Quality Of Life In Spouse Of Cancer Patients: A Cross Sectional Comparative Study At A Tertiary Care Centre

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Abstract:

Background: Cancer patients rely almost always on family, friends and significant others in their journey of dealing with their illness. Caregiver especially spouse often symbolically shared in the illness and presented the struggle with cancer as a joint one. Given the magnitude of services provided and the sacrifices made by family caregivers, adverse consequences of caregiving have emerged as a serious public health concern.

Objectives : The present study aimed to the quality of life in spouses of patients with cancer. The present study also aimed to assess the relationship between sociodemographic variables and quality of life of spouses of patients with bipolar affective disorder.

Materials and Methods: A cross-sectional study conducted at Geetanjali Medical College and Hospital, Udaipur, Rajasthan, with a total sample of 100 cases, 50 spouses of cancer patients and 50 spouses of bipolar affective disorder as the experimental and control group respectively, aged between 18-64years, selected consecutively.After obtaining informed consent, the socio-demographic variables were recorded in a specific proforma prepared for the study. Quality of life was assessed by using Short Form-36 (SF-36) in all the subjects. The data obtained was subjected to suitable statistical analysis using SPSS version 22.

Results: The quality of life was scored lower on spouses diagnosed with a psychiatric disorder (statistically significant at P value 0.000).

Conclusion: The results of the study indicate that caregiving spouses of patients with cancer are associated with lower quality of life. Therefore, psychiatric evaluation and appropriate

interventions in spouses of cancer patients assumes clinical significance for a better outcome given the magnitude of services provided and the sacrifices made by family caregivers.

Keywords: cancer, caregivers, spouses, quality of life.

Introduction:

The diagnosis of a severe illness, such as cancer, not only affects the lives of patients, but also the lives of those who are close to them.[1] Caring a patient can be a very stressful job and difficult, the demands of caregiver's role and seeing the patient suffer can create a great distress.[2] Carer, especially spouse often symbolically shared in the illness and presented the struggle with cancer as a joint one.[3] Savage and Bailey reviewed studies on the impact of caregiving on mental health, finding less life satisfaction, increased self-reporting of worry and depression, and increased levels of psychiatric morbidity among caregivers.[4] Intimate partners, family members, and close friends also report high levels of psychological distress, often higher than levels reported by survivors.[5,6] Approximately 32 to 50% of caregivers have significant psychological distress or mood disturbance.[7] When patients meet the criteria for psychiatric disorder, caregivers are 7.9 times more likely to meet the criteria as well, and vice versa.[8] In a study it was found that about 40% of cancer patients' spouses scored above the cutoff for clinically significant levels of depression on the Beck Depression Inventory.[9]

It is also known that caring for someone with psychiatric illness is associated with a higher level of stress than caring for someone with functional impairment from other chronic medical illnesses.[10] Findings from Eduard Vieta et al revealed that up to 93% of caregivers of bipolar patients suffered from a moderate or higher level of stress when the patient was admitted to an inpatient unit or outpatient clinic [11] The burden perceived by caregivers of patients with psychiatric illness is a fundamental prognostic aspect in the history of the disease, and the caregiver burden is reportedly a critical determinant for negative caregiving outcomes[12]

Given the magnitude of services provided and the sacrifices made by family caregivers, the adverse consequences of caregiving. have emerged as a serious public health concern.[13] Over the past decade, the cancer caregiving literature has grown as patients' and partners' needs and quality of life (QoL) have become a focus of concern. Attention to the caregiver's experiences, whenever these are negative or positive, helps to ensure that better care will be given[14].The identification of patients and caregivers at highest risk of emotional distress will enhance clinical understanding of vulnerable groups and suggest opportunities to develop interventions that target

shared concerns and sources of psychological distress. Hence, the present study has been undertaken with the aim to study quality of life in spouses of cancer and its correlation with spouses of bipolar affective disorder.

