Quality of life and its associated factors among patients with cancer in Hilla city/Iraq

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ABSTRACT

Objectives: Quality of life is an important measure for evaluating and predicting treatment for cancer patients. Patients with cancer are at increased risk of a poor quality of life during effective cancer treatment. This study aimed to assess quality of life and its associated factors among patients with cancer.

Methods: A descriptive correlational study conducted in Hill city during the period from November 9th 2022 to April 18th 2023. The study sample consist of 150 patients is selected according to non-probability sampling approach. The validity of the questionnaire was verified by experts and its reliability was verified through a pilot study. Data were collected through the interview and analyzed by applying descriptive and inferential statistical analysis.

Results: The results indicated that the average age of the participants is 51 among those who are female (84%), married (74%), elementary school graduated (36%), who are free business (32.7%) with enough to certain limit (53.3%). Over than half (53.3%) of the study participants were found to average quality of life. Quality of life are differs according to age, marital status, occupation, monthly income, duration of cancer and stages of cancer (p=.000).

Conclusion: Quality of life for cancer patients was generally average and was mostly influenced by demographic factors including age, marital status, occupation and monthly income as well as clinical aspects of cancer such as its length and stages of disease. Recruit ministries and social organizations to play a role in ensuring that cancer patients have access to adequate financial resources to meet their demands in order to minimize the negative effects of individual variables affecting their quality of life.

Keywords: Quality of life; Associated factors; Cancer; Female; Demographic

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INTRODUCTION

In 2020, there will likely be 10.6 million cancer related deaths and 19.3 million new instances of the disease worldwide [1]. In actuality, 28.4 million more cases are predicted to arise by 2040. Even while overall survival and long term disease free survival are the main goals of cancer treatment, Health Related Quality of Life (HRQOL) is one of the main outcomes. Many cancer patients prefer to enhance their HRQOL over extending their life expectancy from their perspective and their present HRQOL may affect the future treatments they select [2]. Physicians regard HRQOL to be crucial for survival when determining a course of treatment for cancer patients [3]. Additionally, HRQOL may be used to define the course of supportive therapy for cancer patients or to forecast their prognosis [4]. Patients use the complex construct known as QOL to evaluate their current state of health. These elements comprise their cognitive, social, emotional and physical abilities as well as their symptoms and therapy-related adverse effects [5]. In actuality, chemotherapy for cancer patients requires repeated hospital stays for checkups, chemotherapy or other therapies [6]. Quality of Life (QoL) has emerged as a crucial metric for assessing the prognosis and course of treatment for cancer patients. During active cancer therapy, cancer patients are more likely to have low quality of life [7]. Therefore, thus aimed to assess quality of life and its associated factors among patients with cancer in Hill city/ Iraq.

MATERIALS AND METHODS

Study design: The descriptive correlational study design technique was carried out in Hilla city/Iraq during the period from November 9th 2022 to April 16th 2023.

Study sample: The study sample included in present study are patients with cancer is selected according to non-probability sampling approach with a total of (150) who are attended babylon oncology center in babylon province for the purpose of receiving care was chosen based on a set of criteria include: 1)Those who are diagnosed any types of cancer, 2) Who were diagnosed with cancer for more than 6 months, 3) Who are different age groups and 4) Volunteer to participate in the study after his consent.

Study instrument: This questionnaire consists of two parts include the followings.

Part I: Patients characteristics include age, gender, marital status, education level, occupation, monthly income, residents, Cancer type, duration, staging and comorbidities.

Part II: The WHOQoL is a 26 items instrument with four **domains:** Social relationships, environmental health, psychological health and physical health. The scale included five levels: 1 for very poor, 2 for poor, 3 for moderate, 4 for good and 5 for very good. As a result, points might be earned between 26 to 130. The higher average is what is meant by a high quality of life. Cronbach alpha in the most recent data was 0.89, indicating an acceptable level.

Data collection: The researcher conducted interviews with the participants, gave them a copy of the questionnaire, answered their questions about it, persuaded them to participate, and expressed gratitude for their participation. Individual interviewers conducted each interview for 15 to 20 minutes after completing the crucial stages that have to be part of the study design.

Statistical analysis: The IBM SPSS 20.0 program was used for all of the analyses that follow. The continuous variables were defined using the mean and standard deviation, whereas the discrete variables were categorized using numbers and percentages (No. and %) (SD and mean). ANOVA was used to predict the differences between study variables. To illustrate statistical significance, p.05 was utilized.

RESULTS

Findings reveal participant characteristics, with the mean age being 51 (SD=12.8) for those who are female (84%), married (74%), have completed primary school education (36%), are free-to-run their own businesses (32.7%) with enough to a particular limit (53.3%), and live in cities (60%) (Table 1).

