Review of: "Quality of Life and Its Predictor Factors Among Iranian Gastrointestinal Cancer Survivors"

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Dear Authors,

My comments are embedded within the text to facilitate easy following of them.

Quality of Life and Its Predictor Factors Among Iranian Gastrointestinal Cancer Survivors

My Review

The following is a component-by-component review of the paper, starting with the title.

1. **Title:**

Quality of Life and Its Predictor Factors Among Iranian Gastrointestinal Cancer Survivors

----- I recommend that the title be modified to read as follows:

Quality of Life, and Predictors thereof, among Gastrointestinal Cancer Survivors in Iran

The current title suggests that they are all of Iranian nationality, which may not be necessarily the case, nor need be.

2. **Abstract:**

You wrote:

Background: *Quality of life (QoL(-- Conma facing the wrong direction) is an important factor in cancer patients through which the important consequences of disease treatment can be evaluated. This study aimed to identify QoL and its factors influencing gastric and colorectal cancer survivors*.

---- I suggest that you begin with the definition of QOL that best suits the nature and scope of the study; especially since you did offer the following definition further on:

The World Health Organization (WHO) defines QoL as "individuals' 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".

— I do believe that given the nature and scope of your study, the following would have been a more suitable working definition:

The standard of health, comfort, and happiness experienced by an individual or group

Definitions from Oxford Languages

---- I recommend, therefore, that you use it at the start.

----- Secondly, please modify the last sentence to read as follows:

This study aimed to assess QoL and associated factors, and predictors, thereof, among gastric and colorectal cancer survivors in Tabriz City, Iran.

3. Materials and Methods

You wrote:

A descriptive-correlation study was conducted among 120 GI cancer survivors in Tabriz city per year 2019. which was done on patients with GI cancer referred to the clinic and inpatient departments of Ghazi Hospital in Tabriz. Participants were recruited using the convenience sampling method. ~~After obtaining the consent of the patients and data were collected by private interview method in a private environment.~~ Data were collected using cancer-related quality of life questionnaire (QLQ-C30). The predictor factors were identified using a linear regression model

----- The entire paragraph needs to be modified/removed/replaced; based on the following considerations:

----- First of all, the study was not descriptive; and that for the following reason:

---- A study is descriptive only if its methodology does not include inferences; that is, no 95 % CI, no tests of hypotheses testing (for example, no p-values mentioned in the results); and no Regression methods of any sort

— Instead, the study was epidemiologic (The person- place-time has been met).

----- Please modify the first sentence to reflect this.

---- Also change *'per year 2019'* to '*in 2019*' inserting the latter immediately after '*conducted'*

----- Change the following

Participants were recruited using the convenience sampling method. After obtaining the consent of the patients

and data were collected by private interview method in a private environment

 ---'to thefollowing

Participants were selected via Convenience sampling, data collection instrument being the Cancer-*related quality of life questionnaire (QLQ-C30)* (state the reference and include in Bibliography); and data were collected via face-to-face interviews

Delete the following statement

 After obtaining the consent of the patients and data were collected by private interview method in a private environment.

Finally, the following is incorrect

The predictor factors were identified using a linear regression model.

Change it to:

Logistic Regression was used to identify predictors of QoL

You would need to do the regression; and show the results in the modified version.

4. Results:

You wrote:

The sample mean overall QoL score was 48.98, and the standard deviation (SD) was X.XX. Based on the threshold defined in the scales of physical performance, cognitive performance, emotional performance, fatigue, pain, and financial problems, more than half of the patients had problems. Anaemia and marriage were the most common predictors in all scales. HTN for the global QoL scale and physical activity for the symptom scale were identified as the strongest predictors. These factors predicted a significant proportion of variance for QoL, 84% for global QoL, 83.5% for the functional scale, and 67.3% for the symptom scale.

(i) Change '*average overall*' to '*sample mean*'; and use only one decimal place (49.0) and include the standard deviation (SD); with two decimal places.

