Quality of Life Among Ischemic Heart Diseases Patients in Misan Center for the Cardiac Diseases and Surgery in Al-Amara City

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ABSTRACT

Objective(s): The objective of present study is to evaluate quality of the life among ischemic heart diseases patients; and to identify the relationship between the ischemic heart diseases patients' quality of life and their socio-demographical data.

Methods: The descriptive design is performed during the present study in the Misan center for the cardiac diseases and surgery in Al-Amara city/ Iraq. For the period of November 9th 2020 to April 25st 2021. Probability "random" sample of (360) patients with ischemic heart diseases are selected. The sheet of questionnaire consist of four major dimensions (socio-demographic characteristics; clinical features; health status of ischemic heart diseases patients, and Quality of life evaluation part). Data are collected from the self-developed questionnaire (in the Arabic version), and the use of pattern interview way for each ischemic heart diseases patient. Reliability of the instrument through test-retest of this tool, it was determined by utilizing the Pearson correlation coefficient for the pilot study, and the validity of the tools content determined by a committee were (11) experts.

Results: The outcomes of study show the evaluation of quality of life for ischemic heart diseases patients is moderate level on the all domains (Physical health; Psychological health; Social relationship; Independence level; Environment aspect; and Spiritual health domain); life's quality of patients is a significantly different with their socio- demographic characteristics.

Conclusion: The current study concluded that an overall evaluation for ischemic heart diseases patients' life's quality was moderate level. It is clear that ischemic heart diseases can adversely affect the quality of life and limit a person's effectiveness in community participation. Recommendation: The study recommended that educational programs and health awareness programs should be provided for ischemic heart patients, and an emphasis on follow-up and periodic investigations within medical health, which will improve the quality of life in future to good level.

Keywords: Quality of Life, Ischemic Heart Diseases Patients.

INTRODUCTION

Quality of life is a person's perception of the conditions of life in the culture environment and the value systems in which he lives, and in correlate to his aims, expectations, standards and interests. It is a broad concept that is influenced in a complex method by a person's physical health, psychological state, personal beliefs, social relationships, and their association to the salient attributes of their environment[1].

Ischemic Heart Diseases are considering as most prevalent to the prime causes of heart diseases and mortalities in the world impacting on patients' quality of a life[2]. It is realized that cardiovascular illnesses in the world today are the fundamental causes of morbidity and mortality, and acute myocardial infarction is one of the major causes. The patients decreases most activities of everyday living and work and may even effect on quality of life in future[3]. Prognosis a myocardial infarction the patient is restricted to do some physical activities and daily life, as it can damage the heart and cause acute myocardial infarction again. For this reason, cardiac rehabilitation must be began immediately. In general, after 60 days of discharge from the hospitalization, such activities can be applied, but gradually, and pre all of it, several checks and tests such as exercise examine, and echocardiography must be performed[4]. Cardiac rehabilitation is all of activities which performed with cardiomyopathy patients that will be improving physical, psychological and social conditions[5]. The patient after AMI should perform exercises as soon as possible, while improving functional performance and quality of life. Exercise performance generates changes, stimulates blood circulation and improves other functions[6]. Cardiovascular disease is a umbrella of disorders that affect on the heart and blood vessels. Coronary heart diseases are the basic cause of early death in many the countries[7]. Acute myocardial infarction prevalence is the first manifestation of ischemic heart disease, increasing from approximately 50% to 70% of patients, and is also the common cause of hospitalization. Several factors have been identified associated with disease severity, such as smoking, dyslipidemia, diabetes, systemic arterial hypertension, number of weak arteries and degree of left ventricular functional impairment[8]. Complications that occur after myocardial infarction are well-documented and carry a higher risk of increasing cardiovascular events such as angina pectoris; Arrhythmia. Heart failure; Stroke and death. By the occurrence of reperfusion and preventive treatments, the

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short-term mortality rate following myocardial infarction decreased[9]. Therefore, the objectives of the current study was to evaluate the life's quality among ischemic heart diseases patients, and to identify the relationship between the ischemic heart diseases patients' life's quality, with their socio-demographical, and clinical features.

METHODS

The research design is descriptive, It was implemented to complete the goals of study by the use of the evaluation method for the identify of ischemic heart diseases patients' quality of life for the period of from of November 9th, 2020, to April 25th 2021. The present study is conducted on heart diseases patients' in Misan center for the cardiac diseases and surgery in Al-Amara City. It provides medical and surgical services to patients with heart diseases. Probability "random" sample of (360) patients diagnosed with ischemic heart diseases. They were selected in study sample, and data collected via use the developed questionnaire (in the Arabic version), where the method of structured interview for each patient was used as a data collection strategy. The research questionnaire consists of four basic aspects, which are as follows:

Part I: Is a socio-demographical characteristics which includes variables (Age, Gender, Residence, Marital status, Level of education, Occupation status, Monthly income, and Socioeconomic status). Socioeconomic Status are calculated by use standard scale High= (81-100); Middle= (60-80); and Low= (less than 59).

