A Cross sectional study of Quality of Life of Cancer patients attending Palliative Care OPD

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Abstracts: Background: In India there are 2-2.5 million estimated cancer patients at any given point of time. 'Palliative care' approach improves the quality of life of patients and their families facing problem associated with life-threatening illness. Quality of life (QOL) is multidimensional construct. Objectives: To assess their quality of life and factors associated with it. This is an attempt to collect baseline data to help improve palliative care services. Materials and Methods: selected patients for the study (total=108) were interviewed with the help of FACT-G Scale for Measuring the Health-related QOL (Sub scores-Physical, Social, Emotional & Functional well-being). The total scores ranged from 0-108 (0-47 poor, 48-63 average, 64-108 good). Statistical Analysis: Chi square test. Results: Out of total 108 patients, 72.22% were females. Mean age was 50.91 years (SD± 2.02). 78.70% were married, 29.63% illiterate, 43.52% belonged to Middle Socio-economic class, 89.81% had Stage 2 and 3 cancer. Mean total FACT-G scale QOL score was 54.61 (SD ±8.18). Relation between marital status and socio-economic status with total QOL score was statistically significant. Conclusions: The median of all sub-scores worsened with progress of stage of cancer. Patients with better socio-economic status and were married had better QOL scores. Counselling will improve their QOL through palliative care services.

[Patil S NJIRM 2015; 6(4):63-67]

Key Words: Cancer, FACT-G scale, Palliative care, Quality of life.

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Introduction: India has 2 to 2.5 million estimated cancer patients[1] at any given point of time undergoing multimodality treatment. The outcome of these treatments can be measured subjectively with health related quality of life (HRQOL).[2] Quality of Life (QOL) is multidimensional construct encompassing perceptions of both positive and negative aspects of various dimensions [3,4]and helps multi-disciplinary teams for better information of patients with poor treatment outcomes, their care – givers and opportunity to identify problem areas, target intervention/ support.[5]

Palliative care approach prevents and relives suffering of life threatening illness such as cancer by means of early identification and treatment of pain and other problems such as physical, psychosocial and spiritual.[6] Palliative care OPD tries to improve QOL for both the patient & their family.[7] This is an attempt to collect baseline data of QOL of attendees of palliative care OPD so to help improve the services.

Aims & Objectives:

1. To study socio-demographic factors of cancer patients attending adult Palliative Care Outpatient Department.
2. To measure their quality of life score and factors associated with it.

Settings and Design:

Place of study- Adult Palliative care OPD, LTMMC & GH, Sion, Mumbai

Time (Duration):10 months (February to November 2013)

Sample Size & Sampling Technique: All patients attending the Adult Palliative care OPD at LTMMC & GH, Sion, from the month of February to November 2013, who gave consent, were enrolled for the study. A total of 108 patients were enrolled by method of universal sampling.

Material and Methods: All patients attending palliative care OPD at LTMMC &GH, Sion, were selected for the study during that period with the permission of Head of the Department & of the OPD. Any cancer patient willing to give consent for participation in the study & attending that OPD was included in the study.

Before the interview, patients were explained the purpose of these questions and their participation was requested and verbal consent obtained. Confidentiality was assured. None of the patients selected refused to participate in the study. All of them answered the questions themselves.

The interview was conducted in a quiet private room while the patient waited to attend the Palliative care OPD. The purpose of the study was explained to them and their valid informed consent was taken. All of them were interviewed with the help of close-ended pre-tested questionnaire method. Their interview was conducted in local language.

The questionnaire used was Functional Assessment of Cancer Therapy-General (FACT-G) Scale for Measuring the Health-related Quality of Life[4]. ("FACIT© System") This was designed by David Cella Ph.D. from FACIT.com, 381 S. Cottage Hill Avenue, Elmhurst, IL 60126, USA. The concept of rating their opinion or experience was explained in their language and on receiving their answer for the question; it was cross-verified to ensure that the question had been understood correctly and answered appropriately.

The latest version 4 of FACT-G Scale consists of a total of 27 Likert-type items formulated into separate subscales: physical (seven items), emotional (six items), social/family (seven items) and functional (seven items) well-being. Subjects were asked to respond to each item with a score of 0–4, where 0 = not at all, 1 = a little bit, 2 = somewhat, 3 = quite a bit and 4 = very much. A higher score indicates a higher level of HRQOL[4]

Statistical Analysis used: Data analysis was done using SPSS (Statistical Package for the Social Sciences version 16). Descriptive statistics was used to describe the characteristics of the participants and to calculate the individual and total scores. Analysis of relation between Total QOL score & socio-demographic factors and Stage of the disease was done using Chi square test.

