

Quality of life among gastric cancer patients in one center in Baghdad, Iraq in 2021.

Aya Hussein Fouad ⁽¹⁾, Tarteel Dawood Salman ⁽¹⁾, Islam Atta Abd AlHussien ⁽¹⁾, Mazin Judy Ibrahim ^{(2)*}
⁽¹⁾ Medical students, Baghdad University College of medicine, Iraq. ⁽²⁾ Specialist in medical oncology/ oncology teaching hospital

Abstract

Introduction:

In Iraq, gastric cancer is the ninth most frequent cancer. health-related quality of life (HRQOL) encompasses a person's physical, mental, emotional, and psychological well-being, as well as their social and functional status. These aspects are crucial in assessing the long-term health consequences of stomach cancer. The purpose of this study is to summarize the quality of life among gastric cancer patients and how it affects their daily activity.

Methods:

A descriptive cross-sectional study was done in an oncology teaching hospital in Baghdad Iraq in 2021. 30 patients with gastric cancer diagnosed using endoscopic biopsy were recruited. Participants were asked to answer questions in a structured interview. The questionnaire included questions about the quality of life including symptoms, treatment, and activities of daily living.

Results:

Half of the sample were males. 46.66% were in their sixth decade or older. 33% had poor

quality of life during the recent 3 months and 80% had worse quality of life than before. 50% had worse economic status than before. 30% had a lack of energy almost every day and 80% had a low mood at least once a day. Diabetes is the most frequent co-morbidity.

Conclusion:

The majority of patients had a good or acceptable lifestyle, but worse than before with half having worse economic status than before. Most participants have bad moods and lack of energy, and the majority have limited social activities.

Keywords:

Quality of life, Gastric cancer, Iraq

*About the Authors: Mazin Judy Ibrahim: Assistant professor at Baghdad university college of medicine/ medical oncologist.

E-mail:- mazinalbaldawy@yahoo.com



1. Introduction

In total, 1.1 million cases of gastric cancer and 770,000 deaths occurred in 2020 around the world, with 2-fold more incidence in males than in females. ^[1] Gastric cancer is the 5th most frequent cancer and the 4th leading cause of cancer mortality ^[2].

In Iraq, gastric cancer is the ninth most frequent cancer, and second to colorectal carcinoma. According to the World health organization (WHO) data, mortality rate is 4.9% with 5-years prevalence of 3.9 per 100000 [3].

In cancer therapy research, health-related quality of life (HRQOL) is becoming increasingly important. A self-reported HRQOL is multifaceted and may be difficult to describe in a quantitative and subjective manner. [4]

HRQOL encompasses a person's physical, mental, emotional, and psychological wellbeing, as well as their social and functional status. These aspects are crucial in assessing the long-term health consequences of gastric cancer and post-operative HRQOL. [5]

As a result, HRQOL is a multifaceted construct. A physiological consequence in a patient with stomach cancer may be nausea or swallowing difficulty, a psychological effect could be sadness, and a social effect could be withdrawal due to embarrassment over being sick. Economic impacts of disease are sometimes mentioned in conjunction with functional effects of illness. ^[6] There's also a debate about how the disease affects one's spiritual well-being. However, in general, the triad of

"physiological," "psychological," and "social" consequences is thought to characterize HRQOL. [7]

To improve survey sensitivity and specificity, a generic questionnaire and a supplemental malignancy-site specific questionnaire are sometimes employed simultaneously. Patients who have survived surgery for a malignant stomach tumor are known to experience a variety of nutritional and functional issues. The quality of life outcomes following surgical treatment of stomach neoplasms have received a lot of attention in recent years. [8]

Assessing the HRQOL of cancer patients also demands paying great attention to their daily lives and their viewpoints which we like to refer to as quality of daily life because it is based on the patients' specific experiences in their everyday lives [9].

The aim of the study is to assess the quality of life of gastric cancer patients and to study how gastric cancer affects their daily activity.

2.Materials and methods

2.1 Study design

This is a descriptive cross-sectional study conducted between August and September in 2021 in oncology teaching hospital in Baghdad Iraq. Participants were asked to answer questions in a structured interview. The questionnaire included questions about the quality of life among gastric cancer patients, treatment, and activities of daily living.

A convenience sample of 30 patients having gastric cancer patient diagnosed using endoscopic biopsy. All patients were receiving chemotherapy at the ward.



