



Original Research

Quality of life for Patients Undergone Gallstone Surgery Attending Al- Sheikh Zayed Hospital in Baghdad City

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Abstract;

Background: Quality of life has become a key goal of contemporary health care. It is often confused with standard-of-living. However, standard-of-living refers to the possession of wealth or material goods. Gallstones (Cholelithiasis) or (Biliary calculi) are small stones that made from cholesterol salts, bile pigment and calcium salts (usually in a mixture) form in the gallbladder. It is one of the common disorders of the digestive system and affects about 15% of people aged 50 years and over.

Objective (s): The study targeted to evaluate quality of life for patients undergone gallstone surgery (Cholecystectomy) as well as to identify the correlation between quality of life of these patients and some demographic characteristics after six months of surgery.

Methodology: A cross-sectional design was employed to achieve the objectives of the study for the period from^{1st} December 2023 to ^{1st} June 2024. A purposive sample of (350) patients who are attending Al- Sheikh Zayed Hospital in Baghdad city, the sampling method using purposive non probability sample technique to access the participants of the study. The data for this study collected by using (WHOQOL) tool, to evaluate the quality of life for patients who had cholecystectomy and visiting Al- Sheikh Zayed Hospital in Baghdad city, and to identify the correlation between sociodemographic characteristics and quality of life.

The evaluation test scale consists of two parts; demographic data, which consist of six items, include age, gender, level of education, marital status, economic status, and occupation. Part two consist of five domains include physical, psychological, environmental, spiritual and social. Physical domain consist of (11) questions, psychological have (8) questions, environmental includes (4) questions, spiritual content (5) questions and social domain consist of (6) questions to measure quality of life for patients undergone cholecystectomy. Each question has score include (1) for never, (2) for sometimes and (3) for always.

The validity of the questionnaire was tested by presenting it to (10) experts in medical field. The reliability of the instrument tested by using data for 10 patients who have had cholecystectomy excluded from the study sample. Cronbach's alphas test calculated to determine the internal consistency of the study instrument. The overall internal consistency for the questionnaire was accepted which recorded $\alpha = 0.81$.

Results: The summary statistics related sociodemographic characteristics showed that the majority of participants in the study are between age group of (46- 55) years old (55.0 %). Related gender of participants female were

recorded (52.7%) from all study sample. Associated level of education (37.9%) of sample were in Institution or College levels. Regarding with marital status (63.0 %) of study sample were married. (42.5 %) of participants have barely sufficient level regarding with economic status. Related to occupation, the study recoded that (47.3%) of participants were Employee.

Related to the overall evaluate of quality of life for patients undergone gallstone surgery (Cholecystectomy) the result shows, that (46.4%) of participant within fair level of quality of life.

Regarding with correlation between quality of life and demographic data the result

obvious that, there is a high significant correlation between quality of life and variables of age and occupation, as well as there is a significant correlation between level of education and quality of life.

Conclusions:

the study summarized that quality of life for patients undergone gallstone surgery recorded fair level among the study sample, in addition to that, there is a high significant correlation of quality of life with age and occupation, as well as there is a significant correlation between level of education and quality of life.

Recommendations:

1. Conducting extra studies to obtain more knowledge related quality of life for patients undergone gallstone surgery
2. Produce an educational program to increase health awareness among people, to elevate level of quality of life for patients undergone gallstone surgery.
3. The media should play a greater role related to increase awareness associated with lifestyle to elevate quality of life among population as general, as well as among patient underdone gallstone surgery.

Key word: Quality of life, Gallstone Surgery

Introduction:

Quality of life (QOL) is defined by the World Health Organization (WHO) 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⁾.

Health related quality of life (HRQOL) is an evaluation of QOL and its relationship with health. Common facets of QOL include personal health physical, mental, and spiritual, as well as relationships, education status, work environment, social status, wealth, a sense of security and safety, freedom, autonomy in decision- making, social-belonging and physical surroundings. Quality of Life (QOL) as the “perceived discrepancy between the reality of what a person has and the concept of what the person wants, needs, or expects ⁽²⁾.

The gallbladder is a small sac that holds bile which is a digestive juice produced by the liver and it is important in the breakdown of dietary fats. It is a concept aims to capture the well-being whether of a population or individual, regarding both positive and negative elements within the entirety of their existence at a specific point in time ⁽³⁾.

There are many problems that may affect the gallbladder such as, Cholelithiasis (gallstones), cholecystitis (the inflammation of the gallbladder), gallbladder polyp a growth in the gallbladder which may cause upper abdominal pain or remains a symptomatic) and biliary dyskinesia (is an abnormal release of bile from the gallbladder leading to chronic biliary colic ⁽⁴⁾.

