Service Quality in Rural Healthcare: An Exploration of Expectation Versus Veracity

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Author's contribution

The sole author designed, analysed, interpreted and prepared the manuscript.

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ABSTRACT

Purpose: This paper aims to scrutinize the healthcare service quality in the rural population of a developing economy like India. It further aims at analyzing the service quality gap of the healthcare sector as perceived by its customers**.**
Design/ Methodology/Approach: This paper used the SERVQUAL model to examine the service quality of the health care units. For this study, only public health care units from the rural areas were considered.
Findings: The results entail that the hospitals have little or no provision of necessary infrastructural facilities inside the hospital in terms of medical equipment. The healthcare personnel do not provide personalized attention to the patients. Research
Limitations: The study was limited to rural state-owned hospitals' status; the results and interpretations may not be completely applicable or relevant to the private sector hospitals and urban hospitals.
Practical Implication: The study clearly states that the patients know their expectations in terms of service quality.
Originality/ Value: Vivid research has been done to examine the quality of services provided by the healthcare units, the least of them focusing on the rural front. This study is a genuine work by the authors to understand the healthcare providers' rural population's expectations.

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1. INTRODUCTION

Healthcare services are the most fundamental and important subject that needs to be discussed and attained for all society levels. Healthcare is the heart of wellbeing, and a healthy population contributes to economic progress.

A healthy population contributes to the improvement in the efficiency level of the nation and the future progress through reduced mortality [1].

With the advancement in technology and infrastructure, healthcare services are improving. They are contributing to the development of the nation. Since there is no shortage of capital and resources in the urban world, health care services can be called a success. However, is it right on the rural front? The developing economies, like India that have a rural population of 66%, suffer the deficiency of qualified medical staff, problem of supporting and quality infrastructure, and lack of approachable and available basic medicines and medical facilities. The medical facilities in the rural areas that cater to around 700 million people have no proper medical facilities access. The government has taken many initiatives and implemented various programs and procedures to improve the health service quality [2]. However, the gaps in the implementation of these initiatives have raised questions on these programs' effectiveness. One of the surveys found that the already limited number of primary healthcare units has a shortage of doctors, medical staff, lab technicians, and pharmacists in rural India. Ninety-two percent of the healthcare visits are in the private hospitals, of which the urban population visits contribute to 70 percent. This higher number of visits to the private health care units is because the rural population [3] is void of the rural region's necessary facilities, making them shift to the high-cost private hospitals, as compromising to health is not the choice.

The healthcare sector's first encounter is limited access to the facilities, like poor accountability, low quality of care, and lack of awareness. To support healthcare, the government has come up with a lot of healthcare-related policies. One such policy is Ayushman Bharat launched in 2018. Under this scheme, the number of doctors increased from 8,26,006 in 2010 to 8,41,104 in 2017. New attractive opportunities were brought up in the hospital sector in India. Further, the strong demand for healthcare services expected the healthcare market increased three times the amount of Rs8.6 trillion by 2022. Both urban and rural India has huge opportunities for investment in healthcare structure.

There is still a considerable gap to be filled in for improvising the service quality when it comes to the government health care setups. The employees in government hospitals are negligent in their work. Government hospitals [4] should be adequately maintained, and equal facilities like private hospitals should be available in all the government hospitals in developing urban areas and rural areas.

In the context of hospitals, service quality is the most crucial component. Various studies have erupted to study the service quality provided by rural healthcare hospitals and further identify the difference between the estimated-service excellence and the alleged service quality. A very prominent model for quality measurement, i.e., the SERVQUAL model, is used to study. This model defines gaps at five levels between the design's various features and what is offered.

The first gap is identified when there is a deviation between the customer's understanding by the service provider and the customer anticipating service quality [5]. The second level of the gap is identified amongst what the service provider perceives and the transformation of these service perceptions [2]. A gap at the third level is identified amongst the service qualifications and what is delivered in the service. Gap 4 is amongst the consumers' outer interaction about the service characteristics and the real service delivery. The fifth level gap is identified amongst the consumer's belief from the service and their opinions about the service post usage.