Results: A total of 108 patients were interviewed. The detail of socio-demographic characteristics and of diagnosis are shown in Table 1 Participant's age ranged from 9 to 75 years with a mean age of 50.91(SD+_2.02). More than 50% patients were in the age group 40-60 years while maximum numbers of patients were from age group of 40-49years (31.48%). Around three fourth of patients i.e. 72.22% were females and 27.78% were males.

Table 1- Characteristics of the study population

Variable		Frequency	Percentage
Age (years)	<=29	5	4.63
	30-39	8	7.41
	40-49	34	31.48
	50-59	31	28.70
	60-69	25	23.15
	>=70	5	4.63
Gender	Male	30	27.78
	Female	78	72.22
Marital Status	Single	5	4.63
	Married	85	78.70
	Widow/ Widower	16	14.82
	Divorced	2	1.85
Educational Level	Illiterate	32	29.63
	Primary	22	20.37
	Secondary	31	28.70
	Higher Secondary	17	15.74
	Graduate	6	5.56
Socio Economic Status*	5 (lower)	0	0
	4 (lower middle)	25	23.15
	3 (middle)	47	43.52
	2 (upper middle)	32	29.63
	1 (upper)	4	3.70
System affected by cancer	Gastrointestinal	26	24.07
	Hepato-biliary	19	17.59
	Genitourinary	5	4.63
	Cancer breast	45	41.67
	Others	13	12.04
Stage of Cancer	I	2	1.85
	II	51	47.22
	III	46	42.59
	IV	9	8.33

* Socio Economic Status has been measured using Modified B G Prasad Classification

Maximum number of patients, 85 (78.70%) were married whereas 5 were single and 2 were divorced. 16 patients were widows/widowers who lived with either their children or other family members. Only 29.63% patients were illiterate while rest had completed at least basic education.

Among educated 5.56% were graduates. The Socio-economic status of the participants was calculated using Modified B.G. Prasad scale8. 96% of patients were from middle (lower middle, middle, upper middle) socio-economic class. This study shows that most affected organs/ system are breast, gastrointestinal, hepato-biliary, genito-urinary and others. Out of 78 female patients more than half (57.69%) were suffering from breast cancer. 89.91% of patients had cancer in stage II or III , while 8.33% patients had stage IV cancer.

Table 2: shows distribution of participant's response to questions that describes physical, social, emotional & functional parameters. The frequencies of the responses of all participants for all questions have been enumerated in the table; the mean, median and mode value of frequencies was calculated.

Table 2- % Distribution of the response categories, central tendencies & standard deviation of item scores

Parameter for QOL	Question	Participant's Response					Mode	Median	Mean	SD
		0	1	2	3	4				
Physical	GP1	15	30	26	21	16	1	2.00	1.94	1.277
	GP2	63	15	15	11	4	0	0.00	.87	1.208
	GP3	25	32	15	15	21	1	1.00	1.77	1.451
	GP4	41	28	19	10	10	0	1.00	1.26	1.307
	GP5	32	26	26	18	6	0	1.00	1.45	1.256
	GP6	23	33	25	14	13	1	1.00	1.64	1.286
	GP7	35	37	19	11	6	1	1.00	1.22	1.171
Social	GS1	3	22	23	36	24	3	3.00	2.52	1.131
	GS2	1	2	8	21	76	4	4.00	3.56	.789
	GS3	2	11	18	30	47	4	3.00	3.01	1.089
	GS4	0	2	10	20	76	4	4.00	3.57	.739
	GS5	0	5	14	19	70	4	4.00	3.43	.888
	GS6	25	2	10	25	46	4	3.00	2.60	1.594
	GS7	75	11	12	6	4	0	0.00	.64	1.115
Emotional	GE1	18	34	19	22	15	1	2.00	1.83	1.315
	GE2	10	29	19	27	23	1	2.00	2.22	1.307
	GE3	39	20	24	18	7	0	1.00	1.39	1.303
	GE4	30	32	16	20	10	1	1.00	1.52	1.322
	GE5	32	33	12	23	8	1	1.00	1.46	1.314
	GE6	27	31	14	24	12	1	1.00	1.66	1.361
Functional	GF1	22	29	14	22	21	1	2.00	1.92	1.441
	GF2	33	20	14	23	18	0	2.00	1.75	1.498
	GF3	27	24	24	16	17	0	2.00	1.74	1.397
	GF4	3	12	22	17	54	4	3.50	2.99	1.188
	GF5	10	28	15	21	34	4	3.00	2.40	1.386
	GF6	21	30	19	19	19	1	2.00	1.86	1.391
	GF7	20	23	20	19	26	4	2.00	2.07	1.451