Tab. 1. Socio demographic characteristics	SDVs	Classification	No.	%
		<20	2	1.3
		20-29	7	4.7
		30-39	13	8.7
		40-49	38	25.3
		50-59	29	19.3
		60 and older	61	40.7
	Age	51 ± 12.8		
	Gender	Male	24	16
		Female	126	84
		Single	2	1.3
		Married	111	74
		Divorced	2	1.3
	Marital status	Widowed	35	23.3
		Illiterate	23	15.3
		Read and write	19	12.7
		Elementary	54	36
		Middle school	33	22
		High school	5	3.3
	Education level	College	16	10.7
		Employed	32	21.3
		Free business	49	32.7
		Retired	27	18
	Occupation	Unemployment	42	28
		Enough	18	12
		Enough to certain limit	80	53.3
	Monthly income	Not enough	52	34.7
		Urban	90	60
	Residents	Rural	60	40

Findings show participants clinical data, the most common type of cancer among studied sample were breast cancer (65.3%), most of

the participants were diagnosed with cancer 1-3 years ago (74%), more than half of participants in the stage II metastasis (40%),

chemotherapy were the most common type of treatment (71.3%), one-third were no associated comorbidities (Tables 2 and 3).

Tab. 2. Clinical characteristics	Clinical data	Classification	No.	%
	Type of CA	Digestive system and liver	29	19.3
		Kidney and urinary system	9	6
		Breast	98	65.3
		Reproductive system	7	4.7
		Blood and lymphatic system	3	2
		Bone	2	1.3
		Skin	2	1.3
	Duration of CA	<1 year	18	12
		1-3 years	111	74
		>3 years	21	14
	Stage of CA	I	51	34
		II	60	40
		III	26	17.3
		IV	13	8.7
	Type of treatment	Chemotherapy	107	71.3
		Radiotherapy	5	3.3
		Both	38	25.3
	Comorbidities	No	100	66.7
		Diabetes	6	4
		Hypertension	29	19.3
		Heart diseases	2	1.3
		Kidney disease	6	4
		Liver disease	2	1.3
		Digestive system diseases	4	2.7
		Asthma	1	0.7

Tab. 3. Overall WHOQoL levels according to domains	Scales	Minimum	Maximum	M	SD	Score	No.	%
	QOL related to general health (2Q)	2	6	3.82	1.12	Poor	51	34
						Moderate	66	44
						Good	33	22
	QOL related to physical health (7Q)	7	20	15.35	2.5	Poor	3	2
						Moderate	93	62
						Good	54	36
	QOL related to psychological health (6Q)	6	18	9.63	3.34	Poor	85	56.7
						Moderate	53	35.3
						Good	12	8

	8	22	12.7	4.57	Poor	72	48
QOL related to environmental health (8Q)					Moderate	63	42
					Good	15	10
	3	9	4.97	1.89	Poor	82	54.7
QOL related to social relationship (3Q)					Moderate	54	36
					Good	14	9.3
	33	67	47.3	8.82	Poor	58	38.7
					Moderate	80	53.3
Overall QOL (Q26)					Good	12	8
Findings indicated that the (53.3%) of cancer patients reported an average quality of life (M=47.3; SD=8.82).							

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Based on analysis of variance, findings indicate that there were significant differences in QOL between patients with respect to their age (p=.000), marital status (p=.000), occupation (p=.000), monthly income (p=.000), duration of cancer (p=.000) and stages of cancer (p=.000) (Table 4).

Tab. 4. Statistical differences in quality of life with respect patients variables

WHOQOL	Source of variance	Sum of squares	d.f	Mean square	F-statistic	Signature
	Between groups	9.47	5	1.894		
	Within groups	7.715	144			
Age	Total	17.185	149	0.054	35.351	0
	Between groups	0.03	1	0.03		
	Within groups	17.155	148			
Gender	Total	17.185	149	0.116	0.258	0.612
	Between groups	7.171	3	2.39		
	Within groups	10.013	146			
Marital status	Total	17.185	149	0.069	34.854	0
	Between groups	0.39	5	0.078		
	Within groups	16.795	144			
Education level	Total	17.185	149	0.117	0.669	0.648
	Between groups	8.451	3	2.817		
	Within groups	8.734	146			
Occupation	Total	17.185	149	0.06	47.091	0
	Between groups	6.13	2	3.065		
	Within groups	11.054	147			
Income	Total	17.185	149	0.075	40.762	0
	Between groups	0.138	1	0.138		
	Within groups	17.046	148			
Residents	Total	17.185	149	0.115	1.2	0.275
	Between groups	0.425	7	0.061		
	Within groups	16.686	141			
Type of CA	Total	17.111	148	0.118	0.512	0.824