Materia and Methods:

A cross sectional, observationalclinical study was conducted in the Department of Psychiatry, Geetanjali Medical College and Hospital, Udaipur, Rajasthan. The department is part of a multi-specialty general hospital rendering tertiary level health services. The study was approved by the Institution Ethics Committee and informed consent was obtained from all participants of the study. Study was conducted from August 2016 to September 2017.

Sample of the study: 100 subjects were included for this study, consisting of Experimental group which comprised of 50 spouses of consecutive in-patients admitted in the oncology department with diagnoses of cancer who satisfy the inclusion and 50 spouses of consecutive in-patients admitted in the psychiatry department with diagnosis of BPAD as controls. The socio-demographic variables were recorded in a specific proforma prepared for the study. Quality of life was assessed by using Short Form-36 (SF-36) in all the subjects.

Inclusion criteria:All subjects were spouses of in-patients, identified as the primary caregiver and selected consecutively aged 18 – 65 years who gave written informed consent.

Exclusion Criteria: Those who refused consent, Past history of any primary psychiatric disorder, Substance use disorder (other than tobacco) in the spouse.

Short Form-36 (SF-36)- This widely used questionnaire consisted of 36 items forming 8 domains or scales: physical functioning; social functioning; role physical (limitations in usual role activities because of physical problems); role emotional (limitations in usual role activities because of emotional problems); bodily pain; mental health; vitality; and general health perceptions.[15] It is an instrument to measure quality of life in normal population as well as in individuals with various disease impairments.[16]

Statistical Analysis: Statistical analyses were done using the Statistical Package for Social Sciences (SPSS) version 16.0 for Windows. Continuous covariates were expressed as mean with standard deviation (SD) and compared between groups using the unpaired student's t-test.

Results: Table 1: Sociodemographic profile of study sample.

PROFILE	**GROUP**	**EXPERIMENTAL GROUP**	**CONTROL GROUP**
Age (In years)	18-39 years	12 (24%)	10 (20%)
	40-64 years	38 (76%)	40 (80%)
Gender	Male	29 (58%)	29 (58%)
	Female	21 (42%)	21 (42%)
Religion	Hindu	49(98%)	48 (96%)
	Muslim	1 (2 %)	1 (2%)
	Others	1 (2 %)	1 (2%)
Education	Illiterate	23 (46%)	16 (32%)
	Primary School	13 (26)	8 (16%)
	Middle School	7 (14%)	8 (16%)
	High School	6 (12%)	7 (14%)
	Plus2/ Pre-degree	0 (0%)	4 (8%)
	Degree	0 (0%)	2 (4%)
	Post Graduate	1 (2 %)	5 (10%)
Marital duration (In years)	0-10	3 (6%)	8 (16%)
	11-20	7(14%)	15 (30%)
	21-30	14 (28%)	17 (34%)
	31-40	18 (36%)	4 (8%)
	41-50	8 (16%)	6 (12%)
Occupation	Unskilled Laborer	20 (40%)	28(56%)
	Skilled Laborer	15 (30%)	6 (12%)
	Government Employee	2 (4%)	1 (2%)
	Private Employee	2 (4%)	4 (8%)
	Self-Employment	0 (0%)	3 (6%)
	Business	0 (0%)	1 (2%)
	Others	11(22%)	7 (14%)
Location of residence	Urban	4 (8%)	8 (16%)
	Rural	44 (88%)	42 (84%)
	Others	2 (4%)	0 (0%)
Family type	Nuclear	29 (58%)	30(60%)
	Joint	21 (42%)	20 (40%)
Family income (rupees)	upto 20000/-	44 (88%)	29 (58%)
	21000 - 1 Lakh	6 (12%)	21 (42%)

The Table 1 shows sociodemographic data of the sample subjects, no significant difference among the various domains were observed.

Table 2: Clinical profile of spouse of cancer patients

Diagnosis	**Frequency**
Ca cervix	13 (26%)
Ca lung	6 (12%)
Ca ovary	4(8%)
others	54%

Table 2 shows the frequency of subjects according to the type of cancer among their spouse which were being attended by them. Maximum i.e. 26% were attending to patients suffering from Ca cervix, 12% Ca lung, 6% Ca ovary 8% and rest belonged to others types of cancer that included carcinoma of esophagus, small cell carcinoma, vocal cord, gall bladder, alveolus, scalp, breast, adenocarcinoma, pancreas, rectum, tonsil, larynx, spindle cell sarcoma, thorax, tongue, and leukemia.

