

"The Importance of Effective Doctor-Patient Communication in Enhancing Quality Healthcare Outcomes: A Study on Cancer Patients in India"

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Abstract:

Introduction: The Problem: Effective doctor-patient communication is essential for delivering quality healthcare and achieving positive patient outcomes. The significance of communication skills in the context of doctor-patient relationships, particularly significant in the care of cancer patients. Patient-reported outcomes (PROs) play a crucial role in cancer clinical trials, facilitating the communication of symptoms and emotions between patients and medical professionals. Expressive writing has been shown to have positive effects on physical and emotional well-being. Cancer patients face numerous challenges and changes, making it important to provide opportunities for them to express their experiences and assess the impact on their functional, cognitive, psychological, physical, and emotional well-being. The EORTC quality of life scoring system helps measure these dimensions and evaluate the effects of treatment. However, QoL studies in Indian cancer patients are lacking, and this study aims to assess QoL scores in various parameters at a hospital in South India.

Methods: The Approach: Study population and setting- cancer patients attending the quaternary multispecialty hospital were recruited for the study, aged between 18-80 years, Data collection and measurement tools- EORTC QLQ- C30 [1] validated Tamil translated questionnaire was used a patient self reported tool , 186 patients were offered to fill up the questionnaire, 150 consented and filled the tool. Statistical analysis- Pearson co-relation co-efficient was calculated between sub-parameters, p value <0.05 was taken as significant. **Results: The findings:** On the Global QoL front the mean score of our study patients was 55, with increasing age there was fall in almost all the parameters of Quality of life, except for Emotional function, Females comprised 56.6% of the study population, females had better scores compared to males in almost all dimensions of QoL, Analysis of quality of life scores among cancer patients in India showed that though the functional scores were poorer compared to the EORTC study subjects, our study participants scored better in symptoms scores with comparably better sleep pattern , fatigue scores etc **Conclusion:** The study found that 80.64% of patients completed the questionnaire, indicating good acceptability. Indian cancer patients had lower QoL scores than western counterparts, but showed resilience in coping with symptoms like sleep disturbances, fatigue, and pain. Women had higher functional scores but were more affected by nausea/vomiting and financial concerns. Increasing age was inversely related to QoL, with older age groups experiencing more pain, sleep disturbances, and fatigue. The study emphasizes the need for routine assessment of QoL and interventions to improve patients' well-being.

Keywords: Doctor-patient communication, interpersonal skills, patient-centered communication, cancer patients, quality of life, patient-reported outcomes

Introduction

Effective doctor-patient communication is crucial for providing quality healthcare and achieving positive patient outcomes. [2-4] It involves more than just basic communication skills; it requires the development of strong interpersonal skills to establish a therapeutic relationship with

