

## QUALITY OF LIFE AMONG PATIENTS WITH UNTREATED HEPATOCELLULAR CARCINOMA

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### ABSTRACT

**Background:** Quality of Life (QoL) is arguably as important as the survival rate in patients with hepatocellular carcinoma (HCC). However, very few studies have evaluated the factors that determine good or poor QoL in patients with HCC.

**Objective:** To correlate baseline QoL (EORTC-QLQ-C30) with baseline laboratory and clinical parameters among HCC patients.

**Patients and Method:** Thirty nine consecutive newly-diagnosed HCC patients were recruited. Spearman's rank correlation was used to correlate the QoL scores, which consisted of 15 domains, with continuous baseline variables while the Mann-Whitney U or Kruskal Wallis tests were used for categorical variables.

**Results:** The mean age of the cohort was 61.3±14.5, majority of whom were male (89.7%). Majority had Childs Pugh Turcott (CPT) score of A (61.5%) and Barcelona Clinic Liver Cancer (BCLC) stage A-B (76.9%). A third (33.3%) knew of their diagnosis at the time of QoL while 66.7% did not, with no difference in QoL between the 2 groups ( $p>0.05$ ). There was no consistent pattern in the correlation between laboratory parameters with the QoL, with some running contrary to conventional reasoning (Higher international normalized ratio correlated with better role function [ $p=0.02$ ] and less pain [0.035]; CPT score A associated with lower global health status compared to CPT B/C [ $p=0.028$ ]). On the other hand, BCLC staging was a more sensible reflection of QoL with BCLC A/B patients having higher physical ( $p=0.014$ ) and social ( $p=0.049$ ) function, and lower symptom scores for nausea/vomiting ( $p=0.041$ ) and dyspnea ( $p=0.004$ ) than patients with BCLC C/D.

**Conclusion:** Baseline EORTC-QLQ-C30 of patients with HCC has no consistent correlation with the severity of liver dysfunction. Correlation of some domains of the EORTC-QLQ-C30 with BCLC staging suggests that tumor burden is the main determinant of QoL in HCC patients. Further studies are needed to determine whether baseline QoL predicts survival independent of HCC staging.

**Keywords:** Hepatocellular carcinoma, quality of life

### INTRODUCTION

Globally, hepatocellular carcinoma (HCC) ranks seventh in prevalence among malignant neoplasms.<sup>1</sup> In the Philippines, HCC is the second most common cause of cancer with an estimated 7,477 Filipinos dying each year of the disease.<sup>2</sup>

Although as high as 40% of HCC patients are subjected to potentially curative treatments in the West,<sup>3</sup> only around 15% of patients meet criteria for curative resection or ablative treatments on initial presentation in the Philippines.<sup>4</sup> Therefore, majority of our patients are subjected to palliative treatments only. Quality of Life (QoL) is an important aspect of palliative care treatment and has become vital and important in clinical practice. It has been acknowledged as an important end point in cancer treatment in addition to more traditional end points such as cure and survival rates.<sup>5,6</sup> Recent studies have identified baseline QoL as a prognostic factor of survival in patients with HCC and other cancers.<sup>7-9</sup> Information from the assessment of QoL can provide additional tools in the evaluation of the prognosis of HCC patients. However, in most studies on HCC, the focus had been on recurrence and survival rates after treatment with radiofrequency ablation (RFA) or transarterial chemoembolization (TACE).<sup>10,11</sup> To date, there have only been limited reports of QoL in HCC patients after TACE, RFA, surgical resection, or pharmacological treatments.<sup>8,12-14</sup> Moreover, very few studies have tried to determine baseline predictors of QoL.<sup>15,16</sup> The present report is part of a larger prospective study looking at changes in QoL in treated and untreated patients with HCC.

We aimed to correlate baseline QoL with baseline laboratory and clinical parameters among HCC patients in a single tertiary center in the Philippines.

### MATERIALS AND METHODS

#### Subjects

Consecutive patients with HCC seen at the University of Santo Tomas Hospital from April 1,

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2008 to October 31, 2008 were recruited for the study. HCC was diagnosed based on the algorithm proposed by the American Association for the Study of Liver Diseases.<sup>17</sup> Briefly, tumors that were >2 cm in diameter were diagnosed as HCC if the dynamic imaging study was typical of HCC with a serum alpha-fetoprotein (AFP) >200 ng/mL, or a liver biopsy revealed HCC. For tumors <2 cm in diameter, 2 dynamic imaging studies that were typical of HCC or a liver biopsy should reveal HCC were used to diagnose HCC. Patients with newly diagnosed HCC who have never undergone any form of HCC treatment in the past, and are able to complete the questionnaire were included into the study. Patients who have undergone systemic chemotherapy or took other medications that may modify QoL within 3 months of study enrolment were excluded from the study.

