

A study to assess the effect of psychological distress, quality of life, and knowledge of self care among patients undergoing active treatment of cancer at PBM Hospital Bikaner.

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Introduction:

Cancer can have profound social and economic consequences for people in India, often leading to family impoverishment and societal inequity. Reported age-adjusted incidence rates for cancer are still quite low in the demographically young country. Slightly more than 1 million new cases of cancer are diagnosed every year in a population of 1.2 billion. In age-adjusted terms this represents a combined male and female incidence of about a quarter of that recorded in western Europe. However, an estimated 6 to 7 lacs deaths in India were caused by cancer in 2012. In age-standardized terms this figure is close to the mortality burden seen in high-income countries. Such figures are partly indicative of low rates of early-stage detection and poor treatment outcomes. Many cancer cases in India are associated with tobacco use, infections, and other avoidable causes. Social factors, especially inequalities, are major determinants of India's cancer burden, with poorer people more likely to die from cancer before the age of 70 years than those who are more affluent.¹

The diagnosis of cancer forces a person to rally physiologic and psychological energy to cope with this life threatening event. This places additional demands on establishing living patterns and suddenly changes the individual appraisal of and satisfaction with his or her current level of physical, emotional, and social functioning. In recent decades psychosocial factors have been added to known physical factors involved in the experience of cancer and quality of life. Quality of life is affected not only by the far reaching and lasting effects of cancer but also by the client variables of self esteem, learned resourcefulness and social support.² Cancer is a collective term describing a large group of diseases characterized by uncontrolled growth and spread of abnormal cells. The most common form of cancer is carcinoma, which originates in the skin or in the glandular tissue such as the breast or prostate gland. Another form of cancer, sarcoma affects connective and supportive tissue such as bone, muscle, cartilage and fat. Melanomas are more serious, often, but not always, manifested as skin cancers. Lymphomas affect the lymphatic system throughout the body, while leukemia's are cancers of the blood-forming organs.³

Objectives:

- 1.To assess the level of psychological distress experienced by patients undergoing active treatment of cancer.
2. To evaluate the quality of life of patients undergoing active treatment of cancer.
3. To assess the knowledge of self-care practices among patients undergoing treatment of cancer.
4. To find the association between psychological distress, quality of life, and self-care knowledge with selected demographic variables of patients undergoing treatment of cancer.

Methodology:

RESEARCH APPROACH: A Quantitative research approach was adopted for the present study.

RESEARCH DESIGN: In this study, Descriptive research design was used to assess evaluate the psychological distress, quality of life and self care knowledge in cancer patients.

SETTING OF THE STUDY: The study was conducted at Acharya Tulsi Regional Cancer Treatment and Research Institute Bikaner.

POPULATION: population consists of all the cancer patients those are undergoing active treatment of cancer at Acharya Tulsi Regional Cancer Treatment and Research Institute Prince Bijay Singh Memorial Hospital Bikaner.

SAMPLE AND SAMPLE SIZE: Sample consists of the subjects of the population selected to participate in study. In the present study, sample consists of 100 patients of cancer at Acharya Tulsi Regional Cancer Treatment and Research Institute which is attached to Prince Bijay singh Memorial Hospital Bikaner. **SAMPLING TECHNIQUE:** Non-probability Convenient Sampling Technique was applied to select the subjects for present study.

TOOL FOR DATA COLLECTION: The tool consists of four sections: Section A: Socio demographic Performa which include Age, gender, religion, marital status, educational status, occupation, family monthly income, etc. Section B: A Structured knowledge questionnaire as an assessment tool for distress level consists of 15 item. Section C: A Structured knowledge questionnaire as an assessment tool for quality of life consists of 15 item. Section D: A Structured knowledge questionnaire to assess self-care knowledge consists of 15 item.

RELIABILITY OF THE TOOL: In order to establish the reliability, Cronbach's alpha was used to test the reliability of the tool. The reliability coefficient obtained for tool on psychological distress was = 0.74, quality of life was = 0.72, self care knowledge = 0.71 found to be internally consistent and reliable for the study.

ETHICAL CONSIDERATION: permission was obtained from the appropriate authorities to conduct study and informed consent was taken as well from participants.

