RESEARCH ARTICLE

Quality of life among general adult people aged 35-75 years living in Baghdad, Iraq

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Abstract

Objective: To assess the quality of life among adults in an urban community**.**

Method: The cross-sectional study was conducted from June 2019 to October 2021 in Baghdad, Iraq, after approval from the ethics review committee of the College of Medicine, Al-Iraqia University, Iraq, and comprised adult subjects of either gender. Data was collected by direct interview using the short version of the World Health Organisation quality of life questionnaire after it was modified and translated into the local Arabic language. Data was analysed using SPSS 18.

Results: Of the 800 subjects, 496(62%) were males. The overall mean age was 48.7±13 years (range: 35-75 years). There were 439(54.9%) subjects who were married, 602(75.3%) were employed, 516(64.5%) had primary and secondary levels of education, 586(73.3%) had own houses, 717(89.6%) were living in urban areas, and 378(47.3%) had sufficient income. With respect to quality of life, the environmental domain had the highest mean score 64.8±12.3, while the physical domain had the lowest 60.8±13.2. Gender, age, marital status, occupation, educational status, family income and family size were significantly related to general quality of life ($p<0.05$).

Conclusion: Overall quality of life was found to be fair in among the general adult people studied.

Keywords: Adult, Quality of life, Satisfaction, Housing, Arabs, Iraq, Marital status, Characteristics, Occupations. **DOI: https://doi.org/10.47391/JPMA.IQ-05**

Introduction

The World Health Organisation (WHO) has defined health as "a complete physical, mental and social wellbeing and not merely the absence of the disease or infirmity". The measurement of health and effect of healthcare must be assessed by measuring the improvement in the health-related quality of life (HRQOL)[1] The WHO has defined QOL as the person's "perception of his or her situation in life in the context of the culture and value systems in which he or she lives and in relation to his or her goals, expectations, standards and persons of concerns". The main indicators of QOL are demographics, economic wellbeing, education wellbeing, environmental wellbeing, health wellbeing, safety wellbeing, social wellbeing, mental wellbeing and work wellbeing[2-3]. QOL is multi-dimensional and represents main components in evaluating population's health, and focusses on mental wellbeing and functional performance of people. It is affected by different factors, such as age, gender, urban or rural area of residence, as well as health and disease. It can be measured in a broad range, including the fields of international development, healthcare, politics and employment.[4] Over the past four decades, Iraq has been exposed to many political and economic transformations that have had an impact on the health wellbeing of people, and the situation began to deteriorate rapidly due to several wars and economic sanctions that affected the QOL of Iraq's general population, as the standard of living deteriorated significantly, the socio-economic status became unsatisfactory, the unemployment rate went soaring. As such, the assessment of general adult Iraqi people's QOL is one of the main public health research concerns.[5-6] No study has focussed on the Iraqi general population even though a few have reported QOL among people with diseases, refugees and internally displaced persons owing to military and political conflicts in the country.[7-9] The current study was planned to fill the gap by determining the QOL of the general adult people in an urban community, and to evaluate the effect of sociodemographic factors on people's QOL.

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Subjects and Methods

The cross-sectional study was conducted from June 2019 to October 2021 in Baghdad, which is the capital of Iraq having a population of 7.5 million. The city has two administrative units: Karkh and Rusafa sectors. After approval from the ethics review committee of the College of Medicine, Al-Iraqia University, Iraq, the sample was raised from among the general adult population aged 35-75 years living in Baghdad and visiting health centres in the two administrative units of the city. Non-random convenience sampling method was used.

The sample size was calculated using the formula:[10]

$$n = \left(\frac{z^2\, p(1-p)}{d^2} \right)$$

$$n = \left(\frac{(1.96)^2\, 0.301(1-0.301)}{(0.05)^2} \right)$$

In the formula, 'n' indicated the minimum required sample size at 95% level of significance (z=1.96), 'was margin of error 0.05, 'P' was proportion of bad QOL taken to be 30.1% on the basis of pilot study's findings, and 'Deff' was the design effect which was set at 2. The actual sample was inflated to account for 20% non-response rate.

After taking informed consent from the subjects, data was collected using the snowball technique through direct interviews with each participant with the help of a predesigned questionnaire. The questionnaire related to socio-demographic characteristics, such as age, gender, family information, occupation, marital status, educational status, family income, area of residence, and environmental variables that related to general health, physical, mental and social wellbeing.

