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Perceived Needs, Psychological Distress and Quality Of Life of Elderly Cancer Patients

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ABSTRACT:
Background: Cancer acts as a negative stressor threatening lives, exerting serious impact on the patients' physical and mental health and people with cancer suffer significant emotional morbidity and it affects the quality of life of the individual. The objective of the study was to assess the perceived needs, psychological distress and quality of life of elderly cancer patients.

Method: A descriptive research design with survey approach was adopted with sample consists of 100 elderly cancer patients (male and female) of age more than 60 years with primary cancer. Purposive sampling technique was used in the study to select the sample from the population.

Result: While assessing the perceived needs, psychological need was more comparing to other needs of the elderly cancer patients. Psychological distress was found to be more than the average. For quality of life, in functional scale, emotional functioning was found to be more than the physical functioning domains and the symptom scale. Education, occupation, marital status and cancer site are some of the variables which significantly affect the perceived needs, psychological distress and quality of life of the cancer patients.

Conclusion: A comprehensive understanding of elderly patients' unmet perceived needs and psychological distress can enable healthcare providers to develop evidence-based and tailored interventions to support them to cope with the situation and improve their quality of life.

KEY WORDS: Perceived needs, psychological distress, and quality of life.

I. INTRODUCTION

Cancer is a major public health problem worldwide, and the burden caused by cancer continues to increase.[1] Cancer is one of the leading causes of death in the elderly population and a variety of stressors, as well as acute side effects of cancer treatments may extensively reduce patients' Quality of Life (QoL). Research has shown that upon diagnosis cancer patients suffer from serious mental health problems such as anxiety and depression.[2] Patients diagnosed with cancer have many needs with regard to relief from physical and psycho-social distress and to improve their quality of life. The International Psychological Association of Oncology considers psychological distress as the sixth vital sign in addition to body temperature, pulse, respiratory rate, blood pressure and pain, and makes the assessment of psychological distress routine in clinical nursing care.[3] Optimal care of the patient with cancer incorporates effective physical and psychological care. Furthermore, since elderly cancer patients are physically, psychologically and socially heterogeneous in addition to differing from younger patients with regard to their physical functioning, psychological well-being, life circumstances, role demands, values and preferences, the treatment and care for elderly cancer patients is complex, especially considering individualized optimal care.[4,5,6]

II. METHODS

The present study used descriptive research design with survey approach. Elderly cancer patients of more than 60 years of age admitted in Dr. B. Borooah Cancer Institute, Guwahati, Assam were selected for the study. Study was conducted from the month of May to July 2019.

Participants : In the study the population consists of all the elderly cancer patients (men and women) of more than 60 years of age. Purposive sampling technique was used to select the sample of 100 elderly cancer patients from the population. The elderly cancer patients in this study refer to primary cancer patients and had a confirmed cancer diagnosis by the histopathology without distant metastasis. Inclusion criteria for the sample were: a) Patients who are willing to participate in the study, b) have the awareness of the diagnosis of cancer and c) an ability to understand the Assamese language. The exclusion criteria were patients with a) distant metastasis, b) serious other health problems or disease including cardio vascular disease, tuberculosis, diabetes mellitus, liver disease and kidney disease and c) severe mental or cognitive disorders (e.g. uncontrolled schizophrenia, dementia and delirium).

Measures: Socio demographic proforma was used including sex, education, occupation, marital status and income (per month) and cancer site to collect the information from the sample.

Patients perceived needs assessment: The Short-form Supportive Care Needs Survey (SCNS SF-34) was used for assessing the needs perceived by patients with cancer. The SCNS SF-34 is a self-administered instrument made up of 34 items identifying the needs of cancer patients. It has a five-factor structure consisting of health system and information, psychological, physical and daily living, patient care and support, sexuality needs. The reliability and the validity of the Assamese version of SCNS SF-34 have been confirmed statistically for this study.

Psychological distress assessment: "Kessler Psychological Distress Scale (K10)" was used for assessing the psychological distress of the patients. The 10-item Kessler Psychological Distress Scale (K10) is a short measure of non-specific psychological distress based on 10 items that measure the frequency of non-specific psychological distress symptoms during the previous month. K10 scores could range from 0 to 40, with higher scores indicating higher levels of psychological distress.[7] The reliability and the validity of the Assamese version of K10 have been confirmed statistically for this study.

Quality of life assessment: The QOL of the patients was assessed using the European Organization for the Research and Treatment of Cancer (EORTC) QLQ-C30 (25). The QLQ-C30 is a 30 item, self reported questionnaire covering functional and symptom-related aspects of QOL in cancer patients. The validity and the reliability of the Assamese version of the EORTC QLQ-C30 have been confirmed.[8] A high functional score represents a high QOL. A high symptom score indicates a strong symptom.

