British Journal of Business Design & Education
ISSN (Print): 2222-7426, ISSN (Online): 2222-8412
Volume 17 No 01, 2024

Service Quality Measurement in Health Care System: A Study of Patient Satisfaction on Healthcare of Dhaka City

Dr. Salahuddin Ahmed
Assistant Professor
Southeast Business School, Southeast University
Dhaka, Bangladesh
E-mail: ronysworld@live.com

Article Received: **01 June 2024**
Accepted: **08 July 2024**
Published **10 July 2024**

Abstract
Perceived health services quality and patient satisfaction are two important health indicators for measuring health system performance. Meeting the needs of the patient and maintaining acceptable healthcare standards are imperative to achieving high quality health care which makes the patient to be the center of healthcare's quality agenda. While perceived quality of health services affects utilization of services, there is still a gap in literature on the level of customer satisfaction in the public health sector of Kenya, particularly with the implementation of devolution of health services to the counties. Therefore, the general objective of this study was to investigate patient level of satisfaction with perceived health services quality Hospitals in Dhaka city. The specific objectives of the study were: (1) To determine the level of patient satisfaction with health service delivery in various Hospital of Dhaka city (2) To find out patients perceptions on quality of health service in various Hospital of Dhaka city, and (3) To determine health system factors predicting perceived quality of health service delivery various Hospital of Dhaka city. This study used a descriptive cross-sectional study design employing both quantitative and qualitative techniques. Data were collected from 100 patients using systematic sampling technique. The study concluded that over all service quality of healthcare of Dhaka city is not good and customers are not satisfied with the services. The researcher recommended that hospitals should be work hard on all these service quality dimensions to improve its service quality and customer satisfaction of patients.
Key Words: Service quality, healthcare, service delivery, healthcare quality, perceived quality, patient satisfaction

Introduction
Service Quality is a most important components for business to grow and remain sustain in this competitive business. According to Gill (2009, p. 533) service organizations' performance has considered as an efficient dimension of service quality as quality is vital for market competition, brand name and customer's satisfaction. In a study it reviled that the firm which performed better in relation of income level and stock market value increased then other companies, get quality awards follow high quality maintenance (Gill 2009, p. 533). In developed and developing country one of the fastest growing service is health care (Dey et al.,

2006). Health system have become change in recent age through thinking and delivering care, where various health care are continuously improving their overall organisation modules and overall process in order to provide patient-oriented services. Today's fast paced and increasingly competitive global market requires effective and efficient strategies to survive and to make profits which can contribute toward the growth of the organisation. Service quality and customer satisfaction and customer retention are global issues that affect all organizations whether private or business, small or large, global or local. Literature available showed that organizations are interested in studying, evaluating, and implementing various strategies that aim to improve customer satisfaction and retention with an intention to maximize the financial performance of the firm. International literature showed that there has been a strong advocacy for the adoption of customer retention as one of the key performance indicators as noted by Kaplan and Norton (2001). Service quality and customer satisfaction have long been recognized as playing a crucial role towards the organizational success and survival in today's global competitive market.

The healthcare is one of the service industry representatives that have been trying to implement listed three manufacturing quality management initiatives (Natarajan, 2006, p. 573, 577; Kollberg & Dahlgaard, 2007, p. 11). However within several studies it was revealed that applications of these quality management initiatives encountered some problems and did not provide considerable quality improvement (Lim & Tang, 2000, pp. 103-104; Joosten et al., 2009, p. 341; Taner et al., 2007, p. 333). These facts could indicate that healthcare organizations applied quality management models inefficiently. One issue that could have provoked inability to apply quality management models efficiently could be doubts about quality definition and its measurement that were expressed by healthcare administrators and healthcare service providers (Natarajan, 2006, p. 573). An absence of one common definition of quality is a feature that relates to complexity of the healthcare service industry that could create difficulties for using TQM, Lean and Six Sigma as they all need common value definition for their efficient functioning (Andersson et al., 2006, Young & McClean, 2009). Another possible issue of unsuccessful application of quality management model could relate to initial development of these quality management initiatives for the manufacturing industry. Meeting the needs of the patient and creating healthcare standards are imperative to achieving high quality services (Ramachandran and Cram, 2005). This makes a patient to be the center of healthcare's quality agenda (Badri et. al., 2007). Customers determine the perceived or cognitive value of service based on their experience with the service delivered. Patients' expectations, service delivery

process and service outcome have an impact on perceived health service quality. However, the Kenyan public health sector, like other developing countries, is plagued by uneven demand and negative service-quality perceptions. The situation is compounded by absent essential medications, long journeys to service delivery points and long wait times. Health system factors play an important role in shaping clients' preconceived negative attitudes and dissatisfaction with healthcare services, providers and healthcare itself hence the need to evaluate the quality of care has to be evaluated also through the patient's eyes.