2. LITERATURE REVIEW AND RESEARCH GAP

SERVQUAL model is a research instrument that captures the customers' perceptions and expectations for a given service. This instrument comprises five dimensions that represent the service quality [5]. Various researchers have used this model to measure the service quality of different services.

Table 1. Review of existing researches

S No.	Author	Research Issues Addresses	Possible Gaps
1	(Fatima, Humayun, Iqbal, & Shafiq, 2018)	The authors aimed at identifying the various dimensions of healthcare service quality through literature across the globe.	The research findings encourage the researchers to explore the contextual dimensions of service quality in developing countries with changing healthcare delivery scenarios.
2	(Ahlin, Carson, & Goicolea, [1])	This paper aimed at examining issues around healthcare access in a municipality hospital deprived of a youth clinic through a case study.	The authors identified that there is a strong requirement for further research to develop models of youth healthcare.
3	(Mohamed, [10])	The author aimed at evaluation of the rural intensive case management services quality.	The authors concluded that this study's major inadequacy lacks inter-program data from traditional fidelity assessment methods based on on-site visits, expert or telephone interview valuation methods.
4	(Pucarea, Gheorghe, & Petrescu, 2013)	The objective is to explore the original SERVQUAL scale for public health care services in the Romanian context.	Results specified that the most prominent gap score was identified using the tangible aspects followed by reliability and responsiveness.
5	(James, Calderon, & Cook, [6])	This paper aimed at exploring the perceptions of patient's healthcare services through an examination of unstructured quality feedback.	The study concluded that examination of unstructured textual feedback is a novel technique, and it has limitations. Further, the authors suggested that future research evaluates the variations of sentiment.
6	(Leggat & Balding, [8])	This study aimed at exploring comprehensive quality systems in Australian hospitals, including staff focus, leadership policy strategy, education and training, patient focus, process improvement, and performance	The authors conclude that further research is need for the Quality Systems components and operational implementation.

Considering the health care service, tangibility, responsiveness, reliability, empathy, and assurance have various parameters. The well-functioning of the hospital with novel and serviceable instruments, neatness of the medical personnel contributed to the tangibility aspect of the service quality. The reliability aspect satisfied the hospital personnel honouring the promise for the service provided; they were sympathetic and gave information about the medical disease. The hospital personnel is ready and prompt in supplying the medical services defined the quality's responsiveness aspect. The confidence and kindness are in the provision of the information relating to assurance. Empathy was incorporated in the service through the focus on the patient and keeping his interests [6].

According to the study, the SERVQUAL model's implementation proved to be a controversial subject in experiential services like health care, where expertise is most essential. The perception of the customer in most of the services has become crucial. The continuous change in the demographics, lifestyle, and preferences changes the consumers' preferences [7]. Thus, understanding and researching the gap between the perceptions and consumers' expectations become essential and relevant.

In the case of hospitals [4] the improvement in the quality of management requires participation. The hospitals should have high-quality medical professionals to improve the treatment quality.

The quality system in healthcare organizations that were studied showed that the clinician engagement [8], was not enough because of the limited patient-focused data and performance data. Inadequate training to the staff is for quality improvement and confusion on the working of Quality Systems at the organizational level to the little achievement of Quality Systems.

The possible Research gaps are shown in Table 1 addressed the research issues.

2.1 Objectives of the Study

The study has been developed with the following objectives:

This study primarily aims at analyzing the quality of services provided by rural public healthcare units [9]. Through the study of past research, it is understood that the hospitals fail to deliver as per the customer's needs and expectations. Specifically, the requirements and the expectations [10] of the rural population, which always faces the problem of resources crunch, suffer most. Therefore, there is a need to study service quality related to rural public sector hospitals' health care [11].

This study's second objective assesses the current expectations and perceptions by patients concerning health care services provided by rural public healthcare units [12].

Patient Satisfaction is realized when perceptions of service quality are exceeded by the patient's expectations for the current services [13]. This research aims at understanding the gap between the expectation and the reality of this service quality.

