

# Assessing the Quality of Life of Filipino Cancer Patients: A Survey of Filipino Oncologists

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## Abstract

**Introduction** Recent trials of new drugs have placed much emphasis on survival. However, several guidelines have emphasized the need for assessing health-related quality of life (HRQoL) as part of the holistic approach in the management of cancer patients. There are currently no national governing guidelines and no existing data on the status of HRQoL assessments by Filipino oncologists, thus this study.

**Study Design** This was a cross-sectional study that utilized a validated questionnaire. Descriptive and multivariate analyses were used to analyze the data.

**Results** A total of 312 oncologists participated in this study. Majority were medical oncologists (41%), followed by radiation oncologists (25%), hematologists (14%), gynecologic oncologists (12%), and surgical oncologists (8%). About 96% reported that HRQoL assessment was important for clinical work; however, 58% perceived HRQoL to be a vague term and 55% felt they were insufficiently trained to assess HRQoL. About 89% reported that they will be more confident if local HRQoL assessment guidelines will be present, and 93% agreed to the use of a unified HRQoL assessment tool for Filipino cancer patients. About 85% thought that the optimal number of questions for a HRQoL assessment tool should be between 5 and 15 questions. The significant predictors of HRQoL assessment among oncologists were field of oncology and years in practice/training ( $p < 0.05$ ).

**Conclusion** Filipino oncologists perceived HRQoL patient assessments to be important in clinical practice. However, majority did not know which tool to use and did not feel sufficiently trained to assess HRQoL. The creation of a practice guideline that would facilitate the use of a unified HRQoL assessment tool for Filipino cancer patients is highly recommended.

## Keywords

- ▶ clinical practice
- ▶ Filipino cancer patients
- ▶ oncologists
- ▶ quality of life

## Introduction

The World Health Organization (WHO) defines health as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.”<sup>1</sup> This follows that as physicians in charge of the long-term care of patients with cancer, oncologists should not only focus on the survival impact of a patient’s treatment regimen but equally important is assessing how the cancer treatment is affecting the different aspects of a patient’s life. Quality of life (QoL) is a broad term signifying the present overall well-being of a person that includes not only his emotional, social and physical status but also his/her ability to do activities of daily living.<sup>2-4</sup>

With the incidence of cancer increasing worldwide including the Philippines,<sup>5</sup> the treatment landscape has advanced into more personalized medicine with the primary end goal of improving survival outcomes. Many oncology groups such as the European Organization for Research and Treatment of Cancer (EORTC), the American Society of Clinical Oncology (ASCO), and the European Society of Medical Oncology (ESMO) have emphasized the need for health-related quality of life (HRQoL) assessment.<sup>6,7</sup> However, a recently published study in 2018 revealed that despite the palliative intent of treatments in patients with advanced/metastatic cancer, the availability of QoL data remains poor, primarily due to non-inclusion of QoL end points in large cancer clinical trials.<sup>8</sup> Greater inclusion of prespecified QoL measures and improved reporting of QoL outcomes is imperative because it ensures that treatment and evaluations focus on the patient rather than the disease.<sup>9</sup>

In 1997, the University of the Philippines-Department of Health (UP-DOH) QoL scale was created and validated to be a culturally appropriate tool in measuring the HRQoL of Filipino cancer patients.<sup>10</sup> Unfortunately, there are presently no specific local guidelines to its general use and there are no existing data on the status of HRQoL assessments by Filipino oncologists, which is already considered to be an essential part of the general “wholistic” assessment of cancer patients.<sup>11-17</sup> Patients may not have treatment benefits in terms of traditional end points, such as overall survival or disease-free survival, but it is still possible to see changes in their QoL.<sup>12,18-24</sup>

This study explored the present status of HRQoL assessment of cancer patients by Filipino oncologists.

## Objectives

This study aimed to evaluate the present status of the Filipino oncologists’ approach in assessing the QoL of cancer patients. Specifically, this study:

1. described the attitude of Filipino oncologists on HRQoL assessment;
2. evaluated the implementation of HRQoL assessment by Filipino oncologists in the clinical setting; and
3. identified the different factors that influence the Filipino oncologists’ HRQoL assessment of cancer patients in clinical practice.