Healthcare/Hospitals situation in Dhaka

The problem of access to health care is particularly acute in Bangladesh. According to a World Bank (1987) estimate, only 30% of the population has access to primary health services and overall health care performance remains unacceptably low by all conventional measurements. A subsequent study (Sen and Acharya 1997) notes some improvements but indicates that 'the poor quality of health services are persistent concerns. The poor performance of the health care sector was attributed to the following: critical staff are absent, essential supplies are generally unavailable, facilities are inadequate, and the quality of staffing is poor. The problems of supervision and accountability exacerbate the problems; and if corrupt practices are added to the list, it is not difficult to imagine the predicament of the patients. In fact, these conditions and a general perception of poor and unreliable services may explain why those who can afford it have been seeking health care services in other countries. In a country where the population growth rate will place additional demands on the health sector, its preparedness to serve its constituencies effectively is particularly troubling as the future begins to catch up. To address the impending problems, consideration has been given to the privatization alternative. Thus, the Medical Practice and Private Clinics and Laboratories Ordinance was promulgated in 1982 to encourage the growth of private health-care service delivery. By June 1996, a total of 346 private hospitals and clinics with more than 5500 beds were registered with the Directorate of Hospitals and Clinics. Of this total, 142 were established in Dhaka alone with a capacity of 2428 beds (Khan 1996). Additional considerations are seen in the proportion of GDP allocated to the health care sector: it was more than doubled between 1985/86 and 1994/95, from 0.6 to 1.3% (Kawnine et al. 1995). A significant proportion of this allocation was earmarked for primary health care. With the growth of private health care facilities, especially in Dhaka city, it is important to assess the quality of services delivered by these establishments. In particular, it is important to determine how the quality of services provided by private clinics and hospitals

compares to that of public hospitals. If quality issues are being compromised by these establishments, it calls for the re-evaluation of policy measures to redefine their role, growth and coverage, and to seek appropriate interventions to ensure that these institutions are more quality-focused and better able to meet the needs of their patients.

Problem Statement

The nature of health care service supposed to be patient-focused, which require health care providers to become more responsive to patients' need. The excellent care in health care requires the providers not only to deliver care on aspects of technical quality, but also on aspects of functional quality care such as communication, empathy, trust, and responsiveness. The possibility of one doctor for 600 people has become an important aspect of targeted healthcare standard in Bangladesh as set by the World Health Organization (Business Monitor International, 2011).

In Bangladesh, healthcare is offered either through government-run hospitals or through privately-run clinics. Bangladesh is still lagging in health care services for the poor as well as the affluent. To achieve this in our country, technological collaboration with technologically advanced hospitals are needed and follow health management organizations in the developed countries of Asia and the advanced nations of the South. The study will focused on to the customer satisfaction of Square Hospital, as this the only way to understand the service quality provided by the healthcare.

Research Objectives

1. To develop the relationship between service quality dimensions (Infrastructure and Environment, Reliability, Responsiveness, Assurance and Empathy) and perceived service quality.
2. To measure the relationship between perceived service quality and patient satisfaction.
3. To examine the mediating effects of patient satisfaction on the relationship between perceived service quality and patients satisfaction.

Research Question

The main purpose of the study is to understand the importance of service quality of the healthcare in Dhaka city.

The specific objectives of the study were:

- To investigate the health systems factors of service quality on customer satisfaction for healthcare in Dhaka city.
- To analyze the relationship between service quality dimensions and service quality of the healthcare in Dhaka city
- To discover which service quality dimensions have greater influence on customer satisfaction of healthcare in Dhaka city.
- To evaluate customer perception of service quality and customer satisfaction of healthcare in Dhaka city.