Results ad findings:

Table 1: Frequency and percentages of distribution of socio - demographic variables of cancer patients. n = 100

S. No.	Demographic profile		Frequency	Percentage
1.	Age	18-30 years	07	07
		31-40 years	15	15
		41-50 years	22	22
		Above 50 years	56	56
2.	Gender	Male	46	46
		Female	54	54
		Transgender	00	00
3.	Religion	Hindu	89	89
		Muslim	09	09
		Sikh	02	02
		Christian	00	00

4.	Marital Status	Married	99	99
		Unmarried	01	01
		Widow	00	00
		Divorce	00	00
5.	Educational status	Illiterate	45	45
		Secondary	47	47
		Senior secondary	07	07
		Graduate and above	01	01
6.	Annual income of the family	<20,000 Rs	69	69
		20,000-40,000 Rs.	24	24
		40,001- 60,000 Rs.	07	07
		Above 60,000 Rs.	00	00
7.	Occupation	Unemployment	33	33
		Businessman	01	01
		Govt. employee	03	03
		Private employee	63	63

Table-2 : Levels of distress among the cancer patients. (n=100)

S. No.	Level of distress	Score range	N (%)
1.	MILD DISTRESS	15-29	57 (57%)
2.	MODERATE DISTRESS	30-59	43 (43%)
3.	SEVERE DISTRESS	>60	00 (00%)

Table-3 : Levels of quality of life among the cancer patients. (n=100)

S.NO.	Level of QOL	SCORE RANGE	N (%)
1.	Poor Quality of Life	15-30	14 (14%)
2.	Moderate Quality of Life	31-45	69 (69%)
3.	Good Quality of Life	46-60	16(16%)
4.	Excellent Quality of Life	61-75	1(1%)

Table-4 : Levels of self care knowledge among the cancer patients. (n=100)

S. No.	Levels of self care knowledge	Score Range	N (%)
1.	High Knowledge	31-45	00 (00%)
2.	Moderate Knowledge	16-30	71 (71%)
3.	Low Knowledge	0-15	29(29%)

As per age groups, most of the patients (56%) were between above 50 years while 22% were between 41-50 years. Fifteen patients were from 31-40 years and seven patients from 18 to 30 years. As per gender distribution, majority of patients (54%) were female while 46% were male. No patient was transgender. As per religion, majority of patients (89%) were Hindu followed by 9 patients were Muslim. Only 2 patients were from Sikh community. As per marital status of the patient, majority of patients (99%) were parents. married and one patient was unmarried. Educational status of patients stated that majority of patients (47%) were having secondary education followed by 45% were illiterate. Only one patient was graduation and 07% had education till secondary education. According to annual income of the family, 69% patients having less than 20,000 Rs. followed by 24% have income between 20 to 40 thousands. Only 7 patients have income between 40,001 to 60 thousands. In terms of occupation, one third patients were unemployed and 63% were having private job. Only 01% patients were having business and 3% patients have govt. job.

Levels of distress among the cancer patients: Majority of patients (57%) have mild distress and 43% patients have moderate distress. No patient had severe distress. Mean distress score among the patients was 29.23 and SD was 5.834. The median stress score was 29.

Levels of quality of life among the cancer patients: Majority of patients (69%) have moderate QOL followed by 16% patients have good QOL. Out of 100 patients, 14% have poor QOL while only one patient had excellent QOL. Mean QOL score among the patients was 38.12 and SD was 7.601. The median QOL score was 38.

Levels of self care knowledge among the cancer patients: Majority of patients (71%) have moderate **self care knowledge** followed by 29% patients have low **self care knowledge**. Out of 100 patients, no patient had high level of self care knowledge. Mean **self care knowledge** score among the patients was 18.94 and SD was 3.454. The median **self care knowledge** score was 18.

Association between selected socio - demographic variables of cancer patients and their level of psychological distress.

According to age distribution, the calculated chi-square value was 0.879 at df-3. The obtained value of chi-square was less than table value. The p-value was 0.830 so there was no significant association between age and level of distress.

As per gender distribution, the calculated chi-square value was 0.288 at df-1. The obtained value of chi-square was less than table value. The p-value was 0.621 so there was no significant association between gender and level of distress.

As per religion, the calculated chi-square value was 2.733 at df-2. The obtained value of chi-square was less than table value. The p-value was 0.255 so there was no significant association between religion and level of distress.

In terms of marital status, the calculated chi-square value was 1.339 at df-1. The obtained value of chi-square was less than table value. The p-value was 0.247 so there was no significant association between marital status and level of distress

As per educational status, the calculated chi-square value was 6.535 at df-3. The obtained value of chi-square was less than table value. The p-value was 0.09 so there was no significant association between education and level of distress.

As per family income, the calculated chi-square value was 2.631 at df-2. The obtained value of chi-square was less than table value. The p-value was 0.268 so there was no significant association between family income and level of distress.

In terms of occupation, the calculated chi-square value was 6.331 at df-3. The obtained value of chi-square was less than table value. The p-value was 0.09 so there was no significant association between occupation and level of distress.