The content validity of the questionnaire was assessed by 2 oncology professors at Baghdad University College of medicine

2.2 Variables and variable definition:

Data were collected using structured questionnaires these include sociodemographic and medical information as follows:

- Demographic Characteristics and general questions: include: Age, gender, Residence (city or village), Marital status (Married, Single, Widow), Education: (Illiterate, only Read & write, Primary, Secondary, College, higher education) Employment status: (Employed, Nonemployed), Co-morbidities: (Diabetes, Hypertension), smoking status, The treatment: (Chemotherapy, Radiotherapy, Combination of both, Surgery), duration of the illness: (below one year, more than a year)
- Duration of the treatment: (below one year, more than a year), Awareness of the treatment and the prognosis :(Yes, No).
- Activities of Daily Living: include: dressing, taking bath, doing house work (No difficulty, Moderate difficulty, Impossible without help), sleep disturbance (Sleep undisturbed, wake up sometimes, Sometimes I have a sleepless night)
- Leisure activities: Doing exercise: (yes, yes with restriction, not at all), visit friends and relatives (Once a week, once or twice a month, never)
- Quality of life: during last 3 months (good, fair, poor), Quality of life compared with your life before the cancer (better now, not changed, worse now).

- Job and financial status: Economic (better now, not changed, worse now), Changing job: (changed, not changed), financially responsible on your family (responsible, not responsible)
- psychological condition: have bad mood (In the morning, Only in the evening, Almost never) lack of interest (Almost every day, One or two days a week, Almost never), feel lonely(Almost every day, One or two days a week, Almost never), lack of energy (Almost every day, One or two days a week, Almost never), hopeful about your future(Never, Sometimes, Always), get upset over little things (Never, Sometimes, Always), make contact with people (Never Sometimes, Always), afraid of becoming totally dependent (Never, Sometimes, Always).

2.3 Ethical approval

Each patient was asked for his/her consent verbally before the starting the interview. The ethics approval for conducting this study was granted by University of Baghdad- College of medicine.

3.3 Results

Results will be shown in tables.

Table 1a, b will show patients' characteristics.

Table 2,3,4,5 will be shown in the appendix

4. Discussion

Many factors can influence cancer patients' quality of life, it is critical to identify which factors are directly related to this aspect aiming for improving patients' quality of life. Whereas gastric cancer is uncommon before the age of 40, we discovered in this study that approximately 43 percent of patients were under the age of 40, as the



condition usually manifests itself in the fifth and sixth decades of life [10].

Table 1a: show patients' characteristics				
employment status	employed	8 (26.67%)		
(governmental)	Not employed	22 (73.33%)		
Smoking	smoker	8(26.67%)		
comorbidities	No comorbidities	7 (23.33%)		
	diabetes	10 (33.33%)		
	Hypertension	5(16.67%)		
treatment	chemotherapy	24 (80%)		
	combined	1 (3.33%)		
	surgery	5(16.67%)		
duration of illness	below a year	16 (53.33%)		
	A year or more	14(46.66%)		
duration of	below a year	17 (56.67%)		
treatment	more than a year	13 (43.33%)		
awareness of	yes	26 (86.67%)		
treatment, prognosis	no	4(13.33%)		

females to be diagnosed with gastric cancer in industrialized nations, whereas the ratio was somewhat lower in developing countries. This substantial gender gap is unknown, although it is probable that exposure, in addition to genetics, has a role. However, in our study the ratio was similar 1:1 [11, 12] Rural patients in our study made up 20% of all patient participants. Rural gastric cancer patients are far worse than urban patients this effect may be related to educational and

economical differences which may have an impact on presentation delay leading to

In reality, males were more likely than

advanced disease. And this may account for worse quality of life. [13, 14].