Part II: The clinical characteristics: This part includes two items the duration of disease and chronic diseases.

Part III: The health status: This part involves 29 items distributed in four aspects: Physical status (8) items; mental and psychological status (11) items; social status (5) items; behavioral status (5) items. These aspects were rate in accordance Likers' scale; agree (3); uncertain (2); and disagree (1). Part IV: Quality of life evaluation for Ischemic heart diseases patients: The part was consist of (70) item that measure quality of life classified in six domains which include: Physical status (11) items, psychological status (15) items, social relationship (9) items, level of independence (6), environment (25) items, spiritual status (4) items. Rate of score for these paragraphs were in accordance with the Likers' Scale: never (1); sometimes (2); and always (3). Quality of life and health status are measured as Good= (2.34-3), Moderate= (1.67-2.33), and Poor= (1-1.66). The reliability of the instrument through test-retest of the tool, it was determined by utilizing the Pearson correlation coefficient for the pilot study, and the validity of the questionnaire content determined by a committee of (11) experts. The data of this study is analyzed via the use the Statistical Package for Social Sciences version 24. Through descriptive statistics (frequencies, percentages, Arithmetic mean, Mean of Score, and standard deviations), and inferential statistical (Individual Correlation Coefficient, and Chi-Square test). The predictor of the significant differences results was determined to be of: High significance at ($P < 0.01$); And Significant difference when ($P < 0.05$); It is None significant if ($P > 0.05$).

Table 1: Distribution ischemic heart diseases patients via their socio- demographical characteristics

No.	Variables	Characteristics (n=360)	F	%
1.	Age (year)	30-39	29	8.1
		40-49	58	16.1
		50-59	116	32.2
		60-69	95	26.4
		70-79	62	17.2
		$\bar{x} \mp$ Std. Dev.	56.78 ± 11.507	
2.	Gender of patient	Female	172	47.8
		Male	188	52.2
3.	Residence	Urban	231	64.2
		Rural	129	35.8
4.	Marital status	Single	16	4.4
		Married	280	77.8
		Divorced	11	3.1
		Widowed	53	14.7
5.	Level of education	Illiterate	98	27.2
		Read and Write	119	33.1
		Primary Graduate	61	16.9
		Intermediate Graduate	53	14.7
		Secondary Graduate	15	4.2
		Institute or College Graduate	14	3.9
6.	Occupation status	High professional and managerial job	20	5.6
		Lower professional, skilled and semiskilled workers	83	23.1
		Unskilled workers	257	71.4
7.	Monthly income	Enough	51	14.2
		Somewhat Enough	265	73.6
		Not Enough	44	12.2
8.	Socio-economic Status	Low	226	62.8
		Middle	123	34.2
		High	11	3.1

F= Frequencies , % = Percentages, Arithmetic Mean ($\bar{x}$) and Std. Dev.= Standard. Deviation.

RESULTS

Interpretation of the results of Table 1 display that approximately third of study sample concerning age groups were within (50-59 years) it presented 116(32.2%), with arithmetic mean and standard deviation **(56.78 ± 11.507)**. also showed that more half of patients were male 188(52.2%). Addition, residence showed that more than half of participants were live urban as their percentage reached 231(64.2%). With regard to marital status, it appears that three quarters of the sample were married. Regarding level of education, the results showed that third of patients were read and write 119(33.1%). In addition, occupation status more than two-third of patients 257(71.4%) were unskilled workers. Addition, monthly income approximately three quarters of participants have somewhat enough as their percentage reached 265(73.6%). Socio-economic status of participants in study sample were more than of half in low level 226(62.8%).

Results of table 3 reveals that moderate level of mean of score in all domains related to health status among ischemic heart diseases patients at the study sample except physical status was good level of evaluation, the majority of total overall of health status were moderate level (n=360; 299(63.6%), As it reached the mean of score and standard deviation (2.12 ± 0. 330).

The table 4 reveals there are moderate level for mean of score at all the domains related to quality of life among ischemic heart diseases patients at the study sample, the majority of total overall of quality of life were a moderate level of evaluation (n=360; 321(89.2%)), mean of score and standard deviation (2.00 ± 0. 204).

