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Level of Pain and Hope among Cancer Patients Receiving Treatment; a Cross-Sectional Study in Oncology Unit of Selected Hospitals at Bagalkot

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Abstract **Original Research Article**

Background*:** The hope of oncology patients appears to be related to a variety of factors, both physical and psychological in this Studies have examined the relationships among hope and physical, psychological, and demographic factors in oncology patients and very often did not include those with low hope, as a multidimensional and dynamic construct, is influenced by multiple factors and is defined as the possibility of a better future from an uncertain and difficult present. Identifying factors that influence the hope of newly diagnosed cancer patients is of great importance as hopelessness is a risk factor for suicide, depression, and desire for hastened death in cancer patients. Hope is considered a vital factor in helping cancer patients manage their illness, allowing them to activity engage in treatment and maintain a positive outlook despite experiencing pain. ***Aims*:** The aim of the study was to assess the level of pain and hope among cancer patients receiving treatment in oncology unit of selected hospitals at Bagalkot. ***Methodology: The level of pain was measured using universal pain assessment tool and hope was measured using the adult hope scale from a convenient sample of 80 cancer patients receiving treatment in oncology unit of selected hospitals at Bagalkot in a cross-sectional design. The data were analyzed using descriptive and inferential statistics. ***Results*:** Findings indicates that level of pain among cancer patients reveal that the majority of cancer patients (40%) had a moderate level of pain, the remaining (20%) of them had a worst pain and (18.75%) of them had a severe and mild level of pain and (2.5%) of them had no any pain, Results depict that the total mean percentage of level of pain among cancer patients was 5.42%, with a mean and SD of 5.425±5.65. A chi-square test was calculated to assess the association of the level of pain with their selected socio demographic variables, and a significant association was found between the level of pain and age of cancer patients ' (X^2=0.0552), sex (X^2=0.0196), Education (X^2<.0001), Stage of cancer (X^2<.0001), Chemotherapy cycle (X^2<.0001), Radiation therapy (X^2=0.0005). The significant relationship was found between level of pain and socio demographic variables in cancer patients. Findings indicate that hope among cancer patients reveal that the majority of cancer patients (65%) had high level of hope, (35%) had good level of hope and none of them had poor level of hope. The mean, standard deviation and average percentage of cancer patients hope scores shows that the overall percentage of hope level was (69.88%), while the mean and standard deviation are 69.5 ± 7. 78. No significant association was found between the hope level of cancer patients and any of the socio-demographic variables. ***Conclusion*:** The findings of the study concluded that most of the cancer patients had moderate level of pain and most cancer patients had a high level of hope. This study is effective in identifying the level of pain and hope among cancer patients.

Keywords: Assess, Level of pain, Hope, Cancer, Treatment and Receiving.

INTRODUCTION

"Don't Hope for A Life with No Pain; Hope for A Life with Good Pain."

The hope of oncology patients appears to be related to a variety of factors, both physical and psychological However, a limited number of studies have examined the relationships among hope and physical, psychological, and demographic factors in oncology patients and very often did not include those with low hope scores. Moreover, very few studies have been conducted with persons newly diagnosed with

cancer. Hope, as a multidimensional and dynamic construct, is influenced by multiple factors and is defined as the possibility of a better future from an uncertain and difficult present. Identifying factors that influence the hope of newly diagnosed cancer patients is of great importance as hopelessness is a risk factor for suicide, depression, and desire for hastened death in cancer patients [1].

Pain is a common symptom in cancer patients, with 70% of patients being expected to report it, based on its duration, pain can be categorized as acute or chronic, with chronic pain lasting longer than three months. Chronic pain in particular affects 40–70% of the patients with a cancer diagnosis and approximately 32% of these cases are estimated to be undertreated, which compromises the quality of life of both patients and their caregivers, additionally, pain leads to an increase in medical expenditures and significant economic costs, to reduce the complications associated with chronic pain and improve the quality of care, healthcare professionals need to be aware of and implement strategies to an effective chronic pain management for both patients and their caregivers in a continuous manner throughout the clinical pathway, therefore, effective chronic pain management is crucial in many domains both at the patient- and the organizational-level and should be integrated in a comprehensive assessment and symptom control performed by the healthcare professionals, to achieve an optimal pain management for cancer patients, standard care recommends the combination of pharmacological measures (e.g., opioid medication) with physical therapy (e.g., exercise, acupuncture, massage, and transcutaneous electric nerve stimulation), psychosocial therapy (e.g., mindfulness, supportive therapy), and herbal supplementation [2].

Cancer is the main health issue in the community across the world. Cancer is a one of the major public health Problem both in developed and developing countries around the globe. Quality-of-life (QOL) of a cancer patient before and after the treatment is an important issue especially for the cancer survivors, their families, and the care providers. In cancer prospective, Quality of life can be defined as a sense of wellbeing, it is a multidimensional perspective that includes dimensions such as physical, psychological, social, and spiritual, changes in one QOL dimension can influence perceptions in other dimensions also. Globally, cancer is one of the most common causes for morbidity and mortality [3].