## Materials and Methods

### Study Design and Setting

After obtaining approval from the University of the Philippines Manila Ethics Review Board, a cross-sectional survey among clinical oncologists and oncologists-in-training, practicing, or training in the Philippines was performed. The HRQoL assessment form, a quantitative and qualitative questionnaire, was used to obtain data, including socio-demographic information, questions on how HRQoL is assessed, the oncologists’ general attitude toward the concept of HRQoL, and the different factors that affect HRQoL assessment in clinical practice. Respondents in the study were recruited through email channeled through the specialty societies (e.g., Philippine Society of Medical Oncology, Philippine Society of Radiation Oncology, Philippine Society of Gynecologic Oncology, Philippine Society of Hematology, Philippine Society of Surgical Oncology) after being granted permission from their Head of Office/President. Purposive sampling during specialty conferences or gatherings was also done.

### Questionnaire Development

The questionnaire used was adapted from previous studies obtained from review of literature.<sup>12,25-31</sup> The instrument consisted of four parts: (1) study introduction and objectives to fully inform the participant what the study is all about; (2) demographic data including age, gender, oncologic specialty, level of training, and working environment; (3) ten closed questions about their attitude toward HRQoL (Likert-scales); (4) seven questions regarding their assessment of HRQoL in clinical practice.

Content validity of the questionnaire was evaluated by a panel consisting of five oncology consultants, and five oncologists-in-training. Modifications were made according to their recommendations before subjecting to preliminary testing.<sup>32-34</sup>

Face validity and reliability were assessed by preliminary testing on a convenience sample of 30 oncologists/oncologists-in-training in the study setting who were excluded from the main study. Respondents were asked for comments on the readability of the items, and for suggestions to make the questions easier to understand, if needed. Participants were asked to accomplish the questionnaire again after 2 weeks to obtain test-retest stability. The survey questions were deemed homogenous, with acceptable internal consistency (Pearson’s correlation test-retest coefficient 0.9, and Cronbach’s  $\alpha$  reliability coefficient 0.85).

Construct validity, the degree to which inferences regarding a theoretical construct can be made based on certain operationalizations, was evaluated using a two-stage sorting procedure consisting of an unstructured followed by a structured sorting exercise. This was used to evaluate for both convergent and discriminant validity, which is important because several items on the questionnaire were self-developed based on the current study objectives. The hit rate was 90% after the second stage of the sorting procedure and was deemed acceptable.<sup>35</sup> Validity was further determined through factor analysis, with a minimum factor loading of 0.5 for each item required for all items in the final

survey questionnaire. Results from the validity and reliability testing were used to determine the final list of questions that were included in the questionnaire.

The final survey consisted of the following three parts:

1. Demographic data (age, gender, field of oncology, level of training, working environment, bulk of cancer type seen in practice);
2. Ten questions about the Filipino oncologists' attitude toward HRQoL assessment;
3. Seven questions regarding the Filipino oncologists' assessment of HRQoL in clinical practice.

### Population Selection

#### Inclusion Criteria

1. Clinical oncologist practicing in the Philippines (medical oncologists, surgical oncologists, gynecologic oncologists, adult hematologists, and radiation oncologists);
2. Clinical oncologist-in-training in the Philippines (medical oncologists, surgical oncologists, gynecologic oncologists, adult hematologists, and radiation oncologists);
3. Clinical oncologists/oncologists-in-training who are registered in their respective societies and who have active email addresses;
4. Clinical oncologists/oncologists-in-training who attended the annual convention of their respective societies.

#### Exclusion Criteria

1. Clinical oncologists/oncologists-in-training who are not officially registered in their respective societies;
2. Clinical oncologists/oncologists-in-training who refused to answer the survey.

### Clinical and Demographic Characteristics

Clinical data analyzed included age, gender, field of oncology (medical, surgical, radiologic, gynecologic, hematologic), level of training (consultant or fellow-in-training), working environment (government, private, or both), and bulk of cancer type seen in clinical practice.

### Statistical Analysis

Demographic characteristics were summarized using descriptive statistics (mean and standard deviation). Attitudes and perceptions on HRQoL assessment were described using frequencies and percentages.