Customer Satisfaction

Customer satisfaction is conceptualized transaction-specific meaning. It is based on the customer's experience on a particular service encounter, (Cronin & Taylor, 1992) and also customer satisfaction is cumulative based on the overall evaluation of service experience (Jones and Suh, 2000). These highlight the fact that customer satisfaction is based on experience with service provider and also the outcome of service. Giese and Cote, (2000,) clearly state that there is no generic definition of customer satisfaction and after carrying a study on various definitions on satisfaction they came up with the following definition, customer satisfaction is identified by a response (cognitive or affective) that pertains to a particular focus (i.e. a purchase experience and/or the associated product) and occurs at a certain time (i.e. post purchase, post consumption) From this definition, it is clear that the consumer's/customer satisfaction is determined by his/her contact experience with the service provider and this is supported by Cicerone et al., (2009,) and Sureshchander et al., (2002), who believe customers' level of satisfaction is determined by their cumulative experiences at all of their points of contact with a supplier organization. Fornell, (1992), clearly defines customer satisfaction as an overall post-purchase evaluation by the consumer and this is similar to that of Tse and Wilton, (1988,) who defined customer satisfaction as the consumer's response to the evaluation of the perceived discrepancy between prior expectations and the actual performance of the product or service as perceived after its consumption. These definitions consider satisfaction as a post purchase response and in the case of call center experience is important in evaluating customer satisfaction. It is important to note that customer loyalty is affected by customer satisfaction (Heskett, 1997). A loyal customer will retain to use the service or sustain to repurchase and with least change to search for substitution. There is empirical support for positive association between customer satisfaction and intention to spread word of mouth

(Dabholkar and Thorpe, 1994; Richins, 1983). According to Anton (1997), perception of service quality (performance) can be classified into three zones. Rejection, acceptance and preference by the customer Satisfaction index (CSI). According to him, the score above 85 is under preference zone, the score between50-84 is under tolerance zone and the score bellow 50 is under rejection zone.

Relationship between Service quality and customer satisfaction

Since customer satisfaction has been considered to be based on the customer's experience on a particular service encounter, (Cronin & Taylor, 1992) it is in line with the fact that service quality is a determinant of customer satisfaction, because service quality comes from outcome of the services from service providers in organizations. Regarding the relationship between customer satisfaction and service quality, Oliver (1993) first suggested that service quality would be antecedent to customer satisfaction regardless of whether these constructs were cumulative or transaction-specific. Satisfaction and service quality have certain things in common, but satisfaction generally is a broader concept, whereas service quality focuses specifically on dimensions of service. Although it is stated that other factors such as price and product quality can affect customer satisfaction, perceived service quality is a component of customer satisfaction (Zeithaml et al. 2006,) According to Sureshchandar et al., (2002), customer satisfaction should be seen as a multi- dimensional construct just as service quality meaning it can occur at multi levels in an organization and that it should be operationalized along the same factors on which service quality is operationalized. In relating customer satisfaction and service quality, researchers have been more precise about the meaning and measurements of satisfaction and service quality. Satisfaction and service quality have certain things in common, but satisfaction generally is a broader concept, whereas service quality focuses specifically on dimensions of service. Parasuraman et al., (1985) suggested that when perceived service quality is high, then it will lead to increase in customer satisfaction. He supports that fact that service quality leads to customer satisfaction and this is in line with Saravana and Rao, (2007,) and Lee et al., (2000), who acknowledge that customer satisfaction is based upon the level of service quality provided by the service provider. Infrastructure is one of the dimensions of the instrument which absorbs the tangible characteristics of a delivered service, such as equipment, exterior of the facility, resources, signage, etc. In other words infrastructure is an artificial physical environment of the firm. The objects are supposed to be visually attractive as well as hygienic, especially in healthcare industry. Even though services

are intangible, consumers evaluate the quality of services in accordance with the tangible aspects of services. Hospital infrastructure also includes the technological environment of the firm, involving equipment to test and treat different kinds of sicknesses. “Tangibles” is one of the dimensions of service quality management instrument suggested by Parasuraman et al. (1985). In the study of US hospitals Tomes and Ng (1995) assigned “physical environment” as one of the factors of service quality in health industry. Rao et al. (2006) has also mentioned clinic infrastructure as one of the key functions in hospitals, along with other dimensions.