(ii) Replace

 '*Based on the threshold defined in the scales of physical performance, cognitive performance, emotional performance, fatigue, pain and financial problems, more than half of the patients had problems. anaemia and marriage were the most predictors in all scales*', with a list of associated factors (Based on Chi-square tests of Association); and predictors of QoL (Logistic Regression); seeing that that was what the study title, and aim, suggest needed to be done.

(iii) Consider the following statement:

HTN for the global QoL scale and physical activity for the symptom scale was identified as the

strongest predictors. These factors predicted a significant proportion of variance for QoL, 84% for global QoL, 83.5% for the functional scale, and 67.3% for the symptom scale.

There are no such things as strength of predictors. Hence, delete both sentences.

5. Conclusions:

Our results indicated that the QoL of Iranian GI cancer survivors was poor. Therefore, managing some comorbidities and developing supportive care programs is essential to improve the QoL of these patients

  i. There is nothing in the results presented above to support this.
 ii. Was this the same for all demographics? The statement is too broad. Please revisit.

Finally, what is the basis of the last sentence; namely,

Therefore, managing some comorbidities and developing supportive care programs is essential to improve the QoL of these patients.

Nothing in the results seems to warrant it.

Introduction:

This was very good except for using the following working definition:

The World Health Organization (WHO) defines QoL as "individuals' 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" [6];

especially as your study did not examine *culture, value systems, perception of position in life, goals, expectations, concerns.*

 Or did you?

If so, please expand the Results portion of the Abstract to include the findings of such an examination.

You may well find that what you examined was close to the following definition:

The standard of health, comfort, and happiness experienced by an individual or group

Definitions from Oxford Languages

6. Materials and Methods

~~This study used a descriptive-correlation design conducted in the Tabriz University of Medical Sciences-affiliated outpatient cancer clinic.~~ Data were collected from January to October 2019 (Type of canvass?).~~The study population were GI cancer survivors~~ The eligibility criteria for the study were, (1) Being at least 18, and no older than 80, years of age at the time of the study (2) Living in **Tabriz City, Iran** at the start of the survey (3) Having received, and completed, treatment for at least one of the following types of cancer **colon, rectum??, gastric within at least 12 months prior to the start of the study;** ~~whose initial treatments had been completed~~and had ~~and~~ having no signs or symptoms of the treated condition. ~~Inclusion criteria were as follows: 1) They were eligible if they had survived at least 1 year from diagnosis; of gastric or colorectal cancer, 2) absence of any symptoms of active cancer, 3) at least 18 years old up to 80 years old~~, 5) Being able to communicate verbally.Patients who suffered from another /or were treated for any other type cancer were ineligible to participate

----- This is already clear from the three mentioned in red above. So, delete it --- ~~The sample size was calculated based on our pilot study (sample size estimation was performed based on a pilot study data (n = 120)~~ -- [There is no formula for computing a sample size for a biased sample; and a Convenience Sample is a biased sample; so delete the sentence] ---. A ~~total~~ Convenience sample of 135 eligible ~~patients~~ persons were selected   ~~were invited to~~ for participation in the study ~~using the convenience sampling method. Patients (n=15) not willing to participate in the study were excluded. Finally, we included 120 GI cancer survivors in the analysis (Participation rate = 0. 89).;~~ of whom 15 (11.1%) declined.

The questionnaire used in this research included two parts (**QLQ-C30**?). The first one was designed to collect demographic and disease-related characteristics of patients (including: blood pressure, blood sugar, CBC, BUN, creatinine -

----- None of these is a demographic variable; nor socio-related. Name a few. You certainly did not ask the participant about those other variables; did you? I suppose you took measurements? Not sure so please explain. For example, what is a disease-related characteristic? And how are these measured? How many variables were measured? Show in Appendix...) ------

In this study, the presence of anaemia in patients was determined based on haemoglobin level. Haemoglobin level in women and men was marked as value <12 g/dL and <13 g/dL, respectively [15]. The physical activity of patients was recorded daily??

