df= 1362	t	20.12 **	16.17 **	16.65 **	13.75 **
	Sig.	0.001	0.001	0.001	0.001

*=Significant at P≤0.05, **Highly significant=H.S at P≤0.01.

Discussion

The instrument of World Health Organization Quality of Life questionnaire short version (WHOQOL-BREF) was used in the current study, it is one of the most important and most frequently used instruments that have overcome many of the barriers and objections to their use. Quality of life has become an important measure of outcomes across all medical specialties, in both research and clinical settings [7,8].

Regarding the scores of the psychological domain it was decreasing as the age increases. Oral health status is closely associated with quality of life for adults. Social support is one factor that may play an important role in maintaining health and decreasing the impact of illness. Changes in social roles or events that were occurring in the country at certain time might be the factors behind the change in the quality of life. This result agrees with other studies which concluded that age was systematically related to satisfaction level of life while older participants being less satisfied with their lives than their younger counterparts expressed worries, desire for change and plans for the future [9,10] and disagrees with another study that revealed the QOL became better with an increasing in age [11].

The study also revealed no statistical significant differences in means of scores for the four domains among dental students in the three governorates. Previous study supported this finding and concluded that the perception of the impact of quality of life does not depend on place of residence of neither women nor men [12]. The criteria of sample selection regarding the matching in educational level throughout the three governorates may also explain this result.

This study demonstrates that the smoke correlates with worse index of quality of life in this population. The scores of all domains were lower among smoker students when compared with non-smokers. These findings have been replicated across populations with diverse socioeconomic and cultural groups around the world. This result agrees with other studies which concluded that smoke appears to be negatively associated with quality of life [13] but another study showed that severe smokers presented greater impairment in quality of life in all domains when compared with mild and moderate ones, since it was found that the presence of a compromise in quality of life, in relation to the field of general health status, is associated with a higher annual consumption of cigarettes. This is due to the fact that smoking causes several physical changes such as loss of pulmonary function and reduction of bone mass and also

oral diseases [14,15].

The scores showed statistically significant differences between men and women in four domains. Gender stereotypes are present not only in the male attitudes, but also in the female attitudes. In Iraqi society women impose obligations on themselves and claim features that valuable woman should have such as: perfect health or good and attractive appearance. It is necessary to stress that any imperfection of the body can influence the perceived quality of life much more than the visible symptoms of the disease. Women are afraid of losing their attractiveness, feel afraid of being socially rejected, especially when their main activity is focused on building relationships with other people. Similar differences between genders were observed by many researchers in different areas as the authors concluded that the impaired quality of life in women reflects the gender-related differences that are also shown in the general population and they are related to the higher prevalence of trait anxiety and depressive symptoms in women [16-18]. This result was disagreeing with the study which reported that statistical analyses showed no difference between men and women on quality of life [11]. Other results showed few gender differences in the satisfaction with specific life domains where the participants experience more anxiety and depression symptoms as well phobic fears in comparison to general population [19].

The result of present study indicated a strong relationship between quality of life and psychological distress among dental students, which was consistent with previous articles [20-22]. Generally, physical problems are the most frequent co-occurring disorders among dental students because of unhealthy life style. This implies the importance of the reintegration of people with mental illness into society, as was emphasized in a previous study [23,24]. The final models showed that perceived physical problems also had negative associations with three domains of the WHOQOL-BREF. This is comparable with the findings of a previous Asian study[25].

Conclusion

Physical pain and psychological discomfort were the most frequently reported variables that impact on quality of life. The smoking status was the strongest factors associated with low quality of life.

Ethical Clearance: The Research Ethical Committee at scientific research by ethical approval of both environmental and health and higher education and scientific research ministries in Iraq

Conflict of Interest: The authors declare that they have no conflict of interest.

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