#### *Quality of Life Assessment Tool*

The validated Tagalog or English versions, depending on the language preference of the patient, of the European Organization for Research and Treatment of Cancer Study Group on Quality of Life (EORTC QLQ-30) was used.<sup>18</sup> (Appendix A and B) The EORTC QLQ-30 is a validated questionnaire widely used in clinical trials on varied cancer patients. It incorporates a range of QoL issues that is relevant to a broad range of cancer patients. It has five functional scales (physical, role, cognitive, emotional and social), three symptom scales (fatigue, pain and nausea/vomiting), a global QoL scale, and six single items (dyspnea, insomnia, appetite loss, constipation, diarrhea and financial difficulties).<sup>18</sup> It has been translated to different languages and validated for many cancer types, including patients with HCC.<sup>19</sup> All scales and items of the EORTC QLQ-C30 range in score from 0 to 100. A high score for a functional or global QoL scale represents a relatively high/healthy level of functioning or global QoL, and a high score for a symptom scale or item represents more severe symptoms or problems.<sup>20</sup>

#### *Baseline Assessment*

Quality of life, and laboratory, clinical and tumor parameters were determined and recorded at the baseline visit. Patient's knowledge or ignorance of the presence of HCC was noted and analyzed due to the unavoidable fact that some patients were already cognizant of their diagnosis (e.g. referred from another institution) at the time of administration of the QoL questionnaire. Laboratory examinations included were complete blood count (CBC), prothrombin time (PT), and serum alanine aminotransferase (ALT),

aspartate aminotransferase (AST), albumin, total bilirubin and alpha-fetoprotein (AFP) levels. Markers of chronic viral hepatitis (hepatitis B surface antigen [HBsAg] and antibody to hepatitis C [anti-HCV]) and alcoholic intake were likewise determined.

The etiology of liver disease and the presence or absence of hepatic decompensation (jaundice, encephalopathy or ascites), as well as the tumor characteristics (size and number of nodules, presence or absence of intrahepatic vessel involvement or extrahepatic metastasis) at baseline were recorded. Staging of HCC was done according to Barcelona Clinic Liver Cancer (BCLC) criteria.

#### *Statistical Analysis*

The EORTC QLQ-C30 scores of all 5 functioning domains, the global quality of life domain and the 3 symptom domains plus 6 single items related to symptoms were included in the prognostic analysis as continuous variables. The scores were transformed into a scale range from 0 to 100. Spearman's rank correlation was used to correlate the QoL scores with continuous baseline variables while the Mann-Whitney U or Kruskal Wallis tests were used for categorical variables. A p-value of <0.05 was considered as statistically significant. All analysis was performed using SPSS v.16 statistical analysis software (SPSS, Chicago, IL)

## **RESULTS**

Thirty nine patients were recruited for the study, with a mean age of  $61.3 \pm 14.5$  and majority of which were composed of male patients (89.7%). Only 4 (10.2%) patients were asymptomatic with the majority of those who were symptomatic complaining of abdominal pain (74.3%). Other symptoms included abdominal enlargement (2.6%), anorexia (7.7%), jaundice (2.6%) and weight loss (2.6%). More than half (56.4%) of the patients had AFP values of <400 ng/mL. Twenty two (56.4%) patients' HCC was due to hepatitis B while other causes were alcohol (15.4%), cryptogenic (15.4%) or hepatitis C (2.6%). The mean tumor size was  $8.82 \pm 4.69$  with most of the patient having a CPT score of A (61.5%), followed by 14 (35.9%) having a score of B and 1 (2.6%) having a score of C. BCLC staging of the patients were mostly of stage B (74.4%) and stage C (17.9%). (Table I)

Table II shows the comparison of QoL scores among those who were aware (n=13) and unaware (n=26) of their diagnosis at the time of baseline QoL assessment. The scores between the 2 groups did

not show any statistical difference except for higher scores for cognitive function in patients who were aware of their diagnosis. ( $p=0.031$ ) There was no difference ( $p>0.05$ ) in baseline laboratory and clinical parameters between the two groups. (Table I)