Procedures: The study was approved by the Institutional Ethics Committee of Dr. B. Borooah Cancer Institute, Guwahati, Assam (Ref. No.: BBCI/Misc – 119/MEC/262/2018). All participants were provided written informed consent prior to enrolment. The objectives of the study have been explained to the sample and their consent has been taken and they have been assured of confidentiality of the data obtained.

Statistical analyses: All analyses were conducted using SPSS version 21. Descriptive statistics were used to describe the sample characteristics. '*t*' test was used depending on fulfillment of normality assumption and ANOVA was used to compare more than two groups for continuous data. A *P* value less than 0.05 is considered as statistically significant at 5% level of significance. For assessing the quality of life, linear transformation scale was used. All of the scales and single-item measures range in score from 0 to 100. A higher score represents a higher ("better") level of functioning, or a higher ("worse") level of symptoms.

III. RESULTS

Participant characteristics

Table 1: Distribution of selected sample characteristics of the subjects:

Sample characteristics		Number of patients (frequency)	Percentage (%)
Sex	Male	57	57
	Female	43	43
Education	Illiterate	16	16
	Primary schooling	43	43

	High schooling	24	24
	Higher secondary	11	11
	Graduate and above	6	6
Occupation	House wife	32	32
	Farmer	33	33
	Business	13	13
	Job	22	22
Marrital status	Married	84	84
	Unmarried	4	4
	Married but single	12	12
Income (per month)	< 10,000	25	25
	11,000 – 20,000	42	42
	21,000 – 30,000	15	15
	> 31,000	18	18
Cancer site	Lungs	21	21
	Intestine	31	31
	Mouth	17	17
	Liver	2	2
	Ovary, Uterus and breast	24	24
	Others	5	5

The table 1 shows majority of the samples 57% were from male category, 43% were with primary schooling, 33% farmer, 84% were married, 42% have income 11,000-20,000 and majority 31% were with intestinal cancer.

Perceived Needs, psychological distress and Quality of Life assessment in relation to sample characteristics of the subjects:

Table 2: Showing quality of life, overall perceived needs and psychological distress in relation to sex:

Variable sub sets	Gender (mean ± SD)		*P* value
	Male (n=57)	Female (n=43)	
Global Health Status	38.95±17.34	35±15.05	0.236
Overall Functioning	39.72±15.73	35.26±12.27	0.127
Overall Symptoms	41.25±13.12	44.33±11.88	0.229
Overall Perceived needs	40.02±7.67	43.05±9.84	0.087
Psychological Distress	15.98±13.71	17.72±13.49	0.529

Table 2 showing comparison of mean and standard deviation (SD) of the items of quality of life, perceived needs and psychological distress in relation to gender. No statistically significant difference in Global health Status was observed in our study, *P*=0.236; However it is observed that males (38.95±17.34) have better global health status than the female (35±15.05), overall functioning is better in male (39.72±15.73) than the female (35.26±12.27), *P*=0.127, overall symptoms are more in female (44.33±11.88) than the male (41.25±13.12), *P*=0.229, overall perceived needs are more in female (43.05±9.84) than the male (40.02±7.67), *P*=0.087 and psychological distress is more in female (17.72±13.49) than the male (15.98±13.71), *P*=0.529.

Table 3: Showing the quality of life, overall perceived needs and psychological distress in relation to education:

Variable sub sets	Education (mean ± SD)					*P* value
	Illiterate (n=16)	Primary schoolong (n=43)	High schooling (n=24)	Higher secondary (n=11)	Graduate and above (n=6)	
Global Health Status	32.63±11.55	38.26±15.51	38.17±16.76	41.73±23.2	30.5±19.42	0.511
Overall Functioning	31.13±9.46	37.44±12.91	41.54±16.96	35.91±17.3	46.67±15.15	0.109
Overall Symptoms	46.56±8.17	42.23±12.85	42.58±14.38	40.55±13.52	38±13.1	0.618
Overall Perceived needs	45.25±11.12	40.7±7.46	40.04±9.11	43.64±8.03	36.17±7.96	0.145
Psychological Distress	26.63±19.26	15.05±10.61	15±12.82	14.27±12.45	13.83±12.16	0.034

Table 3 showing comparison of mean and standard deviation (SD) of the items of quality of life, perceived needs and psychological distress in relation to education. There is no statistically significant difference in Global health Status is observed in our study, *P*=0.511; However, higher secondary pass (41.73±23.2) have better global health status than the other, overall functioning is better in graduate (46.67±15.15) than the other, *P*=0.109, overall symptoms are more in illiterate (46.56±8.17) than the other, *P*=0.618; overall perceived needs also is more in illiterate (45.25±11.12) than the other, *P*=0.145, and psychological distress are more in illiterate (26.63±19.26) than the other, and statistically significant difference was found in illiterate as *P*= 0.034.

