CrossMark

Centers for Disease
Control & Prevention
Republic of Korea

ORIGINAL ARTICLE

Evaluating Service Quality from Patients' Perceptions: Application of Importance—performance Analysis Method

Rafat Mohebifar, Hana Hasani, Ameneh Barikani, Sima Rafiei*

Department of Health Management, School of Health, Qazvin University of Medical Sciences, Qazvin, Iran.

Abstract

Objectives: Providing high service quality is one of the main functions of health systems. Measuring service quality is the basic prerequisite for improving quality. The aim of this study was to evaluate the quality of service in teaching hospitals using importance—performance analysis matrix.

Methods: A descriptive—analytic study was conducted through a cross-sectional method in six academic hospitals of Qazvin, Iran, in 2012. A total of 360 patients contributed to the study. The sampling technique was stratified random sampling. Required data were collected based on a standard questionnaire (SERVQUAL). Data analysis was done through SPSS version 18 statistical software and importance—performance analysis matrix.

Results: The results showed a significant gap between importance and performance in all five dimensions of service quality ($p < 0.05$). In reviewing the gap, "reliability" (2.36) and "assurance" (2.24) dimensions had the highest quality gap and "responsiveness" had the lowest gap (1.97). Also, according to findings, reliability and assurance were in Quadrant (I), empathy was in Quadrant (II), and tangibles and responsiveness were in Quadrant (IV) of the importance—performance matrix.

Conclusion: The negative gap in all dimensions of quality shows that quality improvement is necessary in all dimensions. Using quality and diagnosis measurement instruments such as importance—performance analysis will help hospital managers with planning of service quality improvement and achieving long-term goals.

1. Introduction

Quality improvement acts as a strategy to attain a competitive advantage in an industry and improve the reputation and profitability of a health organization during time [1]. All hospitals have found it necessary to measure, monitor, and improve the quality of healthcare services in order to survive and achieve patient satisfaction [2]. Also, the provision of high quality services is crucial to achieve the Millennium Development

*Corresponding author.
E-mail: sima.rafie@gmail.com (S. Rafiei).

Goals. Healthcare managers need a thorough understanding of the ways to increase the quality of care in practical terms. Under such circumstances, hospital managers put their main emphasis on attracting as many patients as possible and making loyal customers by recognizing their expectations and trying to respond to them in an effective manner [3]. Davis and colleagues [4] confirmed the necessity of measuring healthcare quality in a competitive environment. Service production in the industry is dramatically different from the healthcare services provision in many aspects: e.g., in terms of service quality assessment, one of the most common ways in healthcare is to use the consumers' (patients) perception about the services provided [5].

To evaluate patients' satisfaction and expectations of service quality, the SERVQUAL model was introduced by Parasuraman and Zeithaml [6] in 1985. They concluded that customers assess quality by comparing their expectations with real performance insights. If the customer's performance perceptions exceed their expectations, then the service provider provides quality service. The difference in scores determines the level of service quality.

Many researches have been conducted to assess service quality gap in hospitals and other healthcare organizations worldwide [7−15]. In this study, five dimensions of service quality were measured including tangibility, reliability, responsiveness, assurance, and empathy.

A principle element in quality assurance, evaluating the current level of performance and developing appropriate strategies for improvement is importance−performance analysis (IPA). This technique is based on a four-quadrant matrix which identifies the strengths and weaknesses of the services and determines improvement opportunities to develop strategic planning. IPA has recently been used to assess service quality in healthcare systems [16]. This method is also beneficial for managerial purposes such as allocating insufficient resources to those areas of performance with considerable effect on consumer satisfaction [17].

Quality is a multidimensional concept with patient satisfaction as one of the most important facets which mirrors the quality of services in a hospital setting. Patient satisfaction is defined as patients' opinions of "how well" services meet their needs and expectations, also considered as a valid indicator to measure service quality [18,19]. Since the 1990s, patient satisfaction has been considered as a method to measure care recipients' perceptions about the quality of health services and to analyze their willingness to pay or utilize such services provided in healthcare facilities [20]. However, the IPA model is based on comparing the importance level (expected satisfaction) and performance level (perceived satisfaction) of service quality to extract improvement strategies that will be effective for increasing customer satisfaction [21].

Considering the importance and necessity of evaluating health service quality, particularly those provided in health facilities and hospitals, the current study aimed to evaluate the quality of inpatient services in teaching hospitals affiliated with Qazvin University of Medical Services, Qazvin, Iran using an IPA model.

2. Material and methods

2.1. Study design and research setting

This descriptive−analytic study was carried out through a cross-sectional method in six training hospitals affiliated with Qazvin University of Medical Sciences in 2015. A total of 360 patients from different clinical wards of under-study hospitals contributed to the study (randomly 60 patients from each hospital).

2.2. Sample size

By conducting a literature review, the prevalence of patients' satisfaction was assumed to be 20% with a 95% confidence interval and 5% margin of error. The minimum number of required samples was calculated to be 300 patients. To consider a 20% nonresponse rate, 60 samples were added to this sample size. Therefore, 60 patients were randomly selected from each hospital.

2.3. Inclusion criteria

The inclusion criteria for the study participants were they had to be older than 18 years and had to have been hospitalized for at least 24 hours at the hospital to truly express their attitude toward quality of care. Those inpatients in the intensive care unit, critical care unit, and the emergency ward that had a severe physical condition or mental disorder were extracted from the study.

2.4. Data collection tool

Data collection was conducted using a standard SERVQUAL questionnaire developed by Parasuraman and Zeithaml [6] in 1985. The questionnaire contained an "expectation" section with 22 items and a "perception" section consisting of a set of matching statements. The statements in both expectation and perception sections were categorized into five dimensions of tangibility, reliability, responsiveness, assurance, and empathy. A 5-point Likert scale was used for the scoring system with 1 representing "strongly disagree" and 5 representing "strongly agree."

Considering the standard questionnaire, the face and content validity of the questionnaire has been confirmed in previous studies. Also, to assure the questionnaire reliability, Ranjbar Ezzatabadi et al [5] in 2012, Tabibi et al [9] in 2012, and Mohammadi and Shoghli [22] in 2009 calculated the Cronbach α upper as 85%.