Logistic regression analysis was used to determine the statistically significant predictors of use of various means of assessment of QoL. Backward elimination method was the variable selection procedure used in this analysis. A probability to remove of 5% was used as cutoff in determining variables to be retained in the final model. Both descriptive and inferential statistics were calculated using Stata 14 SE.

## Results

### Clinicodemographic Profile

A total of 312 Filipino oncologists, from five subspecialties, participated in the study (►Table 1). The mean age

of the oncologists was 38 years old (standard deviation of 7.73 years). Majority were female (63%), practiced in Luzon (80%), practicing oncology for an average of 6 years.

### Attitude of Filipino Oncologists on HRQoL Assessment

Ninety-six percent of the participants reported that HRQoL is important for clinical work (►Table 2). Only 42% of the oncologists disagree that HRQoL is a vague term and about two-thirds perceived HRQoL as suitable for daily

**Table 1** Profile of the Filipino oncologists ( $n = 312$ )

Characteristics	Frequency	Percentage (%)
Gender		
Male	117	37.50
Female	195	62.50
Location		
Luzon	250	80.13
Visayas	44	14.10
Mindanao	18	5.77
Field of oncology		
Medical	129	41.35
Surgical	24	7.69
Radiologic	78	25.00
Gynecologic	36	11.54
Hematology	45	14.42
Level of training		
Consultant	197	63.14
Fellow-in-training	115	36.86
Working environment		
Government	122	39.10
Private	89	28.53
Both	101	32.37
Bulk of cancer type seen in practice		
Breast cancer	224	71.79
Colorectal cancer	135	43.27
Head and neck cancer	130	41.67
Cervical cancer	114	36.54
Lymphoma	98	31.41
Lung cancer	89	28.53
Endometrial cancer	62	19.87
Leukemia	48	15.38
Ovarian cancer	36	11.54
Other cancers	15	4.81
Sarcoma	7	2.24
Liver cancer	5	1.60
	<b>Mean</b>	<b>SD</b>
Age (in years)	38	7.73
Years in practice/training	6	5.52

Abbreviation: SD, standard deviation.

**Table 2** Attitudes of respondents toward HRQoL assessment (n = 312)

Clinical importance	Not important						Important					
	Absolutely important		Slightly important		More or less important		Fairly important		Very important			
	Frequency	Percentage (%)	Frequency	Percentage (%)	Frequency	Percentage (%)	Frequency	Percentage (%)	Frequency	Percentage (%)		
Is HRQoL assessment important for clinical work?	3	0.96	2	0.64	7	2.24	56	17.95	244	78.21		
<b>Perception of HRQoL</b>												
	Disagree			Undecided			Agree					
	Frequency	Percentage (%)	Frequency	Percentage (%)	Frequency	Percentage (%)	Frequency	Percentage (%)	Frequency	Percentage (%)	Frequency	Percentage (%)
HRQoL is a vague term	32	10.26	98	31.41	49	15.71	95	30.45	38	12.18		
HRQoL is not suitable for daily clinical use	86	27.56	120	38.46	48	15.38	45	14.42	13	4.17		
<b>Integrity of HRQoL</b>												
HRQoL assessment is valuable in patient management	5	1.60	3	0.96	0	0.00	76	24.36	228	73.08		
Verbal HRQoL assessments are generally enough	7	2.24	39	12.50	52	16.67	157	50.32	57	18.27		
Validated HRQoL instruments are useful for QoL assessments	3	0.96	5	1.60	21	6.73	112	35.90	171	54.81		
<b>Barriers to HRQoL assessment</b>												
My patients do not accept HRQoL questionnaires	24	7.69	45	14.42	120	38.46	101	32.37	22	7.05		
I do not know which HRQoL assessment tool to use for Filipino patients	10	3.21	29	9.29	29	9.29	164	52.56	80	25.64		
The HRQoL questionnaires are too extensive and too lengthy for routine daily clinical use	6	1.92	22	7.05	40	12.82	146	46.79	98	31.41		
I am not sufficiently trained to assess HRQoL	7	2.24	70	22.44	65	20.83	125	40.06	45	14.42		

Abbreviation: HRQoL, health-related quality of life.

clinical use. Almost all oncologists (97%) perceived that HRQoL assessment is valuable in patient management. While majority (91%) of the oncologists perceive that validated HRQoL instruments are useful for QoL assessments, more than two-thirds (69%) of the oncologists agree that verbal HRQoL assessments are generally enough. Furthermore, 39% of the oncologists reported that their patients do not accept HRQoL questionnaires and another 39% of the oncologists were unsure if their patients accept HRQoL questionnaires.

