



Research Article

PROSPECTIVE STUDY ON PATIENT'S ASSESSMENT FOR QUALITY CARE OF AN ONCOLOGY DEPARTMENT OF AN INDIAN TERTIARY CARE HOSPITAL

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Abstract

BACKGROUND: This study was done for evaluating the physical facilities as well as internal and external services for the patients which is given by Vydehi hospital, an Indian tertiary care hospital. According to national standard protocol and international protocol oncology dept. should be well equipped and also indoor beds for patient's admission very important. The purpose was to report patient assessment of the degree of quality of oncology care services provided in Indian hospitals especially from oncology centers with a view to recommending measures to improve oncology care services. **METHODS:** This study also look forward the tool measured staffs fulfillment of treatment promised to patients, Doctors reassurance and confidence in handling patients. This study also looks forward the treatment expenses and patients economic conditions. Responsiveness considered whether oncology staffs informed patients of the exact time of treatment, promptness of services and the willingness of clinic staffs to help patients. **RESULT:** A total of 130 patients consented and filled the questionnaire, three questionnaire lacked sufficient demographic details and were discarded from analysis. Out of 127 questionnaires analyzed, the age range was 26 to 70 years. 90 were 26-45 years old, the least were 46-65 years old. But for this retrospective study we could reach only 60 patients for getting their feedback after treatment. **CONCLUSION:** This study of a private-owned oncology care facility revealed that more patients still receive and many patients wait and pay for cancer treatment constituting financial burden on them. This could limit care-seeking behavior on the basis of cost. Also significant quality gaps in the dimensions of assurance and reliability of oncology care services were recorded.

Keywords: Dept-department, Onco- oncology.

INTRODUCTION

Oncology care services are relatively scarce and expensive ⁽¹⁾. In many countries including India, oncology care services are patronized more in the large urban centers than in the rural areas. Poorterman *et al.* believe that as consumers of health care, cancer patients are sophisticated with increasing demand for accountability from care givers. ⁽¹⁾ Quality could be described as the



degree to which the characteristics of a product, process or service satisfy established or obvious needs.⁽¹⁾

This study was done for evaluating the physical facilities as well as internal and external services for the patients which are given by Vydehi hospital, an Indian tertiary care hospital. Studies of quality and patient satisfaction are useful as an indicator, to assist health organizations to quickly identify consumers likely to disenrollment⁽²⁾, to identify which aspects of service need to be changed to improve patient satisfaction, to effectively compare different healthcare programs or systems and in the evaluation of the quality of care.

Due to variation on national and international standard protocol and policies, this study was done to analyze and appraise the modern oncology care services which is given from this hospital.⁽²⁾ Parasuraman *et al.* articulated five dimensions of service quality (SERVQUAL) as tangibles, reliability, responsiveness, assurance and empathy. The SERVQUAL dimensions were modified by Babakus and Mangold who designed and validated a 15-items questionnaire for hospital use by evaluating expectations and perceptions to identify the quality gaps in each dimension. In their contribution to the relationship between service quality and satisfaction, Cronin and Taylor postulated determination of service quality on the basis of performance, formulating the SERVPERF tool.^(3,4)

According to national standard protocol and international protocol oncology department should be well equipped and also indoor beds for patient's admission very important. Maintain an oncology department, department should have good quality care services like equipment's, indoor-beds, well experienced staffs and good patient care services which should reach to the patients from beginning to end.⁽⁵⁾

During the study it not only focused on the physical infrastructure but also focused on patients and doctors relationship and their ratios. The study also focused on to assess the gaps between doctors and patients for giving better health care services.⁽⁶⁾

The study was done by retrospective fashion. Those patients who got treatment from this hospital were called and asked for their feedback about their treatment services. Treating patients and after treatment reaching them for their feedback is very important for this study.⁽⁷⁾

The purpose was to report patient assessment of the degree of quality of oncology care services provided in an Indian hospitals especially from oncology centers with a view to recommending measures to improve oncology care services.⁽⁸⁾

METHODS:

Ethical clearance for the study was obtained from Vydehi institute of medical science and Research center Ethical Committee. Patients seen at the Vydehi hospital, from December 2012 to September 2013, were approached and those who consented to participate were recruited for the study.

The oncology center of Vydehi Hospital offers all forms of outpatient treatment facility. Each patient was provided questionnaires adapted from Vydehi hospital and national guidelines committee.

