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Jerome Christia

Coastal Carolina University, christia@coastal.edu

Aaron Ard

USC-Salkehatchie, ajard@mailbox.sc.edu

Lorraine Runion

Coastal Carolina University, lrunion@coastal.edu

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Cover Page Footnote

Correspondence regarding this article should be addressed to Dr. Jerome Christia, Department of Marketing, Coastal Carolina University, Conway, SC, 29528 Contact: christia@coastal.edu

SERVQUAL Measurement in a Healthcare Setting: Before and After Corrective Strategy Implementation

Jerome Christia, Coastal Carolina University, christia@coastal.edu
Aaron Ard, University of South Carolina- Salkehatchie
Lorraine Runion, Coastal Carolina University

Abstract - In the United States, the most dominant industry is services, yielding the highest volume of total employment and gross domestic product. Due to this insight, academics and business professionals continue to research and apply strategies to achieve distinctive competitive advantages in the services arena. The steady growth and increasing significance of the service sector in the United States and other developed markets has resulted in a sizeable body of related research addressing a variety of issues such as service quality and its characteristics. Healthcare is an impactful service industry that has received a considerable amount of attention. In the healthcare field, studies have shown that a variety of variables impact the perception of service quality. In a highly competitive healthcare environment, it is in an organization's best interest to provide customers the best service possible to achieve optimal service quality outcomes. This paper asserts that service quality is especially enlightening when measured before and after corrective strategy implementation. This paper applies the SERVQUAL evaluation tool to assess service quality expectations and perceptions in a healthcare setting. Particularly, this study proposes that service quality improves following a correction of service-related issues and demonstrates the significance of evaluating service quality after appropriate changes have been made. Two samples were conducted one year apart in a large Obstetrics and Gynecology office. After the first sample, this paper identifies 4 of 5 areas that needed improvement. Owners and management of the medical office implemented processes to improve weak areas following the initial sample. In the second sample, one year later, the study indicates there is evidence that corrective strategies were effective.

Keywords - Service Quality, SERVQUAL, before and after design, healthcare quality

Relevance to Marketing Educators, Researchers and/or Practitioners – This study emphasizes the application of service quality and its measurement to provide evidence that effective measurement can lead to a strategic improvement approach in healthcare and other services.

Introduction

The services industry represents a major portion of total employment and gross domestic product in the United States. Acquiring a competitive edge in the services sector is a key driver for an organization's potential success and profitability. Providing superior quality in service experiences is an effective approach to attain such an advantage. This principle prevails in most industries, including various types of nonprofits and profit seeking organizations. Services are often characterized by intangibility, inseparability, heterogeneity and perishability (Lovelock, 1996;

Hoffman & Bateson, 2006). Since service characteristics vary with time, organization, and situation, quality of services deserves closer examination (Kassim & Zain, 2010).

The growth and increasing significance of the service sector in developed markets like the U.S. has spawned a sizeable body of related research addressing a variety of issues such as service quality and its dimensions. The interaction between service provider and customer is the primary core of the service business and its different natures (Ching-Sheng et al., 2013). Meanwhile, service quality measurement has been implemented in a variety of fields. Particularly, service quality has been used successfully in several areas of healthcare. In healthcare, the service experience usually involves a series of events or phases of interaction between a medical office and patient. Within the phases, performance can meet, exceed, or not meet the patient's expectations. This article contributes to the literature by examining how the measurement of service quality provides insight into the outcome of healthcare service performance after strategy improvement.

This research makes several contributions to the literature. To address some of the important voids, this research explores the variation of service failures/delights and their impact on service quality perception. First, using the SERVQUAL instrument (Parasuraman et al., 1988) to measure service quality, we propose a conceptual framework to effectively examine the temporal pattern of service delivery affecting service quality perceptions. Since many factors can affect service quality perceptions, it is very useful to measure service quality more than once to examine the effect of time on service quality. As such, this research views service delivery as a continuous process and evaluates the dynamics involved in double measurements of service quality. To that end, we compare SERVQUAL measurement across two occasions to capture the complicated nature of multiple possibilities of service failures/delights (Sivakumar et al., 2014), more precisely. Duplicating service quality measurement should provide a more realistic picture of the complex situations in service encounters.