Factor	Source						
Duration of CA	Between groups	2.888	2	1.444			
	Within groups	14.297	147				
	Total	17.185	149		0.097	14.847	0
Stage of CA	Between groups	8.783	3	2.928			
	Within groups	8.401	146				
	Total	17.185	149		0.058	50.881	0
Type of treatment	Between groups	0.021	2	0.011			
	Within groups	17.09	146				
	Total	17.111	148		0.117	0.091	0.913
Comorbidities	Between groups	0.895	7	0.128			
	Within groups	16.216	141				
	Total	17.111	148		0.115	1.112	0.359

DISCUSSION

For cancer patients, quality of life is a crucial indicator for assessing and forecasting their therapy. During effective cancer therapy, patients are more likely to experience a reduced quality of life. Compared to the normal population, cancer patients typically experience a lower quality of life. Only 8% of those we saw had good QOL, and the remainder 38.7% or 53.3% had poor or moderate QOL. These results, which were supported by previous research from India using the same QoL instrument, demonstrated that cancer patients' quality of life was less than ideal as a result of the numerous symptoms they faced. Interventions for the efficient management of symptoms are required in order to give patients a better sense of control over their condition and course of therapy as well as to raise their quality of Life (QOL) [8,9].

Because of the diverse demographic and social features, cancer patients' quality of life, whether it be bad or medium, is generally not regarded as being at its best. Gender, age, marital status, employment status and income are all factors that can affect a cancer patient's quality of life. Patients who are single or have little financial means should look into additional resources, and patients who are unemployed, female, old, or having radiotherapy to enhance their quality of life should receive special consideration [10]. The findings of this study emphasize the significance of supporting cancer patients in order to enhance the quality of life for cancer patients. Patients and their families will experience considerable financial hardships following the diagnosis of a chronic illness like cancer, which will lead to serious concerns about the price of medical care and treatment. As a result, financial assistance may enhance quality of life by easing patients' and their families' associated financial worries [11].

The current study's findings revealed that there are variations in people's quality of lives depending on their age groupings. Younger age groups benefited more from the variations; on the other hand, as people aged, their quality of life progressively declined. Aging, combined with sickness and therapy, has a detrimental impact on quality of life because of the advanced age and changes. These results are consistent with those from Saudi Arabia, which showed that cancer patients' quality of life declines with age for physiological reasons related to aging and treatment [12]. The gender of the patients in our study had no impact on their total QoL, despite the fact that females had lower mean QoL scores than males (p=.612). Similar findings from two more QoL studies of cancer patients have been published [13,14]. In contrast, female patients in these two investigations had worse physical, social and psychological life characteristics.

According to the analysis of variance, there were statistically significant changes in patients' quality of life depending on their marital status. Compared to unmarried, divorced, or bereaved people, married couples fared better. Compared to other marital statuses, married couples had a much higher quality of life, maybe as a result of social support. According to research from the USA and Israel, married patients have significantly higher quality of life [15,16].

The patients who performed free-business or who did not work (were unemployed) had the worst quality of life compared to those who were working or retired, it was noted that there were statistically significant differences in the quality of life according to the occupation of the patients. Perhaps this is a result of the poor economic conditions experienced by individuals who work for themselves and the social isolation experienced by those who are unemployed. These results are consistent with those from Turkey, which showed that breast cancer patients who were employed had a higher quality of life. Unemployed people may have lower quality of life due to their isolation from social life and lack of social support. Compared to other professions, government employees reported superior general well-being [17].

The current study's findings indicated that there are disparities in people's quality of life depending on their monthly income because those with low monthly incomes had lower quality of life. In other words, a general increase in monthly income can signal a rise in quality of life. The financial condition of cancer patients needs to be brought to the attention of decision-makers, cancer care providers, and social welfare networks. According to research from Iran and Kut and Babylon provinces in Iraq, there is a positive and significant relationship between socioeconomic position and Quality of Life (QoL) among cancer patients [18-20].

According to the results of the analysis of variance, there were statistically significant variations in patients' quality of life depending on the stage of their cancer. The quality of life is inversely correlated with the stage of cancer. This outcome makes sense. Every area of one's quality of life is impacted as the disease's severity worsens, including all physical and psychological symptoms, lethargy, and exhaustion. An Indian study that found that advanced stages of the disease wear down patients' Quality of Life (QOL) supports these

findings [21].

According to this study, people with cancer have a lower quality of life in terms of psychological, social, and environmental factors. A crucial component of cancer care is cancer management. All medical personnel are responsible for ensuring that patients receive the proper instruction and care at the appropriate time. The development of strategies for the efficient management of symptoms and enhancement of QOL is required. The two primary problems are how to manage symptoms and how to help patients feel more in control of their condition and course of therapy.

CONCLUSION

Quality of life for cancer patients was generally average and was mostly influenced by demographic factors including age, marital status, occupation, and monthly income as well as clinical aspects of cancer such as its length and stages of disease. Recruit ministries and social organizations to play a role in ensuring that cancer patients have access to adequate financial resources to meet their demands in order to minimize the negative effects of individual variables affecting their quality of life.

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