Data related to QOL was gathered using the short version of WHO QOL (WHOQOL-BREF) scale after it was modified and translated from English into Arabic. It was approved by the Community Medicine Department of the College of Medicine, Al-iraqia University, which found it good enough in terms of local traditions and the Arabic language.[11]

The tool's validity was tested by a pilot study comprising 22 participants. The 26-item instrument has physical, psychological, social and environmental wellbeing domains, and evaluates the overall QOL as well as the general health status**.** The mean score of each domain is the cumulative score of each item, rating the satisfaction of QOL in a positive direction, with higher scores indicating better QOL.[12]

Data was analysed using SPSS 18. Frequencies, percentages, mean and standard deviations were used to express the data, as appropriate. Values were compared using t-test, analysis of variance (ANOVA) and chi-square test, as appropriate. P<0.05 was set as the level of statistical significance.

Results

Of the 800 subjects, 496(62%) were males. The overall mean age was 48.7±13 years (range: 35-75 years). There were 439(54.9%) subjects who were married, 602(75.3%) were employed, 516(64.5%) had primary and secondary levels of education, 586(73.3%) had own houses, 717(89.6%) were living in urban areas, and 378(47.3%) had sufficient income (Table 1).

Total QOL of the four domains was 62.6±11.8. Those living in Karkh sector showed higher QOL 60.8±12.6 than those living in Rusafa 59.1±12.4 (p<0.05). With respect to QOL, the environmental domain had the highest mean score 64.8±12.3 (p<0.05), while the physical domain had the lowest 60.8±13.2 (Table 2).

Table: Socio-demographic characteristics. (n=800)

Character	n (%)
Age (Years)	
35-44	183 (22.9)
45-54	340 (42.5)
55-64	196 (24.5)
65-74	81 (10.1)
Gender	
Male	496 (62.0)
Female	304 (38.0)
Marital status	
Single	276 (34.5)
Married	439 (54.9)
Formerly married	85 (10.6)
Occupation	
Employed	602 (75.3)
Unemployed	198 (24.7)
Education	
No education	181 (22.6)
Primary	205 (25.6)
Secondary	311 (38.9)
University	103 (12.9)
Housing	
Owner	586 (73.3)
Rent	214 (26.7)
Residence	
Urban	717 (89.6)
Rural	83 (10.4)
Family income per month	
(Iraqi Dinars)	269 (33.6)
<0.5 million	153 (19.1)
0.5-1 million	378 (47.3.)
>1 million	
Family size	
<4	391 (48.9)
>4	409 (51.1)

Table-2: Comparison of quality of (QOL) domains among the subjects according to administrative units of studied region.

QOL domains	Study population (Mean± SD)	Baghdad / Administrative Units		t-test, P-value
		Karkh n =318	Rusafa n =482	
Physical	60.8±13.2	61.3±11.8	60.1±15.2	t=1.1908, P=0.2341
Psychological	61.9±11.5	60.5±12.5	58.4±11.6	t=2.4293, P=0.0153
Social	63.2±10.4	63.9±11.3	61.3±12.1	t=3.0528, P=0.0023
Environmental	64.8±12.3	65.1±11.8	63.5±9.8	t=2.0816, P=0.0377
Total	62.6±11.8	60.8±12.6	59.1±12.4	

SD: Standard deviation.

Table-3: Distribution according to level domains of quality of life (QOL). (n=800)

QOL domains	Satisfaction and sense of the participants			*p*-value
	Poor n (%)	Fair n (%)	Good n (%)	
General health	218 (27.3)	398 (49.7)	184 (23.0)	X2 =67.8882
Physical health	281 (35.2)	402 (50.2)	117 (14.6)	P-value=0.0001
Psychological	186 (23.2)	389 (48.7)	225 (28.1)	df=8
Social relationships	238 (29.8)	368 (46.0)	194 (24.2)	
Environment	200 (25.0)	414 (51.8)	186 (23.2)	

Table-4: Association of socio-demographic variables with quality of life (QOL) domains.)

