Quality of Life among Coronary Heart Disease Patients in Baghdad, Iraq

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ABSTRACT

Background: Coronary heart diseases exert a significant economic burden upon societies. However, apart from their clinical and economic implications they also have a significant impact on the quality of life of those suffering from this condition.

Objectives: Assess the quality of life among patients having coronary artery disease in Baghdad cardiac centers, and to study the association of selected socio-demographic and other variables, with the coronary patients' quality of life.

Methods: A descriptive cross-sectional study, with an analytic element covering all the cardiac centres in Baghdad. Data collection was carried out from Mid-March to end of July 2016 by direct interview with 300 patients using Quality of Life Questionnaire (WHOQOL)-BREF Arabic version.

Results: Only 6% of patients in the sample had good quality of life, while 94% had poor or adequate quality of life. Poor quality of life was significantly more among females than males. Significant association between quality of life and occupation was evident. The study also revealed high positive significant association between quality of life and education on one hand, and with residency on the other hand, where urban patients showed better quality of life. The association between quality of life and family income was significantly high. High significant difference between males and females was evident only in psychological and environmental domains. The quality of life showed high positive significant association with interventional and surgical treatment. Hence, patients who underwent interventional or surgical treatment had better quality of life.

Conclusion: coronary artery disease patients having good quality of life were very low (6%). Poor quality of life was more frequent among female coronary artery disease patient. Retired, wealthy, educated patients, , and those with urban residency showed better quality of life. Quality of life scores tend to be higher among revascularized. (Stent/balloon or CABG) improves quality of life for coronary artery disease patients, compared with medical treatment alone.

Keywords: Coronary artery disease, Quality of life, Iraqi Cardiac Centers, Stent, CABG.

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Coronary artery diseases are currently the most common cause of death worldwide. This trend has been predicted to continue until 2020. It is the single largest cause of death in the developed countries, and is one of the leading causes of disease burden in developing countries(1).

Three-fourths of global deaths due to coronary artery disease occurred in the low and middle-income countries.

The rapid rise in CAD burden in most of the low and middle income countries is due to socio-economic changes, increase in life span and acquisition of lifestyle related risk factors(1).

Coronary heart diseases (CHD) exert a significant economic burden upon societies. However, apart from their clinical and economic implications they also have a significant impact on the quality of life of those suffering from this condition(2).

The term "quality of life" (QoL) or health related quality of life (HRQL) came into use during the 1970s as a multidimensional concept reflecting the overall subjective condition of the physical and mental welfare

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of the individual, which is a consequence not only of the disease but also of the family and social conditions forming the patient's environment[3]. This study aims to assess the quality of life among patients having coronary artery disease in Baghdad cardiac centers, and to study the association of selected socio demographic and other variables with the quality of life of coronary patients.

Methods

A descriptive cross-sectional study with an analytic element covering all the cardiac centers in Baghdad (Ibn – Albitar center for cardiac surgery, Ibn – Alnafees for cardiothoracic surgery, Iraqi center for cardiac surgery). Data collection was done during the period from mid-March to end of July 2016 using direct interview with 300 patients who were in consultant clinic, or in the wards of cardiac surgery and cardiology departments. The interview was carried out using the World Health Organization Quality of Life Questionnaire (WHOQOL)-BREF Arabic version.

Results

Only (6%) of patients in the sample had good quality of life while (94%) had poor or adequate QOL, (Figure 1). Table 1 significantly showed poor quality of life being more among females than males, and significant association between QoL and occupation. Table 1, also, revealed a positive high significant association between QoL and education on one hand, and with residency on the other hand, where urban patients showed better QoL. The relationship between QoL and family income revealed high significant association between them, (Table 1). Mean QoL scores in the four QoL domains among patients studied showed high significant difference between males and females in psychological and environmental domains only, (Table 2). The QoL revealed high positive significant association with type of treatment, (Tables 3 and 4), where patients who underwent interventional or surgical treatment had better QoL than just medical treatment.