Previous Studies

Since 1985, many researchers have applied SERVQUAL to assess perceived service quality in the hospital sector in different countries. Irfan et al (2012) found that public hospitals are not making any visible efforts to meet patient’s needs and wants. The studied service quality construct does not have a significant impact on patient satisfaction except assurance. Zarei et al. (2012) studied service quality in the private hospitals of Iran from the patients’ perspective. Results indicated that tangible has the highest expectations and perceptions and the lowest expectation and empathy perception has the lowest expectations. Punnakitikashem et al. (2012) measured service quality of the hospital implementing lean management. Study found that the service quality level of the hospital implementing lean is moderate. In addition, the largest positive gap between patients’ perception and expectation is in term of tangibility. The largest negative gap is with respect to assurance. Yousapronpaiboon & Johnson (2013) studied Out-patient service quality perceptions in private Thai hospitals, results found that assurance was the dimension most strongly associated with overall PSQ, followed by empathy, responsiveness, tangibles and reliability. Essiam (2013) examined the quality dimensions and patient satisfaction in a public university hospital in Ghana. Findings revealed gaps across all the SERVQUAL dimensions with SERVIQUAL dimensions. Patients’ satisfaction was best explained by perceived responsiveness, followed by perceived empathy, perceived assurance, perceived tangibility, and perceived reliability. Mosadeghrad (2014) conducted an exploratory in-depth individual and focus group interviews with 222 healthcare stakeholders including healthcare providers, managers, policy-makers, and payers to identify factors affecting the quality of healthcare services provided in Iranian healthcare organizations. Results found that personal factors related to the provider and patient, factors pertaining to the health care organization, health care system and broader environment affected health care service quality. Belaid et al (2015) studied the impact of health service quality and its impact on patient’s

British Journal of Business Design & Education
ISSN (Print): 2222-7426, ISSN (Online): 2222-8412
Volume 17 No 01, 2024

satisfaction, case in a public hospital in Bechar. Results indicated that there was a relationship between overall service quality and patients' satisfaction with the services of specific hospital.

Conceptual Framework and Hypothesis

The main purpose of the study is to understand the patient satisfaction of service quality of square hospital. A research philosophy is the key element of for viewing world of study. Therefore Philosophical assumption helps to determine the research strategy and method for the study.

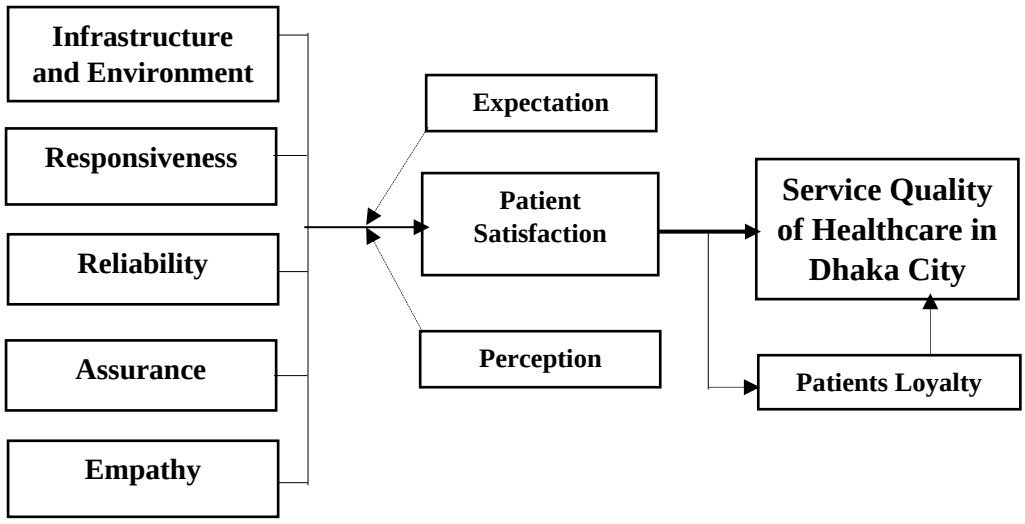

Figure 1: Research Framework

H0: There is at least one independent variable has relationship with Service Quality of healthcare in Dhaka city area.

H1: Infrastructure and Environment have positive relation with patient satisfaction to measure service Quality of healthcare in Dhaka city area.

H2: There is a relationship between Responsiveness and patient satisfaction to measure service Quality of healthcare in Dhaka city area.

H3: Reliability and patient satisfaction in service Quality of Square Hospital have positive relation.

H4: There is a relationship between assurance and patient satisfaction of healthcare in Dhaka city area to patient. .

H5: There is a relationship between Empathy and patient satisfaction of healthcare in Dhaka city area to patient

British Journal of Business Design & Education
ISSN (Print): 2222-7426, ISSN (Online): 2222-8412
Volume 17 No 01, 2024

Methodology

The sample will select from the various respondent patient from different healthcare of Dhaka City. The respondent must be attended the healthcare recently and have assure that the respondent provide bias less feedback to the questionnaire. A primary data were collected by means of a structured, comprehensive questionnaire that was developed by the researcher based on the literature review on the relevant topics. Questionnaire Source data will be follow some certain rules - The information of the respondent will be keep secret. The survey on 100 respondent is not possible to conduct by face to face interview, so that the study also concentrate on online surveys.