Literature Review

Service Quality and SERVQUAL

An increasing emphasis on services marketing has created an extensive breadth of related research addressing a large variety of issues in measuring the concept of service quality and its dynamics. As competition intensifies and customer expectations increase, organizations are not only interested in maintaining existing customers, but growing clientele. Since the vast majority of companies depend on repeat business, a heavy emphasis on the influences of service quality has evolved. Service quality remains one of the most significant areas in marketing. The basic premise of the 'service quality paradigm' is centered on the gap between the perception of service quality evaluated by the consumer and the level of service quality the consumer expects. The dichotomy between perception and expectation of actual service led to the development of the Gap Model by Parasuraman et al. (1985) that later led to the development of the more popular SERVQUAL scale (Parasuraman et al., 1988). This research defines the service quality concept in terms of five prescribed major dimensions:

- Tangibles: Appearance of physical facilities, equipment, personnel, and communication materials.
- Reliability: Ability to perform the promised service dependably and accurately.

- Responsiveness: Willingness to help customers and to provide prompt service.
- Assurance: Knowledge and courtesy of employees and their ability to convey trust and confidence.
- Empathy: Providing caring, individualized attention to customers.

SERVQUAL is a concise multiple-item scale with good reliability and validity that organizations can use to better understand the service expectations and perceptions of consumers and, as a result, improve service. The instrument has been designed to be applicable across a broad spectrum of services. As such, it provides a basic skeleton through its expectations and perceptions format encompassing statements for each of the five service quality dimensions. The skeleton, when necessary, can be adapted or supplemented to fit the characteristics or specific research needs of a particular organization (Parasuraman et al., 1988).

Since Parasuraman, et al.'s (1988) seminal piece, attempts to define, describe, and identify service quality and its predictors abounds marketing literature. Bolton & Drew (1991) described service quality as a global judgment, or attitude, related but not equivalent to satisfaction, which results from the comparison of expectations with perceptions of service performance. Moore & Schlegelmilch (1994) emphasized service quality is primarily dependent on expected service and actual service. Augustyn & Ho (1998) concluded the SERVQUAL model was the most useful tool for defining customer satisfaction. Gefen (2002) stated that service quality of a firm is based on how the customers' expectations are fulfilled, i.e. what the customers actually get as a service should be matched with the expected service. If the gaps between these are high, then quality of service is questioned. As service quality is the degree and direction of discrepancy between customers' perception about service received and expectations (Zeithaml & Parsuraman, 2004), perceived service quality impacts the level of customer satisfaction and subsequent customer metrics. Reportedly, quality service will not only lead to improved customer satisfaction, but customer loyalty (Kumar et al. 2009), as well. As customer satisfaction leads to developing and maintaining loyal customers, they may become advocates for the firm and promote the organization further by making positive referrals through credible word-of-mouth communication (Guiry & Vequist, 2011).

Lately, the SERVQUAL model has been increasingly adopted across industries by practitioners, by academicians and researchers in different countries with different cultural contexts (Ganiyu, 2016). Specifically, the measurement model has been applied on numerous occasions in the healthcare industry (Babakus & Boller, 1992; Headley & Miller, 1993; Bebko & Garg, 1995).

Service Quality in Healthcare

In developed and developing markets, services marketing studies are growing and becoming increasingly significant in specialized industries, such as healthcare. Some of the medical patient benefits include a more effective and efficient service (Nelson, 1990). Lately, it is observed that healthcare has become one of the extremely complicated sectors in the world (Bertolini et al., 2011). Enhancing patients' experiences has become a challenge for healthcare management as they tend to see patients as ordinary consumers rather than healthcare services consumers (Al-Neyadi et al., 2018). In a healthcare context, patients' expectations are formed as a result of previous experiences with the provider, word-of-mouth communication, social media, marketing communications, and personal needs (Parasuraman et al., 1985).

