PATIENT SATISFACTION TOWARDS THE SERVICE QUALITY AT OUTPATIENT DEPARTMENT OF INDIRA GANDHI MEMORIAL HOSPITAL IN MALDIVES

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ABSTRACT: This cross-sectional descriptive study investigates patients' satisfaction by assessing their expectations and perceptions of service quality in outpatient department (OPD) of Indira Gandhi Memorial Hospital (IGMH), Maldives. A modified SERVQUAL 21-item instrument was used to assess patients' expectations before and perceptions after receiving the service from OPD. A total of 320 patients were purposively selected. Descriptive Statistics, chi-square test and Multiple logistic regression were used in analysis. The patients' age ranged from 18 to 65 years. The distribution of male and female were nearly equivalent. Most of them finished secondary level of education and worked as a civil service. The finding showed that 18.4% of respondents were satisfied with the service quality of OPD and 81.6% were dissatisfied with the service quality of OPD of IGMH. In particular, the findings showed a significant service quality gap between customer expectations and perceptions with regard to all dimensions. The chi-square test showed that age and perceived needs were significant association with patient satisfaction. Multiple logistic regression revealed that age and perceived needs were found to be predictors of patient satisfaction. Youth patients were nearly three times more likely to be satisfied than those of adults (Adjusted OR=2.84; 95%CI: 1.517-5.320), and patients with low and moderate perceived needs were also nearly three times more likely to be satisfied than those with high perceived needs (Adjusted OR=2.68; 95%CI: 1.286-5.565). Subsequently, further research on the quality of services provided within the departments and assessment of employee performance will greatly contribute the hospital management in making necessary changes that will lead to improving the quality of services provided by the hospital that is better in meeting with the patients' expectations.

Keywords: Patient satisfaction, Out patent department, Quality of service, Maldives

INTRODUCTION

Patient satisfaction is defined as "a person's feeling of pleasure or disappointment resulting from comparing a product's perceived performance or outcome, in relation to his or her expectations" [1]. It has become a major concern for the health care systems to measure and report patient satisfaction with health care. Patients are taking a greater role in decisions about their care and treatment. Patient satisfaction is one important indicator of health outcomes and plays a key role in improving health service quality [2]. Service quality is defined as "the discrepancy between consumers' perceptions of services offered by a particular firm and their expectations about firms offering such services" [3].

Therefore, quality of care has become more than a concept in the healthcare industry as it is the most essential element for patient' well-being and survival. The health care market can only become successful when patient satisfaction becomes a part of the definition of quality [4]. Customer service strategies and quality of care should be the major concern for health care organizations [5].

It is predicted that conceptual models in service quality enable management to identify quality problems and thus help in planning for the launch of a quality improvement program thereby improving the efficiency, profitability and overall performance. Many models and theories regarding how to measure service quality have been introduced in the past 3 decades [6]. The SERVQUAL model developed by Parasuraman, Zeithaml, and Berry is one of the most commonly used models consisted of five dimensions. The dimensions are: Tangible, Reliability,

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Responsiveness, Assurance and Empathy [3, 7]. In this model, customer expectations are established by the customer, who defines the five dimensions acceptable and the desired levels of service. The customer then describes his or her perception of the level of service that he or she received and the gap is thereby defined by the difference between perceived level of service and desired level of service [3, 7, 8].

The Indira Gandhi Memorial Hospital (IGMH) is the government tertiary hospital in Maldives, and it operates with a capacity of 297 beds and 20 outpatient departments and 542 nurses and 152 doctors [9]. Under a market-based approach, IGMH was transferred to Male Health Service Corporation Limited and provided services through corporatization since 2010. This nationwide sudden change of the health system brought changes to some of the important public health programs, such as transferring public health functions to island councils where no one was prepared for this change, and immunization program, child health program, family planning were included to the list. Many experienced trained staff of the Ministry of Health (MOH) terminated with redundancy packages and some have resigned. Therefore, the health sector, most importantly the central level where IGMH locates, became the weakest of the system. The inefficiencies in management of the health service corporations (HSCs) and inequities between the HSCs worse the situation. This may leads to patient dissatisfaction [10].

Since the health system reform there has been no study done to assess the quality of the services or to identify patients' satisfaction and their view towards the services provided by IGMH. Only one study was conducted on patient satisfaction with health services at the OPD of IGMH in 2008. It revealed that 89% patients were lowly satisfied with the services provided by IGMH [11]. However, it did not reveal patients' expectation and perception towards quality of service.

It is a well-known fact that most of the time after changes brought to the health system in many countries; the patients have expressed dissatisfaction towards the services. In developed countries like, New Zealand, United States and United Kingdom after health reform the highest levels of dissatisfactions were expressed [12]. Therefore, after the health system reform and the changes brought, it is highly needed to identify the expectations of patients and how they perceive the service quality to meet the level of patients' expectations. In this study, SERVQUAL approach was used to investigate patients' satisfaction.

Moreover, the patients' expectations and perceptions in the five service quality dimensions were taken into account. IGHM is selected as target hospital to identify the quality of the services due to it is only the tertiary hospital which is located in the city Male' where one third of the total population lives and serves for the whole country, and also it is the referral center for the rest of the health facilities of the country.

