ORIGINAL RESEARCH

Perceived Quality of Nursing Care Among Cancer Patients Attending Hawassa University Comprehensive Specialized Hospital Cancer Treatment Center; Hawassa Southern Ethiopia: Cross-Sectional Study

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Background: Cancer has become one of the most common and the second leading cause of death. According to grounded theory, quality care is meeting all the needs of the patients. Low-quality nursing care relates omission of nursing care required to meet patients' need. Quality of nursing care in oncologic setting was nursing practice area where studies are limited.

Objective: The aim of the study was to assess the perceived quality of nursing care among patients with cancer attending Hawassa University comprehensive specialized Hospital.

Methods: A quantitative Cross-sectional study was conducted. Among the proposed 422 patients with cancer, using a simple random sampling technique 415 patients were included in this study. Seven data were discarded due to incompleteness and inconsistency between collected data and patient medical record. Data were collected using structured question-naires and Quality of Oncology Nursing Care Scale. We carried out statistical analysis using SPSS V-20. We used descriptive analysis to examine the quality of oncology nursing care.

Results: The mean age of patients was 42.51 (±14.24) years, among patients diagnosed with cancer more than one-third 148 (35.70%) had breast cancer. The majority of patients with cancer 173 (41.70%) were in stage-III. Nearly two-third 266 (64.10%) of patients were on chemotherapy. Among study participants on treatment, 249 (60.00%) perceived they received good quality of nursing care. The mean score related to the domain of support and confirmation is 62.73 ± 7.26. In terms of spiritual care, the mean score is 21.03 ± 5.37.

Conclusion: The perceived quality of nursing care was high however not all domains of oncology care were achieved. We recommend Detail and focused study to explore important predictors' quality nursing care.

Keywords: cancer, Hawassa, patents with cancer, quality of nursing care

Introduction

Currently, cancer is one of the public concerns, both in terms of the number of people affected and its burden. More than one-third of the population will develop a cancer in their lifetime. Although there have been large advances in treatment and survival, half of the cancer sufferers now live at least 10 years after diagnosis. Early diagnosis and quality care including quality oncology nursing have a pivotal role in cancer survival and patient prognosis.[1–3]

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Care delivered with competence and compassion characterizes the quality of nursing care. In addition to common components of quality nursing care, value to one-self increases the quality of care.[4] Quality oncology nursing has a pivotal role in cancer survival and prognosis of patients with cancer.[5]

Fulfilling patients' health need is the role and responsibility of every nurse. On top of this, patients with cancer desire more personalized care and improved communication with care providers. The role of nursing in meeting these needs is remarkable.

Management of patients diagnosed with cancer necessitates multidisciplinary collaboration of care providers. Cancer care and management requires an enormous amount of resource and care provider coordination. Now a day there is an enormous increment in the number of peoples diagnosed with cancer and resources spent on cancer care.[1] There is a necessity to provide quality of nursing and multidisciplinary care across cancer care centers. Even though the incidence and prevalence of cancer is increasing in Ethiopia, several tasks are waiting for nurses and other concerned bodies in the fight against cancer morbidity and mortality.[6]

Patient safety, such as infection prevention, psychosocial stabilization, drug side effect monitoring, is the cornerstone of high-quality nursing care. Nurses employed in cancer care concentrate on the holistic aspect of oncology nursing. In oncology, nursing plays an integral role in the delivery of chemotherapeutic drugs and all other aspects of patient care.[7]

Poor nursing staffing is highly related to the quality of life of cancer patients as well as patient satisfaction which are important pointers of perceived quality care.[8] In Ethiopia, the need of patients with cancer in chemotherapy and quality of nursing care were not well addressed and studied. The overall attention given to non-communicable diseases is well in Ethiopia.[9]

The need to know basic facts about the quality of nursing care in Ethiopia was voracious. However, studies conducted on the current title were a handful. Therefore, the purpose of this study was to reveal the perceived quality of oncology nursing care provided to patients receiving chemotherapy in Hawassa University comprehensive specialized Hospital.

