ASSESSMENT OF ANXIETY, DEPRESSION AND QUALITY OF LIFE OF CANCER PATIENTS

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Abstract
A pilot study was carried out to assess and examine the relationship between depression and anxiety with quality of life among 16 cancer patients attending medical oncology OPD of Shirdi Sai Baba Cancer Hospital, Manipal. Sixteen (16) cancer patients filled in a questionnaire, about their socio-demographic information, HADS and EORTC QLQ-C30 questionnaires. The results showed that there was a relationship between depression and anxiety, which in turn affected the quality of life. Sociodemographic and medical variables did not affect this outcome.

Key Words: Anxiety, Depression, HADS And EORTC QLQ-C30 Questionnaires.

Background &Introduction
Cancer affects the psychological well-being of a patient, leading to depression and anxiety[1]. These aspects consequently affect quality of life of the patients. Cancer does not only affect the patient, but also close family and friends. Depression is one of the most commonly accompanying psychological symptom to the diagnosis and treatment of cancer[2].

Aims & Objective
1. To assess anxiety/depression symptoms.
2. To analyze their impact on quality of life (QOL) of cancer patientsattending medical oncology OPD of Shirdi Sai Baba Cancer Hospital, Manipal.

Materials &Methods
The study comprised of 16 patients who attended the Medical Oncology OPD of Shirdi Sai Baba Cancer Hospital, Manipal, diagnosed to have cancer and advised chemotherapy during the period of January – March 2016. The assessment was conducted by the Psychiatric Social Worker by using the following instruments as tools.
1. Socio-Demographic Proforma.
2. Hospital Anxiety and Depression Scale/HADS.
3. The EORTC QLQ-C30.

Hospital Anxiety and Depression Scale/HADS was used to detect the presence and severity of depression and anxiety in cancer patients admitted for chemotherapy. The measure comprises 14 items divided equally between the two mood states (anxiety and depression), with 4-point verbal rating scales for each item. Participants were asked to rate items according to how they have felt after knowing their illness. Cut-off points indicate whether the respondent is 'within the normal range', or mildly, moderately, severely disordered. The questionnaire can be answered within 2 – 5 minutes.

The EORTC QLQ-C30 is a questionnaire used to assess the quality of life of cancer patients. The EORTC QLQ-C30 consisted of 30 items divided into various scales. There are five functional scales: the physical, role, emotional, cognitive, and social functional scale.

The questionnaire consisted of three symptoms scales namely fatigue, nausea and vomiting, and pain. And finally it contained a global health status, quality of life scale. Self-administration was done if the respondent has sufficient ability; if not, was assisted by the interviewer.

Statistical Methods: The results were analyzed statistically by using SPSS 16.0 Information about their medical condition was obtained through their medical reports.

Results: Table 1 shows that a total of 16 cancer patients participated in this study of which 12 were female (75%) and 4 were male (25%).

Table 1: Gender

Gender		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	4	25.0	25.0	25.0
	female	12	75.0	75.0	100.0
	Total	16	100.0	100.0	

Tables 2&3 show the scores obtained by 16 cancer patients participated according to HADS measuring scale. The cut off score for the HADS test was 7 for the depression and for the anxiety scale.Patients who scored seven or higher were considered depressed or anxious. Five (31.25%) of these patients had a high anxiety level and six (37.5%) of them reported depressive symptoms.

Table 2: Number of Total Depressed Patients

Depression		Frequency	Percent	Valied Percent	Cumulative Percent
Valid	1.00	1	6.3	6.3	6.3
	2.00	1	6.3	6.3	12.5
	3.00	2	12.5	12.5	25.0
	4.00	1	6.3	6.3	31.3
	5.00	1	6.3	6.3	37.5
	6.00	3	18.8	18.8	56.3
	7.00	1	6.3	6.3	62.5
	8.00	3	18.8	18.8	81.3
	12.00	1	6.3	6.3	87.5
	13.00	1	6.3	6.3	93.8
	18.00	1	6.3	6.3	100.0
	Total	16	100.0	100.0	

Table 3: Total Number of Anxiety Patients

Anxiety		Frequency	Percent	Valied Percent	Cumulative Percent
Valid	.00	1	6.3	6.3	6.3
	2.00	1	6.3	6.3	12.5
	3.00	1	6.3	6.3	18.8
	4.00	2	12.5	12.5	31.3
	5.00	1	6.3	6.3	37.5
	6.00	1	6.3	6.3	43.8
	7.00	4	25.0	25.0	68.8
	8.00	2	12.5	12.5	81.3
	11.00	1	6.3	6.3	87.5
	14.00	1	6.3	6.3	93.8
	16.00	1	6.3	6.3	100.0
	Total	16	100.0	100.0	

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Impact Factor: 5.471
Peer Reviewed & Indexed Journal
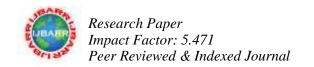
IJBARR
E- ISSN -2347-856X
ISSN -2348-0653