Findings of table 5 indicates that there is a high significant relationship between quality of life among ischemic heart diseases patients and their socio- demographical characteristics in variables (Age, Gender, Residency, Education level, Monthly income, Socio-economic status and Duration of disease) when (P< 0.01), while variables (Marital status, Occupation status and Chronic diseases), revealed that there is a significant distinctions relation between life's quality with their socio-demographical variables when was (P < 0.05), when examined statistical by Chi-Square test.

DISCUSSION

Part I: Discussion of the Ischemic Heart Diseases Patients' Socio- Demographic Characteristics: The analysis of such socio-demographical data depicts that the age groups represented (32.2%) of study sample within (50 to 59) years old, (52.2 %) of the study sample are male , of and (64.2 %) of the sample live in urban area, (77.8%) for study research are married, majority of them are read and write (33.1%), and (71.4%) of the study sample are unskilled workers, and (73.6%) of the study sample are with somewhat enough monthly income, and (62.8%) of the study sample are with low socio-economic status. (Table 1). This finding was found to be consistent with the results of most other studies that found the majority of participants in study of coronary heart disease patients are males (56%), and (80%) are married and (44%) live in urban area[10]. This result is consistent with the findings of others, and the results of the study indicate that most patients' ischemic heart disease are within age (51 to 60) years old[11]. A study revealed that most with ischemic heart diseases are unskilled workers (60.43%) and (75.82) somewhat enough monthly income[12]. Persons with ischemic heart disease in the lowest socio-economic status[13]. And (52.5 %) persons with coronary artery disease are primary school graduate (or less)[14].

Part II: Discussion the Distribution for the Clinical Characteristics of Ischemic Cardiac Diseases Patients: When analysis the distribution of the ischemic heart diseases patients' data depicts that the (41.7%) of study sample within (1 to 2) years duration of disease related to ischemic heart diseases patients. (28.3 %) are suffer from hypertension & diabetes mellitus (Table 2). This result is in an agreement with the studies that found the majority of ischemic heart diseases patients had hypertension and diabetes mellitus (DM)[14,17].

Part III: Discussion the Evaluation of Domains for the Health Status, and Quality of the Life for Patients have Ischemic Cardiac

Table 2: Distribution of the ischemic heart diseases patients by their clinical characteristics

No.	Variables	Characteristics (n=360)	Frequency	Percent
1.	Duration of disease	6 – 12 months	35	9.7
		1-2 years	150	41.7
		3-4 years	99	27.5
		5-6 years	53	14.7
		7-8 years	9	2.5
		≥ 9 years	14	3.9
2.	Chronic Diseases	None	56	15.6
		Hypertension	77	21.4
		Diabetes Mellitus	68	18.9
		Asthma	16	4.4
		Arthritis	7	1.9
		Hyperlipidemia	6	1.7
		Hypertension & Diabetes Mellitus	102	28.3
		Hypertension & Asthma	7	1.9
		Hypertension & Hyperlipidemia	8	2.2
		Hypertension & Liver fibrosis	3	.8
		Diabetes Mellitus & Asthma	2	0.6
		Hypertension, Diabetes Mellitus &	8	2.2
		Asthma		

Analysis data the table 2 are show that more one-third of the sample regarding duration of disease related to ischemic heart diseases patients in were within (1-2 years) it presented 150(41.7%). The subject chronic diseases, the results showed that quarter in sample were suffer from hypertension & diabetes mellitus 102(28.3%).

Table 3: Evaluation of health status for ischemic heart disease patients

No	Main Domains Related to Health Status	Poor		Moderate		Good		M.S.	Std. Dev.	Eva.
		F	%	F	%	F	%			
1	Physical Status	9	2.5	98	27.2	253	70.3	**2.45**	0.294	**G**
2	Mental and Psychological Status	59	16.4	145	40.3	156	43.3	**2.16**	0.493	**M**
3	Social Status	115	31.9	153	42.5	92	25.6	**1.92**	0.566	**M**
4	Behavioral Status	187	51.9	146	40.6	27	7.5	**1.70**	0.406	**M**
5	Overall Health status	30	8.3	229	63.6	101	28.1	**2.12**	0.330	**M**

No. = Variable number, F=frequency , % = Percent, M.S.= Mean of Score, Std. Dev.= standard deviation, Eva.= Evaluation; Evaluation levels : (1.00-1.67) = Low; (1.68-2.33) = Moderate; (2.34-3.00) = Good.