Expectedly, patients who were asymptomatic tended to have better role ( $p=0.034$ ) and emotional function ( $p=0.021$ ), with lower pain ( $p=0.004$ ) and fatigue scores ( $p=0.013$ ) compared to patients who had symptoms on initial presentation. Patients with lower platelets tended to have higher social function ( $p=0.022$ ) and less nausea/ vomiting ( $p=0.029$ ), INR levels were positively correlated with role function

( $p=0.020$ ) but inversely correlated with pain scores ( $p=0.035$ ), AST levels were inversely correlated with role function ( $p=0.042$ ) and constipation scores ( $p=0.038$ ), and ALT levels were directly correlated with nausea/vomiting scores ( $p=0.017$ ). Patients with BCLC stages A and B had better physical ( $p=0.014$ ) and social ( $p=0.049$ ) function, and lower symptom scores for nausea/vomiting ( $p=0.041$ ) and dyspnea ( $p=0.004$ ) than patients with BCLC stages C and D. Furthermore, patients with lower performance status (PST) scores (PST 0-1) had better physical function ( $p=0.008$ ) and less dyspnea ( $p=0.0027$ ) compared to patients with higher scores (PST 2-4). (Table III)

**Table I. Baseline Characteristics of HCC Patients Aware and Unaware of Their Diagnosis**

Characteristics	Unaware of diagnosis n=26	Aware of diagnosis n=13	p-value	All patients n = 39
Age	62 ± 16.63	59.92 ± 9.19	0.679	61.3 ± 14.5
Sex			0.709	
Male	23 (59%)	12 (30.7%)		35 (89.7%)
Female	3 (7.7%)	1 (2.6%)		4 (10.3%)
Chief Complaint			0.366	
Asymptomatic	2 (5.1%)	2 (5.1%)		4 (10.2%)
Abdominal Enlargement	1 (2.6%)	0		1 (2.6%)
Abdominal Pain	21 (53.8%)	8 (20.5%)		29 (74.3%)
Anorexia	1 (2.6%)	2 (5.1%)		3 (7.7%)
Jaundice	1 (2.6%)	0		1 (2.6%)
Weight Loss	0	1 (2.6%)		1 (2.6%)
Hemoglobin	118.87 ± 19.36	126.75 ± 23.47	0.397	121.61 ± 20.7
Hematocrit	35.53 ± 5.99	37.38 ± 7.73	0.532	36.17 ± 6.53
Platelet	298.05 ± 180.04	310.73 ± 209.57	0.862	302.70 ± 187.89
Prottime (INR)	1.22 ± 0.35	1.19 ± 0.23	0.828	1.21 ± 0.30
AST (IU/L)	91.03 ± 55.55	174.25 ± 164.7	0.135	126.1 ± 118.5
ALT (IU/L)	62.54 ± 45.33	126.14 ± 117.58	0.118	89.32 ± 87.0
Bilirubin (mg/dL)	1.69 ± 1.75	1.75 ± 2.06	0.939	1.72 ± 1.86
Albumin (mg/dL)	3.44 ± 0.54	3.65 ± 0.75	0.329	3.51 ± 0.61
AFP (log10)	2.34 ± 1.1	2.45 ± 1.1	0.777	2.38 ± 1.10
<200 (ng/mL)	12 (30.8%)	5 (12.8%)	0.819	17 (43.6%)
>200 (ng/mL)	14 (35.9%)	8 (20.5%)		22 (56.4%)
Etiology			0.765	
Hepatitis B	16 (41%)	10 (25.6%)		26 (66.67%)
Alcohol	4 (10.2%)	2 (5.1%)		6 (15.4%)
Cryptogenic	5 (12.8%)	1 (2.6%)		6 (15.4%)
Hepatitis B + Hepatitis C	1 (2.6%)	0		1 (2.6%)
Tumor size	9.65 ± 4.93	7.24 ± 3.88	0.135	8.82 ± 4.69
CPT score			0.660	
A	15 (38.5%)	9 (23.1%)		24 (61.5%)
B	10 (25.6%)	4 (10.2%)		14 (35.9%)
C	1 (2.6%)	0		1 (2.6%)
BCLC Staging			0.378	
A	0	1 (2.6%)		1 (2.6%)
B	19 (48.7%)	10 (25.6%)		29 (74.4%)
C	5 (12.8%)	2 (5.1%)		7 (17.9%)
D	2 (5.1%)	0		2 (5.1%)
PST			0.498	
0-1	22 (56.4%)	12 (30.8%)		34 (87.2%)
2-4	4 (10.2%)	1 (2.6%)		5 (12.8%)