Service quality and improved patient satisfaction levels are key factors that are important to the long-term achievement and profitability of healthcare service providers (Gilbert et al., 1992). In order to ensure future success, being able to provide good healthcare service quality is the most significant element (Min et al., 1997). Due to the increased consciousness level of the patients on service quality and changes in the competitive environment, healthcare services have to manage several challenges. Subsequently, Milosevic and Bayyigit (1999) reported the value of evaluating patient satisfaction to healthcare organizations. Service quality in healthcare is a very significant area, because the level of importance derives from a need for economic sustainability and a direct relationship with general health. Ultimately, to be successful in the healthcare industry, it is important to provide patients with service that meet or exceed their expectation (Lee et al., 2000).

Correspondingly, it is vital for healthcare providers to maintain their healthcare quality and effectiveness to keep current patients and attract new ones (Chang et al., 2011). Evaluation of hospital service quality is complex and includes multiple criteria, qualitative and uncertain factors that are difficult to evaluate (Buyukozkan et al., 2011). According to Lal et al. (2014), the increased emphasis on quality in medical services is attributable to benefits which both patients and medical service facilities may acquire from providing quality medical service. The benefits enjoyed by medical services primarily evolve from having more satisfied patients. This is important as satisfied patients may develop more positive perceptions of health care delivery and these perceptions should act to provide health care organizations with: more loyal customers, more compliant customers, enhanced image, less staff turnover and increased efficiency (Lal et al., 2014). Consequently, patients' perception on the quality of services is an essential indicator utilized to measure the performance of a healthcare facility (Al-Neyadi et al., 2018). Basically, the SERVQUAL approach allows medical services to evaluate patient experience, while accounting for variation in their expectations and priorities. Thus, the SERVQUAL-based measure allows for general internal evaluation of patient experience and highlights specific areas for improvement.

Hypotheses

A careful and extensive review of extant literature on service quality reveals several variables affiliated with service quality have been proposed over the past two decades. Considering that there are numerous factors that influence service quality perceptions, this study is designed to determine which dimensions of service quality are noticeable after office improvements were initiated. This paper contends that service quality measurement prompts actual improvements in service. Most studies have reviewed service quality at one point in time and focused only on one sample. This paper argues that a more meaningful depiction of service quality stems from an additional measure. This study will evaluate service quality and its outcomes by analyzing and comparing two distinct measures administered at separate times.

Our assertion leads us to hypotheses that examine each of the service quality dimensions before and after SERVQUAL measurement. This paper uses SERVQUAL as a diagnostic and analytic tool. Following the collection and analysis of sample 1, it was determined that the office needed to improve in the areas of tangibles, reliability, responsiveness, and assurance. As a result, employee and staff meetings were held to review the outcomes of the survey. A concerted effort was made to address identified weak areas by implementing training sessions to improve the disparities. Furniture throughout the office was re-upholstered and additional detail was placed on cleaning the facility to address the tangibles dimension. To cope with unfavorable responsiveness ratings, adjustments were made to minimize time that patients spent in the waiting rooms. The

doctors became more diligent about reducing the time patients had to wait. Additionally, the telephone answering system was upgraded to increase the number of phone lines and improve office response time to patients. Doctors were more conscientious in explaining procedures to better balance expectations and perception to target the reliability dimension. Also, the office staff was trained on the impact of being courteous to patients for the assurance dimension measure. Figure 1 illustrates the SERVQUAL model. Five hypotheses regarding strategic changes in customer service practices and any effect on service perception were developed, H1-H5.

Tangibles

Baker (1987), identifies three fundamental factors that impact the tangible portion of the service quality construct as ambient, design, and social. The ambient factors are background variables such as aroma, temperature, light, etc. They are not part of the main service but are important as their absence can possibly concern customers or can cause an inconvenience to them. The design factors contain aesthetic aspects such as beauty and décor and functional aspects such as room layout, ease of transaction and waiting room design that help and facilitate in efficient and quality delivery of service. The social dimension relates to an organization's concern for the people in the environment such as customers, employees and non-customers.