Methods and Materials
Study Area and Study Period
This study was conducted in Hawassa University comprehensive specialized Hospital Cancer treatment center, Hawassa, Ethiopia. This is the only comprehensive specialized hospital, which provides cancer treatment and management service for more than 18 million people living in the Sidama, southern nations and nationalities, and some of Oromia regions of Ethiopia. Annually, more than 800 new patients with cancer receive chemotherapy treatment in the treatment center. Besides oncology treatment and management service, the hospital is providing services in terms of internal medicine, Surgery, Gynecology/Obstetrics, Pediatrics, dentistry, Ophthalmology, Dermatology, and Psychiatry. The study was undertaken between Feb 2019 and Aug-2019.

Study Design
Institution-based cross-sectional study design was conducted. Samples were collected from patients on chemotherapy.

Source Population
All patients diagnosed with cancer in Hawassa University Comprehensive Specialized Hospital's cancer treatment center.

Study Population
Those patients diagnosed with cancer and on chemotherapy in Hawassa University Comprehensive Specialized Hospital oncology unit.

Sampling and Sample Size Determination
The best indicator for the quality of nursing care provided is the patients' perception of the care they are receiving.[10] The sample size was calculated using a single population proportion formula by considering assumptions of proportion as 50% since no study was conducted in Ethiopia, with the margin of error (d) = 5%, using 95% confidence level. Taking 10% non-response rate the total sample size was 422 cancer patients.

Sampling Technique
A simple random sampling technique was employed to select patient on chemotherapy. Patients' registration number used to prepare the sampling frame.

Inclusion Criteria
Those patients diagnosed with any form or type of cancer and Patients being treated with chemotherapy and at least on the second phase of treatment. Those patients greater than 15 years of age.

Exclusion Criteria

Patients with Karnofsky Performance Scale less than 50 (patients were dependent on others and they are unable to rate the service they receive).

Patients who were referred to other treatment centers.

Patients transferred to the treatment center.

Data Collection Procedure

Data were collected by using a structured questionnaire, containing demographic data, patients' clinical condition, and quality of nursing care. Quality of nursing care was assessed by the Quality of Oncology Nursing Care Scale (QONCS).[10] The scale consists of five domains of quality of oncology nursing; support and confirmation, spiritual care, sense of belongingness, being valued and being respected. These domains assess different dimensions of quality nursing care based on the patients' perceptions and expectations of the care received while hospitalized. The tool contains 34 questions, which were rated in Likert like a score. QONCS appears to measure with adequate reliability and validity the attributes of quality nursing care within the oncological settings and to patients with a variety of cancer diagnoses and at different phases of the cancer trajectory. The instrument is easy to complete, making it a suitable instrument for nursing professionals to evaluate patients' self-perceived quality of nursing care as a mean to promote the quality of the care provided in oncological settings.[10] Data collectors were given 2-day training on the way to collect data and record collected data effectively. Then, each member was involved in data collection with the given questionnaire after taking informed consent from the convenient individuals.

Data Collection Quality Control

BSc level nurses who have data collection experience were selected for data collection; for supervision, independent supervisor was recruited. For the management of data quality, a data cross-check-up between interview result and the patient's medical record review was conducted. Besides, 2-day training was given for data collectors on the overall data collection procedure and requirements. Furthermore, the principal investigators had done regular cross check-up for the completeness of the tool.

Moreover, there was an intra-group cross-check-up and discussion throughout the data collection process. Quality of nursing care was assessed at discharge from the chemotherapy unite at least after receiving the 3rd phase treatment.

Data Management and Analysis

The collected data were entered into a computer on an ongoing basis using the software Epi Data version 3.1. To minimize data entry errors, two independent data entry clerks double entered data. The two independent datasets were compared using the "validate duplicate files" facility of Epi-Data and discordant entries were corrected by comparing the entered data with the hard-copy questionnaire. The data were then exported to IBM SPSS version 20 for further processing and analysis. Before data analysis, the data were explored for outliers and normal distribution. Descriptive statistical analysis was used to determine the level perceived level of quality of nursing care. Perceived quality of nursing care was measured using the Likert scale. Questions with negative responses are recoded during data transformation. After checking, the data for normal distribution mean score for each of five domains were determined. The perceived quality of nursing care was labeled as good if all five domains of care were above the mean score.