The sample size of the study is around 100 respondent which are collected by survey from different area of Dhaka city. Most of the patient had visited the healthcare/hospital recently.

For the data analysis the study will use SPSS software to understand the reliability, validity and for in-depth investigation correlation and regression analysis have been conducted to analyses, which independent variable contributes more to the dependent variable.

Demographic Analysis

Figure 2 shows that the general information of the respondents. Majority of the respondents (Patients) are visit healthcare recently and the most respondent 0f 31-40 years patients visited healthcare which account 25%. This the area of the age of respondent whom visited clinic recently.

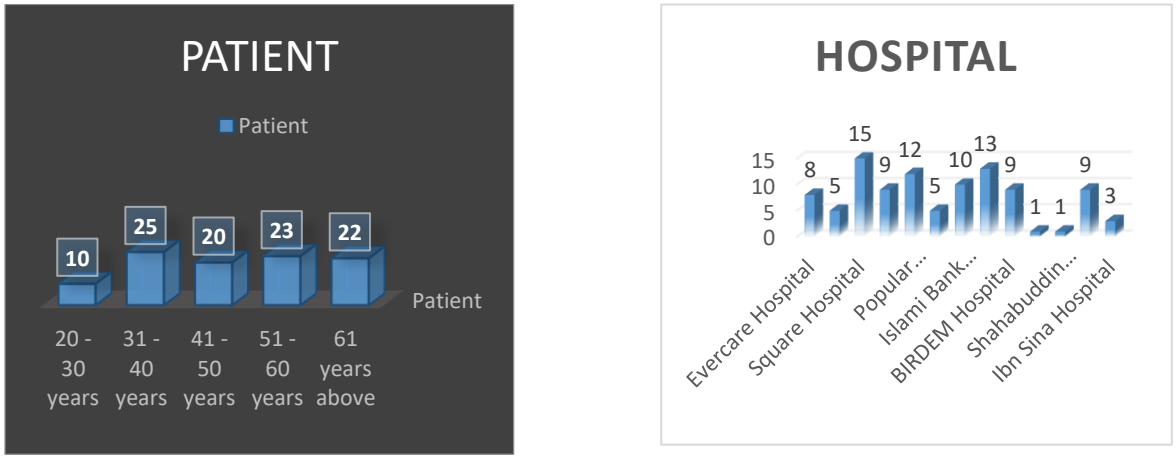

Figure 2: Patient Age and recent visited Hospitals. Source: Survey Result 2024.

Reliability Test

Cronbach's alpha is a coefficient of reliability used to measure the internal consistency of a test or scale. For internal reliability (consistency of the research instrument), reliability test for all

British Journal of Business Design & Education
ISSN (Print): 2222-7426, ISSN (Online): 2222-8412
Volume 17 No 01, 2024

service quality dimensions was done. Therefore, the overall reliability of the scale was found to be 0.955 (Table 1) which indicates the acceptability of the items. Moreover, the scale consistency of each dimensions adapted from the combination of service quality dimensions of Parasuraman (1985) and Anton (1997) namely Infrastructure and Environment, Reliability, Responsiveness, Assurance and Empathy were also computed with the value of 0.946, 0.944, 0.944, 0.946,946 and 0.949 respectively as the analysis in the table 1.

Case Processing Summary

		N	%
Cases	Valid	100	100.0
	Excluded[a]	0	.0
	Total	100	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.955	6

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
INFR_ENV	18.4560	23.921	.861	.946
RESP	18.5600	23.141	.873	.944
REL	18.4900	23.648	.871	.944
ASSU	18.6320	23.614	.859	.946
EMP	18.5500	22.702	.861	.946
PAT_SA	18.6120	23.883	.827	.949

Table 1: Reliability Analysis (Cronbach's Alpha) Source: Survey Result 2024

Descriptive Test (Service Quality dimensions and Customer satisfaction)

Respondent's perception towards various healthcare/hospitals service quality is measured through five service quality dimensions. Respondents' perception towards over all service quality and their satisfaction level also measured using their mean score. Table 2 shows respondent's perception towards service quality dimensions, over all service quality and customer satisfaction.