The ability of physical environment to influence consumer purchase behavior in healthcare (McAlexander & Kaldenberg, 1994) has been well documented and accepted in services literature. Various terms including atmospherics, environmental psychology, servicescapes and shelf-space studies have been used to describe research about the impact of physical environments on consumers (Turley & Milliman, 2000). This paper will use the term "tangibles".

Some researchers suggest that for customers using services such as banks and insurance companies, tangibles are probably secondary. In contrast, the physical presence of customers in different types of other services (e.g. healthcare, education) emphasizes the importance of tangibles as a primary influence (Sánchez-Hernández, Martínez-Tur, & Ramos, 2009). After reviewing results from sample 1,

a conscious effort was made to improve office ambience and décor, through cleanliness and aesthetically pleasing furniture. These changes lead to H1.

- *H1: Service quality perceptions of the office tangibles will improve under the new customer service strategic changes.*

Reliability

The literature reveals that reliability is an integral part of the service quality evaluation. In the service quality context, reliability is defined as the ability to perform the promised service dependably and accurately (Parasuraman et al., 1988). Accordingly, service reliability involves consistency of performance and dependability. It means that the firm performs the service right the first time, and it also means that the firm honors its promises.

The dependability aspect of service reliability signifies the degree to which the service provider is able to meet the promise it has made to its customers. The most important reason for concentration on this construct is intangible services, which usually requires greater service reliability between customers and service providers (Ihtiyar & Ahmad, 2015). This paper attempts to examine a potential increase in reliability of medical offices as perceived by patients after more

attention to detail during patient counseling, to create reasonable expectations. This is examined in H2.

- *H2: Service quality perceptions of staff reliability will improve under the new customer service strategic changes.*

Responsiveness

Another critical element of service quality is responsiveness. Responsiveness concerns the willingness or readiness of employees to provide service (Parasuraman et al., 1985). It involves timeliness of service. In the original service quality application, this involved immediate mailings, quick call-backs to customers, and prompt service (e.g., setting up appointments quickly). The concept of responsiveness has been applied to a variety of service environments.

According to Hill & Joonas (2005), wait time was to be a determinant of quality perceptions and patient behaviors. In the study, it was found that wait time affects quality perception, satisfaction, and manifestation of loyalty through recommending the provider and repeat visits. Majority of respondents considered a wait of half an hour or more to be unacceptable, even though most patients faced wait times of less than what they described as acceptable, yet many endured an unacceptable wait time. Patients would delay acting until unacceptable waits became quite frequent or very frequent. In sample 1 of this study, many patients commented on waiting more than half an hour to see a physician. With this knowledge, decreasing wait time was a major item to resolve. This leads to H3.

- *H3: Service quality perceptions of staff responsiveness will improve under the new customer service strategic changes.*

Assurance

In service quality, the concept of assurance refers to the knowledge and courtesy of service providers and their ability to convey trust and confidence. Usually, consumers do not possess the medical or mechanical skills necessary to determine whether procedures are needed or are performed properly, even after they have been recommended and produced by the service provider (Parasuraman et al., 1985). Therefore, patients rely on the assurance of their healthcare providers to instill these essential beliefs and feelings.

The assurance dimension is comprised of 5 elements from the original SERVQUAL study. The elements include communication, competence, courtesy, credibility, and security. According to Parasuraman et al. (1988), communication means keeping customers informed in language they can understand and listening to them. Competence means possession of the required skills and knowledge to perform the service. Courtesy involves politeness, respect, consideration, and friendliness of contact personnel. Credibility involves trustworthiness, believability, and honesty. Security is the freedom from danger, risk, or doubt.

In sample 1, there was a problem with the assurance dimension. Specifically, patients did not perceive the office staff as being as courteous as expected, in person or on the phone. Special training was tailored to rectify these concerns. This paper examines the assurance dimension of service quality in a healthcare context, H4.