Result

Socio-Demographic Characteristics of the Patients

From 422 expected patients 415 participated in the study, which gives the response rate of 98.34%. The mean age of the respondents' was 42.51 ±14.24 years, with a minimum of 17 and a maximum of 85 years. The majority, 339 (81.70%) of study subjects were married. Concerning educational status 160 (38.60%) were unable to read and write, concerning occupation 169 (40.70%) were homemakers. Nearly one-third of patients 133 (32.00%) were from a rural area (Table 1).

Clinical Characteristics of Patients

The median time since the diagnosis of cancer and time to start treatment was 5 and 3 months, respectively. Among patients diagnosed with cancer more than one-third, 148 (35.7%) had breast cancer followed by cancer of the gastrointestinal system 84 (20.2%). The majority of the patients 173 (41.7%) were on stage-III and 180 (43.4%) of the patients had a moderate pain intensity. Nearly two-third 266 (64.1%) of the patients were on chemotherapy and 132 (31.8%) of the patients were on combination therapy. More than half 222 (53.5%) of the patients were

Table 1 Socio-Demographic Characteristics of Cancer Patients Attending Their Treatment in HUCSH, 2019

S. No.	Variables (n= 415)	Category	n (%)
	Gender	Male	144(34.70)
		Female	271(65.30)
	Religion	Orthodox	136(32.80)
		Muslim	125(30.10)
		Protestant	146(35.20)
		Catholic	7(1.70)
		Other	1(0.20)
	Educational status	Unable to read and write	160(38.60)
		Primary education	125(30.10)
		Secondary education	79(19.00)
		College and above	51(12.30)
	Marital status	Single	44(10.60)
		Married	339(81.70)
		Divorced	4(1.00)
		Widowed	28(6.70)
	Occupation	House wife	169(40.70)
		Merchant	43(10.40)
		Government employed	42 (10.10)
		Private employed	27(6.50)
		Jobless	17(4.10)
		Daily labor	13(3.10)
		Other, specify	104(25.10)
	Residence	Urban	281(68.00)
		Rural	133(32.00)

Table 2 Clinical Characteristics of Cancer Patients in Hawassa University Comprehensive Specialized Hospital, 2019

S. No.	Variables n= 415		Frequency (%)
	Type of cancer	Breast cancer	148 (35.70)
		Cervical cancer	7(1.7)
		Genitourinary cancer	31(7.5)
		Gastrointestinal cancer	84(20.2)
		Lung cancer	13(3.1)
		Lymphoma	51(12.3)
		Other	81(19.5)
	Staging (I–IV)	I	15(3.6)
		II	54(13.0)
		III	173(41.7)
		IV	129(31.1)
		Unknown	44(10.6)
	Intensity of pain	None	48(16.6)
		Mild	58(14.0)
		Moderate	180(43.4)
		Severe	129(31.0)
	Type of treatment	Chemotherapy only	266(64.1)
		Surgery only	15(3.6)
		Radiotherapy only	2(0.5)
		Chemotherapy and surgery	108(26)
		Combination therapy	24(5.8)
	Corticosteroid medication	Yes	350(84.3)
		No	65(15.7)
	Comorbid chronic medical illness	Yes	65(15.7)
		No	350(84.3)
	Type of medical illness	DM	15(3.6)
		HTN	33(8.0)
		HIV/AIDS	14(3.4)
		Others	3(0.7)
	Family history of mental illness	Yes	2(0.5)
		No	413(99.5)
	Use of substance over the last 3 months	Yes	17(4.1)
		No	398(95.9)
	ECOG Scale score of performance status	Fully active	142(34.2)
		Restricted in physically strenuous activity	222(53.5)
		Ambulatory and capable of all self-care	46(11.1)
		Capable of only limited self-care	4(1.0)
		Completely disabled	1(0.2)

Notes: Type of cancer others, bone, skin, liver, cancers; Type of medical illness, kidney disease, cirrhosis heart failure.

unable to perform a physically strenuous activity (Table 2).

Regarding the duration of cancer diagnosis and duration of treatment, 75% of patients were on treatment for more than months (Table 2).

Patient Perceived Quality of Oncology Nursing Care

From 415 patients diagnosed with cancer of any type and receiving their treatment in Hawassa University Comprehensive Specialized Hospital 249 (60%) perceived they have received good nursing care (Figure 1).