3. RESEARCH METHODOLOGY

A small village for the Nagpur District from Maharashtra State, India, was considered to access the health care service unit's quality. The population of the village was 728, with a working population of 50.5%. The village had three Government Health Centres [14] (GHC) in the vicinity. The patients of these GHCs were part of the study for analyzing the service quality of these GHC's.

3.1 Data Collection

The study of the data is collected through a structured questionnaire from 189 patients of the GHC's. The structured questionnaire was built based on the SERVQUAL model. This model is also known as the 'gap model' with five gaps amongst the different elements required to design the service and further deliver it. These gaps obstruct the eventual satisfaction of the customer. The data regarding patients' expectations and perceptions were collected in a five-point interval scale, where five stands for strongly agreed and one stands for strongly disagreed. Patients were personally contacted for the collection of data.

SERVQUAL model to evaluate the service quality in rural public sector hospital

The dimensions are

1)   Tangibles (TA)

TA1 Doctors and staff have a neat and professional appearance
TA2 Modern and advanced work equipment are present in the hospital
TA3 Hospital rooms are kept neat and clean
TA4 Hospital canteen is clean and hygienic

2)   Responsiveness (RN)

RS1 Hospital staff treats the patients with courtesy and respect
RS2 Doctors gives information in an understandable way
RS3 patient gets enough time to discuss the medical problem with the doctor
RS4 the staffs is willing to help the patient

3)   Reliability (RE)

RL1 Health benefits assured by the hospital can be understood
RL2 Hospital is keen to aid the patient to solve the health-related ailments
RL3 the staffs provides services at the time they promise to do so
RL4 Hospital is involved in answering the problems when a patient is in serious condition
RL5 Hospital delivers services to patients as defined and promised in service literature

4)   Assurance (AS)

AS1 the Staff has professional knowledge and skills to handle the patient's problems
AS2 Staff behave friendly and polite with the patient
AS3 Lower level employees are approved and suitably trained in delivering service to patients

AS4 Patient feels confident that the service will be correctly provided

5)   Empathy (EM)

4. RESULTS AND DISCUSSION

The service quality perception and expectation collected from the primary data are compiled, and the averages are shown in Table 2.

The data collected from the patients (Fig. 1 and Fig. 2) shows that the expectations are higher than what is perceived or received by them from the healthcare units.

Doctors and staff have a nice and professional look about the tangible components of the quality of service in medical units. The expectations of patients for other tangible features of hospital facilities are high as indicated in Fig. 3 and clean and cantinal services are clean and sanitary. This is because other physical elements of the facility are not taken into account by the hospitals. These elements help the quality of the customer's entire service. As Table 2 shows, the hospitals were interested in fixing difficulties when the dependability of the patient was seriously affected. The patients were unable to understand the benefits provided by the

institution. The hospital is not particularly quick or prepared to resolve the health condition of the patient [15]. At the specified time, other healthcare workers do not offer the service. The patients do not think the healthcare system is providing patients with the service. The service quality perception and expectation by parameter are given, as promised in the service literature, as illustrated in Table 3.

In the setting the reactivity of the hospitals was evident. This was because the personnel were willing to aid the patient. In addition, the physicians had a comprehensive opportunity to present information. However, it was not possible for the patient to expect the staff to be kindly treated and to allow the doctor additional time for discussion of the situation. The quality assertions of the service with gap ratings are shown in Table 4.

Healthcare service quality is a complex area, and it has various facets to it. The critical drivers to the service quality are the staff, timeliness, and payments. The other important aspect is the interpersonal skills of the physician that drives the quality. The physician's perceived quality is related to the description of the clinical quality by the patient.