- *H4: Service quality perceptions of staff assurance will improve under the new customer service strategic changes.*

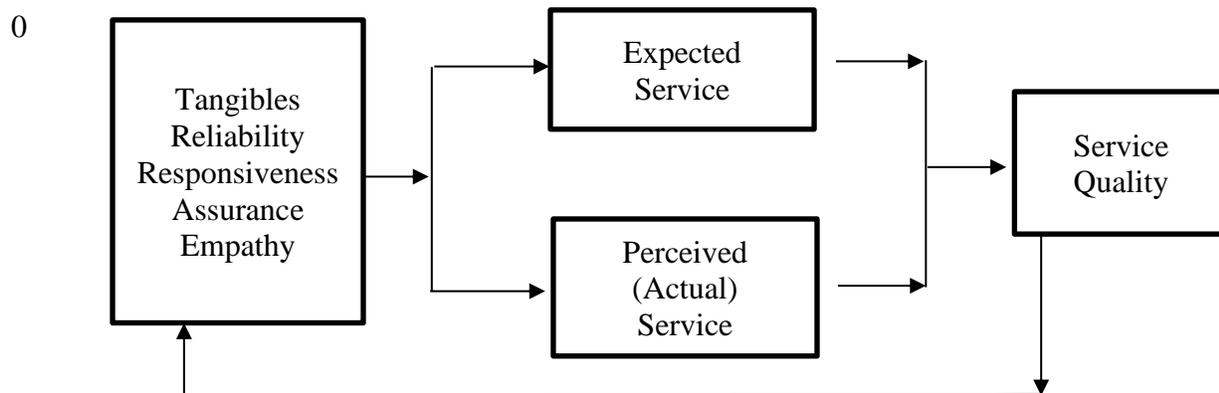
Empathy

Empathy in service provision refers to providing caring, individualized attention to customers. The empathy dimension evolved from two elements - understanding/knowing the customer and access. Understanding/knowing the customer involves making the effort to understand the customer's needs. Accordingly, it involves learning the customer's specific requirements, providing individualized attention, and recognizing them as a regular customer.

Access involves approachability and ease of contact. It suggests that the service has convenient hours of operation, convenient location of the service facility (Parasuraman et al., 1988). Furthermore, staff gives personal service, the staff has the patient's best interest at heart, and the staff is understanding of patients' needs. Empathy was not an area that needed a remedy. Yet, we test it in H5.

- *H5: Service quality perceptions of staff empathy will improve under the new customer service strategic changes.*

Figure 1: SERVQUAL model



Methodology

The survey was administered at a large Obstetrics and Gynecology office in a medium-sized city in the southeastern United States. The office has a client database that exceeds 20,000 patients. The survey's data record patients' ratings of perceptions of service quality on five dimensions: Tangibles, Reliability, Responsiveness, Assurance, and Empathy. The medical practice adjusted customer service strategies based on the result of responses from patients in sample 1. This study analyzes any increases/decreases in service ratings after the adjusted customer service strategies were implemented.

Sample 1 (survey of patient ratings with the practice's previous customer service strategies) size was n=363 and sample 2 (survey of patient ratings with the practice's new customer service strategies) size was n=369. Patients voluntarily participated in the survey, after the completion of their doctor's appointment. The two sample sizes give adequate statistical power to infer any difference in ratings of perceptions of service quality are not the result of chance. The samples were administered a year apart.

Each data collection included a sample of women, ranging in age, length of patronage to the medical practice, residence location, ethnicity, occupation, age, and purpose of visit. Each sample was collected over a 4-week period. Participants completed the written questionnaire voluntarily and were not given any compensation. The study measured expectations and perceptions of the patients participating in the survey. One year after the initial data collection, a second survey was administered in the same office, under the same circumstances.

Data were analyzed using the statistical software package SPSS. The authors utilized two sample independent t-testing to detect any statistically significant differences in the importance of patient perceptions regarding factors that affect service quality (Moore et al., 2016). A nationally normed (for validity and reliability) survey of quality of service named SERVQUAL was administered to two groups of patients over two distinct study periods. The survey instrument utilizes a 23 item, 7-point Likert scale (anchored from strongly disagree to strongly agree) to measure patient satisfaction with the medical services provided. Sample 1 survey ratings were collected under previous customer service strategies of the medical practice whereas sample 2 survey ratings were collected under new customer service strategies implemented by the medical practice.