Cholecystectomy is a surgery to remove the gallbladder in case of infection or stones formation. It is a safe operation usually done by inserting a tiny video camera and special tools through several small incisions to see inside the abdomen and remove the gallbladder. This is called a laparoscopic cholecystectomy, it is done by one large incision used to remove the gallbladder. This is called an open cholecystectomy and it requires longer Hospital stay and recovery ⁽⁵⁾.

Patients with gallstone disease typically present with symptoms of biliary colic pain, associated with nausea and vomiting, normal physical examination findings and normal laboratory tests results. It may be accompanied by diaphoresis ⁽⁶⁾.

Gallstones (cholelithiasis) are hardened deposits of digestive fluid that can form in the gallbladder. In USA 6% of men and 9% of women, developed gallstones and most of the cases are asymptomatic. The likelihood of developing symptoms or complications is 1% to 2% annually ⁽⁷⁾.

Depending on the etiologies above there are three main types of gallstones according to their compositions (Cholesterol gallstones, Black pigment gallstones and Brown pigment gallstones). Each stone has a unique causes and risk factors, cholesterol gallstones development risk factors are obesity, age, gender (being female), pregnancy, genetic factors, using (TPN) total parenteral nutrition, rapid weight loss and certain medications (oral contraceptives, clofibrate and somatostatin analogs) ⁽⁸⁾.

Approximately 2% of gallstones are black and brown pigment stones, and it can be found in individuals with high hemoglobin turnover. The pigment mostly consists from bilirubin, so people with cirrhosis, ileac diseases, sickle cell anemia and cystic fibrosis are at risk of developing black pigment stones. Brown pigment stones are mainly found in the Southeast Asian population and are not mostly common in USA. Risk factors of brown pigments stones are intraductal stasis and chronic colonization of bile with bacteria. Patients with Crohn disease and those with ileum diseases or resection are not able to reabsorb the bile salts ⁽⁹⁾.

Cholelithiasis is slightly common, it can be found in approximately 6% of men and 9% of women. The highest prevalence arises in Native Americans populations. It is not as common in Africans or Asians population. Despite the prevalent the gallstones is, more than 80% of people remain asymptomatic, however, 1% to 2% of asymptomatic people will develop symptoms annually and more likely to develop further complications ⁽¹⁰⁾.

Methodology

Design of the study:

A cross-sectional design was employed to achieve the objectives of the study for the period from 1st December 2023 to 1st June 2024.

Sampling:

A purposive sample of (350) patients who are attending Al- Sheikh Zayed Hospital in Baghdad city, the sampling method using purposive non probability sample technique to access the participants of the study.

Instrumentation and data collection:

The data for this study collected by using world health organization (WHOQOL) tool, to evaluate the quality of life for patients who had cholecystectomy and visiting Al- Sheikh Zayed Hospital in Baghdad city, and to identify the correlation between sociodemographic characteristics and quality of life.

The evaluation test scale consists of two parts; demographic data, which consist of six items, include age, gender, level of education, marital status, economic status, and occupation. Part two consist of five domains include physical, psychological, environmental, spiritual and social.

Physical domain consist of (11) questions, psychological have (8) questions, environmental includes (4) questions, spiritual content of (5) questions and social domain consist of (6) questions to measure quality of life for patients undergone cholecystectomy. Each question has score include (1) for never, (2) for sometimes and (3) for always.

Validity and reliability of instrument:

. The validity of the questionnaire was tested by presenting it to (10) experts in medical field. The reliability of the instrument was tested by using data for 10 patients who have had cholecystectomy excluded from the study sample. Cronbach's alphas test was calculated to determine the internal consistency of the

study instrument. The overall internal consistency for the questionnaire was accepted which recorded: $\alpha=0.81$.

Data analysis:

The following statistical data analysis approaches used to analyze the results of the study using the statistical package of social science (SPSS) (version 27). Descriptive statistics including frequency and percentage and inferential statistics in proportion to the distribution of data. Pearson correlation test used to examine the correlation between variables and quality of life.