British Journal of Business Design & Education
ISSN (Print): 2222-7426, ISSN (Online): 2222-8412
Volume 17 No 01, 2024

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
INFR_ENV	100	1.00	5.00	3.8040	1.01662
RESP	100	1.00	5.00	3.7000	1.09231
REL	100	1.00	5.00	3.7700	1.03724
ASSU	100	1.00	5.00	3.6280	1.05257
EMP	100	1.00	5.00	3.7100	1.15553
SQ	100	1.00	5.00	3.7224	.97741
PAT_SA	100	1.00	5.00	3.6480	1.05376
Valid N (listwise)	100				

Table 2: Descriptive Analysis (Perception of SQ dimensions, over all service quality and customer satisfaction) Source: Survey Result 2024.

According to table 2 perception of respondents on Infrastructure and Environment and Reliability of the healthcare is good compared to other service quality dimensions which have mean score of 3.80 and 3.77 respectively. Assurance have least perception of 3.62. Empathy and Responsibility has moderate perception with mean score of 3.71 and 3.70. From the analysis the study clearly showed that the patients are more satisfied on to the infrastructure and environment of the healthcare. It clearly shows that the tidy and cleanliness of most of the healthcare's are satisfied and equipped with advanced technological equipment. They also have the necessary diagnosis lab for test.

From Table 2 above the mean of perception of respondents of service quality and customer satisfaction is low which are 3.72 and 3.64 respectively. In general this table shows over all service quality and customer satisfaction is low but in preference zone for accept. According to Anton (1997) there are three zones of perception of service performance which are preference zone, acceptance zone and rejection zone, by customer satisfaction index (CSI). According to him CSI with > 85 is considered to be in preference zone, CSI in between 50-84 is considered as acceptance zone and CSI with < 50 is in rejection zone which is below average.

Correlation Test (Relationship between Service Quality Dimensions, Service Quality and Customer Satisfaction)

Correlation analysis is used to assess the relationship among service quality dimensions, over all service quality and customer satisfaction. Correlation analysis deal with relationships among variable and helps to gain insight in to the direction and significance of relation between the variables. Correlation coefficient take values between -1 and 1 ranging from being negatively correlated (-1) to uncorrelated (0) to positively correlated (1). According to Dancey

and Reidy(2004), a correlation result which is 0 indicates zero correlation , a result between 0.1 to 0.3 indicates weak correlation, a result which is between 0.4 to 0.6 indicates moderate correlation and a correlation coefficient between 0.7 to 0.9 indicates a strong correlation and a result which is equal to 1 indicates perfect correlation. Correlation analysis was undertaken to discuss the relationship between service quality dimensions and customer satisfaction. In the Table 3 all service quality dimensions and customer satisfactions have positive and significant relationship.

Correlations

		INFR_ENV	RESP	REL	ASSU	EMP	PAT_SA
INFR_ENV	Pearson Correlation	1	.850**	.855**	.741**	.760**	.699**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	100	100	100	100	100	100
RESP	Pearson Correlation	.850**	1	.852**	.762**	.775**	.719**
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	100	100	100	100	100	100
REL	Pearson Correlation	.855**	.852**	1	.751**	.759**	.731**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	100	100	100	100	100	100
ASSU	Pearson Correlation	.741**	.762**	.751**	1	.814**	.827**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	100	100	100	100	100	100
EMP	Pearson Correlation	.760**	.775**	.759**	.814**	1	.794**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	100	100	100	100	100	100
PAT_SA	Pearson Correlation	.699**	.719**	.731**	.827**	.794**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	100	100	100	100	100	100

**. Correlation is significant at the 0.01 level (2-tailed).

Table 3: Correlation Analysis (Relationship among Service quality dimension, over all service quality and customer satisfaction) Source: Survey Result 2024.

Table 3 shows the relationship among service quality dimensions, over all service quality and customer satisfaction. As the table shows, all service quality dimensions have positive and significant relationship with over all service quality even though their correlation is different among service quality dimensions. Responsiveness and Reliability have better relationship with patient satisfaction with strong coefficient value .850 and .855 respectively followed by Assurance and Empathy of .741 and .760 of correlation coefficient value. There is a positive correlation between all service quality dimensions and over all service quality of healthcare/hospitals in Dhaka city area.

Regression Test (Impact of Service quality Dimensions on Customer Satisfaction)

Linear regressions analysis was applied again to assess the impact of service quality dimensions on customer satisfaction. Table 4 shows the SPSS result of the analysis

British Journal of Business Design & Education
ISSN (Print): 2222-7426, ISSN (Online): 2222-8412
Volume 17 No 01, 2024

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.858[a]	.737	.723	.55508	.737	52.557	5	94	.000

a. Predictors: (Constant), EMP, REL, ASSU, INFR_ENV, RESP

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.363	.225		1.612	.110
	INFR_ENV	-.031	.121	-.030	-.260	.795
	RESP	.014	.114	.015	.124	.901
	REL	.166	.120	.164	1.392	.167
	ASSU	.477	.099	.476	4.797	.000
	EMP	.268	.093	.294	2.871	.005

a. Dependent Variable: PAT_SA

Table 4: Linear Regression analyses (Impact of service quality dimension on Customer satisfaction) Source: Survey Result 2024.