(*0 response indicates = Not at all, 1 = A little bit, 2 = Somewhat, 3 = Quite a bit and, 4 = Very much)

Table 3: describes all four parameters together. Total score was calculated by summing up the scores of all 4 sub-scales. Total FACT-G scale QOL score was 54.28±8.03(Mean±SD).The best sub-score was observed for Social parameter (Mean±SD=19.33±4.58) followed by Functional parameter (Mean±SD=14.71±7.74) and Physical parameter((Mean±SD=10.15 ±6.16). The worst score was for Emotional parameter (Mean±SD=10.08±4.97). Higher subscale and total score was associated with better quality of life.

Table 3- FACT-G scale statistics

	FACT-G Scale score for QOL

	Physical	Social	Emotional	Functional	Total
Mean	10.15	19.33	10.08	14.71	54.28
Median	10.00	19.00	10.00	14.00	54.00
Std. Deviation	6.169	4.580	4.967	7.735	8.034
Minimum Score	0	7	0	1	31
Maximum Score	27	28	22	28	79

Table 4: The total QOL score was divided into 3 categories:

Categories	Limits of Total Score	QOL Status
1	64-108	Better
2	48-63	Average/Moderate
3	0-47	Poor

Table 4: represents division of Total QOL Score into three categories.

Better the score better is the quality of life. QOL score limit, ranging from 64 to 108 was categorised as having better quality of life while for 48 to 63 score it was average/ moderate score and less than that was categorised as poor quality of life.

Table 5 shows Association between socio-demographic factors & QOL score category.

Risk factor	**QOL Cat 3 (n= 18)**	**QOL Cat 1, 2 (n=90)**	**TOTAL (n= 108)**	**Chi Square value**	**p value**	**Significant/ Not significant**
Age						
<55	5	61	66	10.1	0.001	Significant
>55	13	29	42			
Gender						
M	13	65	30	0.53	0.97	Not Significant
F	5	25	78			
Education						
Illiterate	8	24	32	0.11	1.50	Not Significant
>=Prim	10	66	76			
Marital status						
Married	10	75	85	5.35	0.01	Significant
Single, widow/Divorced	8	15	23			
Socio-economic Status						
Class 3,4,5	16	56	72	3.68	0.03	Significant
Class 1,2	2	34	36			
Cancer stage						
Stage III, IV	6	47	53	2.14	0.07	Not Significant
Stage I, II	12	43	55			

Chi square test shows association between age and QOL is highly significant. As age increases, quality of life score decreases. Marital, socioeconomic status and QOL are both significantly associated as shown in the table. Sex, education and Cancer stage are not associated with QOL**.**

Discussion: This is an attempt to study the parameters affecting the quality of life of cancer patients and establish strength of relationship between the Total quality of life score (calculated from the FACT-G scale) and other variables of interest.

A study by Safaee et al showed significant association between marital status, socio-economic status and grade of tumour similar to the current study, but unlike this study they found no association between age and QOL9 According to Olschewski assessing QOL needs repeated measurements in chronic disease like cancer.10 The most common system involved in the cancer diagnoses in the present study was Cancer of the Breast (41.7%) followed by Cancers of the gastrointestinal system (24.1%). Similarly, Singh DP (2010)10 found majority (20%) of their total study participants to be diagnosed with Breast Cancer followed by Cancer of Cervix (7%). 97 patients (89.81%) were diagnosed with cancer in the 2nd and 3rd stage.7

Conclusion: This study shows that being married or having a more stable family life provided better emotional and social support to cancer patients, and ability to share feelings with their family hence improving their QOL scores. Also, better socioeconomic status meant better financial status which helped improve their QOL scores. A younger age was associated with better QOL score because of better acceptance and a stronger will power. But Literacy, Gender & Stage of cancer did not seem to be associated significantly with the total score, implying that irrespective of the educational status or stage of cancer, patients seem to experience similar kinds of stress. They need counselling to improve their quality of life, which probably will be achieved by the palliative care OPD.

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Conflict of interest: None

Funding: None

Cite this Article as: Patil S, Vora D, Adsul B, Chaturvedi R, Singh V, Srivastav M. A Cross sectional study of Quality of Life of Cancer patients attending Palliative Care OPD. Natl J Integr Res Med 2015; 6(4): 63-67