Result of the study:

Table 1: Sociodemographic characteristic of the study sample

Sociodemographic Characteristics	Item	Sample (n =350)	
		F	%
Age	20-45 year- old	111	31.6
	46- 55 year- old	193	55.0
	56 and above	111	31.6
Gender	Male	165	47.0
	Female	185	52.7
Marital status	Single	23	6.6
	Married	221	63.0
	Widowed	76	21.7
	Divorced	16	4.6
	Separated	14	4.0
Educational level	Illiterate	2	.6
	Read and write	26	7.4
	Primary	47	13.4
	Intermediate	67	19.1
	Preparatory	62	17.7
	Institution or College	133	37.9
	Post graduate	13	3.7
Economic status	Sufficient	86	24.5
	barely sufficient	149	42.5
	Insufficient	115	32.8
Occupation	Employee	166	47.3
	not employed	52	14.8
	Retired	32	9.1
	Housewife	100	28.5

This table indicates that majority of participants are between age group of (46- 55) years old (55.0%). Related gender female were recorded (52.7%) from all participants. In the other hand marital status obvious

that more than a half of study sample are married (63.0%), educational level documented (37.9%) of study sample within institution or college level , and (42.5%) of them have barely sufficient regarding with economic status. regarding occupation (47.3%) of the study sample are employee.

Table 2: Evaluation of quality of life for patients undergone gallstone surgery (n=350)

Overall Evaluation					
Low		Fair		High	
F	%	F	%	F	%
105	29.9	163	46.4	82	23.4

F: Frequency, %: percentage, cut of point: low (34- 56), Fair (57-79), High (80-102).

This table related overall evaluate of quality of life for patients undergone cholecystectomy, the result shows that majority of participant with in fair level of quality of life, which recorded (46.4%).

Table 3: Correlation between Quality of Life and some Demographic Characteristics (n=350)

Variables	Age	Gender	Level of Education	Marital status	Economic status	occupation
Quality of life	.112**	.381	.082*	.130	.058	.381**

**. Correlation is high significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

This table reveals that, there is a high significant correlation between quality of life and variables of age and occupation, as well as there is a significant correlation between level of education and quality of life, but there is no correlation between other variable as gender, marital status and economic status.

Discussion:

The summary statistics of the study sample related sociodemographic characteristics in the table (1) manifested that the majority of participants in the study are between age group of (46- 55) years old (55.0%). female of the study sample recorded (52.7%). Regarding level of education the result recognized that (37.9%) of study sample within institution or college level. Related marital status the study obvious that (63.0%) of the study sample are married. Regarding economic status (42.5%) of them with in barely-sufficient level. Finally, regarding occupation of the participants (47.3) of them are employee.

Regarding overall, evaluate of quality of life for patients undergone gallstone surgery that presented in table (2) shows, that majority of participants had fair level of quality of life, which recorded (46.4%). This result revealed that number of people can administer their condition which minimize effected of surgery on their quality of life. This result is agree with the study that assessed 187 patients underwent planned cholecystectomy 125 women and 62 men, mean age 45.9 years, The response rate was 47% for 12 months after surgery ⁽¹¹⁾.

In the other hand, the study, which conducted in Sweden, that measuring health related quality of life 6 months after surgery. Cholecystectomy gave a significant improvement in quality of life. Patients over 80 years are associated with increased postoperative morbidity but may benefit substantially from surgical intervention. ⁽¹²⁾.

Table (3) which, revealed the correlation between quality of life and some demographic characteristics shows that there is a high significant correlation between quality of life and variables of age and occupation,

as well as there is a significant correlation between level of education and quality of life. This outcome means that ageing effect on pain bearing capacity which effect on quality of life. This result agree with the study that evaluated 919 patients (646 women, 273 men) mean age was 52 years, postoperatively, that show age was associated with a significantly increase in bodily pain and physical activity⁽¹³⁾.

Finally, a general agreement is that postoperative QOL depends on preoperative clinical status moreover, the first essential criterion for an improvement in subjective change in QOL is accurate preoperative diagnosis. On the other hand, an effective way to investigate the factors that may influence subjective QOL outcomes would be to measure the satisfaction rate pre- and post-surgery, and repeatedly after surgical treatment; a QOL assessment is generally suggested at 1 and 6 months postoperatively. On this basis, symptomatic patients usually gain more QOL from a surgical intervention (open or laparoscopic) of long-term well-being⁽¹⁴⁾.

Conclusion:

The results of this study has benefits for all community members. The study summarized that quality of life for patients undergone gallstone surgery, which recorded fair level among the study sample, in addition to that, there is a high significant correlation of quality of life with age and occupation, as well as there is a significant correlation between level of education and quality of life.

Recommendations:

According on the study results and its interpretation regarding to gallstone surgery, the study recommends the following:

- Conducting additional studies to acquire more knowledge related quality of life for patients undergone gallstone surgery.
- Create an educational program to increase health awareness among people, related prevent, as well as health care related healthy life style.
- The media should play a greater role related to increase alertness regarding quality of life for patients with gallstone.

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