The number of newly diagnosed cancer cases increased by 33% globally between 2005 and 2015, and a progressive increase in cancer incidence was expected (global burden of disease cancer *et al*., 2017). A rise in new cancer cases at an average annual rate of 2.5% was also reported in, meanwhile, there has been a significant reduction in cancer mortality due to novel treatments in recent decades, particularly in high-income countries, nonetheless, cancer patients experience feelings of hopelessness and vulnerability to depressive symptoms, the 2014–2018 oncology nursing society research priorities clearly indicated the need to evaluate the positive aspects of care, the protective factors to patient and family caregivers, such as hope. The concept of hope has long been postulated as an "overall perception that goals can be met". In the oncological context, hope is a state of mind that entails a positive outlook to achieving a tangible outcome while maintaining a realistic understanding of possible negative outcomes. The influence of hope has yet to be fully explored in terms of the physical outcomes of rehabilitating cancer patients. Nurses have been offering psychological support to cancer patients, but this is not well articulated, little consistency or adoption of low-intensity psychological interventions has been developed and offered by nurses [4].

The communication of distressing news is demanding for both doctor and patient. Disclosure of a short life expectancy has been specifically identified by both clinicians and patients as an important and contentious issue, with the debate having previously focused on whether to tell the patient the prognosis, but in more recent times, the debate has focused on what information to give and how to convey it. Prior research demonstrates that a clear majority of cancer patients in the western world reports a preference for detailed information about their disease and expected outcome, although information needs can vary across different phases of the illness. Legal rulings have emphasized the responsibility of doctors to provide all necessary information in some jurisdictions. Nevertheless, patients often misunderstand the status of their disease and the aim of treatment and commonly overestimate their life expectancy. This may impact on decision making, particularly concerning anticancer treatment that may have side effects and reduce quality of life [5].

INSTRUMENTS

Universal Pain Assessment Tool:

The Universal assessment tool was used to assess the level of pain among cancer patients. There are 5 items for pain assessment tool score the scores are as follows: 1: No pain; 2: Mild pain; 3: Moderate pain; 4: Severe pain; and 5; Worst pain. Confidence in pain level during cancer patients was determined by the test (r= 0.2215) and was found to be equally reliable.

Adult Hope Scale:

The adult hope scale was used to assess the hope among cancer patients. There are 8 items for hope scoring, as follows: 1: Definitely false; 2: mostly false; 3: somewhat false; 4: slightly false; 5: slightly true; 6: somewhat true; 7: most true; 8: definitely true.

Socio Demographic Variables and Clinical Characteristics

Socio demographic characteristics provide information about cancer patients. Age, sex, religion, educational status, occupation, monthly income of the family, family type, area of residence, stages, surgery done, chemotherapy cycle, radiation therapy, family history of cancer and previous episode of cancer.

DATA COLLECTION PROCESS

Prior permission was obtained from relevant hospitals before starting the data collection process. At the time the research was conducted, the cancer patients receiving treatment in hospital. Data collection was conducted from all patients who met the inclusion criteria. Consent is obtained at an older age. Before administering the survey, the purpose of the study was explained to the participants.

Data Analysis

The data obtained were analyzed according to the research objectives using descriptive and infer ential statistics. The main data was prepared based on the participants responses. Frequency and percentage statistical analysis.

Feature select and select different populations in words and pictures.

ETHICAL CLEARANCE

Ethical clearance was obtained from the Institutional Ethics Committee of BVVS Institute of Nursing Sciences, Bagalkot.