patients. This relationship is built on shared understanding, empathy, and mutual respect, and it plays a significant role in patient satisfaction and treatment compliance.[5,6].While basic communication skills are important, they are not sufficient on their own respect to establish a successful doctor-patient relationship. Interpersonal skills of communication go beyond basic communication and address the psychosocial aspects of a patient's condition. These communicational skills or via-media enable doctors to connect with patients on a deeper level, understand their concerns, and work collaboratively towards shared treatment goals. This helps to effectively integrate doctor centric approach with patient centric approach [4].Research has shown that doctors often overestimate their communication abilities, and patients may express dissatisfaction even when doctors perceive their communication as adequate.[9] This highlights the importance of patient-centered communication, where doctors not only convey information effectively but also actively involve patients in decision-making, address their emotional needs, and provide psychosocial support. By adopting a patient-centered approach, doctors can enhance patient satisfaction, improve treatment adherence, and ultimately contribute to better health outcomes. Effective doctor-patient communication is a fundamental aspect of healthcare. It involves exchanging information, understanding patient perspectives, and building trust. This communication forms the essence of medicine and plays a central role in delivering quality healthcare [7,8]An effective doctor-patient communication aims at 1. Good interpersonal relationship, 2. Better exchange of information, and 3.Inclusion of patients in decision making.[4,7,10]. Patient self-reported outcomes can bridge the gap in facilitating exchange of patients' symptoms and emotional state and serve as a tool to communicate in a language the medical field interprets, In recent years this Patient Reported Outcomes (PRO) have evolved tremendously, and presently hold a key position in cancer clinical trial in reporting treatment outcomes and safety. Also, It is worth noting that numerous studies in the past two decades have consistently shown the positive impact of expressive writing on both physical and emotional well-being. Expressing ones feelings and traumatic experience in a written format can have therapeutic effects, by helping individuals process and cope with their emotions more effectively[11] .Cancer is one disease where the patient is faced with myriads of pain, trauma, anxiety and fears regarding treatment and its outcome, he or she is overwhelmed by the sudden change of events in his/her daily routine and this mixed feelings are hard to express, so in-order to seed confidence into the patient, it is imperative that the patient is given ample opportunity to lay down the functional ,cognitive, psychological change this disease has brought on him and also facilitate him to express the physical and emotional downturn he has suffered as an outcome of the disease. At the same time we need scales to measure these outcomes in a meaning full and reproducible way, so that it can be used to understand all the possible dimensions of disease affect at the baseline level and further to gauge the effect of the treatment on these dimensions so as to offer an holistic treatment to the cancer patient. Further it is noteworthy that quality of life is not a single entity, it is multifaceted as well as dependant on various factors which may be patient related or sometimes treatment mediated. Physical ,emotional ,cognitive functions contribute to the comprehensive functional score, similarly symptom-wise classification also has to be considered to fully assess the magnitude of the affect these sub-parameters has on the overall QoL.

The EORTC quality of life scoring helps in fulfilling all the above needs like patient reported outcome, quantification of all dimension that cancer can affect a patient as well as serves as way to evaluate the mitigation or aggravation of these dimensions by the anti cancer therapy modalities like Surgery, Radiotherapy and Chemotherapy. Assessing QoL has reached greater heights in recent times with most of the clinical trials reporting the superiority in the QoL outcomes of their interventional modality rather than restricting only on the survival outcomes. Nevertheless in India QoL studies in cancer patients is still lacking, with no clear threshold levels on the various dimensions of the QoL parameters, Hence this study intends to study the cross sectional QoL scores of various sub-parameters in cancer patients attending a quaternary care hospital in south India.

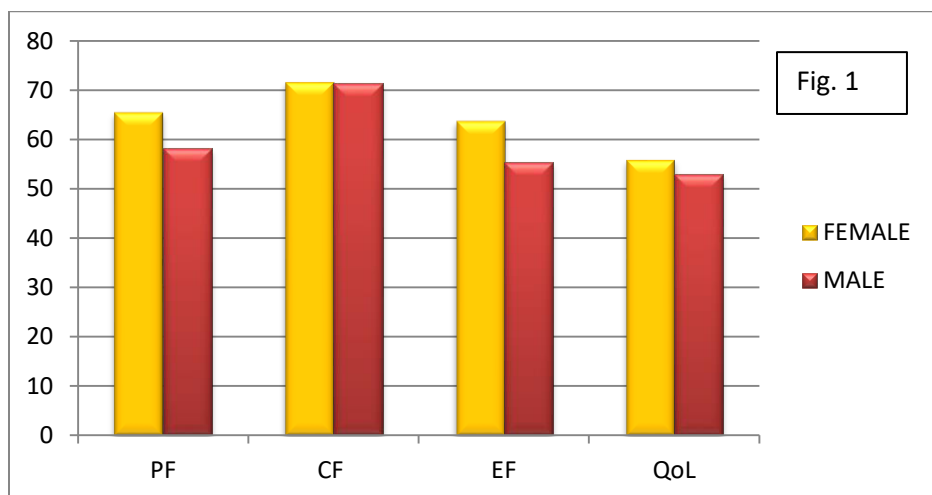
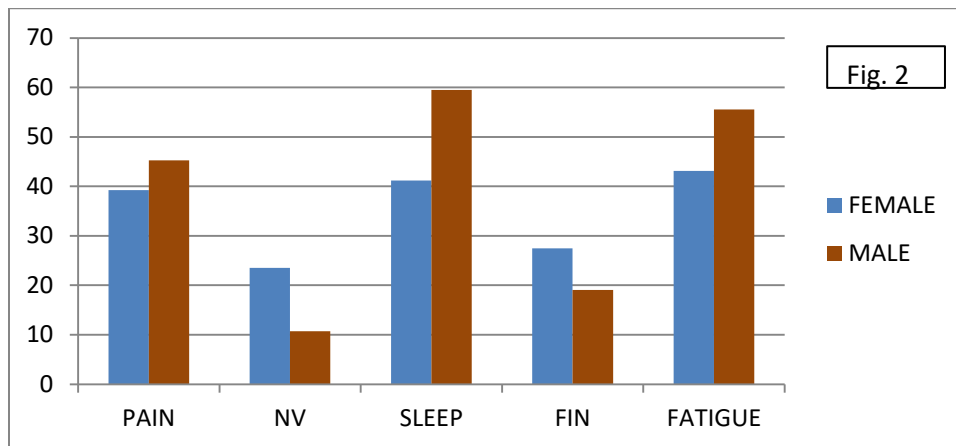
Methods:

1. Study population and setting- cancer patients attending the quaternary multispeciality hospital were recruited for the study, aged between 18-80 years, those who can give valid consent and who could read and understand tamil were included into the study, those not consenting, not in a able general condition to fill the form and those with brain tumours or metastasis were excluded out of the study.

2. Data collection and measurement tools- EORTC QLQ- C30 validated Tamil translated questionnaire was used a patient self reported tool , 186 patients were offered to fill up the questionnaire, 150 consented and filled the tool.

3. Statistical analysis- Linear regression was used to study the inter-relation of sub parameters of dimensions of QOL as laid down in the questionnaire, Pearson co-relation co-efficient was calculated between sub-parameters, p value <0.05 was taken as significant.

4. Sample size: considering a Normal deviate to be Z , so that for a two-tailed test at the 5% level we have: $\alpha= 0.05$ and $Z_{1-\alpha/2}=1.96$ and for 80% power $1- \beta= 0.80$, $Z_{1-\beta} = 0.84$, Then the total sample size for a two-group comparison, if we want to see an improvement of 8 points in the mean score in the study group and to detect a significant result at the 5% level, with 80% power, we would need 293 patients in total (147 in each treatment arm). Since we had only one arm we recruited 186 patients ,and 150 patients participated. In the control arm we used the EORTC study population for comparison.



Results:

Overall symptom score revealed 70-80 years group fairing poorly, with higher detrimental scores with respect to fatigue, sleep pattern, appetite and pain. 2nd most affected group with disturbed sleep was 30-39 years. Pain and appetite problems were seen increasing with increasing age. On the Global QoL front the mean score of our study patients was only 55, Even the 30-39 years group which had the top quality of life scored only 62.5, cognitive function and physical function were better among 30-39 years with a mean score of 91.67 and 76.67 respectively. Emotional function score revealed a peculiar pattern wherein 40-49 years had the lowest mean score. The expected norm of increasing age having a lower functional scales saw another deviation in the physical function scale for 40-49 age group, whose score was even lesser than 50-59 age group patients.

Table- 1 Age Group	Fatigue	Sleep	Appetite	Pain
10-19	11.11	33.33	0	50
30-39	38.89	66.67	0	16.665
40-49	38.09	47.62	23.80	38.09
50-59	43.331	33.333	33.333	31.667
60-69	65.28	54.16	33.33	54.1675
70-80	66.66	88.89	88.89	66.66
MEAN SCORES	48.74	49.46	33.33	41.93
Functional Score	Avg of QOL	Avg of CF	Avg of EF	Avg of PF
18-29	58.33	33.33	100	66.67
30-39	62.5	91.67	70.84	76.67
40-49	58.33	73.81	49.99	58.09
50-59	52.501	73.334	62.5	70
60-69	53.13	72.92	57.29	57.49
70-80	55.55	55.55	61.11	46.66
Mean Scores	55	71.51	59.95	62.15