Table 2. Service quality perception and expectation

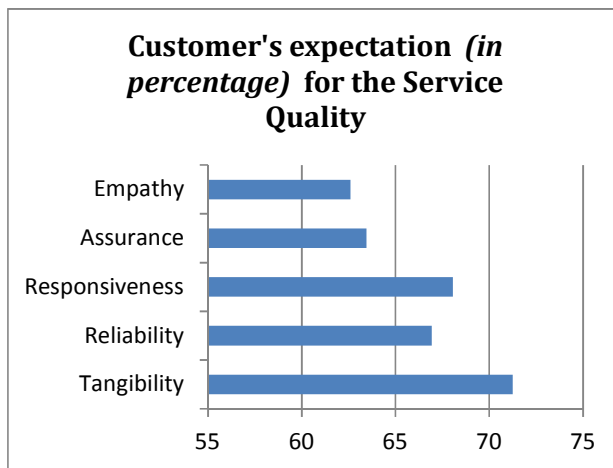| Dimension	Items	Perception	Expectation
Tangibility	4	3.07	3.5625
Reliability	5	2.7	3.346
Responsiveness	4	3.26	3.4025
Assurance	4	3.07	3.1725
Empathy	5	2.78	3.13

Fig. 1. Customer's expectation (in percentage)

Table 3. Service quality perception and expectation per parameter

Dimension		Statements	Perception Score	Expectation score	Gap score
Tangibility	TA1	Doctors and staff have a neat and professional appearance	3.42	3.33	0.09
	TA2	Modern and advanced work equipment are present in the hospital	1.98	3.41	-1.43
	TA3	Hospital rooms are kept neat and clean	3.52	3.60	-0.08
	TA4	The hospital canteen is clean and hygienic	3.35	3.91	-0.56
Reliability	RL1	Health benefits promised by the hospital can be understood	2.54	3.25	-0.71
	RL2	Hospital is keen to aid the patient to solve the health-related ailments	2.66	3.66	-1.00
	RL3	The staff provide services at the time they promise to do so	2.64	3.21	-0.57
	RL4	Hospital is interested in solving the problems when a patient is in serious condition	3.41	3.25	0.16
	RL5	The hospital provides services to patients as defined and promised in service literature	2.23	3.36	-1.13
Responsiveness	RS1	Hospital staff treat the patients with courtesy and respect	3.34	3.35	-0.01
	RS2	Doctors give information in an understandable way	3.38	3.32	0.06
	RS3	A patient gets enough time to discuss the medical problem with the doctor	2.80	3.52	-0.72
	RS4	The staff is willing to help the patient	3.51	3.42	0.09
Assurance	AS1	The Staff has professional knowledge and skills to handle the patient's problems	3.04	3.01	0.03
	AS2	Staff behave friendly and polite with the patient	3.33	3.32	0.01
	AS3	Lower-level employees are authorized and suitably trained in delivering service to patients	2.96	3.02	-0.06
	AS4	The patient feels confident that the service will be correctly provided	2.93	3.34	-0.41
Empathy	EM1	Management understands correctly thee patient's expectation	3.08	3.02	0.06
	EM2	Management translates the knowledge of patients' expectations into quality specifications, standards, or guidelines	2.75	3.00	-0.25
	EM3	Hospital communicates well to patients about services available to them in the easy language	3.59	3.23	0.36
	EM4	The hospital gives personalized care to the patient	1.36	3.32	-1.96
	EM5	The hospital knows what patient needs at what time	3.12	3.08	0.04

Table 4. Service quality statements with gap scores

Statements	Gap score
Doctors and staff have a neat and professional appearance.	0.09
Hospital is interested in solving the problems when a patient is in serious condition	0.16
Doctors give information in an understandable way	0.06
The staff is willing to help the patient	0.09
The Staff has professional knowledge and skills to handle the patient's problems	0.03
Staff behave friendly and polite with the patient	0.01
Management understands correctly the patient's expectation.	0.06
Hospital communicates well to patients about services available to them in the easy language.	0.36
The hospital knows what patient needs at what time	0.04
Modern and advanced work equipment are present in the hospital	-1.43
Hospital rooms are kept neat and clean	-0.08
Hospital canteen is clean and hygienic	-0.56
Health benefits assured by the hospital can be understood	-0.71
Hospital is willing to aidthe patient to solve health-related ailments.	-1.00
The Hospital system delivers services to patients as defined and promised in service literature.	-1.13
Hospital staff treats the patients with courtesy and respect.	-0.01
A patient gets enough time to discuss the medical problem with the doctor.	-0.72
Lower-level employees are authorized and suitably trained in delivering service to patients.	-0.06
The patient feels confident that the service will be correctly provided	-0.41
Management translates the requirement of patients' expectations into quality specifications or guidelines.	-0.25
The hospital gives personalized care to the patient	-1.96
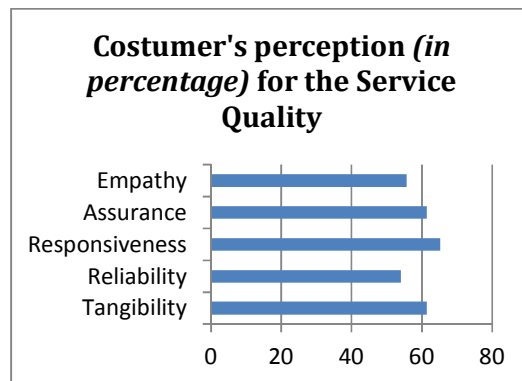
Fig. 2. Customer's perception (in percentage)