The degree of education may impact the risk of cancer in a number of ways. In this study, we discovered that almost 40% are uneducated or have only basic education. Our study further revealed that about 73.33% of patients are unemployed, this may be due to high tiredness and lower work capability. Fatigue was a prevalent issue across both housekeeping and productive employment. And most survivors would be

Table 1b: show patients' characteristics				
Age groups	Count (%)			
	20-29	6 (20%)		
	30-39	7 (23.3%)		
	40-49	3 (10%)		
	50-59	7 (23.3%)		
	≥60	7 (23.3%)		
gender	male	15 (50%)		
	female	15 (50%)		
residence	city	24 (80%)		
	village	6(20%)		
maternal	Married	26(86.67%)		
status	Unmarried	4 (13.33%)		
education	illiterate	4 (13.33%)		
	primary	8 (26.67%)		
	secondary	11 (36.67%)		
	collage	7 (23.33%)		
	higher education	0 (0)		
	Guddallon			

unable to conduct their usual household tasks, therefore their family position may be altered and family members that have a cancer patient might have to offer them with a psychological support system. Furthermore, the data may be used to advise economic rehabilitation services, occupational health services, and business



owners, as well as to shape government policy for stomach cancer survivors [15].

26.67% of the sample are smokers, 33% are diabetics and 16.6% are hypertensive, these co-morbidities may add a more negative burden on the quality of life, more drugs, and more complications which may mandate more doctor visits, these may put more strain on the economic status of the patients.

Because social activities and exercise are key predictors of gastric cancer patients' quality of life. In our study, 15 people cannot exercise. In addition, 4 (13.3%) of the participants in our research are unable to visit friends or relatives and are unable to attend a celebration or wedding. Also, 80% of participants were in a poor mood and 86.6% of patients felt upset sometimes or always over little things. These may explain the decreased daily activity. Cancer, on the other hand, is a risk factor for mental problems, depression [16]. including Depressive disorders have been linked to a lower quality of life and worse outcomes in cancer patients. Exercise can also assist patients with their hunger and sleep quality, both of which are harmed by depression. [17,18,19]

About 10% of participants have had a good quality of life in the previous three months, and 20% have had the same quality of life as they did before cancer. Following religion, self-efficacy and functional status were found to positively affect gastric patients' quality of life [20]

In this study, half of the participants' socioeconomic position has deteriorated. There is evidence that the disease struck at a period in patients' lives when they were thinking about retiring or working less, and that higher physical restrictions raised the likelihood of quitting.[21,22] However, almost 80 % of participants have not changed their jobs and are still responsible for their families (23.33 % responsible and 40 % partially

responsible). This deterioration may be explained by the burden of the expensive drugs and treatment plans.

12 (40.00 %) of patients reported feeling lonely almost every day, Loneliness, on the other hand, is a known risk factor for poor mental and physical health in the general population, as well as in cancer patients. Increased loneliness has been linked to lower immune function, depression, exhaustion, pain, sleep disturbances, cancer incidence, and all-cause mortality among cancer patients [23].

Lacking of energy in everyday was found in 30.00% of the patients. The most prevalent symptom among cancer patients is fatigue and a lack of energy due to the disease. Chemotherapy and radiation all cause weariness in patients. According to previous research, cancer survivors can experience fatigue for up to five years after treatment is completed. [24]

5. Limitations

The study was conducted in one centre; a multicentre study is required to find the consistency of the results among the population of Iraq. Also the number of cases is few compared with other type of cancer and some patients were not able to complete the interview. So we found difficulty in data collection.

6. Conclusion

Majority of patients had a good or acceptable life style, but worse than before with half having worse economic status than before. Most participants have bad mood and lack of energy, and majority have limited social activities. Diabetes being the most frequent co-morbidity.

Recommendations



Larger sample size maybe required in future studies. Using a validated online available questionnaire may be more appropriate in upcoming studies.

Acknowledgments

This study was supported by the Deanship of the University of Baghdad College of Medicine. Special thanks to our supervisor Dr. Mazin Judy. Gratitude to all medical staff in oncology cancer centre in Baghdad-medical city. We are thankful for all participants who agreed to participate in this study. And finally, a word of thanks to our families and friends who were always there with their support and encouragement.

6. References

- 1. Morga E, Arnold M, M. Constanza Camargo, Gini A,et al. The current and future incidence and mortality of gastric cancer in 185 countries: A population-based modelling study. the lancet 2020–40 2022, 47, 101404. DOI:
- https://doi.org/10.1016/j.eclinm.2022.101404
- 2. Sung H. Ferlay J. Siegel R.L.et al. Global cancer statistics 2020: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. CA Cancer J Clin. 2021: caac.21660. available at: https://pubmed.ncbi.nlm.nih.gov/33538338
- 3. WHO: Iraq, Globocan: 2020. Available at: chrome extension://efaidnbmnnnibpcajpcglclefindmk aj/https://gco.iarc.fr/today/data/factsheets/populations/368-iraq-fact-sheets.pdf
- 4 Eypasch E, Williams JI, Wood-Dauphinee S, Ure BM, Schmulling C, Neugebauer E, Troidl H: Gastrointestinal Quality of Life Index: development, validation and application of a new instrument. Br J