More than three-fourths (78%) of the oncologists do not know which HRQoL assessment tool to use for Filipino patients, and 78% of the oncologists perceived that HRQoL questionnaires are too extensive and too lengthy for routine. Lastly, more than half (54%) of the oncologists reported that they are not sufficiently trained to assess HRQoL.

### Implementation of HRQoL Assessment by Filipino Oncologists in the Clinical Setting

The oncologists reported that the most common motivations for assessment of their patients' QoL were to support a therapy choice (86%) and for baseline assessment (81%) (► Table 3).

The most common means of assessment of QoL employed by the participants was interview using nonstandardized queries (► Table 4).

The most commonly reported validated HRQoL questionnaires that oncologists are familiar with and comfortable to use were the Eastern Cooperative Oncology Group (ECOG) score (76%), and the Karnofsky Index (68%) (► Table 5).

Majority of the oncologists (89%) reported that they will be more confident when local HRQoL assessment guidelines are present, and 93% agreed to the use of a unified HRQoL assessment tool for Filipino cancer patients (► Table 6).

More than half (58%) of the oncologists utilized HRQoL assessment for advanced/metastatic cancers, while 39% used it for both early and advanced stage disease (► Table 7). Most (85%) oncologists preferred that the optimal number of questions for a HRQoL assessment tool should be between 5 and 15 questions (► Table 8).

### Factors Influencing the Filipino oncologists' HRQoL Assessment

The significant predictors of HRQoL assessment among oncologists were field of oncology and year in practice/training ( $p < 0.05$ , ► Table 9). In particular among the fields of oncology, the odds of doing HRQoL assessment were highest among radiation oncologists (6.6 times higher compared with medical oncologists). Meanwhile, the odds of doing HRQoL assessment decreased by 16% per year increase in the oncologists' years in practice/training.

### Discussion

This study showed that Filipino oncologists perceived HRQoL patient assessments to be important in clinical practice. However, majority did not know which tool to use and did not feel sufficiently trained to assess HRQoL.

**Table 3** Primary motivation for the assessment of your patients' QoL (n = 312)

Motivation	Frequency	Percentage (%)
To support a therapy choice	269	86
Baseline assessment	253	81
Evaluate follow-up	244	78
For research purposes	103	33

Abbreviation: QoL, quality of life.

**Table 4** Means of QoL assessment utilized by respondents (n = 312)

Means of assessment	Frequency	Percentage (%)
Verbal/interview using nonstandardized queries	258	83
Verbal/interview using a standardized questionnaire	64	21
Combined verbal and written questionnaire	46	15
Written validated questionnaire	30	10

Abbreviation: QoL, quality of life.

**Table 5** Validated HRQoL questionnaire that oncologists perceive to be familiar and comfortable to use (n = 312)

Validated HRQoL Questionnaire	Frequency	Percentage (%)
ECOG score	237	75.96
Karnofsky Index	211	67.63
WHO-QoL questionnaire	82	26.28
EORTC QLQ-C30 questionnaire	77	24.68
UP-DOH QoL assessment tool	17	5.45
None	24	7.69

Abbreviations: ECOG, Eastern Cooperative Oncology Group; EORTC, European Organization for Research and Treatment of Cancer; HRQoL, health-related quality of life; UP-DOH, University of the Philippines-Department of Health; WHO-QoL, World Health Organization Quality of Life.

**Attitude of Filipino Oncologists on HRQoL Assessment**

The general positive interest and attitude of Filipino oncologists in assessing HRQoL of their patients are similar to those observed in physicians of other countries.<sup>36-39</sup>

The results of our study also indicated that a recognition of the utility and importance of HRQoL assessment did not necessarily translate to routine use in clinical practice. It is striking to note that there was an overwhelming agreement that HRQoL assessment is important, with two-thirds of the participants indicating its suitability for daily use. However, the participants have been referring to verbal assessments of HRQoL instead of using standardized HRQoL instruments.