This study was divided into two types of data arrangements, one is inclusion and another is exclusion criteria. The inclusion criteria observed those patients who have refused or stopped treatment before completion the treatment duration while exclusion criteria observed those



patients who have completed their treatment plan. For completion of this study, randomly chosen patients were retrospectively called in 3 months, 6 months and after 1 year for their feedback in both exclusion and inclusion criteria who arrived Vydehi Hospital for their treatment. Simultaneously this study also measured availability of modern equipment, visual appeal of the care facility, and neatness of employees.

The study look forward the tool measuring staffs fulfillment of treatment promised to patients, Doctors reassurance and confidence in handling patients. This study also investigated the bed occupy rate and bed availability for the admitted patients. This study also looks forward the treatment expenses and patients economic conditions. Responsiveness considered whether oncology staffs informed patients of the exact time of treatment, promptness of services and the willingness of clinic staffs to help patients.

These questionnaires are divided into 4 parts accordingly they are: patients wise, clinician wise, dug non adherence wise and general wise.

This study also investigated the reasons behind the dropouts of oncology cases.

In evaluating assurance, patients' feeling of safety, knowledge level of staff, politeness and employers support for employees work were measured. Empathy dealt with level of personal attention by oncology staffs to patients, belief that clinicians are working in the best interest of the patient and ability to control patients problem.

Responses were entered into Microsoft Excel software and the quality gap between perception and expectation for each question was computed, and tested using 2-way Student *t*-test for dependent samples. Internal reliability of the scale (quality dimensions) was assessed by calculation of the Cronbach's α . Statistical significance was set at $p < .05$.

RESULT:

A total of 130 patients consented and filled the questionnaire, three questionnaire lacked sufficient demographic details and were discarded from analysis. Out of 127 questionnaire analyzed, the age range was 26 to 70 years. 90 were 26-45 years old, 37 were 46-65 years old. But for this retrospective study we could reach only 60 patients for getting their feedback after treatment.

Most patients ($n = 44$,) were at the clinic for the first time while only few ($n=16$) were coming for the fifth or more time. Demographic details of 60 Indian patients analyzed for quality of oncology care is shown as bellows:

A) UTILIZATION OF SERVICES BY ONCOLOGY DEPARTMENT:

This result part is mainly focused on out patient's ratios, their treatment plans and their reports and investigations files dispatch services. 130 patients came as out patients and after investigation they got admission for their treatment.



Table-1: Gender wise and age wise patient's ratios. (n=60)

GENDER	NUMBER (%)
MALE	35 (58.33%)
FEMALE	25 (41.66%)
AGE	
26-45 YEARS	25 (41.66%)
46-56 YEARS	15 (25.00%)
56-66 YEARS	12 (20.00%)
66-70 YEARS	08 (13.33%)

Table-2: Out patient's ratios. (n=60)

OUT PATIENTS NUMBER	60 PATIENTS
ADMISSION PATIENTS NUMBER (%)	25 (41.66)
NON ADMISSION PATIENTS NUMBER (%)	35 (58.33)

Table-3: Reports investigations. (n=60)

LAB INVESTIGATION	REPORTS	NUMBERS (%)
VERY CRITICAL CONDITION	CRITICAL	15 (25.00%)
MILD CRITICAL CONDITION	CRITICAL	18 (30.00%)
LESS CRITICAL CONDITION	CRITICAL	23 (38.33%)

B) PATIENTS ASSEMENTS AND SATISFICTION SURVEY:

This survey was done for evaluating and understanding the patient's feedback about their treatment plans. In retrospective way, called randomly choose 60 patients and asked some basics questionnaires for understanding their feedback.



Table -4: Patients wise survey questionnaires:

No attenders to stay with patients in hospital	MEAN \pm SD
Lack of access to travel from long distances	4.69 \pm 0.85
Poor financial support	4.71 \pm 0.18
Away from family	4.44 \pm 0.72
Lack of knowledge of poor prognosis	4.56 \pm 0.56
Because of responsibility(earning member of family)	4.63 \pm 0.78

Table-5: clinician wise survey questionnaires:

Delayed investigation and procedures	MEAN \pm SD
Prolonged length of stay	4.23 \pm 0.53
Improper counselling	4.22 \pm 0.83
Inefficient nursing staff	4.22 \pm 0.19
Non providence of hospital bed to stay	3.76 \pm 1.15
Improper hospital staff behavior	4.34 \pm 0.25