Patients were seen to be equipped with professional knowledge and abilities to manage and behave nice and courteous to build trust in the patient, so that the hospital offers better services. The patient's trust in the accuracy of the service was nevertheless less noticed. In addition, lesser staff were not considered to be empowered and properly trained in the provision of services.

Patients were thought to be equipped with professional knowledge and abilities to handle and behave nice and courteous to build trust in the patient, so that the hospital offers better services. Health staff. The patient's trust was less seen in the accuracy of the service. In addition, the lesser staff members were not considered empowered and trained to offer the services correctly.
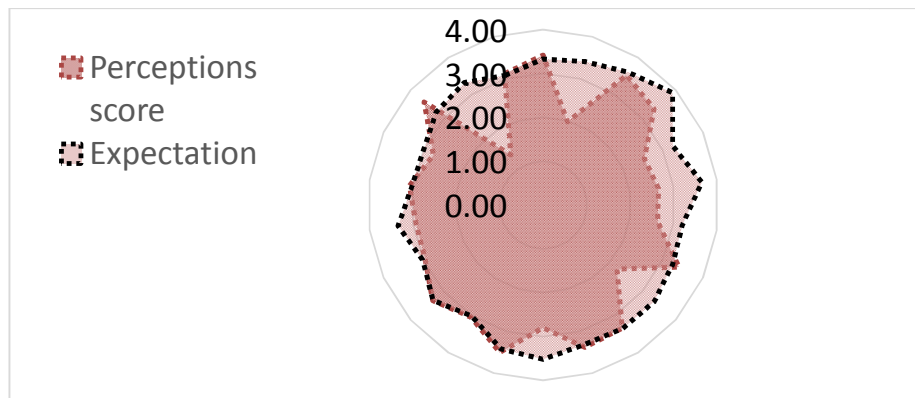
Fig. 3. Perception versus expectation

5. CONCLUSION, RECOMMENDATION, AND FUTURE SCOPE DISCUSSION

The objective of this study was to assess the perceived quality of healthcare in rural populations using the SERVQUAL model. The survey revealed that the quality of service was considered to be less than expected across all aspects. The main elements in the rural health clinics have to concentrate the provision of modern and advanced work equipment in the hospital. These health facilities are prepared to help patients address problems linked to health and offer each patient with individualised treatment. Different studies in the past have shown that the quality of service of the health sector in rural is poor. This study is an attempt to comprehend rural healthcare facilities' health services clearly. Healthcare requirements are greater for a developing country such as India, where the substantial population lives in rural and also they are less aware of health-related services. They expected the fundamental necessities made available in hospitals to better examine these views and expectations are perceived, additional research is needed and the gaps can be bridged.

An intangible service product is an additional quality. The essence of these services is personalization. It is therefore vital to understand the quality expectations of the client for all the human resources of the hospital. Management should contribute to the healthy rural population of the country.

CONSENT

As per international standard or university standard, patient's written consent has been collected and preserved by the author(s).

ETHICAL APPROVAL

Ethical approval taken from Symbiosis Institute of Business Management, Nagpur, Symbiosis International (Deemed University), Pune, Maharashtra, India.

COMPETING INTERESTS

Author has declared that no competing interests exist.

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