From the physician's perspective, it is more convenient to ask random questions instead of having to answer lengthy

**Table 6** Need for local HRQoL assessment guidelines (n = 312)

	Absolutely disagree		Slightly disagree		Not sure		Fairly agree		Absolutely agree	
	Frequency	Percentage (%)	Frequency	Percentage (%)	Frequency	Percentage (%)	Frequency	Percentage (%)	Frequency	Percentage (%)
More confident when local guidelines are present	3	0.96	8	2.56	22	7.05	116	37.18	163	52.24
Use of a unified HRQoL assessment tool for Filipino cancer patients	3	0.96	8	2.56	11	3.53	121	38.78	169	54.17

Abbreviation: HRQoL, health-related quality of life.



**Table 7** Cancer stage wherein respondents conduct HRQoL assessment

Cancer stage	Frequency	Percentage (%)
Early stage cancers	9	3
Advanced/metastatic cancers	180	58
Both	123	39

Abbreviation: HRQoL, health-related quality of life.

**Table 8** The optimal number of questions for a HRQoL assessment tool, according to the respondents

Optimal number of questions	Frequency	Percentage (%)
5–10	138	44
10–15	126	40
15–20	24	8
20–25	15	5
>25	9	3

Abbreviation: HRQoL, health-related quality of life.

**Table 9** Significant predictors of use of verbal/interview using nonstandardized queries for HRQoL assessment among oncologists ( $n = 312$ )

Factors	Odds ratio	95% CI		$p$ -Value
		LL	UL	
Field of oncology				
Medical	1.00	–	–	–
Surgical	1.81	0.53	6.17	0.345
Radiologic	6.60	2.00	21.81	0.002
Gynecologic	2.21	0.65	7.45	0.203
Hematology	0.98	0.40	2.38	0.958
Years in practice/training	0.84	0.73	0.95	0.007

Abbreviations: CI, confidence interval; HRQoL, health-related quality of life; LL, lower limit; UL, upper limit.

questionnaires that would take too much time. The hesitation to do HRQoL assessment routinely may also be due to the oncologists' perceived notion that the instruments are too extensive and lengthy for routine clinical use.<sup>40</sup> Interestingly, this perception is not unique to Filipino physicians.<sup>41–43</sup> Our results also showed that approximately 80% of the oncologists were either sure that answering HRQoL was unacceptable to their patients or that they were uncertain if it was acceptable at all. The inconvenience that this would cause their patients may have driven the physicians' hesitation in using standardized questionnaires.

It is noteworthy that, aside from the impracticability of using lengthy HRQoL assessment tools in routine clinical practice, several factors exist as to why these tools are not more frequently used. These include uncertainty as to what HRQoL tool to use, as well as a lack of training or orientation in assessing HRQoL of patients. This stresses the importance

of continuing medical education, with lectures and symposia dedicated to informing and encouraging oncologists to include HRQoL assessments in clinical practice. Oncologists-in-training may also benefit from the inclusion of HRQoL assessments in their curriculum. Certainly, it is not just Filipino oncologists who feel this way; a study among Dutch physicians showed that they felt they were not sufficiently trained to using HRQoL tools either.<sup>36</sup>

### Implementation of HRQoL Assessment by Filipino Oncologists in the Clinical Setting

HRQoL assessment was used by the majority to support a therapeutic choice, for baseline assessment, and as part of evaluation during follow-up. This result is similar to a study among urologists in Germany,<sup>29</sup> while interestingly a study done among physicians in Italy mainly obtained HRQoL assessment for research purposes.<sup>44</sup>

Majority assessed the patients' HRQoL verbally using non-standardized queries. Unfortunately, several studies have already proven that the use of standardized validated instruments for HRQoL assessment is more accurate and reliable in the management of cancer patients.<sup>45–51</sup>

Furthermore, majority of the Filipino oncologists were familiar and comfortable to use the ECOG score and Karnofsky Index as a method of HRQoL assessment. However, studies have shown that more accurate and wholistic tools to use that would cover assessment of the cancer patients' biological/physiological variables, symptom status, and functional status are the WHO-QoL and the EORTC QLQ-C30 questionnaires.<sup>52–55</sup> In fact, a study done in London suggested that HRQoL information can improve patient care by improving communication between the patient and the physician, prioritizing problems for treatment, screening for unmet needs that may warrant referral to other subspecialties, identifying patient preferences among the goals of treatment that could improve adherence, and monitoring adverse effects of treatment that may not be evident clinically.<sup>56</sup>