Table-6: Clinicians administration for drug non adherence questionnaires:

Drug side effects	MEAN \pm SD
Intolerant to drugs	3.70 \pm 0.99
Patients does not worry about taking medicines	3.69 \pm 0.88
Patient can live without medicine	3.61 \pm 1.08
Patient medicines will keep patient healthy	3.90 \pm 0.86

Table -7: Patients General questionnaires:

Choice of opting other hospitals	MEAN \pm SD
Social stigma	4.01 \pm 0.85
Death	3.73 \pm 0.86

Table-8: Observation patients' number

OBSERVATIONS	NUMBERS
INCLUSION PATIENTS NUMBER	20
EXCLUSION PATIENTS NUMBER	40
TOTAL NUMBER	60



Table-9: Patients satisfaction survey reports

MONTHS	SATISFIED	UNSATISFIED	TOTAL
3 MONTHS	45	15	60
6 MONTHS	32	28	60
1 YEAR	41	4	45

Table -10- Human Error during treatment due to patient's death or discontinuations medications.

REASON FOR ERROR	NUMBER
PATIENTS DIED AFTER 11 MONTHS	10
PATIENTS COULD NOT REACH AFTER 11 MONTHS	05
TOTAL	15

DISCUSSION:

In the United Kingdom and United States of America, it is known that more patients are now oncological aware and demanding of services that match their expectations. Increased quality of oncology care leads to improved patient satisfaction. Groonros proposed that service quality has 2 distinct aspects the technical and the functional.^(10,11) In the field of health care, while technical quality focuses on the technical accuracy of the diagnosis and procedures, the functional quality is the manner in which the care is provided. In the context of health care however, consumers (patients and their relations) have difficulty in evaluating the technical quality, hence they assess service quality based on functional aspects alone. Peterson stated that the patients' opinion of service quality was more important than that of health care practitioners.^(12,13)

The various factors under each quality dimensions in our SERVQUAL-type questionnaire were analyzed for internal consistency using Cronbach's α for reliability. Hair *et al.* state that Cronbach's α which varies from 0 to 1 has to be above 0.70 to be acceptable. The better reliability of Baldwin and Sohal is likely from the higher number of questions on each scale as Cronbach's α has a positive relationship to the number of items on the scale. They utilized 20 questions each for expectations and perceptions while this study had 03 to 05 questions for each part. Our overall reliability for expectation and perceptions is quite satisfactory as it exceeded the 0.70 threshold set by Hair *et al.*⁽¹⁴⁾, that means our assessment of quality gap was valid.

Oncology patients generally worry about other diseases such as HIV and hepatitis and expect staff to be neat and adhere to rules of antisepsis and sterilization. In the perception of other



studies, patients were almost completely satisfied with adherence to rules of antisepsis and sterilization (mean 8.79 ± 1.08 out of 10), feeling of security within the clinic, tranquility and punctuality in appointment (mean 6.37 ± 2.92 out of 10) and the careful, scrupulous examination by the oncologists (mean 6.12 ± 3.22). In tables, our patients had the highest perception for knowledge exhibited by the oncology staff (mean 4.34 ± 0.71 out of 5), the neatness of staff (mean 4.32 ± 0.71 out of 5). Dewiet *al.* has analyzed cancer patients in West Java, Indonesia using a SERVQUAL-type questionnaire ⁽¹⁵⁾. Patients' satisfaction with treatment had the best relationship to response given by administrative staff to long waiting times (t -test 5.377), knowledge level of oncology doctors assistant (t -test 4.822) and explanation given by the oncologist (t -test 4.700). ⁽¹⁵⁾

Among 481 Malaysian outpatients, John *et al.* ⁽¹⁶⁾ found that responsiveness; assurance and empathy were the important determinants of quality. This study showed that our cancer patients had the widest quality gap for tangibles, reliability and assurance ($p = .000$). The least gap was for empathy ($p = .756$).