RESULTS

A: Sample Characteristics

- The Percentage wise distribution of sample according their age depicts that, majority of cancer patients (81.25%) were belonging to 35 years and above age, 17.5% of them were belonging to 31-35 years of age, and another 1.25% of them were belonging to 25-30 years of age.
- The percentage wise distribution of sample according to their sex describes that, most of the cancer patients (53.75%) were females and 46.25% of them were males.
- The percentage wise distribution of sample according to their religion shows that, majority of cancer patients (70%) were belonging to Hindu religion, 16.25% of them were belonging to Muslim community and 13.75% of them were belonging to Christ.
- The percentage wise distribution of sample according to their educational status that 37.5% of cancer patients have secondary education, 23.75% of cancer patients primary education, 20% of cancer patients have Graduation and above and 18.75% of cancer patients have no formal education.
- The percentage wise distribution of sample according to their occupation illustrates that, majority of cancer patients (31.25%) had private employee 28.75% of them had agriculture, 21.25 of them had home maker ,12.25% of them had business and 6.25% had government employee.
- The percentage wise distribution of sample according to their family monthly income illustrates that, majority of cancer patients (70%) had 10000-20000, 23.75% of them were 21000-25000 and 6.25% of them had above 25000.
- Percentage wise distribution of sample according to their type of family illustrates that, 62.5% of were from nuclear family and 37.5% of them were joint family.
- Percentage wise distribution of sample according to area of residence that, 65% cancer patients from rural area and 35% of cancer patients from urban area.
- The Percentage wise distribution of sample according to their stage at which diagnosis is made reveals that, most (38.75%) of the cancer patients were diagnosed at 3rd stage, (33.75%) of them were diagnosed at 4th stage, (21.25%) of them were diagnosed at 2nd stage, (6.25%) of them were diagnosed at 1st stage of cancer.
- The Percentage wise distribution of sample according to their surgery done shows that, 77.5% of cancer patients had surgery and 22.5% of them had no any surgery.
- The Percentage wise distribution of sample according to their chemotherapy cycle shows that, most (26.25%) of cancer patients had completed their 4th cycle,(22.5%) of had completed their 3rd cycle, (21.25%) of them had completed their 5th cycle,(13.75%) of them had no any cycle,(10%) of them had completed their 6th cycle,(3.75%) of them had completed their 2nd cycle and (2.5%) of them had completed their 1st chemotherapy cycle.
- The Percentage wise distribution of sample according to their radiation therapy shows that, (58.75%) of cancer patients had no radiation therapy and (41.25%) of them had radiation therapy.
- The percentage wise distribution of sample according to their family history of cancer illustrates that, majority of cancer patients (92.5%) had no any history of cancer and (7.5%) of them had family history of cancer.
- The percentage wise distribution of sample according to their previous episode of cancer illustrates that, majority of cancer patients (97.5%) had no any previous episode of cancer

and 2.5% of them had previous episode of cancer.

1. **Assessment of the Level of Pain among Cancer Patients**

Table 1: Level of pain among cancer patients N=80

Levels of pain	No of respondents	Percentage
No pain	2	2.5%
Mild pain	15	18.75%
Moderate pain	32	40%
Severe pain	15	18.75%
Worst pain	16	20%

Assessment of levels of pain among cancer patients reveals that the majority of cancer patients (40%) had a moderate level of pain, the remaining (20%) of them had a worst pain and (18.75%) of them had a severe and mild level of pain and (2.5%) of them had no any pain. (Table 1)

Table 2: Area wise mean, SD and mean percentage of pain level score N = 80

Area	Maximum score	Minimum score	Mean	S. D	Mean percentage
Level of pain	100	10	5.425	5.65	5.42%

The mean, SD, and mean percentage of level of pain scores of cancer patients reveals that the total mean percentage of level of pain scores of cancer patients was 5.42%, with a mean and SD of 5.425±5.65 (Table 2).

Association between Level of Pain and Socio Demographic Variables of Cancer Patients

Table 3: Association between level of pain and selected socio demographic variable

Sl. No	Socio-demographic variables	Df	Chi-square value	Table Value	Level of significance
1.	Age	8	15.21	0.0552	**P<0.05 S**
2.	Sex	4	11.72	0.0196	**P<0.05 S**
3.	Religion	8	11.29	0.1858	P>0.05 NS
4.	Educational status	12	54.98	<.0001	**P<0.05 S**
5.	Occupation	16	24.54	0.0784	P>0.05 NS
6.	Family income	8	10.16	0.254	P>0.05 NS
7.	Type of family	4	3.25	0.5169	P>0.05 NS
8.	Area of residence	4	3.66	0.454	P>0.05 NS
9.	Stage of cancer	12	66.95	<.0001	**P<0.05 S**
10.	Surgery done	4	3.84	0.4281	P>0.05 NS
11.	Chemotherapy cycle	16	47.28	<.0001	**P<0.05 S**
12.	Radiation therapy	4	19.93	0.0005	**P<0.05 S**
13.	Family history of cancer	4	0.84	0.933	P>0.05 NS
14.	Previous episode of cancer	4	1.84	0.7652	P>0.05 NS

Df = Degrees of Freedom
S = Significant NS = No Significant

That findings regarding association of level of pain with their selected socio demographic variables shows that, significant association was found between the level of pain and age of cancer patients ($x^2 = 0.0552$), sex (x^2=0.0196), education (x2= <.0001), stage of cancer (x2= <.0001), chemotherapy cycle (x2= <.0001) and radiation therapy (x2= 0.0005). **(Table-3)**

Table 4: Hope among cancer N =80

Level of hope	No of respondents	Percentage
Poor	00	00%
Good	28	35%
High	52	65%

Assessment of hope among cancer patients reveals that the majority (65%) had high hope(35%) of them had good hope and none of them had poor hope.