We assessed item scale reliability. To test for internal consistency a Cronbach's alpha mean was calculated using the SPSS statistical package for all items in the SERVQUAL survey instrument. The resulting statistic with an alpha coefficient for the 22 items is .942, which suggests very high internal consistency for questions in this survey. Most social science researchers consider reliable as being significant if the Cronbach's alpha mean statistic $\alpha > .70$.

To ensure internal validity, a number of control variables were in place, which included the same location, same timing of survey administration, same survey instrument, similar sample size, same circumstances and protocols for the two sample groups. Both sample groups were comparable demographically, so there was no selection threat. Neither group received compensation or financial incentive. The second sample group was not notified of the office changes.

Findings

Table 1 below shows the mean response rating of perceptions of service quality on each of the five dimensions. Table 1 lists the statistically significant rating changes on each service dimension. The results of the t-test of each hypothesis are presented.

Table 1: Two-sample Independent T-Test Results

<i>SERVQUAL Service Quality Dimensions</i>	<i>Sample 1</i>	<i>Sample 2</i>
Tangibles		
Question 1: Modern looking equipment?	6.21	6.13
Question 2: Offices are visually appealing?	6.33	6.26
Question 3: Staff have neat appearances?	6.39	6.41
Question 4: Info-materials are visually appealing?	6.20	6.16
Reliability		
Question 5: Staff is timely?	5.72	6.06*
Question 6: Staff solves problems?	6.22	6.30
Question 7: Performs service right the first time?	6.30	6.44
Question 8: Staff keeps promises?	5.92	6.22*
Question 9: Keep accurate records?	6.23	6.52
Responsiveness		
Question 10: Staff promptly inform patients?	6.31	6.41
Question 11: Staff provide prompt service?	5.91	6.20*
Question 12: Staff are always willing to help?	6.39	6.43
Question 13: Staff never too busy to respond to patients?	6.01	6.12
Assurance		
Question 14: Staff behaves confidently?	6.36	6.39
Question 15: Patients feel safe in all transactions?	6.48	6.55
Question 16: Staff are courteous?	6.43	6.49
Question 17: Staff have the knowledge to answer patients' questions?	6.55	6.60
Question 18: Staff give individual attention?	6.55	6.60
Empathy		
Question 19: Convenient operating hours?	6.29	6.32
Question 20: Staff give personal service?	6.41	6.44
Question 21: Staff has patient's best interest at heart?	6.51	6.50
Question 22: Staff is understanding of patients' needs?	6.48	6.51

Significance * $p < 0.05$

Tests of Hypotheses

H1: Service quality perceptions of the office tangibles will improve under the new customer service strategic changes.

H1 is not supported. The two-sample t-test indicates no statistically significant change in rating means on tangibles.

Tangibles are the appearance of physical facilities, equipment, personnel, and communication materials. Only one item was changed in this dimension, which was décor. However, that change was minimal since the only difference was the furniture upholstery. No changes were made to the other tangibles.

Based on the influence of previous research studies by Parasuraman and colleagues, many researchers have focused on the interaction between employees and clients, and, consequently, they have partially neglected the evaluation of tangible characteristics (Sánchez-Hernández et al.,

2009). In the case of this study, one could argue that the practitioners overlooked the impact of tangibles in this office – equipment, staff, and info-materials.

H2: Service quality perceptions of staff reliability will improve under the new customer service strategic changes.

H2 is partially supported. The two-sample t-test indicates an increase on all item ratings means for reliability. Two of the five mean rating increases were statistically significant.

The office made a concerted effort to address disappointments shared by patients regarding the reliability service area, and there is some indication that the service improvements to the reliability dimension were somewhat effective. Reliability is the ability to perform the promised service dependably and accurately. Particularly, it also means that the business honors its promises. It appears that a combination of improving phone service and more carefully explaining procedures to patients increased their perceptions of the service experience.