HCC – hepatocellular carcinoma, AST – aspartate aminotransferase, ALT – alanine aminotransferase, AFP – alpha fetoprotein, CPT – Child-Pugh Turcott, BCLC – Barcelona Clinic Liver Cancer, PST- Performance status score

Table II. Comparison of QOL Scores Between Patients Who Were Aware and Unaware of Their Diagnosis

	Unaware of diagnosis n=26	Aware of diagnosis n=13	p-value
Global function	61.86 ± 23.9	51.28 ± 23.5	0.099
Physical function	71.03 ± 23.3	77.44 ± 26.7	0.212
Role function	60.25 ± 33.0	65.38 ± 29.2	0.649
Emotional function	55.77 ± 27.6	67.95 ± 20.9	0.142
Cognitive function	71.15 ± 27.7	89.74 ± 12.8	0.031
Social function	47.44 ± 39.1	62.82 ± 32.0	0.249
Fatigue	47.86 ± 29.3	48.70 ± 33.8	0.988
Nausea / vomiting	9.61 ± 20.1	7.69 ± 12.93	0.785
Pain	51.9 ± 34.7	48.72 ± 30.7	0.705
Dyspnea	20.5 ± 31.3	20.51 ± 21.7	0.601
Insomnia	32.05 ± 37.1	33.33 ± 38.5	0.937
Appetite loss	28.20 ± 33.6	43.59 ± 45.9	0.354
Constipation	20.50 ± 34.1	15.38 ± 32.2	0.522
Diarrhea	15.38 ± 31.6	23.07 ± 39.4	0.559
Financial	80.76 ± 32.0	76.92 ± 34.4	0.669

Table III. Correlation Between Baseline Clinical and Laboratory Characteristics and QoL Scores\*

	Asymptomatic VS Symptomatic	Hgb	platelet	INR	AST	ALT	CPT	BCLC	PST
Global health status	NS	-0.510 (0.013)	NS	NS	NS	NS	0.028	NS	NS
Physical function	NS	NS	NS	NS	NS	NS	NS	0.014	0.008
Role function	0.034	NS	NS	0.391 (0.020)	-0.470 (0.042)	NS	NS	NS	NS
Emotional function	0.021	NS	NS	NS	NS	NS	NS	NS	NS
Social function	NS	NS	-0.416 (0.022)	NS	NS	NS	NS	0.049	NS
Fatigue	0.013	NS	NS	NS	NS	NS	NS	NS	NS
Nausea / vomiting	NS	NS	0.398 (0.029)	NS	NS	0.539 (0.017)	NS	0.041	NS
Pain	0.004	NS	NS	-0.357 (0.035)	NS	NS	NS	NS	NS
Dyspnea	NS	NS	NS	NS	NS	NS	NS	0.004	0.027
Constipation	NS	NS	NS	NS	-0.479 (0.038)	NS	NS	NS	NS

NS = not significant

\*Numbers represent R value (p-values)

## DISCUSSION

Hepatocellular carcinoma is one of the common neoplasms worldwide and the effect of treatment modalities on the natural history of the disease should be determined not only from the observed tumor response and impact on survival, but on the effect of treatment on quality of life as well. Both the disease and the treatment itself can be severely debilitating and the need to consider the impact on health-related QoL in making patient management or treatment decisions is now well accepted.<sup>21</sup> The EORTC QLQ-C30 QoL questionnaire is multidimensional and covers various aspects of a patient's life, which makes it possible to explore which QoL dimension would correlate with the severity of the patient's disease.

Unlike a previous study<sup>15</sup> showing older age group having poorer QoL or females having a poorer QoL, our study did not show any statistically significant relationships between age, sex and the different domains of the QoL and is similar to the findings by Yeo *et al*<sup>9</sup> where they showed that age and gender was not a predictive factor of QoL. Baseline characteristics such as age, sex, liver function test and CPT score from different studies<sup>9,15</sup> were almost the same when compared to our study. However, only the Hong Kong study<sup>9</sup> was similar to our study with regards to the etiology of the underlying liver disease being predominantly due to Hepatitis B rather than due to Hepatitis C. Furthermore, the study by Yeo *et al*<sup>9</sup> used EORTC QLQ-C30 as the QoL instrument which may explain the similar findings while SF 36<sup>15</sup> was used in the other study which may explain the difference with our results.