Table 4: Showing the quality of life, overall perceived needs and psychological distress in relation to occupation:

Variable sub sets	Occupation (mean ± SD)				*P* value
	House wife (n=33)	Farmar (n=33)	Business (n=13)	Job (n=22)	
Global Health Status	33.73±14.56	38.48±15.23	37.92±23.13	40.43±16.48	0.479
Overall Functioning	34.33±11.51	36.24±12.18	43.69±16.45	42.05±18.87	0.098
Overall Symptoms	44.27±11.76	43.09±10.52	36.92±11.95	42.57±16.75	0.358
Overall Perceived needs	43.58±10.81	41±6.65	40.23±4.97	38.95±9.57	0.267
Psychological Distress	19.09±14.58	16.52±14.74	11±4.24	16.9±13.52	0.348

Table 4 showing comparison of mean and standard deviation (SD) of the items of quality of life, perceived needs and psychological distress in relation to occupation. There is no statistically significant difference in Global health Status is observed in our study, *P*=0.479; However, the samples with job (40.43±16.48) have better global health status than the other, overall functioning is better in persons with business (43.69±16.45) than the other, *P*=0.098, overall symptoms were more in house wife (44.27±11.76), *P*=0.358, overall perceived needs and psychological distress are also more in house wife (43.58±10.81 and 19.09±14.58 respectively) than the other, *P*= 0.267 and 0.348 respectively.

Table 5: Showing the quality of life, overall perceived needs and psychological distress in relation to marital status:

Variable sub sets	Marital Status (mean ± SD)			*P* value
	Married (n=84)	Unmarried (n=4)	Married but single (n=12)	
Global Health Status	37.6±15.8	24.8±16.5	38.9±20.3	0.293
Overall Functioning	37.4±12.7	37.3±19.3	41.1±23.2	0.707
Overall Symptoms	42.9±12.5	45.8±10.4	39.1±14.7	0.545

Overall Perceived needs	42.3±8.3	38.5±13.3	35.6±8.8	0.036
Psychological Distress	16.2±13	23.8±20.3	18.2±15.6	0.517

Table 5 showing comparison of mean and standard deviation (SD) of the items of quality of life, perceived needs and psychological distress in relation to marital status. There is no statistically significant difference in Global health Status is observed in our study, *P*=0.293; however, was is observed that the samples who are married but single (38.9±20.3) have better global health status and overall functioning (41.1±23.2), *P*= 0.707 than the other, overall symptoms and psychological distress are more in unmarried (45.8±10.4 and 23.8±20.3 respectively) with *P*= 0.545 and 0.517 respectively and overall perceived needs are more in married participants (23.8±20.3) than the other with the statistically significant *P* value of 0.036.

Table 6: Showing the quality of life, overall perceived needs and psychological distress in relation to income:

Variable sub sets	Income (per month) (mean ± SD)				*P* value
	<10,000 (n=25)	11,000-20,000 (n=42)	21,000-30,000 (n=15)	>31,000 (n=18)	
Global Health Status	33.2±15.02	38.4±15.88	42.13±17.65	36.11±18.43	0.375
Overall Functioning	33.8±11.88	37.4±14.54	36.93±10.72	45±18.22	0.089
Overall Symptoms	43.36±9.1	44.5±12.94	39.8±10.58	39.28±16.99	0.393
Overall Perceived Needs	43.6±12.06	40.6±8.2	39±5.07	41.78±6.59	0.383
Psychological Distress	21.48±15.34	14.62±12.26	18±14.27	14±12.53	0.177

Table 6 showing comparison of mean and standard deviation (SD) of the items of quality of life, perceived needs and psychological distress in relation to income (per month). However, it was observed that the samples who have the monthly income 21,000 to 30,000 (42.13±17.65) have better global health status than the other *P*= 0.375, overall functioning is better in persons with the income >31,000 (45±18.22) with *P*=0.089, overall symptoms are more with person having income 11,000 to 20,000 (44.5±12.94) with *P*= 0.393 and overall perceived needs and psychological distress are more in persons with income less than 10,000 (43.6±12.06 and 21.48±15.3 respectively) than the other with the *P* =.0.383 and 0.177 respectively.

