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Gap analysis for health services provided to oncology patients in Sohag Governorate

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Abstract

Purpose: This study was conducted to identify areas where there are big gaps between oncology and nuclear medicine patients perception and expectation for the services provided to them and need to be improved to assure quality care Methodology: A sample of 550 patients of the oncology department of Sohag University Hospital (SUH) and Sohag Cancer Center (SCC) participated in the study. Descriptive statistical techniques and gap analysis were employed. Findings: The results showed that the quality of services provided to patients was significantly lower than their expectations and the quality gaps were statistically significant in all studied dimensions of the SERVQUAL tool which was used to assess the quality of health service provided ($P < 0.05$). Furthermore, the highest and lowest quality gaps were related to assurance and empathy dimensions respectively. Conclusion: Steps toward improving the quality of services in all dimensions should be taken, especially assurance and tangibility, through planning properly, prioritizing services, and reviewing processes with regard to the patients' expectations. Practical implication: Based on the findings of this study, hospital managers are in a position to recognize the patients' perceptions of health care quality and the level of their satisfaction. Consequently, managers can design strategies that improve the quality of services for increasing patients' satisfaction.

Keywords: SERVQUAL, Quality, Expectation, Perception, Gap analysis

Introduction

There are an increasing number of the attendant cancer patients at the outpatient clinics affiliated to the Oncology and Nuclear Medicine department, Sohag University Hospital and Sohag Cancer Centre which cause difficulties and work pressure**.** As a consequence, the expectations of these patients must be addressed to ensure continuous improvement of quality of care. Recently, great efforts were done in many countries to assess the quality that improvement, accreditation, certification, and periodic reporting would be facilitated according to the approved benchmarking[(1).]

Aim of the work:

To identify areas where there are big gaps in oncology and nuclear medicine patients between their perception and their expectation for the services provided to them and in need to be improved to assure quality care.

Subjects and method

Clinical observational study "evaluative type" was conducted at Sohag University hospital, oncology and nuclear medicine department and Sohag Cancer Center in Sohag governorate. A sample of 550 patients from both hospitals participated in the questionnaire survey; 215 (39.1 %) from SUH and 335 (60.9 %) were from

SCC. The inclusion criteria for patients were having at least 18 years old and have been hospitalized for more than 24 hours at the hospital to express correctly their attitude toward quality of care.

A modified SERVQUAL questionnaire was used[(2)]. The questionnaire consists of two parts. The first part of the questionnaire included items to determine the studied patients' demographic characteristics such as age, sex, residence, education level, and occupation beside the number and purpose of hospital visit. The other part consisted of thirty statements to assess service quality, in two sections; patients' expectations and perceptions. Patient answerswere put on Likert scaling where 5 was given to strongly agree while 1 to strongly disagree.To determine the quality gap, the mean scores of patients' expectations of service quality are subtracted from the mean scores of patients' perceptions. If the result was positive, the services provided to the patients would be higher than their expectations, and if the result was negative, the services would be lower than their expectations. Finally, if the result was equal to zero, it means that there was no quality gap. This study was approved by Sohag Faculty of Medicine and Sohag University Ethics Committees. Furthermore, the following basic steps weredone: coordination with the administrators and obtaining oral consent from all patients prior to data collection, voluntary participation in the study, and confidentiality on handling the database.

Results

Most of the patients were females (60.5%), married (85%), in forty to less than sixty age group (64.7), unable to work in (80 %) of the studied population and (90%) inhabitedSohag governorate.

Gap analysis

Gap analysis was done by subtracting the mean score of expectation form the perception for each dimension. There were no positive gaps, indicating that expectations exceeded perceptions. Statement 8 (prompt services) within the responsiveness and statement 10 (safe interactions with hospital employees) within the assurance dimension, statement 7 (telling patients the time of services performance) within the responsiveness dimension, and statement 13 (employees are knowledgeable in answering patients' questions) within the assurance dimension were found to have the highest gaps.

Table(1):ExpectationMean,perception mean and gap scoresoftangibles' statements

Statements of "tangibility dimension"	Expectation Mean	Perception Mean	Gap score (perception-expectation)
Having up-to-date equipment.	4.55	3.71	-0.84
Good appealing of the physical facilities	4.74	3.82	-0.65
Neat appearing of employees	4.43	3.89	-0.54
Mean tangibility gap scoring	-2.03		

***Table (2)**:Expectation Mean, mean perception and gap scores of reliabilitystatements*

Statements of "reliability dimension"	Expectation Mean	Perception Mean	Gap score (perception - expectation)
Providing services at the time it promises to do so.	4.48	3.9	-0.57
Sympathy and reassuring of employees when patients have problems	4.53	3.81	-0.72
Current hospital is accurate in its billing.	4.64	3.63	-0.1
Mean reliability gap scoring	-2.2		