Table 3: Clinical profile of spouse of bipolar affective disorder patients based upon ICD-10 guidelines.

Diagnosis	**Frequency**
Mania with psychotic with symptoms; F31.2	15 (30%)
Mania without psychotic symptoms; F31.1	13 (26%)
Severe depression with psychotic symptoms; F31.5	10 (20%)
Severe depression without psychotic symptoms; F31.4	10 (20%)
Moderate depression without somatic syndrome; F31.30	2 (4%)

Table 3: shows the frequency of subjects according to bipolar affective disorder type among their spouse which were being attended by them. Mania with psychotic symptoms 15(30%), Mania without psychotic symptoms 13(26%), Severe depression with psychotic symptoms

10(20%), Severe depression without psychotic symptoms 10(20%), Moderate depression without, Moderate depression without somatic syndrome 2(4%).

Table 4 : Duration of illness

Duration of illness	**Experimental group**	**Control group**
	Frequency(%)	
0- 1 year	38(76%)	8(16%)
1-2 years	7 (14%)	12(24%)
3-4 years	4 (8%)	7(14%)
More than 5 years	1 (2%)	23(46%)

Table 4 shows that in experimental group duration of illness was 76% within 0-1 years, 14% within 1-2 years, 8% within 3-4 years, and 2% for more than 5 years.

In control group the duration of bipolar affective disorder was 16% within 0-1 years, 24% within 1-2 years, 14% within 3-4 years, and 46% for more than 5 years

Table 5: Correlation of Total SF 36 score with marital duration in spouses of patients with cancer.

Marital duration		Sum of squares	Difference	Mean square	frequency	significance
Total SF 36	Between groups	1077.149	4	269.287	.941	.449
	Within groups	12879.498	45	286.211		
	Total	13956.648	49			

Table 5 shows no significance between the total SF 36 score and duration of marriage. It shows that there was insignificant statistical relationship at P value of 0.449 between duration of marriage and quality of life.

Table 6: Correlation of BPRS score with age, gender and type of family in spouse of patients with cancer.

Age		N	Mean	Std. Deviation	Std. Error Mean	Mean Difference	't'	P value
Total SF 36	18-39 years	12	59.48	13.993	4.040	1.488	.264	.793
	40-64 years	38	57.99	17.845	2.895			
Gender								
Total SF 36	Male	29	62.30	17.311	3.215	9.423	2.008	.050
	Female	21	52.88	14.974	3.268			
Type of family								
Total SF 36	Nuclear	29	54.15	16.120	2.993	-9.986	-2.139	.038
	Joint	21	64.14	16.531	3.607			

Table 6 shows no significance between the total SF 36 score and age, gender and type of family. It shows that there was insignificant statistical relationship at P value of 0.793, 0.50, 0.38 for age, gender and type of family respectively and quality of life.

Table 7: Comparison of quality of life in spouse of patients with cancer and control group.

	Group	N	Mean	Std. Deviation	Std. Error Mean	Mean Difference	't'	P value
Total SF 36	Experimental	50	58.35	16.877	2.387	2.917	1.061	.291
	Control	50	55.43	9.650	1.365			
PF	Experimental	50	80.90	23.532	3.328	6.100	1.511	.134

	Control	50	87.00	16.162	2.286			
RLPH	Experimental	50	68.50	43.098	6.095	2.500	.296	.768
	Control	50	66.00	41.268	5.836			
RLEP	Experimental	50	11.99	25.867	3.658	4.820	.999	.320
	Control	50	7.17	22.215	3.142			
EF	Experimental	50	49.59	25.257	3.572	6.392	1.436	.154
	Control	50	43.20	18.783	2.656			
EWB	Experimental	50	45.78	17.780	2.514	9.300	2.734	**.007**
	Control	50	36.48	16.196	2.290			
SF	Experimental	50	53.01	21.043	2.976	3.970	.871	.386
	Control	50	49.04	24.416	3.453			
Pain	Experimental	50	80.91	21.623	3.058	.490	.119	.905
	Control	50	81.40	19.405	2.744			
GH	Experimental	50	62.42	16.268	2.301	4.660	1.428	.157
	Control	50	57.76	16.370	2.315			