Table 7: Showing the quality of life, overall perceived needs and psychological distress in relation to cancer site:

Variable sub sets	Cancer Site (mean ± SD)						*P* value
	Lungs (n=21)	Intestine (n=31)	Mouth (n=17)	Liver (n=2)	Ovary, uterus and breast (n=24)	Others (n=5)	
Global Health Status	29.76±15.2	41.57±16.95	40.53±14.4	16.5±23.34	37.46±14.08	39.8±25.12	0.062
Overall Functioning	40.52±16.24	38.7±17.39	35.71±10.8	26±19.8	37.04±11.08	36.2±15.61	0.762
Overall Symptoms	40.1±10.6	44.03±14.11	43.59±14.21	55±14.14	41.63±11.26	40.8±14.74	0.64
Overall Perceived needs	39.38±7.85	44.2±10.66	38.41±6.01	54.5±21.92	39.63±4.9	44.4±11.26	0.029
Psychological Distress	17.43±16.59	21.57±16.21	11.41±7.58	24±19.8	13.29±8.72	14.8±9.83	0.121

Table 7 showing comparison of mean and standard deviation (SD) of the items of quality of life, perceived needs and psychological distress in relation to cancer site. There is no statistically significant difference in Global health Status is observed in our study, *P*=0.062; however it is observed that the samples with intestinal cancer (41.57±16.95) have better global health status than the other, overall functioning is better in persons with lung cancer (40.52±16.24) than the other, *P*=0.762, overall symptoms are more with person having liver cancer (55±14.14), *P*=0.64 and overall perceived needs are more in persons with liver cancer (54.5±21.92) where it

was found to be statistically significant with *P* value of 0.029 and psychological distress also are more in persons with liver cancer (54.5±21.92 and 24±19.8) than the other where *P*=0.121 .

IV. DISCUSSION:

The present study demonstrated that in the perceived needs psychological need is more comparing to other need domains. It is followed by health system and information needs, physical and daily living needs, patient care and support needs and sexual needs. This finding was consistent with the results of previous studies conducted in cancer patients.[9, 10,11,12,13,14,15,16]

With regard to psychological distress, the elderly cancer patients are not experiencing more psychological distress. Although some previous studies found that relatively younger cancer patients were more likely to experience severe psychological distress and married participants, those with higher education and higher monthly income had significantly lower psychological distress score compared with single patients, those with lower education, and lower monthly income.[17,18,19] As it was found in the study that the elderly cancer patients have less psychological distress, they can maintain emotional functioning in a better way as it was found in the quality of life assessment. Another study has found that people of all ages have similar concerns and levels of anxiety and depression whilst receiving radiotherapy for cancer.[20] Nevertheless, the current findings suggest the need for appropriate care and support for elderly cancer patients with psychological distress.In the context of cancer, QoL by its nature is a patient's overall appraisal of the effect of cancer and its treatment. It is a patient-centered, relevant and key clinical parameter that can assist and support clinicians in setting goals and mapping avenues for effective and tolerable cancer treatment regimens beyond extending patient survival.[21]

While assessing the Quality of Life, in functional scale emotional functioning (12.32 ± 2.344) and physical functioning (11.91 ± 2.433) was found to be more than the others. In linear transformation score, overall symptom (42.6 ± 12.6) is more than the overall perceived needs (41.3 ± 8.8) and overall functioning (37.8 ±14.4). Global health status (37.3 ± 16.4) is more than the psychological distress (16.7 ± 13.6). The general quality of life of the elderly cancer patients was similar in both sexes which were similar to the other study.[22] In some other study, education occupation, marital status and cancer site are positively associated with the quality of life of the patients.[23] There are some important findings in the QOL domains. The elderly patients had a better emotional functioning than the physical functioning, suggesting that the influence of aging on the physical status may be reflected in the QOL results. This means, the subjects had a lower physical functioning than the emotional functioning. On the other hand, concerning the symptom-related QOL, the elderly patients had lesser symptomatology or problem in diarrhea, dyspnea, constipation. Furthermore, the elderly patients showed better social functioning, cognitive functioning and role functioning and experienced fewer financial difficulties.

Clinical implications: Finding these perceived needs and psychological distress, the patients coping ability and adjustment capacity will be known better for delivering the appropriate need based care. There is also importance of measuring QoL among cancer patients. Assessing the QoL of the cancer survivors, their areas of need will be better known and thus appropriate care can be provided. Medical staff should provide elderly cancer patients with good clinical care considering the different impacts of aging on each quality of life dimension.

Study limitation: The study has some limitations that we do not have any information about the elderly patients perceived needs, psychological distress and QoL before their diagnosis, thus we are unable to examine the change in perceived needs, psychological distress and QoL before and after cancer diagnosis.

V. CONCLUSION:

Optimal care of the patient with cancer incorporates effective physical and psychological care. All members of the treatment team may also play a role in strengthening the patient's own resources by providing additional emotional, informational and practical assistance, and appropriately fostering a sense of hope or optimism and meet the perceived needs of the patients, manage the psychological distress and improve the patients' Quality of Life.

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