There was no consistent pattern in the correlation between laboratory parameters with the QoL. This was an interesting finding with no deducible explanation for some such as the finding that higher international normalized ratio correlated with better role function and less pain, and that CPT A was associated with lower global health status compared to CPT B/C. On the other hand, BCLC staging was a more sensible reflection of QoL with BCLC A/B patients having higher physical and social function, and lower symptom scores for nausea/vomiting and dyspnea than patients with BCLC C/D. This suggests that tumor burden is the main determinant of QoL among Filipino HCC patients. Aside from using a different QoL questionnaire, most of the studies compared the baseline characteristics and CPT scores with the different domains of the QoL.<sup>9,15</sup> The study by Kondo *et al*<sup>15</sup> showed that lower albumin and higher bilirubin were strong predictors of impaired QoL. Correlation of the liver function was present in their study and not ours probably because their study compared

patients with and without HCC and not purely those with HCC. In the study by Yeo *et al*<sup>9</sup>, both tumor stage according to the Okuda system and certain domains of the EORTC QLQ-C30 (role functioning, physical functioning and appetite loss) were independent predictors of survival in HCC patients. However, no correlation between QoL scores and Okuda staging was done. The BCLC staging system may be a better predictor of survival compared to other staging systems in patients with HCC.<sup>22</sup> This may be because the BCLC system includes the patient's functional status, which might be a driving force for the QoL changes in our study. This is confirmed by the fact there was also a significant correlation between the patient's PST scores with the QoL domains.

Among patients with hepatocellular carcinoma with majority of patients suffering from co-existing cirrhosis, the usefulness of a QoL instrument based on EORTC QLQ-C30 in assessing patients with HCC could be further enhanced by the addition of assessments related to disease specific module in the recently reported EORTC QLQ HCC-18 questionnaire.<sup>23</sup> Symptoms from chronic liver disease have been taken into consideration in the latter and includes that of abdominal distension from ascites, limb edema related to sodium and fluid retention, pruritus related to hyperbilirubinemia, bleeding related to clotting impairment and thrombocytopenia.<sup>23</sup> The inclusion of a HCC specific questionnaire into the present study could potentially improve the sensitivity of baseline QoL as a prognosticator in these patients. However, the said questionnaire has not been prospectively validated yet and so was not used.

Potential limitations of the current study may include the relatively small sample size and no follow up. Future larger scale studies using similar QoL tool evaluated at multiple time points with follow up is warranted. Also further studies are needed to determine whether baseline QoL predicts survival independent of HCC staging.

## CONCLUSION

Baseline EORTC-QLQ-C30 of patients with HCC has no consistent correlation with the severity of liver dysfunction. Correlation of some domains of the EORTC-QLQ-C30 with BCLC staging suggests that tumor burden is the main determinant of QoL in HCC patients.

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**APPENDIX A**  
**ENGLISH VERSION OF THE EORTC QLC-C30 QUESTIONNAIRE**



EORTC QLC-C30 (version 3)

We are interested in some things about you and your health. Please answer all of the questions yourself by circling the number that best applies to you. There are no “right” or “wrong” answers. The information that you provide will remain strictly confidential.

Please fill in your initials:

Your birthdate (Day, Month, Year)

Today's date (Day, Month, Year)

	Not at All	A Little	Quite a Bit	Very Much
1. Do you have any trouble doing strenuous activities, like carrying a heavy shopping bag or a suitcase?	1	2	3	4
2. Do you have any trouble taking a long walk?	1	2	3	4
3. Do you have any trouble taking a short walk outside of the house?	1	2	3	4
4. Do you need to stay in bed or a chair during the day?	1	2	3	4
5. Do you need help with eating, dressing, walking yourself or using the toilet?	1	2	3	4

**During the past week:**

	Not at All	A Little	Quite a Bit	Very Much
6. Were you limited in doing either your work or other daily activities?	1	2	3	4
7. Were you limited in pursuing your hobbies or other leisure time activities	1	2	3	4
8. Were you short of breath?	1	2	3	4
9. Have you had pain?	1	2	3	4
10. Did you need to rest?	1	2	3	4
11. Have you had trouble sleeping?	1	2	3	4
12. Have you felt weak?	1	2	3	4
13. Have you lacked appetite?	1	2	3	4
14. Have you felt nauseated?	1	2	3	4
15. have you vomited?	1	2	3	4
16. Have you been constipated?	1	2	3	4

Please go on to the next page



**APPENDIX B**  
**TAGALOG VERSION OF THE EORTC QLC-C30 QUESTIONNAIRE**



EORTC QLC-C30 (version 3)

Kami ay interesado sa ilang bagay tungkol sa iyo at iyong kalusugan. pakisagot lamang po ang mga tanong sa pamamagitan na pagbilog sa bilang na tumutukoy sa iyo. Walang “tama” o “maling” sagot sa tanong. Ang impormasyon na iyong ibinigay ay mananatiling lihim.