Table 2- Comparision between Indian and EORTC QoL scores

	QOL	CF	EF	PF	Fatigue	Sleep	Appetite	Pain
This study	55.00	71.51	59.95	62.15	48.74	49.46	33.33	41.93
European study	67.20	85.20	73.33	83.54	54.52	56.93	61.22	61.22

Discussion

The percentage of patients consenting and responding to this questionnaire was encouragingly 80.64 %, it implies high acceptability and ease of completion of this questionnaire. It was clear from these results of the study that Indian cancer patients QoL scores were lower compared to western counterparts. Women showed higher functional scores, meaning they were able to cope up with the disease better than the males Fig-1, Concerning the symptoms scores too, they had lesser sleep disturbances and fatigue, but the parameter that was seen affecting the females due to nausea/

vomiting, Similarly they were worried more about the financial outcomes of the disease, hence exhibited poor Financial scoring Fig-2. These indicate that Indian women were more resilient compared to their male counterparts in facing cancer, but financial impact of expenses was the only issue that dragged down their QoL to an extent. This tendency for women to manifest higher ratings of QOL was a surprise compared to earlier studies and other reasons behind these findings kindles interest in further in-depth study in future (12, 13, 14). However, concurring with western data, as tabulated in Table-1, Age was a significantly important factor, which was inversely related to QoL, increasing age had a lower quality of life scores, while increasing was directly proportional to the symptoms scores wherein fatigability, sleep disturbances, loss of appetite and pain were higher with increase in age, thus increasing age was consistently following a pattern of decreasing QOL. The older age group (60-69 & 70-79 years) rated exhibited low levels on PF and CF and a higher level on Pain, appetite, sleep and fatigue scores. These results are congruent with previously published findings (14,15) there by endorsing the construct validity of the questionnaire.

Sleep & Pain scores:

Sleep disturbances and Pain scores were tested for their co-relation using Pearson Co-relation co-efficient, the resultant R value for the entire study population was 0.6835, implying that there was a positive co-relation between sleep disturbances and pain scores, albeit the association was a bit weak, this was partly because the 30-39 years group had the worst score for sleep pattern, but at the same time pain scores in the age group were minimum, hence the group wise Pearson co-relation co-efficient R was calculated for the 60-80 years group which resulted in a higher co-relation co-efficient in the form of $R=0.8165$, meaning in most of the cases the presence of pain adversely affects the normal sleep pattern in the older age group, at the same time there can be instances particularly in the younger age group sleep can be disturbed irrespective of cancer related pain.

Indian QoL vs European QoL in cancer patients

As seen in Table-2, the scores of this study population were lower in terms of qol, PF, EF & CF scores, compared to the EORTC study population, but at the same time the symptom scores like sleep disturbances, fatigue, pain etc in the present study on Indian cancer patients were way lower than the EORTC study population, this suggests that Indian patients are more resilient and are able to adapt themselves to the challenges posed by the disease, though function wise physically, emotionally and cognitively these population seem to be scoring badly, their perceived sleep disturbances, fatigability and pain scores were way lower than the EORTC study counterparts. Nevertheless the Global average qol for the cancer patients included in this study was only 55, which is a worrisome issue. This underlines the necessity for carrying out routine and periodic assessment of qol in cancer patients and take steps to improve the Quality of Life along with medical management of the disease per se, only then a meaningful control over the disease can be achieved.

Conclusion:

Effective doctor-patient communication plays a crucial role in enhancing the delivery of quality healthcare and improving patient outcomes, particularly in the context of cancer care. The study revealed that EORTC questionnaire had good acceptability. Indian cancer patients had lower qol scores than western counterparts, but coped better with symptoms like sleep disturbances, fatigue, and pain. Women had higher functional scores compared to male cancer patients. Increasing age was inversely related to qol, with older age groups experiencing more pain, sleep disturbances, and fatigue. The study emphasizes the need for routine assessment of quality of life and comprehensive approaches to cancer care.

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