Table 4: Correlations of The Factors

Correlations		anxiety	Depression	qol_ family life	Qolsocial life	qol_ financial	Qol overall
Anxiety	Pearson Correlation	1	.870**	.211	.356	.512*	.604**
	Sig. (1-tailed)		.000	.216	.088	.021	.007
	N	16	16	16	16	16	16
Depression	Pearson Correlation	.870**	1	.075	.480*	.453*	.578**
	Sig. (1-tailed)	.000		.392	.030	.039	.010
	N	16	16	16	16	16	16
qol_family life	Pearson Correlation	.211	.075	1	.438*	.330	.422
	Sig. (1-tailed)	.216	.392		.045	.106	.052
	N	16	16	16	16	16	16
Qolsocial life	Pearson Correlation	.356	.480*	.438*	1	.458*	.554*
	Sig. (1-tailed)	.088	.030	.045		.037	.013
	N	16	16	16	16	16	16
qol_ fianancial	Pearson Correlation	.512*	.453*	.330	.458*	1	.809**
	Sig. (1-tailed)	.021	.039	.106	.037		.000
	N	16	16	16	16	16	16
qol_overall	Pearson Correlation	.604*	.578**	.422	.554*	.809**	1
	Sig. (1-tailed)	.007	.010	.052	.013	.000	
	N	16	16	16	16	16	16
**. Correlation is significant at the 0.01 level (1-tailed).							

Table 4 shows that the Pearson's correlations of the factors were significant at the 0.01 level. It was hypothesized that a positive relationship would exist between these two variable, anxiety and depression. The results of the correlation indicated that higher anxiety scores were associated with higher depression scores (score >7) ($r = .870$, $p < .01$). Whilst, other significant level including, anxiety and qol. Overall ($r = .570$); qol sociallife and qol overall ($r = .809$); qol financial and anxiety ($r = .604$); qol financial and depression ($r = .578$). Since, this is a medical study a 99% confident interval ($p < .01$) is taken into account.

Research Paper
Impact Factor: 5.471
Peer Reviewed & Indexed Journal

IJBARR
E- ISSN -2347-856X
ISSN -2348-0653

Table 5: Sociodemographic Profile

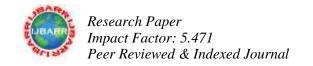| Socio-Demographic Profile	Variables	N	%
Gender	Male	4	25
	Female	12	75
Occupation	Student	1	6.2
	Homemaker	9	56.2
	Daily wager	6	37.5
Marital Status	Single	4	25
	Married	12	75
Family Type	Nuclear	12	75
	Joint Family	3	18.8
	Extended Family	1	6.2
Education	No primary education	2	12.5
	School Education	7	43.8
	College Education	7	43.8

Table 5 shows 56.2% of the patients studied are home makers and 37.5% of them are daily wagers. 43.8% of them have got college education.

Discussion
Fischer, Villines, Kim, Epstein, and Wilkie (2010)3 measured the differences between pain, depression and anxiety among head/neck-, prostate-, and lung cancer patients. Their study showed that the measured depression level was the highest with lung cancer patients. They also found that the ability to control pain was related to depression and anxiety. Depressive and anxious patients have more difficulty to control their pain and experienced more physical symptoms like fatigue, vomiting, nausea and pain compared to patients who were not depressed[4]. Brown et.al in their study observed that patients diagnosed with depression and anxiety were younger, less likely to be married, and reported more co-morbid diseases. Patients with depression were less likely to be employed, reported more often that they were unable to work[2]. 77% of the cancer patients reported anxiety as a symptom[6]in a survey among Canadian cancer patients. Like depressive patients, anxious patients reported more complaints about physical symptoms[4]. Similarly the level of anxiety was reduced over the course of treatment time[7]. Many studies examined the correlation between depression and anxiety with the quality of life of cancer patients. Isikhan et al. (2001)9 studied the relationship on quality of life of the patient and different variables like the effect of treatment, psychological distress and early diagnosis. Study results showed that a high level of depression and anxiety lowered the quality of life[4]. Depression affects the quality of life of a patient. There was also a relationship between the age of the patient and the quality of life. The older the patient, the better the experienced and less affected the quality of life [8]. A cancer patient who was diagnosed with a later stage cancer experienced a worsened quality of life, than a cancer patient who was diagnosed with early stage cancer.

Conclusion
Significant results were noticed in overall quality of life of cancer patients in regard to social life, financial aspects and also measured variables - anxiety, depression and quality of life. There was a substantial correlation between anxiety and the social life, financial aspects. A noteworthy association between depression and financial aspects was observed. No significant relationship between the age, other socio-demographic variables (gender, monthly income, education level, marital status, and occupation) was observed on the variables anxiety, depression and the quality of life**.**This emphasizes the necessity of the oncologist's competent comprehension and counselling as a pivotal part of treatment.

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