The quality of nursing care is evaluated based on five domains of oncology nursing; care related to being supported and confirmed, spiritual caring, sense of belongingness and being respected.

The mean score related to the domain of support and confirmation is 62.73 ± 7.26. In terms of spiritual care, the mean score is 21.03 ± 5.37. Regarding the mean score of perceived quality of care in the perspective of valued and respected is 15.55 ± 2.2 and 11.77 ± 1.8, respectively.

Based on the five domains of quality nursing care for the patient with cancer, nearly 58% of patients with cancer perceive have received care in terms of support and confirmation, regarding care based on respect 79% of oncology patients perceived they were respected while they were receiving their chemotherapy and treatment (Figure 2).

Discussion

According to our study, the mean age of patients diagnosed with cancer and cancer treatment falls in the 4th decades of life. This may be attributable to the overall demographic change in Ethiopia. In the 1950s, the life expectancy in Ethiopia was under 40 years 27 years lower than 2020. According to the report from the National Cancer Institute (NIH), most common cancers were diagnosed after the 6th decades of life. The variation in the age of cancer diagnosis may be attributable to life expectancy and life style among peoples in developed and developing nations.

The most common form of cancer under treatment in the study area is breast cancer, which accounts almost for one-third of cancer cases in the study area. In terms of its magnitude, breast cancer prevalence is in line with that of the global figure.[11] The reason behind for higher magnitude of breast cancer may be related to the organizational factor. The unit started treatment on breast cancer. Besides, current studies of cancer treatment center started its service in 2013 by providing chemotherapy for patients with breast cancer. This confirms the dominancy of breast cancer all over the world.

According to the current study finding, almost 88% of patients with cancer have good performance status based on ECOG. While those with a score of three and four were 12.3%, this makes them they have poor performance status.
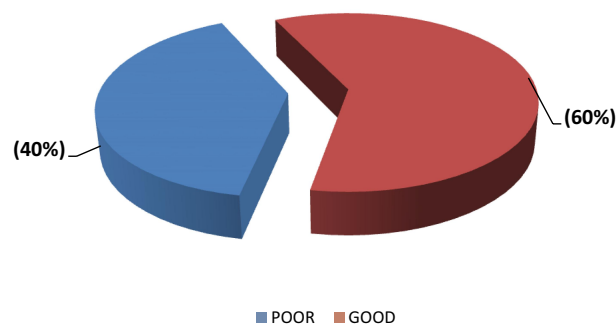

Figure 1 Perceived quality of oncology nursing care using QONCS among cancer patients attending HUCSH oncology unit, 2019.

The reason for poor performance status may be related to the nature of chemotherapy and disease condition. Almost all patients with cancer receive cytotoxic drugs and those drugs were related to other side effects like nausea and vomiting. These side effects of the drugs were well known to limit the activity of an individual. This study finding was almost similar to the study done in Portugal.[12]

Though pain is currently considered as one of the four vital signs that denotes the quality of care and life it is one of the most frequent symptoms observed. Among our study participants, almost 85% of patients reported pain as one of the symptoms they were suffering from. The finding in this study is much higher than that of the study conducted in other parts of the world.[13] Although there is variation in the magnitude of pain report in different studies, still pain is the most common symptom reported by oncological patients.

Cancer is among the top ten causes of morbidity and mortality worldwide, and every nurse, at some stage of their career, is expected to care for the cancer patients. Nurses are challenged to meet patients' and its family's needs through all cancer stages; from diagnosis, treatment, potential recurrence, to possible survivorship or death. Nursing care of cancer patients has been described as stressful, challenging and emotionally demanding. It requires advanced communication skills, counseling skills and practical knowledge.[14]

In the present study, the mean score for domain related to being supported and confirmed was lower than that of the study done in three European countries. The mean score for spirituality was higher than the three European countries. In other domains of oncology nursing care quality the mean score in these three European countries with higher than the present study.[15] The higher mean score in spirituality may be related to the deep cultural and religious difference in Ethiopia as compared to Europe. It is well known that almost all Ethiopians were religious. Deep-rooted cultural and religious connections within Ethiopian society may have contributed to superior spirituality score in the nursing care. The response by nurses in the qualitative part witnesses this truth. "It seems that everything happening on the human being is for good. We as health care workers, especially nurses, should motivate patients to have faith in their God (Head nurse from cancer treatment center).