Also, only 5% of the Filipino oncologists know that there is already an existing standardized and validated HRQoL questionnaire specifically for Filipino cancer patients—the UP-DOH QoL assessment tool crafted by Ngelangel in 2008.<sup>2</sup>

Majority of the Filipino oncologists agreed to the use of a unified HRQoL assessment tool for Filipino cancer patients and that they would be more confident if local guidelines for its use are present. Moreover, majority reported that the optimal number of questions in the assessment tool should be between 5 and 15 for it to be practical for daily use. These results are consistent with the findings in several studies that indicate the importance of national guidelines in the use of HRQoL assessment tools especially in encouraging physicians to incorporate it in their daily practice.<sup>57–61</sup>

Also, one of the lessons learned during the creation of the EORTC QoL questionnaire used universally in European countries is that the length of the questionnaire should not only be complete enough to cover the different aspects of the patients' QoL, but of equal importance is that its length and administration time should also be well accepted by the physicians for its use to be successful.<sup>62–64</sup>

### Factors Influencing the Filipino Oncologists' HRQoL Assessment

Factors noted to significantly influence doing HRQoL assessment among Filipino oncologists were field of oncology and years in practice/training.

As the seniority of the oncologists increases whether in practice or in fellowship training, their use decreases by 16% per year. This might be explained by a finding in one study done in Canada which showed that 69% of the respondents (mostly >50 years old) would be more likely to base their treatment recommendations on personal experience rather than on published QOL literature.<sup>65-67</sup> Furthermore, this trend could be further explained by the fact that the value of these standardized tools has been questioned by some older clinicians who feel they are able to derive the same information by simply talking to the patients in a less structured way in their clinical practice.<sup>68,69</sup> These results are in contrast to the findings of a study done in Italy which showed that knowledge and use of the HRQoL standardized assessment tools are independent of age, gender, and medical specialty.<sup>44</sup>

Interestingly, radiation oncologists were more likely to assess HRQoL. The reason for this may possibly be because radiation oncologists see the patients more frequently while they are having their radiation treatment and the effect of always asking how the patients are—bringing the patients' concerns and symptoms to the physicians' attention.<sup>70,71</sup>

### Clinical Implications

The findings of this study are very important and can be considered an eye opener to Filipino oncologists. This study showed that although 96% of the respondents reported that HRQoL assessment is important for their clinical work, majority do so verbally using nonstandardized open questions (e.g., How are you?). While this may be of relative benefit to the clinicians, this method of assessment may lead to failure of assessing the full spectrum of HRQoL.<sup>72-74</sup> Another important point that Filipino oncologists should realize is that similar to a previous study, physicians sometimes underestimate the impact of the patients' disease on their HRQoL and therefore should be evaluated using standardized tools.<sup>75</sup>

### Limitations

This study had a 40% response rate from Filipino oncologists 312/771. The unequal small sample distribution among the different oncologic subspecialties remains the major limitation of this study probably due to the poor response rate from some oncologic subspecialties.

### Conclusion

Filipino oncologists perceived HRQoL patient assessments to be important in clinical practice. However, majority did not know which tool to use and did not feel sufficiently trained to assess HRQoL. The creation of a practice guideline that would facilitate the use of a unified HRQoL assessment tool (containing 5–15 questions) for Filipino cancer patients is highly recommended.

### Recommendations

The data gathered can hopefully be used to develop national guidelines reinforcing the regular use and application of HRQoL assessments, thereby facilitating the best possible quality of care that can be given to our cancer patients.

Further studies can also be done to identify training needs and educational reinforcements for oncologists as it has been deemed necessary by the results of this study.

An exploratory study is recommended to investigate the reasons why some Filipino cancer patients do not accept using HRQoL questionnaires in clinical practice. Once the reasons are identified, then the Filipino oncologists would be better equipped to address this barrier.

Also, the creation of a unified HRQoL assessment tool (containing 5–15 questions) for Filipino cancer patients is highly recommended.

### Note

All authors equally contributed in this study and in the preparation of the manuscript.

### Conflict of Interest

None declared.

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