- Surg 1995; 82:216–222. Available at: https://pubmed.ncbi.nlm.nih.gov/7749697/
- 5 Kaptein AA, Morita S, Sakamoto J. Quality of life in gastric cancer. World J Gastroenterol 2005;11:3189-96. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4316047/
- 6 Spilker B, ed . Quality of life and pharmacoeconomics in clinical trials. Philadelphia: Lippincott Raven; 1996.
- 7. van Wegberg, B., Bacchi, M., Heusser, P., Helwig, S., Schaad, R., von Rohr, E., Bernhard, J., Hürny, C., Castiglione, M., & Cerny, T. The cognitive-spiritual dimension-an important addition to the assessment of quality of life: validation of a questionnaire (SELT-M) in patients with advanced cancer. Annals of oncology: official journal of the European Society for Medical Oncology 1998: 1091-1096. 9(10), https://doi.org/10.1023/a:1008343219970
- 8 Vickery CW, Blazeby JM, Conroy T, Arraras J, Sezer O, Koller M, Rosemeyer D, Johnson CD, Alderson D; EORTC Quality of Life Group: Development of an EORTC disease-specific quality of life module for use in patients with gastric cancer. Eur J Cancer 2001;37:966–971. Available at: https://pubmed.ncbi.nlm.nih.gov/11334720/
- 9. Sibeoni, J., Picard, C., Orri, M. et al. Patients' quality of life during active cancer treatment: a qualitative study. BMC Cancer 2018:18, 951. Available at: https://doi.org/10.1186/s12885-018-4868-6
- 10. Cancer research UK. 2021: https://www.cancerresearchuk.org/.
- 11. Cormedi MCV, Katayama MLH, Guindalini RSC, Faraj SF, Folgueira MAAK. Survival and prognosis of young adults with gastric cancer. Clinics (Sao Paulo). 2018:



- 21;73(suppl 1):e651s. doi: 10.6061/clinics/2018/e651s.
- 12. Bray, F., Ferlay, J., Soerjomataram, I., Siegel, R.L., Torre, L.A. and Jemal, A. (2018), Global cancer statistics 2018: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. CA: A Cancer Journal for Clinicians, 68: 394-424. https://doi.org/10.3322/caac.21492
- 13. Minhas AA, Fatima Z, Kommineni SK, Ahmad Z, Minhas SA. The Association of Rural-Urban Inhabitation With Gastric Adenocarcinoma Mortality and Treatment: A Surveillance, Epidemiology, and End Results (SEER)-Based Study. Cureus. 2021 Oct 7;13(10):e18571. doi: 10.7759/cureus.18571. PMID: 34760416; PMCID: PMC8571963.
- 14. Peltz G. Nutrition support in cancer patients: a brief review and suggestion for standard indications criteria. Nutr J. 2002;1:1. Available at: https://nutritionj.biomedcentral.com/articles/10.1186/1475-2891-1-1
- 15. Lee MK, Lee KM, Bae JM, et al. Employment status and work-related difficulties in stomach cancer survivors compared with the general population. Br J Cancer. 2008;98(4):708-715. doi:10.1038/sj.bjc.6604236 available at: https://www.nature.com/articles/6604236
- 16. Smith HR. Depression in cancer patients: pathogenesis, implications and treatment (review) Oncol Lett. 2015;9:1509–1514. doi: 10.3892/ol.2015.2944.
- 17. DiMatteo MR, Lepper HS, Croghan TW. Depression is a risk factor for noncompliance with medical treatment: meta-analysis of the effects of anxiety and