As the value of R squared shows (Table 4), in aggregate the dependent variable (Patient's satisfaction) is explained (impacted) by all independent variables (Infrastructure and Environment, Reliability, Responsiveness, Assurance and Empathy) by 73.7 percent which shows the evaluation of the model. This R square is not over estimated while evaluating the model's fitness as its variation from adjusted R square is very near which is 72.3%. In evaluating each independent variables impact on dependent variable (Customer Satisfaction), the table shows Infrastructure and Environment, Reliability, Responsiveness, Assurance and Empathy have significant impact on customer satisfaction of Dhaka city healthcare/hospitals. The magnitudes of the impact coefficient β values are also positive for all independent variables except one. Assurance has high impact with value of β = 0.476 on customer satisfaction followed by reliability and Assurance compared to other variables. Infrastructure and Environment has the negative significant impact with value of β= -.030

Y (Customer satisfaction) =0.363(Constant) + -.031(Infrastructure and Environment**) +0.166(Reliability) + 0.014(Responsiveness) + 0.477(Assurance) +0.268(Empathy) +£i**

Regression Test (Impact of overall Service quality on Customer Satisfaction)

Linear regression analysis is used to investigate the impact of overall service quality on customer satisfaction. In Table 4.9 the study showed that the survey result of the two variables.

British Journal of Business Design & Education
ISSN (Print): 2222-7426, ISSN (Online): 2222-8412
Volume 17 No 01, 2024

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.827[a]	.684	.681	.59521	.684	212.294	1	98	.000

a. Predictors: (Constant), SQ

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.329	.235		1.395	.166
	SQ	.892	.061	.827	14.570	.000

a. Dependent Variable: PAT_SA

Table 5. Linear Regression analysis (Impact of overall service quality on customer satisfaction) Source: Survey Result 2024.

The service quality has significant positive impact with p value = 0.00 on customer satisfaction of healthcare of Dhaka city. The directions of the impact also positive with coefficient β value of 0.827 which indicate that based on this model overall service quality has significant impact on customer satisfaction with β value=0.892. In general the regression analysis shows that all four independent variables listed in the model have significant and positive impact on dependent variables except Infrastructure and Environment.

Recommendations

The study recommends that the facility in collaboration with all the stakeholders such as Ministry of health at County and National level do the following:

1. Improve reliability, empathy and responsiveness of services by ensuring service delivery adheres to the service charter requirements and continual identification of patients' needs for improved patient satisfaction.

2. Scale up quality improvement interventions through provision of modern medical equipment, expansion of facilities for efficient and effective service delivery, professional (competence) development and reduction in waiting times and improved patient-provider relationships.

3. Scale up investment in health system capacity to deliver quality patient centered services through employment of adequate and well trained staff to enhance operational capacity (competence) and efficiency (waiting time), provision of adequate drugs and enhancing privacy of service delivery.

Conclusion

The main aim of the study was to asses service quality and customer satisfaction as well as to examine the impact of various service quality dimensions on service quality and customer satisfaction in Dhaka city's various hospitals and to find out important dimensions of services having greater influence on service quality and customer satisfaction. Accordingly, five service quality dimensions (Infrastructure and Environment, Reliability, Responsiveness, Assurance and Empathy) were hypothesized to evaluate service quality and customer satisfaction. Since the mean value of overall service quality and customer satisfaction is low (below average), it is concluded that over all service quality of healthcare is not good and customers are not satisfied with the services. Hospitals of Dhaka city can improve its service by focusing on all service quality dimensions and at the same time it can increase customer satisfaction by focusing on overall service quality and important dimensions. Negligence of one factors can affect the whole quality of the healthcare which may cause dissatisfaction of the service offered to patients.