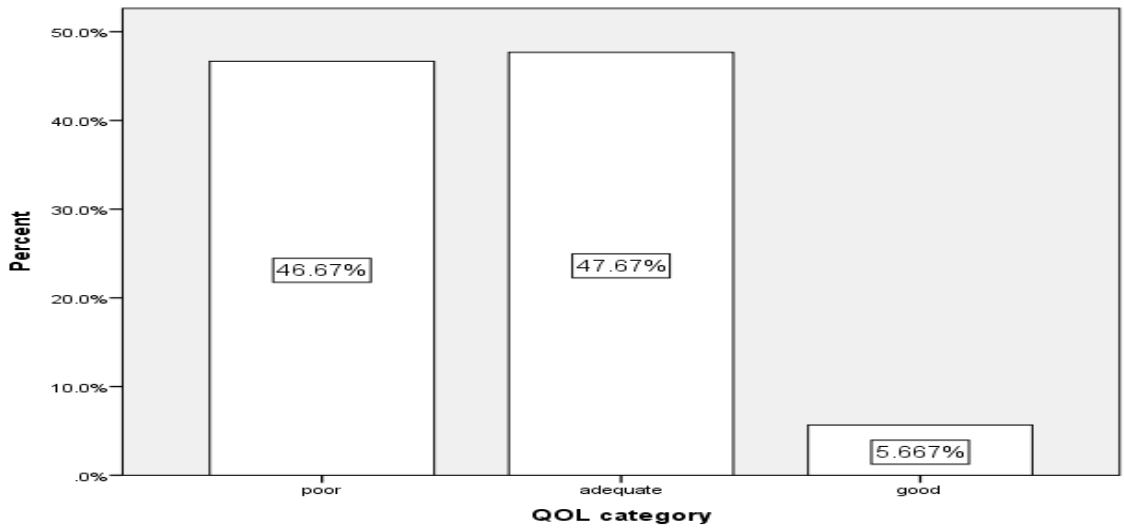

Figure 1: Quality of life score categories among sample studied.
(<50=poor, 50-69=adequate, >70=good)

Table 1: Association of socio-demographic variables with patients' quality of life.

		Quality of Life category			Total (%)	χ^2, df, p value
		Poor	adequate	good		
		No. (%)	No. (%)	No. (%)		
Gender	**Male**	83(42.3)	97 (49.5)	16 (8.2)	**196 (100)**	8.874, 2, **0.012**
	Female	57 (54.8)	46 (44.2)	1 (1)	**104 (100)**	
Occupation	**Unemployed**	42(53.2)	36(45.6)	1(1.3)	**79(100)**	10.14, 3, **0.017**
	self employed	33 (55.9)	22 (37.3)	4(6.8)	**59(100)**	
	Employed	36 (48.6)	34 (45.9)	4(5.4)	**74(100)**	
	Retired	29 (33.0)	51 (58.0)	8(9.1)	**88(100)**	
Education completed	**primary or <**	75(54.7)	58 (42.3)	4 (2.9)	**137(100)**	14.57, 2, **< 0.0001**
	intermediate/ secondary	49(48.5)	49(48.5)	3 (3.0)	**101(100)**	
	Collage /institute	16 (25.8)	36(58.1)	10(16.1)	**62(100)**	
Residency	**Rural**	28 (65.1)	14 (32.6)	1(2.3)	**43(100)**	6.86, 1, **0.009**
	Urban	112 (43.6)	129(50.2)	16 (6.2)	**257(100)**	
Family income X1000 ID	**<750**	97 (59.5)	61(37.4)	5 (3.1)	**163(100)**	36.375, 4, **< 0.0001**
	750-1500	37 (37.8)	61(37.4)	5 (5.1)	**98(100)**	
	>1500	6 (15.4)	61(37.4)	7 (17.9)	**39(100)**	

Table 2: Mean quality of life domains according to patient gender.

Quality of life Domain	Gender	N	Quality of life score Mean ±SD	t	DF	SIG
Physical	male	196	41.85 ± 17.71	1.152	298	0.250 (NS)
	female	104	39.32 ± 18.80			
Psychological	male	196	52.05 ± 13.29	3.587	298	0.0001(**HS**) <
	female	104	46.07 ± 14.53			
Social	male	196	94.51 ± 493.35	0.839	298	0.402 (NS)
	female	104	53.86 ±15.07			
Environmental	male	196	56.70±14.53	3.163	297	0.002 (**HS**)
	female	104	51.24± 13.57			

Table 3: Quality of life according to treatment type in patients studied.