Pakisulat ang iyong pangalan:

Iyong Kapanganakan (araw, buwan, taon)

Kasalukuyang petsa

	Di Masyado	Konti	Bahagya	Labis
1. Nababalisa ka ba ng mga gawaing mahihirap tulad ng, pagdadala ng mabigat na “shopping bag” o “suitcase”?	1	2	3	4
2. Ang mahabang paglalakad ba ay nakakaligalig sa iyo?	1	2	3	4
3. Nakakaligalig din ba ang panandaliang paglalakad mo sa labas ng bahay?	1	2	3	4
4. Kinakailangan mo bang manatili sa higaan o sa upuan sa araw?	1	2	3	4
5. Nangangailangan ka ba ng tulong sa pagkain, pagbihis, paghugas sa sarili o sa paggamit ng kubeta?	1	2	3	4

**Sa Nakaraang Lingo:**

	Di Masyado	Konti	Bahagya	Labis
6. May limitasyon ba ang pagsasa-gawa mo ng iyong trabaho o iba pang gawaing pangarawaraw?	1	2	3	4
7. May limitasyon ka ba sa pagsasagawa ng iyong mga libangan o ibang gawain?	1	2	3	4
8. Kinakapos ka ba sa paghinga?	1	2	3	4
9. May sakit ka bang nararamdaman?	1	2	3	4
10. Kinakailangan mo bang magpahinga?	1	2	3	4
11. May problema ka ba sa pagtulog?	1	2	3	4
12. Nakakaramdam ka ba ng panghihina?	1	2	3	4
13. Nakakaramdam ka ba ng kawalan ng gana sa pagkain?	1	2	3	4
14. Nakakaramdam ka ba ng pagduduwal?	1	2	3	4
15. Nasusuka ka ba?	1	2	3	4
16. Nahihirapan ka ba sa pagdumi?	1	2	3	4

Please go on to the next page

**Sa Nakaraang Lingo:**

	Di Masyado	Konti	Bahagya	Labis
17. Nakaranas ka ba ng pagtatae?	1	2	3	4
18. Napapagod ka ba?	1	2	3	4
19. Ang sakit ba na iyong nararamdaman ay naging sagabal sa iyong pangaraw-araw na gawain?	1	2	3	4
20. Nahihirapan ka ba sa pagbibigay tuon sa mga bagay tulad ng pagbabasa ng pahayagan o panonood ng telebisyon?	1	2	3	4
21. Nakakaramdam ka ba ng nerbiyos o pagkabahala?	1	2	3	4
22. Nag-aalala ka ba?	1	2	3	4
23. Nararamdaman mo ba ang pagkayamot?	1	2	3	4
24. Nakakaramdam ka ba ng lungkot?	1	2	3	4
25. Nahihirapan ka ba sa pag-aalala ng ilang bagay?	1	2	3	4
26. Naapektuhan ba ang kalagayan mo ngayon o ang pagamot ba sa iyo ay nakakahadlang sa iyong gawaing pampamilya?	1	2	3	4
27. Naapektuhan ba ang kalagayan mo ngayon o ang pagamot ay hadlang ba sa iyong gawaing panlipunan?	1	2	3	4
28. Nagdudulot ba ng suliraning pananalapi ang pangagamot at ang kalagayan mo ngayon?	1	2	3	4

**Para sa sumusunod na mga katanungan, pakibilugan lang ang bilang sa pagitan ng 1 at 7, na siyang pinakamabuting tumutukoy sa iyo:**

29. paano mo bibigyang halaga ang kabuuang kalusugan sa nakaraang lingo?

1      2      3      4      5      6      7

Napakasama

Napakagaling

30. Paano mo tantiyahin ang buong kalidad ng iyong buhay sa nakaraang lingo?

1      2      3      4      5      6      7

Napakasama

Napakagaling