----- For how many days. This is unclear. --- as time (minutes). ---

 --- (Where did these interviews take place? How long did each last on average? How many data collectors. Did males interview females; or vice versa? Was protocol observed, Iran being a Moslem country?)--

The second part was the cancer-related quality of life questionnaire (QLQ-C30) with 30-item which assessed cancer

patients' QoL in 15 scales

-------. The second part; or the second data collection instrument? Which was it? ----

The questionnaire incorporates five functional scales (physical functioning, role functioning, cognitive, emotional and social functioning), nine symptom scales (fatigue, pain, nausea and vomiting, dyspnoea, insomnia, appetite loss, constipation, diarrhoea and financial difficulties), and global health and QOL scale

. --- All this detail is not necessary unless you are going to address each of them in your results because they would facilitate answering your research questions---.

 The scoring of 28 items was rated on 4-point Likert scales, ranging from "not at all" [1] to "very much" [4], and the scoring of two items was rated on 7-point Likert scales, ranging from " extremely bad [1]" to "extremely good [7]". - The questionnaire items were scored on a scale ranging from 0 to 100.

 ----- (A scale of 0 -- to 100 is a percent; and thus finding means and standard deviations do not apply Furthermore, in this case none of the patients would get a score of zero. In fact, on the four-point scale, the lowest score would be 28; and on the 7-point scale the range would be 2 -14) --------

. A higher score for the functional scales and global QoL scale indicated better functioning and QOL

-----Not necessarily; it depends on the range. What ranges did you use? ---

For symptom scales, a higher score indicated more frequent and/or more intense symptoms [16]. The threshold for clinical importance was recently developed to improve the interpretation of the QLQ-C30 scales [17]----- Delete this --

. The Iranian version of the questionnaire was validated in a previous study [18]

----You needed to validate it since this is a different population. I am sure that the information was not about a group of cancer survivors ---

. In this study, face validity and content validity were assessed and verified by an expert panel including 10 faculty members of Tabriz University of Medical Sciences, Iran. --

--- The final version of the questionnaire (the QLQ-30 questionnaire needed to be assessed . Also, was it moderated? If, so, in what way?

---- Was tested for reliability in a pilot study involving 30 cancer patients. How were these thirty selected? And were they used in the study; why or why not? Please state. ---.

The Cronbach's alpha value for items of QLQ-30 questionnaire was 85%

 — Cronbach alpha is never reported as a percentage; so change to .85 . Need to state what level of reliability ; interpret the alpha value; The highest is 'Excellent' ---.

To perform data collection, first, this research project was approved by the Regional Ethics Committee at the Tabriz University of Medical Sciences (Ethics code: IR.TBZMED.REC.1396.345). Then, the necessary permissions were obtained from the research environment (clinic of Shahid Ghazi Hospital in Tabriz). The first author attended the hospital clinic during the sampling period and identified eligible patients who were referred to the clinic for the follow-up visit

-------- Given the inclusion criteria, I doubt this statement very much, since that would make the sample a judgment sample. ------.

After providing the necessary information to the patients regarding the aims of the study, the patients were invited to participate in the study. Moreover, after providing verbal consent, a written informed consent was obtained from all participants.

Since most of the participants were illiterate (55.4%) ---- , their data were collected through an interview in a private room in the hospital's clinic

--- How did you know this prior to data collection------

---Is being illiterate a criterion for conducting an interview in a private room? Then were the literate ones interviewed in the open? Please delete this information. It only serves to question the sampling method; and the participants. -----

Data were analysed using SPSS software version 14. The Kolmogorov-Smirnov test was used to assess the normal distribution of data

--- There was no need to do so. Please delete. The Central Limit Theorem applies here. It being the case that the sample size, n, was way above 30; and that all means and variances were finite, that takes care of that for the quantitative variables. For the percentages, an Arcsine transformation would have been sufficient ---