Table 4: Evaluation of life's quality for ischemic heart disease patients

Main Domains Related to Quality of Life	Poor		Moderate		Good		M.S.	Std. Dev.	Eva.
	F	%	F	%	F	%			
1. Physical Status	97	26.9	246	68.3	17	4.7	**1.85**	0.269	**M**
2. Psychological Status	18	5.0	296	82.2	46	12.8	**2.05**	0.319	**M**
3. Social Relationship	8	2.2	316	87.8	36	10.0	**2.08**	0.252	**M**
4. Level of Independence	133	36.9	221	61.4	6	1.7	**1.72**	0.331	**M**
5. Environment	19	5.3	301	83.6	40	11.1	**2.06**	0.231	**M**
6. Spiritual Status	34	9.4	204	56.7	122	33.9	**2.14**	0.484	**M**
7. Total Overall of Quality of Life	12	3.3	321	89.2	27	7.5	**2.00**	0.204	**M**

F=frequencies , % = Percentage, M.S.= Mean Score, Std. Dev.= standard deviation, Eva.= Evaluation; Evaluation levels : (1.00-1.67) = Low; (1.68-2.33) = Moderate; (2.34-3.00) = Good.

Table 5: *Association among the quality of life with socio-demographical & clinical data*

Variables	X2obs.	df	P- value	Sig.
Age	26.011	8	**0.001**	**HS**
Gender	15.638	2	**0.000**	**HS**
Residence	27.067	2	**0.000**	**HS**
Marital status	15.508	6	**0.017**	**S**
Level of education	41.365	10	**0.000**	**HS**
Occupation status	12.097	4	**0.017**	**S**
Monthly income	16.381	4	**0.003**	**HS**
Socio-economic status	15.480	4	**0.004**	**HS**
Duration of disease	25.975	10	**0.004**	**HS**
Chronic diseases	37.884	22	**0.019**	**S**

χ^2obs. = chi-square observed, χ^2crit = chi-square critical , df= degree of freedom, p = probability value, P < 0.05= significant, P < 0.01=High significant, P > 0.05=Non significant

Disease: When evaluation the current study of aspects of health status of patients, and domains of quality of life showed that all ischemic heart patients had a moderate level of evaluation (Table 3 and 4). The data for this finding were presented to be agreement with the results of other studies on life's quality that found that patients with ischemic cardiac disease had altered health status and goodness of life[15,16].

Part IV: Discussion of the Association Between Life's Quality for Ischemic Heart Disease Patients and their Socio-Demographic Features: Regarding to the analysis of such comparative differences reveals that the ischemic heart disease life's quality patients, there is significant distinctions with their (age; gender; residency; level of education; monthly income; socio- economic status; duration of disease; marital status; occupation status; and chronic diseases) (Tables 5). This outcome is harmony with that of the current study, which show that there is a statistical significant correlation among goodness of life for ischemic heart disease and their age, marital status and chronic diseases[17]. Another supportive evidence is provided in a study which the finds, that there are a significant relationship between ischemic heart disease quality of life and their age and gender[15]. Another supportive evidence is provided in a study which findings, that there are a significant relationship related to age, gender, education and occupation status[18]. These results are compatible with the present study, indicates that there is a statistically significant difference between quality of life and their duration of disease[19]. And that there is a statistically significant difference among quality of life, and their chronic diseases[20]. Another supportive evidence is provided in the study which finds that there are a significant relation between life's quality of cardiovascular patients, with their gender, age, education, marital status, occupational status, suffering duration, residence, monthly income, and socio- economic status[21]. Thus, longer survival after MI increased the group of individuals at an produce risk of the complications affecting quality of life. A current study conducted in Germany revealed that health related to quality of life decreased significantly in MI survivors compared to the general people. Other study from (Mendes de Leon et al. 1998) with a sample of elderly in Connecticut that showed a decrease in physical, psychological, and social functioning, particularly among the elderly[22] .

RECOMMENDATIONS

The study advised that due to the poor level of physical and mental elements, the essential activities be taken to provide enough health insurance, more and cheaper welfare services, and more appropriate social and mental supports for CVD patients.

CONCLUSION

1. **The present study concluded that the overall evaluation to quality of life for patients suffering from ischemic cardiac diseases was within the moderate level.**

2. **The current study found that there is an impact of socio-demographic factors such as (age, gender, residence, level of education, occupational status, monthly income, socio-economic status) on the patients' quality of life with ischemic heart diseases, as well as a clear effect for the clinical features such as (duration of disease and chronic diseases) on life's quality of ischemic cardiac diseases patients.**

Authorship Contribution: All authors share equal effort contribution towards (1) substantial contributions to conception and design, acquisition, analysis and interpretation of data; (2) drafting the article and revising it critically for important intellectual content; and (3) final approval of the manuscript version to be published. Yes.

Potential Conflict of Interest: None.

Competing Interest: None.

Acceptance Date: 05 August 2021

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