H3: Service quality perceptions of staff responsiveness will improve under the new customer service strategic changes.

H3 is partially supported. The two-sample t-test indicates an increase on all item ratings means for responsiveness. However only one of the five mean rating increases were statistically significant.

The main issue in the responsiveness dimension was providing more prompt service. Our findings suggest that the service improvements in the responsiveness dimension were effective. Responsiveness is the willingness to help customers and to provide prompt service. The biggest concern that patients had was the long wait time to see a physician. That issue was addressed by the office manager, by creating a more efficient processing of patients upon sign-in. Apparently, the improvement and awareness of patient wait time to see a physician enhanced respondents' perception of their visit.

H4: Service quality perceptions of staff assurance will improve under the new customer service strategic changes.

H4 is not supported. The two-sample t-test indicates no statistically significant change in rating means on assurance.

Assurance indicated no meaningful difference between samples, and this was slightly surprising, as the practice added training sessions to improve in this area. Assurance is the knowledge and courtesy of employees and their ability to convey trust and confidence. In the first sample, there were a few shortcomings in this area. Unfortunately, the changes made in this area were not effective enough. The items in this dimension are all based on patients' perception of the staff and the personal service they provide. This weakness suggests that the staff training was insufficient.

H5: Service quality perceptions of staff empathy will improve under the new customer service strategic changes.

H5 is not supported. The two-sample t-test indicates no statistically significant change in rating means on empathy.

Empathy entails providing caring, individualized attention to customers. No adjustments were made in this area since there were no perceived problems with this dimension of service quality, in the first sample. It appears that patients had no problem with the office's operation hours or feeling a sense of understanding.

Discussion

In this study, the SERVQUAL research tool demonstrated sufficient evidence of being relevant, reliable, and valid. The five dimensions of SERVQUAL scale included the physical condition of the facility and appearance of the staff (Tangibles); the trust that the organization will deliver what it promises (Reliability); the willingness of the organization and its employees to proactively address its customers' needs (Responsiveness); the ability of the organization and its employees to instill confidence among its customers (Assurance); and also the organization's philosophy and practice to care for its customers (Empathy). In order to get a clearer picture of the perceptions of the respondents, it was important to examine the determinants of service quality based on the five different dimensions. The measurement technique was applied using patient feedback and used to further improve services. Comparing the means of each dimension, SERVQUAL revealed improvements in reliability and responsiveness, with minor increases in assurance and empathy.

The first sample results showed that there were some disparities between the patients' concepts of expectation and perception in 4 of the 5 dimensions of service quality for the Ob/Gyn practice. Fortunately, in the initial sample, service strength was revealed in the empathy dimension. Favorable items of empathy considerations encompassed convenient office hours and personal service from staff. Tangibles, reliability, responsiveness, and assurance measures uncovered weaknesses and gaps in service quality. Tangible items included the medical office, equipment, marketing collateral, and staff appearance. Tangibles indicated no difference between samples, and this was not surprising, since the practice made only minor adjustments for this dimension. The office made a concerted effort to address disappointments shared by patients regarding service in the area of reliability. The main issue in the responsiveness dimension was providing more prompt service. The assurance dimension indicated no meaningful difference between samples, and this was slightly surprising, as the practice added training sessions to improve in this unfavorable area. No special effort was made to change the approach in the empathy dimension.

In a competitive world, the service industry is under pressure to produce lasting performance and quality improvement. Since the initial study by Parasuraman et al. (1988), the SERVQUAL measurement tool has been applied in fields that span the service industry spectrum. One very interesting application has been in the areas of marketing and managing healthcare. Management needs to recognize that service quality is not a fad but an ongoing commitment (Watson et al., 1998).

This study is valuable because it provides more than one measure of service quality for the same facility. There are minimal studies on evaluating service quality more than once for an organization. Service quality was measured twice for this medical office. The prime purpose of this paper is to determine whether there was an increase in service quality between the first and second measurements. This study compares and contrasts SERVQUAL outcomes for the same medical office from one year to the next, after service quality changes were made.