Mean, SD, and Mean Percentage of Hope Score among Cancer Patients

Table 5 shows the mean, standard deviation, and percentage of hope N = 80

Area	Maximum Score	Minimum Score	Mean	SD	Mean %
Hope	96	12	69.5	7.78	69.88%

The mean, standard deviation and median percentage of cancer patients hope scores shows that the overall percentage of cancer patients hope was 69.88%, and the mean and standard deviation are 69.5 ± 7.78 (Table-5).

Table 6: Association of the hope among cancer patients with their selected socio- demographic variables

Sl. No	Socio-demographic variables	Df	Chi-square value	Table Value	Level of significance
1.	Age	4	0.76	0.9437	P>0.05 NS
2.	Sex	2	0.13	0.9371	P>0.05 NS
3.	Religion	4	0.34	0.9871	P>0.05 NS
4.	Educational status	6	6.22	0.399	P>0.05 NS
5.	Occupation	8	6.62	0.5781	P>0.05 NS
6.	Family income	4	5.9	0.2067	P>0.05 NS
7.	Type of family	2	0.1	0.9512	P>0.05 NS
8.	Area of residence	2	1.48	0.4771	P>0.05 NS
9.	Stage of cancer	6	6.28	0.3926	P>0.05 NS
10.	Surgery done	2	2.74	0.2541	P>0.05 NS
11.	Chemotherapy cycle	8	5.84	0.6651	P>0.05 NS
12.	Radiation therapy	2	0.86	0.6505	P>0.05 NS
13.	Family history of cancer	2	0.96	0.6188	P>0.05 NS
14.	Previous episode of cancer	2	0.24	0.8869	P>0.05 NS

Df = Degrees of Freedom
S = Significant NS = No Significant

No significant association was found between the hope levels of cancer patients and any of the socio-demographic variables. (Table-6).

DISCUSSION

This study considering the gender distribution of the sample, the majority of cancer (53.75%) are females and 46.25% are males.

The results of this study are similar to the study conducted by **Blake Rawdin, Michael W. and Rabow** the result shows that (64%) women and (36%) men with a mean age of 57.6 years The majority (87.2%) of the sample patients had pain due to the cancer or its treatment [6].

Research results on the relationship between pain level and hope among different people in society show that there is a relationship between pain and hope people's and their gender ($\chi 2 = 0.2215$; $P<0.05$).

This study was conducted by **Joao Paulo Consentino Solano, Amanda Gomes da Silva, Ivan Agurtov Soares, *et al*.,** These findings suggest that interventions to improve hope at the end of life could be replaced by those aimed at improving personal resilience. The patients confirmed a strong association between individual resilience and hope. No association was found between independence for activities of daily living and hope, or between social support and hope [7].

A study was conducted by **Balboni *et al*.**, A very important finding in our study is that a high per- centage (60%) of Latino advanced cancer patients reported that their spiritual/religious needs had not been supported by the medical team, and less than 25% received pastoral attention inside the hospital or had received a clergy visit from the community. Spiritual support strongly impacts the care of patients with advanced and terminal illnesses.

Assessment of hope among cancer patients reveals that the majority (65%) had high hope,(35%)of them had good hope and none of them had poor hope.

Assessment of levels of pain among cancer patients reveals that the majority of cancer patients (40%) had a moderate level of pain, the remaining (20%) of them had a worst pain and (18.75%) of them had a severe and mild level of pain and (2.5%) of them had no any pain.

This study was conducted by **Mary Ann Liebert** the high prevalence of spiritual pain (52%) and the associated expression of worse physical pain, fatigue,

depression, anxiety, financial distress, and worry. At the same time, patients with spiritual pain had worse general and RCOPE strategies and worse spiritual QOL. Pe´rez-Cruz *et al*., [48], reported a higher prevalence (67%) of spiritual pain in Chilean cancer patients, and its presence was associated with worse overall QOL [8].

The Percentage wise distribution of sample according their age depicts that, majority of cancer patients (81.25%) were belonging to 35 years and above age, 17.5% of them were belonging to 31-35 years of age, and another 1.25% of them were belonging to 25-30 years of age.

This study was conducted by Koenig *et al*., 1996, 2001 the Sample data for gender and age was compared to the entire population of patients seen in both physicians' clinics for the year 2002, the same year during which data was collected over a period of 4 months. There were 6125 patients seen by both physicians during 2002. Of these patients, 57% of them were female. In the study sample, 56% were female. A chi square was completed comparing these frequencies and it was not significant, The Research has shown that religion is an important source of support for older adults and that older persons tend to be more religious [9].

CONCLUSION: In this cross-sectional study, the results show that cancer patients have a moderate level of pain and high level of hope.

Future Prospective:

Participation in good behavior is the participation not only of the person being helped, but also of the person helping others. This study shows that engaging in behavior can improve health and life satisfaction. It is important to educate patients on developing beneficial behaviors.

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