- depression on patient adherence. Arch Intern Med. 2000;160:2101–2107. doi: 10.1001/archinte.160.14.2101.
- 18.Bedillion, M.F.; Ansell, E.B.; Thomas, G.A. Cancer treatment effects on cognition and depression: The moderating role of physical activity. Breast 2019, 44, 73–80. Available at: https://pubmed.ncbi.nlm.nih.gov/30685529/
- 19. Yeh, S.-H.; Lin, L.-W.; Chuang, Y.K.; Liu, C.-L.; Tsai, L.-J.; Tsuei, F.-S.; Lee, M.-T.; Hsiao, C.-Y.; Yang, K.D. Effects of Music Aerobic Exercise on Depression and Brain-Derived Neurotrophic Factor Levels in Community Dwelling Women. BioMed Res. Int. 2015, 2015, 135893. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4446469/
- 20. Choi, J., Kim, S., Choi, M. et al. Factors affecting the quality of life of gastric cancer survivors. Support Care Cancer 30, 3215–3224 (2022). https://doi.org/10.1007/s00520-021-06683-y
- 21. Bednarek HL, Bradley CJ. Work and retirement after cancer diagnosis. Res Nurs Health. 2005; 28:126–135. Available at: https://pubmed.ncbi.nlm.nih.gov/15779055/
- 22. Stewart BW, Kleihues P. Lyon: IARC Press; 2003. World cancer report. International Agency for Research on Cancer. Available at: https://publications.iarc.fr/Non-Series-Publications/World-Cancer-Reports/World-Cancer-Report-2003
- 23. Nausheen B, Carr NJ, Peveler RC, Moss-Morris R, Verrill C, Robbins E, et al. Relationship between loneliness and proangiogenic cytokines in newly diagnosed tumors of colon and rectum. Psychosomatic Medicine. 2010;72(9):912–916. doi: 10.1097/PSY.0b013e3181f0bc1c.



- 24. Minton O, Stone P.How common is fatigue in disease-free breast cancer survivors?: a systematic review of the literature. Breast Cancer Res Treat. 2008;112:5–13. Available at: https://pubmed.ncbi.nlm.nih.gov/25893588/
- 25. Baudry AS, Anota A, Mariette C, Bonnetain F, Renaud F, Piessen G, Christophe V; FREGAT Working Group. The role of trait emotional intelligence in quality of

life, anxiety and depression symptoms after surgery for esophageal or gastric cancer: A French national database FREGAT. Psychooncology. 2019 Apr;28(4):799-806. doi: 10.1002/pon.5023. Epub 2019 Feb 27. PMID: 30734393.

Appendix:

Table 2: quality of life assessment.

General health perception	Count (%)	
quality of life	good	3 (10%)
during 3 months	Fair	17
	(acceptable)	(56.67%)
	poor	10
		(33.33%)
quality of life compared with	better now	0 (0)
your life before the cancer	unchanged	6 (20%)
	worse now	24 (80%)



Table 3: Social activities among patients.

Social activities		Number	Percentage
doing exercise, and doing	yes	1	3.33
housework	yes with restriction	14	46.67
	not at all	15	50.00
	Total	30	100.00
visit friends or relatives go to a wedding or party	Once a week or more	6	20
	Once or twice a month	20	66.7
	Never	4	13.3
	Total	30	100.00

Table 4: economic issues among participants.

HRQOL Regarding Economic status		Number	Percentage
Economic status.	better now	0	.00
		15	50.00
	unchanged		
		15	50.00
	worse now		
		30	100.00
	Total		



Changing job	changed	6	20.00
		24	80.00
	unchanged		
		30	100.00
	Total		
Financially responsible on	responsible	7	23.33
your family		12	40.00
	partially responsible		
		11	36.67
	not responsible		
		30	100.00
	Total		

Table 5: Psychological items.

Psychological condition		Number	Percentage
having bad mood	in the morning	8	26.67
		16	53.33
	only in the evening		
		6	20.00
	almost never		
		30	100.00
	Total		
feeling lonely	almost every day	12	40.00
		10	33.33
	one or two days a week		
		8	26.67
	almost never		



	Total	30	100.00
lack of energy	almost every day	9	30.00
		19	63.33
	one or two day a week		
	almost never	2	6.67
	Total	30	100.00
Hopeful about the future	never	4	13.33
	sometimes	20	66.67
	always	6	20.00
	Total	30	100.00
getting upset over little	never	4	13.33
things	sometimes	18	60.00
	always	8	26.67
	Total	30	100.00
contact with people	never	10	33.33
	sometimes	13	43.33
	always	7	23.33
	Total	30	100.00
	never	5	16.67



afraid of becoming totally		17	56.67
dependent	sometimes		
		8	26.67
	always		
		30	100.00
	Total		