It could be that American patients were more focused on the environment in which services are rendered (tangibles) than the compassionate and emotional aspects found in other cultures. These could reflect the generally poor infrastructure available in government health facilities in India such as this oncology clinic. To improve patients' perception of oncology care services, the Indian government needs to invest more funds in upgrading the infrastructure, equipment and instruments used to deliver oncology care. ⁽¹⁷⁾

According to Sbarainiet *al.*, outpatient oncology care services differs from other outpatient health care services because its focused on provision of tangible treatments such as the lots of investigations performed for patients at the oncology clinic, need for follow-up visits for other physical interventions. This is in contrast to a visit to a doctor where the patient's focus might be receiving health advice, routine exams and/or drug prescriptions. ⁽¹⁸⁾

The next widest gap in quality dimension was for reliability dealing with promptness of services, accuracy in treatment plan and reassurance of patients by clinic staffs and doctors. Regardless of procedure, patients are very appreciative of prompt service delivery and reassuring care through friendly discussion with patients on their care. Indian oncology staffs will need better interpersonal skills to improve service quality. ⁽¹⁹⁾

In our analysis, gender, mode of treatment plan and frequency of hospital visit had no statistically significant relationship to the quality gaps analyzed. In the report by Karydisetal. from Greece, women of the middle to lower socio-economic groups were more demanding than men of the same group while men of the upper socio-economic group were more demanding than women of the same group ⁽²⁰⁾. Socio-economic groupings were however, not analyzed in our study.



Cho *et al.* analyzed the level of satisfaction of patients attending a South Korean health center. They found that the average satisfaction for first time visitors was 5.25, second timer visitors was 5.04 while third timers had satisfaction level of 5.30 (1-very dissatisfied; 7-very satisfied). Using post-hoc comparison tests, the second time visitors were shown to be significantly less satisfied than the third time visitors. The first and third time visitors had no significant difference in satisfaction levels ⁽²¹⁾.

The broader construct of satisfaction over quality could explain the absence of relationship between the number of visits; mode of treatment plan and gender with assessment of quality gaps observed in our study. This study used a validated SERVQUAL-type questionnaire to evaluate expectations and perceptions revealing statistically significant gaps in the dimensions of assurance, tangibles and reliability. ⁽²²⁾

Our study indicates the need for better patient handling techniques by oncology healthcare staff, improvement in the hospital infrastructure and increased professionalism through timeliness by oncology personnel. This is similar to the previous report by O'Callaghan ⁽²³⁾ who evaluated Maltese public and private hospitals using a similar study instrument as ours. They found that three most significant service quality indicators in the opinion of patients were related to the hospital environment, personalized service and professional care. Our analysis that Indian cancer patients had more expectations than they perceived were been delivered could be a better measure of quality of oncology care services than previous studies. ⁽²⁴⁾

While previous Indian studies used satisfaction as a proxy for quality ^(10, 11), our study revealed quality gaps unlike the study by Oketadeet *al.* ⁽²⁴⁾ that considered perceptions without evaluating patients' expectations. Indian regulators of health care services should emphasize the qualities of assurance and reliability during the training of oncology care workers and supervision of all oncology institutions.

Our study has some limitations in applicability. In their assessment of the usefulness of SERVQUAL as a tool for assessing service quality perceptions among Greek patients attending primary health centers, Papanikolaou and Zygiaris observed the need for improvement in the definition of service quality beyond the simple expectation-perception gap as used in SERVQUAL-type studies such as ours.

They believed that the gap is inadequate for evaluation of individual differences that could influence perception. Further work is necessary to improve the understanding of the dimensions of quality applicable in health care especially in oncology care services as there is presently no universally applicable tool. ⁽²⁵⁾

Cho *et al.* ⁽²⁶⁾ established a causal relationship between service quality as measured using SERVQUAL and satisfaction based on extensive assessment of South Korean patients attending a health center. Another limitation was that it was conducted in a government-owned facility; hence it may not reflect the views of Indian patients attending privately-owned oncology clinics.



It is however likely that in developing countries such as India more patients patronize government owned than privately-owned oncology clinics as well as hospitals. Hence, our results would reflect the view of majority of Indian cancer patients.⁽²⁷⁾

CONCLUSION:

There are few reports on the assessment of the quality of oncology care services from developing countries such as India. Some available studies have used patient satisfaction to evaluate quality. There is general agreement that patients deserve more than the present level of care received from oncology clinics and hospitals. This study of a private- owned oncology care facility revealed that more patients still receive and many patients wait and pay for cancer treatment constituting financial burden on them. This could limit care-seeking behavior on the basis of cost. Also significant quality gaps in the dimensions of assurance and reliability of oncology care services were recorded. The need for improved patient care and oncology infrastructure complimented by increased health insurance coverage for oncology care is stressed.

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