From a managerial perspective, it is very important that the medical office measure service quality continuously. In fact, service quality and patient satisfaction are important factors in retention. Patient retention has received increased attention nowadays because of the recent proposed healthcare reforms, which has created angst amongst many patients. The improvement areas in this research represent a strength for the medical practice in this study and serve as building blocks to create a competitive advantage, by addressing the service failures and maintaining the service delights.

Specifically, waiting time plays an important role in the satisfaction level among clientele. The length of time by which patients wait gives them the impression of being cared for or neglected, thus directly affecting patient satisfaction. Length of waiting time is determined by several factors, including current load which result in slower phase of service (Al-Neyadi et al., 2018). Perhaps consumers do not necessarily buy the fastest or highest quality service; convenience, price, or availability may enhance satisfaction while not actually affecting consumers' perceptions of service quality (Cronin & Taylor, 1992). This study decreased waiting time for patients, which resulted in an improved SERVQUAL rating.

The “health care service quality evaluation must find a way, which encompasses expectations and needs of every party involved” (Piligrimiene & Buoninoine, 2008). To narrow patient and provider gaps, Chowdhury (2008) suggests conducting continuous market research to find out customers’ requirements and maintain relationship marketing to build up customer loyalty. This research supports that philosophy of multiple measures. Evidence was provided to reveal an improvement in service areas with a subsequent measure in service quality.

Moreover, overall satisfaction with a service is a result of a complex process involving the interrelationships between many dimensions. Thus, an understanding of the potential effects of individual dimensions helps managers to design or operate their service processes by industry. This study pinpointed specific items within the five dimensions of service quality that needed more attention. Identifying strong or weak areas is crucial to implementing appropriate strategy. Perhaps high involvement services such as healthcare or financial services have different service quality definitions than low involvement services such as fast food or dry cleaning (Cronin & Taylor, 1992). Hence, accurately defining service quality is just as meaningful as reliably measuring it. Implementation of service quality measures improves operational efficiency in the healthcare sector, resulting in optimum resource allocation, minimum wastage of available resources and significant improvement in the quality, leading to considerable improvement in value addition to the end-users of the hospital service (Prabhakar, 2014).

Study Limitations, Future Research, Conclusions

Generally, service quality is an antecedent of consumer satisfaction and that consumer satisfaction exerts a stronger influence on purchase intentions (or repeat visits) than does service quality. One limitation of this study is that it measured service quality, only, and not patient satisfaction. Thus, managers may need to emphasize total customer satisfaction programs over strategies centering solely on service quality. Another limitation is that the same group was not measured over time for a true longitudinal design. We assumed that the improved SERVQUAL results are a product of true service advancements and not specific to the group used in the second sample. Therefore, a future study should consider measuring the same group more than once. In conclusion, to compete more efficiently and effectively in the marketplace, healthcare facilities must be sensitive in meeting patient’ expectations for tangibles, reliability, responsiveness, empathy, and assurance. Observing patient satisfaction is an important element of a healthcare provider’s effectiveness and should be a preference of quality improvement (Torres & Guo, 2004). Thus, evaluation of service quality from a patient’s point of view is useful for a manager to find major factors affecting service quality and apply effective methods to solve problems of service quality.

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Author Information

Dr. Christia earned his PhD in Marketing from Oklahoma State University and is a Professor of Marketing at Coastal Carolina University. He has published in numerous journals and proceedings including Journal of Management and Marketing Research, Journal of Marketing Management, Coastal Business Journal, Sporting Traditions and International Journal of Business and Social Research.

The late Dr. Ard earned his PhD in Management and Economic Statistics from Cornell University. He was Associate Dean for Academic Affairs at University of South Carolina-Salkehatchie.

Ms. Lorraine Runion earned her M.S. from Millersville University. She retired as Lecturer at Coastal Carolina University. She was Executive Vice President - Chief Administrative Officer and Corporate Secretary at ECB Bancorp, Inc.