REFERENCES

1. Badri M., Attia S., Ustadi M. (2007). Testing Models for Care Quality for Discharged Patients, POMS 18th Annual Conference. Available: www.pdffactory.com.
2. Belaid, H., Bouchenafa, A., Barich, A., & Maazouzi, B. K. (2015). The Quality of Health Services in BECHAR Public Hospital Institution. International Journal of Social Sciences, IV (2), 1-14.
3. Cronin, J. J and Taylor, S.A. (1992), Measuring Service Quality: A Reexamination and Extension", Journal of marketing, Vol. 56, pp. 55-68.
4. Dey P., Hariharan S., Brookes, N. (2006). Managing healthcare quality using logical framework analysis. Managing Service Quality, 16(2): 203-222.
5. Essiam, J. O. (2013). Service Quality and Patients Satisfaction with Healthcare Delivery empirical evidence from patients of the outpatient department of a public university hospital in Ghana. European Journal of Business and Management, 5(28), 52-59. Retrieved from http://journals.iugaza.edu.ps/index.php/IUGJEB/article/view/422/384
6. Fornell, C., et al. (1996). The American customer satisfaction index: nature, purpose, and findings, Journal of Marketing, Vol. 60, October, pp. 7-18.
7. Giese, J. L., and Cote, J. A. (2002).Defining Consumer Satisfaction, Academy of Marketing Science, Vol. 2000, No. 1, PP.1-24.

8. Gill, J. (2009). Quality follows quality: add quality to the business and quality will multiply the profits. The TQM Journal, 21(5), 530-539.
9. Hood, C. (1995), "The new public management in the 1980s: variations on a theme". Journal of Accounting, Organizations and Society, 20(3):93-109.
10. Irfan, M., Ijaz, A., & Farooq, M. M. (2012). Patient Satisfaction and Service Quality of Public Hospitals in Pakistan: An Empirical Assessment. Middle-East Journal of Scientific Research, 12(6), 870-877. Available: http://docplayer.net/23869065-Patient-satisfaction-and-service-quality-of-public-hospitals-in-pakistan-an-e mpirical-assessment.html.
11. Kaplan, R.S. and Norton, D.P. (2001). The Strategy-focused Organization: How Balanced Scorecard Companies Thrive in the new Business Environment. Harvard Business School Press.
12. Lengnick-Hall, C.A. (1995), "The patient as the pivot point for quality in health care delivery. Hospital & Health Services Administration, 40(1): 25-39.
13. Mosadeghrad, A. M. (2014). Factors influencing healthcare service quality. International Journal of Health Policy and Management, 3(2), 77-89. Available: http://www.ijhpm.com/article_2864_2639694b52ee2d50badb65bd92c90d7d.pdf
14. Punnakitikashem, P., Buavaraporn, N., Maluesri1, P., & Leelartapin, K. (2012). Health Care Service Quality: Case Example of a Hospital with Lean Implementation. POMS 23rd Annual Conference, Chicago, Illinois, U.S.A
15. Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. Journal of Marketing, 49(2), 41–50.
16. Ramachandran, A., Cram, N. (2005). Standards and Customer Satisfaction in the Healthcare industry. Journal of Clinical Engineering, 23(3): 219-228.
17. Rashid K. M. and S. Hyder (1995) "Public Health Administration", in: K. M. Rashid, M. Khabiruddin and S. Hyder (eds.) Textbook of Community Medicine and Public Health (Dhaka, Bangladesh: RKH Publishers).
18. Sureshchandar G.S., Rajendran C, &Anantharaman R.N. (2002).the Relationship between Service Quality and Customer Satisfaction – a factor specific approach, Journal of Services Marketing, Vol. 16, No.4, 363 – 379.
19. Shahneaz M. A., & Salma, U. (2013). Service quality in mega shops: A study of consumer satisfaction in apparel retailing. European Journal of Business and Management, 5(4), 248-254.

20. Saravanan, R. and Rao, K. S. P. (2007). Measurement of service quality from the Customer's perspective – An empirical study, Total Quality Management, Vol. 18, No. 4, PP. 435-449.
21. Yousapronpaiboon, K., & Johnson, W. (2013). Out-patient Service Quality Perceptions in Private Thai Hospitals. International Journal of Business and Social Science, 4(2), 57-66. http://ijbssnet.com/journals/Vol_4_No_2_February_2013/7.pdf
22. Zarei, A., Arab, M., Froushani, A., Rashidian, A., & Tabatabaei, S. M. G. (2012). Service quality of private hospitals: The Iranian Patients' perspective. BMC Health Services Research. Available: http://bmchealthservres.biomedcentral.com/track/pdf/10.1186/1472-6963-12-31?site=bmchealthservres.bio medcentral.com.
23. Zeithaml, V.A, parasuraman, A& Berry, L.L. (1990). Delivering Quality Service Balancing customer perceptions and expectations.