Table 7: shows that the mean Total SF 36 score for Experimental group that is spouses of cancer patients was 23.18, and for the control group that is spouse of bipolar affective disorder as 21.88. The 't' value was 1.518, found to be insignificant at P value .132. This infers that there was insignificant difference in the scoring of Total SF 36 between the two groups. Although it was found that there was insignificant difference between the various domains of Total SF 36 except EWB (Emotional well being) which was found to be ***significant at P value 0.007.*** It further infers that the experimental group had lesser scoring for emotional well being compared to the control group.

Discussion:

The present study was aimed to understand the quality of life of spouses where one is diagnosed with cancer. A total of 100 subjects were assessed, after fulfilling inclusion and exclusion criteria. Out of the 100 subjects, 50 were spouses of patients diagnosed with cancer and 50 were spouses of patients diagnosed with bipolar affective disorder admitted as indoor patients in oncology and psychiatric ward respectively. In the present study all the subjects were assessed for Quality of life by using SF-36.

The World Health Organization defines QoL as individual's 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. It is a broad ranging concept affected in a complex way by the person's physical health, psychological state, level of independence, social relationships, personal beliefs and their relationship to salient features of their environment.[17]

In the present study spouses of cancer patients were found to be have significantly poor quality of life. The mean Total SF 36 score for Experimental group that is spouses of cancer patients and for the control group that is spouse of bipolar affective disorder was found to be insignificant at P value 0.132. Although it was found that there was insignificant difference between the various domains of Total SF 36 between the two groups except EWB(Emotional well being) in the control group had lesser scoring for emotional well being compared to the experimental group(significant at P value 0.007).

Drabe N et al found QoL significantly lower but still within the normal range when compared to a healthy, age-matched female population . Additionally, no associations were found between wives' QoL, psychological distress, and time since diagnosis of their husbands' cancer. Athough wives diagnosed with an anxiety disorder reported significantly lower levels of QoL.[18] A study found lower QOL among husbands of women with breast cancer than comparison husbands when measured with the MOS SF-36, specifically in the subscales of general health, vitality, role-emotional, and mental health. [19]There were higher mean scores in most Q-LES-Q summary scales in the bipolar patients than in the schizophrenic patients. There were higher mean scores in the bipolar patients in some summary scales than in the healthy controls.[20]Results from a review suggest that the highest levels of distress were caused by patient's behavior (nearly 70% of caregivers was distressed by the way the illness had affected their emotional health and their life in general) and by the patient's role dysfunction (work, education and social relationships). [21]

Conclusion: The caregiving spouses of patients is an under researched area. Spouses of cancer patients had significant lower quality of life. The present study quantifies the burden caregiving spouses of cancer patients on the their Quality of Life .As primary caregivers are the main providers of support to the patient and care giving responsibilities may lead to social isolation therefore caregivers and patients will have to depend mainly on each other. Further research regarding the role and exchange of social support in the care giving process is recommended. Psychiatric evaluation and appropriate interventions in spouses of cancer patients assumes

clinical significance for a better outcome given the magnitude of services provided and the sacrifices made by family caregivers.

Limitation: The present study is encumbered by a small sample size which limits the generalization of the findings. The cross-sectional study design allows only limited inferences regarding the psychological process of coping and adaptation. Future studies may employ structured or semi-structured clinical interview methods to assess psychopathology, and taking into account details of clinical profile of patients with cancer and prognostic factors. Lastly Marital relationship prior to the illness should also be assessed as the nature of the patient/carer relationship prior to the cancer also predicts psychological problems amongst carers afterwards.

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