Association between selected socio - demographic variables of cancer patients and their level of QOL. According to age distribution, the calculated chi-square value was 7.478 at df-9. The obtained value of chi-square was less than table value. The p-value was 0.587 so there was no significant association between age and level of QOL.

As per gender distribution, the calculated chi-square value was 1.266 at df-3. The obtained value of chi-square was less than table value. The p-value was 0.737 so there was no significant association between gender and level of QOL.

As per religion, the calculated chi-square value was 6.406 at df-6. The obtained value of chi-square was less than table value. The p-value was 0.379 so there was no significant association between religion and level of QOL.

In terms of marital status, the calculated chi-square value was 6.205 at df-3. The obtained value of chi-square was less than table value. The p-value was 0.102 so there was no significant association between marital status and level of QOL.

As per educational status, the calculated chi-square value was 108.57 at df-9. The obtained value of chi-square was more than table value. The p-value was <0.0001 so there was a significant association between education and level of QOL.

As per family income, the calculated chi-square value was 22.627 at df-6. The obtained value of chi-square was more than table value. The p-value was 0.0009 so there was a significant association between family income and level of QOL.

In terms of occupation, the calculated chi-square value was 39.197 at df-9. The obtained value of chi-square was more than table value. The p-value was <0.0001 so there was a significant association between occupation and level of QOL.

Discussion: The present study was conducted among 100 cancer patients to assess the psychological distress, quality of life, and knowledge of self care. The research highlighted the levels of distress perceived by cancer patients. The findings shown that the majority of patients (57%) have mild distress and 43% patients have

moderate distress. No patient had severe distress. In contrast to research findings, **Karunanithi G et al (2018)** done a study to assess psychological Distress and its Effect on Quality of Life and Social Functioning in Cancer Patients. The findings revealed that out of 251 patients, 30% had severe psychological distress. Present research findings communicated that the mean distress score among the patients was 29.23 and SD was 5.834. The median stress score was 29. In this context, **Karunanithi G et al (2018)** revealed that median psychological distress score was 44. This result was near to our research outcomes in context to psychological distress. Another study by **Papadopoulou A et al (2022)** was conducted among 150 cancer patients. The cancer patients tended to have higher level of distress ($p=0.003$). The present study also revealed that psychological distress score was high among the nurses. A cross-sectional study was conducted by **Shalata W et al** in oncology department at a tertiary medical center. The study communicated that the cancer patients have psychosocial stress associated with cancer. The present study findings were similar to this research. The present study also assessed the levels of quality of life among the cancer patients. The findings highlighted that the majority of patients (69%) have moderate QOL followed by 16% patients have good QOL. Out of 100 patients, 14% have poor QOL while only one patient had excellent QOL. **Karunanithi G et al (2018)** done a study to assess psychological Distress and its Effect on Quality of Life and Social Functioning in Cancer Patients. The findings revealed that 25.6% patients had poor QOL. This finding was in support of our research work.

The present research highlighted that the mean QOL score among the patients was 38.12 and SD was 7.601. The median QOL core was 38. **Karunanithi G et al (2018)** done a research to assess psychological distress and its effect on quality of life and social functioning in cancer patients. The study revealed that median QOL score was 64. **Muzzatti, B et al** done a survey on quality of life and psychological distress during cancer among young breast cancer female patients. The research communicate that better QoL was reported by the cancer patients. The present study also revealed that same.

In present study, the researchers evaluated the finding related to self care knowledge among cancer patients. In present study, the majority of patients (71%) have moderate **self care knowledge** followed by 29% patients have low **self care knowledge**. Out of 100 patients, no patient had high level of self care knowledge.

A quasi-experimental study was conducted by **Sivakumar VP and Susila C.(2021)** using purposive sampling technique, 200 cancer patients were selected. The mean self care knowledge score was 21.33 which was nearly similar to our research. There was adequate knowledge (95%) on self-care measures.

Additionally, the present study findings revealed that variables like age, residence and income were not significantly associated ($p<0.05$) with level of distress. The findings revealed that variables like education, income and occupation were significantly associated ($p<0.05$) with level of QOL and remaining variables were not significantly associated ($p>0.05$) with level of QOL. The findings revealed that only occupation of the subjects was significantly associated ($p<0.05$) with level of self care knowledge.

Conclusion: The present study concluded that the majority of patients have mild distress and no patient had severe distress. The majority of patients have moderate QOL only few patients have poor QOL while only one patient had excellent QOL. The majority of patients have moderate self care knowledge. Cancer patients need to relief from the distress level and enhance QOL and self care knowledge among cancer patients.

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