Variable	n (%)	General QOL		Physical domain		Psychological domain		Social domain		Environmental domain	
		Mean ± SD	p-value	Mean ± SD	*p*-value	Mean ±SD	*p*-value	Mean ±SD	*p*-value	Mean ±SD	*p*-value
Age (Years)											
35-44	183 (22.9)	63.6±11.2	0.003	64.2±10.5	0.0181	64.8±10.8	0.0315	63.6±11.2	0.8971	66.8±15.1	0.037
45-54	340 (42.5)	62.4±11.5		62.8±15.7		63.2±11.3		63.2±12.7		64.5±13.3	
55-64	196 (24.5)	60.6±13.7		60.6±11.4		61.9±12.5		62.9±14.1		63.7±12.9	
65-75	81(10.1)	58.8±10.6		59.8±12.8		60.8±13.7		62.4±11.6		61.9±15.4	
Gender:											
Male	508(63.5)	61.6±10.4	0.0019	61.4±15.5	0.0255	62.7±12.1	0.0179	63.1±11.1	0.7066	65.2±12.9	0.6954
Female	292(63.5)	59.4±8.12		58.9±14.7		60.9±13.5		62.8±10.4		64.8±15.5	
Marital Status:											
Single	276(34.5)	59.7±11.5	0.0215	62.1±14.5	0.0461	64.5±13.5	0.0101	63.1±16.6	0.2871	64.1±11.3	0.482
Married	439(54.9)	62.0±13.7		63.2±17.4		61.3±15.4		64.2±15.2		65.2±15.4	
Formerly married	85(10.6)	58.9±11.7		58.5±13.1		60.8±12.7		61.5±12.9		63.8±12.2	
Educational status:											
No education	181(22.6)	58.2±13.6	0.0361	58.2±11.5	0.0362	59.0±13.6	0.1402	60.9±12.7	0.0140	63.2±13.8	0.1542
Primary	205(25.6)	60.7±13.4		60.7±15.5		60.7±13.4		63.2±13.1		64.7±12.1	
Secondary	311(38.9)	62.1±15.3		62.0±15.7		62.1±15.3		65.3±16.5		66.1±14.6	
University	103(12.9)	61.3±14.6		61.7±11.6		61.3±14.2		64.1±14.7		65.3±13.8	
Occupation											
Employed	602(75.3)	62.1±15.5	0.0024	61.9±10.9	0.0451	63.9±10.4	0.0022	64.8±14.2	0.1825	66.4±11.2	0.0058
Unemployed	198(24.7)	58.3±14.3		60.1±11.1		61.2±11.7		63.2±15.9		63.7±13.9	
Housing:											
Owner	586(73.3)	61.3±15.9	0.3248	62.1±16.4	0.0120	63.2±14.5	0.0030	64.2±16.2	0.0783	55.3±13.3	0.0178
Rent	214(26.7)	60.1±13.3		58.9±14.5		59.1±13.6		62.1±10.6		62.9±10.7	
Residence:											
Urban	717(89.6)	62.5±15.3	0.0395	61.1±12.1	0.0610	63.7±10.9	0.0292	65.1±15.1	0.0154	66.9±14.1	0.0400
Rural	83(10.4)	58.9±12.7		58.9±10.6		60.9±12.3		60.9±13.3		63.6±11.3	
Family income per month											
(Iraqi Dinars)	269(33.6)	61.9±14.7	0.0472	62.2±11.7	0.0001	62.5±15.8	0.5381	64.2±10.8	0.5742	66.2±14.7	0.0211
<0.5 million	153(19.1)	60.1±12.8		60.6±14.2	3	61.8±12.5		63.6±12.5		64.7±13.9	
0.5-1 million	378(47.3)	59.2±13.6		58.4±13.7		61.2±14.3		63.2±13.4		63.1±12.8	
>1 million											
Family Size:											
<4	391(48.9)	61.1±10.3	0.0379	61.2±10.6	0.4900	63.2±11.3	0.0821	63.1±12.8	0.0861	66.2±15.7	0.0180
>4	409(51.1)	59.5±11.4		60.6±13.7		61.9±9.8		62.9±13.1		63.9±11.5	

SD: Standard deviation.

Regarding QOL domains, significantly more respondents reported fair perception in all domains ($p<0.05$) (Table 3).

Gender, age, marital status, occupation, educational status, area of residence, family income and family size were evaluated against each QOL domain (Table 4). .