. Mean ± standard deviation (SD), frequency, and percentages were used to describe the characteristics of the study subjects. Paired sample t-test

--- I submit that nothing in this study warranted the use of a paired t-test ---

Chi-square and ANOVA were used to assess the association--- Where are the Chi-square values (including df and p-)

— ANOVA is never used to test association---

between fatigue and marital status, employment status, anaemia, blood pressure level --, diabetes, smoking, physical activity —

---- Some of these would have been two-independent samples t-tests; not paired. Where are the ANOVA tables (or results? Any interactions? ---

and BUN/Cr ratio—Needed to transform first--. Furthermore, a linear regression model was used to identify predictor variables

— Not at all. Had to be Logistic Regression if Chi-square p-value was ≤ 0. 200. This is why you should display the Chi-square output in tabular form.

The significance level was considered at P. p-value = 0.05.----- Agreed, However, for Logistic regression, it must be ≤ 0. 200.

7. Results:

The general characteristics of the study participants are shown in Table 1

----Is inadequate and needs restructuring. See suggested replacement ----.

A total of 120 GI cancer survivors were included in this study.

--- Delete. Already mentioned ---

The mean age ± SD of the participants was 56.01 ± 11.07 years (Separate by male and female and state whether the difference was significant; with p-value). 55% of the participants were male, and 87% were married. The mean ± SD of BUN and creatinine was estimated at 24.10 ± 1.39 and 1.11 ± 0.41, respectively. Table 2 reports the mean ± SD scores of participants in scales of functional, symptoms, and global QoL and reports the percentage of patients who had problems in the scales as mentioned above based on the determined threshold.

----- Need to do for gender, age group, and other demographic variables as well --.

The results of the linear regression analysis of the possible predicting factors of QoL are reported in Table 3.

– Linear regression was not valid ---

Variables of HTN, marital status, anaemia, and BUN/Cr ratio were the strongest predictors of QoL, respectively.

--- Need to test for association first; then based on the criteria, go to the next step mentioned earlier; one or more of the following becomes applicable, namely, Logistic Regression (Binary, Ordinal, Nominal), as dictated by the nature of the dependent variable type.

---Global (Should not the word be 'globally?) These variables predicted 84% of the variance of the QoL variable. The results also showed that marital status, anaemia, BUN/Cr ratio, and activity were the strongest predictors of the functional scale, respectively. These variables predicted 83.5

---- Physical activity is neither a demographic nor a disease-related characteristic. Gender and age group are two key variables that must be examined for association as well.

.---The statement is incorrect. Delete it; use the correct method, then re-write the narrative. The shortest distance

between two points is always a straight line; hence the reason you got two high percentages]. None of these results is meaningful since the method you used (Simple Linear Regression) was not applicable.

--- See suggested table format below ---

Table 1:		
Variable	n	%
Gender		
Male		
Female		
Age group		
18- 25		
26 - 30		
etc.		
Employment status		
Type of cancer		
Morbidity		

_____

Table 2:			
	Domain score		
QoL Domain	Mean	SD	% at threshold

Format of Tables 3, 4, and 5

Variable	OR	p	95% CI for OR	
			Lower	Upper

----- Discussion and conclusion would change after you do the logistic Regression.; so be prepared to rewrite it in its entirety.

Conclusion:

—This is likely to be invalid. Red based on the changes suggested and revisit ---.

~~Our findings~~ The study showed ~~highlighted~~ that the QoL level of GI cancer patients was low. In our study, variables of anemia, marital status, BUN/Cr, creatinine, HTN, and physical activity were identified as the most important predictor factors of QoL and predicted a high percentage of the variance of QoL. Therefore, it seems that the formulation and implementation of supportive care programs can play a crucial role in improving the QoL of patients.

— The conclusion is iklely to differ after you make the necessry corrections based on my comments.