This study and others of this nature can serve the health sector to develop more uniform information and standard of nursing care in Ethiopia. Being the first study to be conducted in Ethiopia, this study provides baseline data and report. Besides, this study revealed the basic nursing
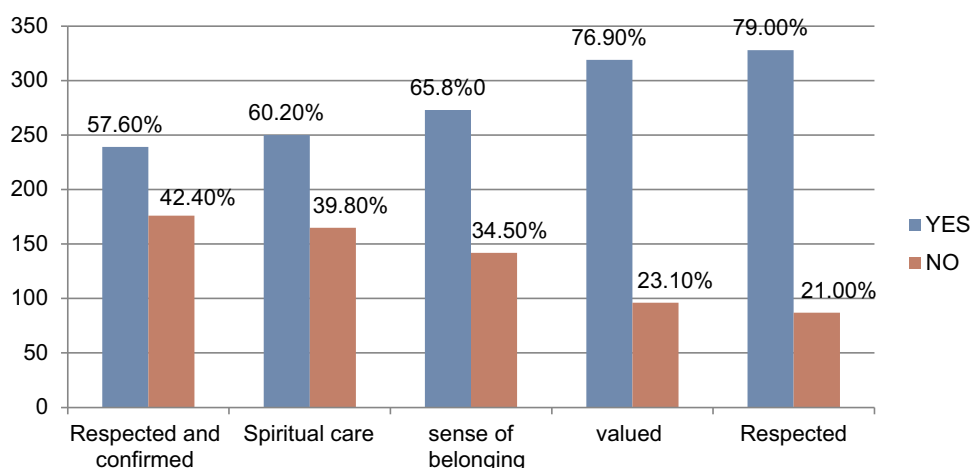
Figure 2 Perceived quality of oncology nursing care by domains of QONCS among patients with cancer attending Hawassa University Comprehensive Specialized Hospital, Hawassa, South Ethiopia, 2019.

care processes in the study are. On top of that, the present study tried to integrate qualitative and quantitative data. The present study is limited to a single institution and this makes it difficult for generalization.

Conclusion

Not all domains of quality oncology nursing care were achieved for all patients. Only a quarter of patients with cancer received all domains of quality oncology nursing care. Overall perceived quality of oncologic nursing care was good. Nurses taking care of patients in the oncology unit must need to strive to improve the quality of nursing care in all dimensions of oncology nursing focusing on the need of individuals. Since quality is abstract, research that is more comprehensive is needed to understand the perceived quality of nursing care in all cancer treatment centers in Ethiopia.

Abbreviations

CMHS, College of Medicine and Health Science; ECOG, European coalition of oncology group; ETB, Ethiopian Birr; HUCSH, Hawassa University Comprehensive and Specialized Hospital; IRB, Institutional review board; NIH, National institute of Health; QOL, quality of life; QONC, quality of oncology nursing care; WHO, World Health Organization.

Approval and Informed Consent

Hawassa University Institutional review board (IRB) accepted Helsinki Declaration. IRB provides approval for studies based on this declaration. Ethical clearance was obtained from the Institutional Review Board at the College of Medicine and Health Sciences of Hawassa

University. Permission was also obtained from administrative bodies HUCSH. Patients were enrolled in the study on a voluntary basis after a thorough explanation about the study. They were informed and offered verbal consent. The interview was conducted during their visits to the cancer treatment center within 30 minutes. Any information obtained from the patients was kept confidential. The data were collected after getting verbal consent from all patients with cancer. The Institutional Review Board at the College of Medicine and Health Sciences of Hawassa University also approved the process of obtaining verbal informed consent. We conducted the study in harmony with the Declaration of Helsinki.

Author Contributions

All authors made substantial contributions to conception and design, acquisition of data, or analysis and interpretation of data; took part in drafting the article or revising it critically for important intellectual content; agreed to submit to the current journal; gave final approval of the version to be published; and agree to be accountable for all aspects of the work.

Disclosure

All authors declare that they have no conflicts of interest for this work.

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