Discussion

To the best of our knowledge, the current study is the first to explore the association between QOL domains and socio-demographic characteristics among the general adult community in Baghdad/Iraq.

The total QOL mean score was found to be 62.6±11.8, which was lower compared to studies carried out in Saudi Arabia[13], Iran[14] and Pakistan[15]. The current findings showed that more than half the participants reported fair QOL, which is similar to some studies[7,16] and in contrast with others[17-19]. These differences may be attributed to the fact that Iraq has seen many a war, extended economic blockade, political instability and military conflicts that have affected the general QOL and QOL domains among the general Iraqi population.

In the present study, the environmental and social domains had the highest scores and the physical health was the lowest. This finding was in contrast to a study conducted among Iranian general population which reported a highest mean score for the physical domain, followed by social, psychological and environmental domains[14]. Among Pakistani general population, a study reported higher mean score for the social domain, followed by psychological, physical and environmental domains.[15] In Qatar, the highest score was reported for the environmental domain, followed by social, physical and psychological domains.[17] Contrasting results have been reported from Hong Kong[4], Poland[16], Portugal[20], Indonesia[21] and India.[22.] These differences may be due to the variations in socio-economic and socio-demographic characteristics that reflect on the QOL.[23]

The current study found differences in the four domains of QOL between those living in the Karkh than Rusafa administrative units of Baghdad, indicating that QOL has multi-dimensional factors affecting the satisfaction of the general population regarding social relationships, physical health, welfare, behaviour as well as environmental satisfaction.[4]

Age was significantly associated with all QOL domains in the current study, being higher at age 35-44 years. This finding is controversial as some studies have reported a QOL decrease with increasing age[13], while others have reported a good QOL for subjects aged >45 years.[17,19] The current finding was in accordance with studies conducted in Kuwait[13] and Pakistan.[15] These variations may be related to a limited age range of 35-75 years in the current study.

The gender was an important determinant of general QOL, physical and psychological domains in the current study, with males having significantly higher mean score of QOL. These results were supported by earlier studies[7, 15,24-25]. Patricio et al., however, found a non-significant relationship between gender and QOL domains, although psychological and physical domains for males and females were the best, respectively; while both genders had the worse scores for the environmental domain[22]**.** The current results may have been due to the fact that both physical and psychological domains of QOL are affected by gender-based differences related to socio-physiological and socio-economic characteristics.[25]

Those who were employed had better QOL than the unemployed for all domains except social wellbeing. This is in contrast with prior studies [20,22]**.** One study detected a significant correlation of the occupation variable with both physical and psychological domains.[15] The current finding could be related to the fact that all the employed respondents had relatively better standard of living.

In the current study, urban residence had a significant association with all QOL domains except physical wellbeing. Similar findings were reported by other studies.[15,18] The decreased QOL scores among the participants living in rural area might be due to the absence or lack of healthcare services along with electricity, water, sewage disposal, basic sanitation, transportation, schools, security, entertainment, shopping centres and all such facilities.

There was a significant relationship between educational status and QOL mainly for physical and social domains. These findings agreed with some earlier studies[20], and was contradictory to some other findings[15,21-22]. The current findings could be explained by the fact that good education allows people to manage the aging process and to better adjust to lifestyle changes, including healthcare-seeking behaviour.

Family income was also found significantly related to physical and environmental domains of QOL in the current study. This finding was consistent with some studies[20] and inconsistent with others.[15]

The present study indicated that people living in their own houses reported a better mean score for physical, psychological, environmental health domains of QOL but not for social domain. This is inconsistent with earlier studies.[7, 15] The current finding may be related to fact that majority of the subjects were settled, had good economic status, and a satisfactory family life.

The QOL was also significantly related to the marital status in the current study, which was consistent with some studies[15,19] and inconsistent with others.[20] The current finding indicates that married people have more life stability and better standard of living.

The current study has some limitations, including the use of a questionnaire that may have carried some respondent bias. The cross-sectional design of the study provides only a glimpse of psychological responses at a given point in time. Also, the study used snowball sampling, which is a non-probability process without adjusting the sample size. Finally, the study was conducted in the period before the coronavirus disease-2019 (COVID-19) pandemic, which delayed its publication.

Conclusions

QOL was found to be fair in the study population, and varied with socio-demographic variables.

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