***Table (3)**:Expectation Mean, perception mean and gap scores of responsivenessstatements*

Statementsof"responsiveness dimension"	Expectation Mean	Perception Mean	Gap score (perception-expectation)
Telling patients the exact time of services performance	4.57	3.71	-0.84
Receiving prompt service from employees.	4.74	3.82	-0.96
Continuous willing of the employees to help patients.	4.57	3.72	-0.85
Mean responsiveness gap scoring	-2.5		

Table (4):Expectation Mean, perception mean and gap scores of assurance statements

Statements of "assurance dimension"	Expectation Mean	Perception Mean	Gap score (perception-expectation)
Patients' feeling safe in their interactions with hospital employees.	4.64	3.72	-0.92
Knowledge of employees	4.54	3.9	-0.65
Politeness of employees	4.58	3.75	-0.83
Employees are knowledgeable in answering patients' questions	4.59	3.99	-0.59
Mean assurance gap scoring	-2.9		

***Table (5):** Table (4): Expectation Mean, perception mean and gap scores of empathy statements*

Statements of "empathy dimension"	Expectation Mean	Perception Mean	Gap score (perception-expectation)
Giving patients personal attention.	4.6	3.8	-0.9
Doing best to help patients	4.6	3.7	-0.9
Mean empathy gap scoring	-1.8		

Discussion

Gap analysis is done by subtracting the expectation scores form the perception scores. In the current study, there are no positive gaps, indicating that perceptions did not exceed expectations at all. The highest gap scores occurred within the assurance dimension then came statements of responsiveness then tangibility statementsin addition to reliability, while the lowest gap appeared in empathy dimension.

At nineteen ninety-two, service quality was measured in an American hospital using the same questionnaire used in the current study. Theconclusion was that assurance had the least gap scoring then came the rest of the dimensions [(2)]. In **Jabnoun and AL.Rasasi (2005)** , tangibles were found to havethe lowest score of expectation [(3)] .

On the contrary; when SERVQUAL scale was appliedby **Lam (1997)**, he found that the most negative gap scoring was in empathy dimension, then responsiveness, assurance and reliabilitydimensions[(4).] While in **Victor Lorin study in Romania (2013),**tangibility dimension emanated out to have the most negative gap

scoring , then gaps in responsiveness and reliability dimensions came after [6]. Additionally, **Lim and Tang (2000)** applied the same questionnaire and scaling in Singaporean hospitals and found that responsiveness was the dimension that had the highest gap score, then came assurance and reliabilitydimensions respectively[5]. In Romania, 2011 the quality of health service in Oradea was assessed and the most negative gap scoringwas reported for empathy dimension of SERVQUAL, after that came the gap in reliability and assurance dimensions.

Andaleebin (2001) tested an instrument with 5 dimensions in order to assess patients' perception of hospital services available in Bangladesh. His results revealed a major relationship between the five dimensions and patients' satisfaction. The dimensions; "tangible' and "assurance", had the greatest impact on patients' satisfaction, while the baksheesh (tips) factor had the lowest effect[7]. Similarly, **Bakar, Akgun and Assaf (2008)** used an adapted SERVQUAL scale to assess patients' attitudes toward health service in Turkey. They revealed that patients' perceived scores towards ordinary hospitals were higher than their expected scores for these ordinary hospitals but lower than their expected scores for the high-quality hospitals[8].

In **Bakar, Akgun and Assaf (2008)** study, responsiveness and reliability dimensions got the lowest expected scores of all dimensions. All these results whether in Bangladesh or Turkey ascertained **Pakdil and Harwood in (2005);** who applied SERVQUAL questionnaire for measuring patients' satisfaction and found that patients were highly satisfied with all elements of service quality; specifically, "adequate information regarding their surgery" and "adequate friendliness, courtesy" items[9].

On the other hand, **Robini and Mahadevappa (2006)** investigated 500 patients' satisfactions for service quality in Bangalore hospitals in India. Patients expectations exceeded their perceptions in 22 items of service quality where the assurance dimension got the lowest negative score in all hospitals [10]. In addition, **Sohail (2003)** found that patients' perceptions exceeded their expectations for all items of services provided by private hospitals in Malaysia [11].

In another study investigating patients' perceptions of National Health System in Macedonia and Greece, a modified version of SERVQUAL was used and the study reported that expectations were more than perceptions[12], while assurance and empathy were found to be the most important dimensions in the health care environment by **Dean in (1999).**In addition, reliability and responsiveness dimensions came first in the medical care environment[13].

Conclusion

Community interventions to continually assess and improve quality on the basis of patients' perspective is of utmost importance in oncology service provision institutes.

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