		Quality of Life category			Total
		Poor	Adequate	Good	
Type of treatment	medical treatment	119(55.6%)	90 (42.1%)	5 (2.3%)	**214(100%)**
	stent/balloon	21(42.0%)	25(50.0%)	4(8.0%)	**50(100%)**
	CABG	0 (0.0%)	28 (77.8%)	8 (22.2%)	**36(100%)**
Total		**140 (46.7%)**	**143(47.7)**	**17 (5.7%)**	**300(100%)**

x2 32.33 df 2 P value less than 0.000 (HS)

Table 4: One-way ANOVA for quality of life according to treatment types in sample studied.

Type of treatment	No.	Mean Quality of life score	SD
medical treatment	214	48.30	±10.91
stent/balloon	50	52.06	±12.99
CABG	36	63.38	±7.98
Total	300		

F 29.89 df 2 P = less than 0.000 (HS)

Discussion

In this study, only a minority of CAD patients were having good quality of life, which was in agreement with studies in Turkey and France[2,4]. This obviously emerged due to many factors; like pain on exertion, limitation of movement, effects of the disease on women sexual life and pregnancy, also losing jobs for the self-employed patients, burden of buying drugs and follow up visits on their financial lives, in addition to psychological effect of the disease. All these factors would result in low QoL scores. The current country situation also negatively affects QoL psychological, social and environmental aspects. The present study reveals poor QoL among females more than males, which was in agreement with researches in Iran and Netherland[5]. Social factors, such as the degree to which women are excluded from schooling, or from participation in public life, affect their knowledge about health problems and how to deal with them. Subordination of women (a phenomenon in most developing countries) results in distinction between roles of men and women, and their separate assignment to domestic and public spheres[6]. Quality of life was shown to be significantly affected by occupation. Poor QoL were lowest among retired patients which is in agreement with a study in Japan[7]. This can be explained by the fact that retired patients are away from work stress. Repetitive or long-lasting effects of work stressors cause a type of exhaustion referred to as “accumulated fatigue”. This may eventually predispose to ischemic heart disease or stroke. Among the various work stressors to which people may be exposed are: long working hours combined with lack of sleep, irregular work hours, shift work, frequent work-related

trips, and working in a cold or noisy environment. The level of education significantly affected QoL among studied patients; where poor QoL was less among college graduate and more among primary or below, which agrees with studies in Turkey and Iran[4,8]. This can be explained that education has been always influencing health and disease and the other aspects of life, by making essential changes in the individuals' attitude and insight[8].

Poor QoL was recorded more among patients from rural area which was in disagreement with similar study in Australia[9]. This may be that rural areas are far away from accessible health services. Evidence suggests that travel time to a health care provider can adversely affect access, especially among those needing specialty care[10]. In Iraq, this distance may be increased by the presence of check points, traffic delay, and internal conflicts which prevent or delay patients from coming to referral center in the capital. There was highly significant effect of family income on patients' Qol. Poor Qol was recorded in patients with least income, while the more adequate and good Qol were found among patients with income more than 1,500000 ID, which in agreement with a study in Turkey[4]. To some extent, wealth directly supports better health because wealthier people can afford resources that protect and improve health. In contrast to many low-income people, they tend to have jobs that are more stable and flexible, providing good benefits, with less occupational hazards. More affluent people have more disposable income and can more easily afford out of pocket medical care and a healthy lifestyle[11]. In this study QoL is significantly better in patients treated with interventional (stent/balloon) or CABG than in medical treatment. This is in agreement with study in Finland and Brazil[12,13]. In regarding the (stent/balloon) studies of patients with CAD, PCI has been more effective than medical therapy in relieving angina, reducing the use of antianginal drugs, and improving exercise capacity and QoL[14]. Also, studies found that CABG provides significant benefits in terms of angina frequency and its impact on physical function and quality of life between 6 months and 2 years[15]. Also, patients who had undergone CABG were able to achieve superior physical function one year after procedure[16]. The mean QoL scores in this study were higher among males in all domains which in agreement with another study in Iran[5], although the association with male gender, it was highly significant only in psychological and environmental QoL domains. This could be explained first by the fact that in our community, female is the main family care giver. Being sick, unable to do her tasks and meet her family requests, makes her feeling depressed and guilty. The second explanation is the threatening of her marital relationship by the disease for fear of dissatisfying her husband. It can be concluded from this study that retired, wealthy, educated, urban CAD patients would show better Qol. In addition, intervention (stent/balloon) or surgical (CABG) treatments offers improvement in QoL of patients on medical treatment.

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