MATERIALS AND METHODS

This cross sectional descriptive study was conducted in Indira Gandhi Memorial Hospital, in Male', Maldives in January 2013, after obtaining official approvals for collecting data from ethics committees at Mahidol University Institutional Review Board of Social Science, Thailand (COA. No. MU-SSIRB 2012/345.2211), and the National Health Research Committee in the Maldives.

The sample size was estimated using confidence interval of 95%, and acceptance error of 3.5%, and a proportion of patients 'satisfaction of 0.103. An attrition rate of 10% was provided to allow for withdrawal of respondents. Thus, the required sample size was at least 320.

SERVQUAL approach serves as a foundation for this study as it analyzes the gap between expectations and perceptions of the patient. The satisfaction level was evaluated based on the difference between those two points. By using SERVQUAL instrument with some modification of the words for the application of OPD setting, a self-administered questionnaire was developed and used to collect data from 320 patients who aged 18-65 years, visited to the OPD of IGMH during 5th January-28th January 2013, and were willing to participate in this study. The purposive sampling was used to select the participants.

The questionnaire was divided into five parts. The first part consists of five questions regarding basic information about the respondents. These are: age, gender, educational level, household income and occupation. The second part includes hospital service communication, whether the patient ever received hospital service information and if so, how the patient received information, and this variable was further classified into 2 groups as word of mouth communication, which is oral person-to-person communication between a receiver and a communicator, and external communication, which is the exchange of information and messages between an organization and individuals outside its formal structure. The third part contains one question about patients perceived needs, with referring to the necessity of patients of coming to

Table 1 Mean score of patients expectation & perception

Dimension	Expectation (mean score)	Perception (mean score)
Tangible	3.76	3.03
Reliability	3.76	3.07
Responsiveness	3.52	2.62
Assurance	3.87	3.06
Empathy	3.66	2.60
All dimensions	3.72	2.60

have services from the OPD at the time of data collection. The fourth part contains two questions to measure patient's personal experience with the quality of services at the OPD, whether the patients had previous experience of the hospital or not and the number of times they got services from the hospital. The last part was divided into two sections, for expectation and perception. To measure the level of the patient's satisfaction, the patient's perceived services and expected services were measured for five SERVQUAL dimensions. Each section in this part contains 21 statements with some modifications to the sentence structure of the original SERVQUAL instrument for the application of OPD setting and five point Likert-scales were used.

After translation into local language, the questionnaire was pre-tested by 30 patients who came to have service at Hulhumale hospital located in Hulhumale' the reclaimed island included as one of the divisions of the city. The reliability of expectation and perception parts was 0.94 and 0.92, respectively.

The patients' satisfaction was determined by the gaps of patients 'expectation and perception. It was classified into 2 levels: satisfied and dissatisfied. When perceived services were greater than or equal to expected services, it was categorized as "satisfied" and when the perceived service were less than expected services, it was categorized as "dissatisfied".

Quantitative analysis was carried out to measure the satisfaction level of patients towards the service quality at OPD of IGMH. Descriptive statistics were used to describe patient satisfaction levels and independent variables, such as socio-demographic characteristics, communication, perceived needs and personal experience. Patients' perceptions and expectations were used to measure patient satisfactions.

The chi-squire test was used to determine a possible association between each qualitative independent variable and the patient's satisfaction. After adjusting the factors, multiple logistic regressions were performed to determine the main factors affecting to patient satisfaction towards the service quality at OPD of IGMH.

RESULTS

The study population consisted of 320 patients of the Indira Gandhi Memorial Hospital, in Male', Maldives. Above two-third of patients belonged to age group 25-64 years. Gender distribution was nearly equivalent at male and female. The majority of patients finished secondary level of education (40.9%) and worked as civil service (43.7%). 65.4% of patients had low income and only 34.6% of them had high income. Two-third of patients (65%) received information about the services of the hospital. Nearly half of patients (48.8%) received information from the service provider, followed by friends (21.6%). Almost all of patients (96.2%) had experienced to have service at this hospital. Most of the patients perceived needs were high (84.7%) while only 10.7 % had perceived moderately and only 4.5 % had low perceived needs.

Table 1 shows the mean score for expectation and perception against each dimension. The average of patients' expectation score (mean=3.72) were higher than the average of patient's perception score (mean=2.60). Hence, there was a vast difference between patients' expectations and perceptions.

The majority of respondents (81.6%) were dissatisfied with the service quality of the OPD of IGMH and only 18.4% of respondents were satisfied with quality of the services provided by the OPD of IGMH. The results show that more than 80% of patients were dissatisfied in all dimensions - tangible (81.3%), reliability (80.0%), responsiveness (81.2%), assurance (84.1%), and empathy (87.2%), Table 2.

Table 3 provides the details of the variables which had significant association in Chi-square test. It was found that age had a significant relationship with patient satisfaction (*p-value* <0.001), and also perceived needs were significantly associated with patients' satisfaction (*p-value* 0.002).

Table 2 Percentage distribution of patients' satisfaction

Dimension	Satisfied (%)	Dissatisfied (%)
Tangible	18.7	81.3
Reliability	20.0	80.0
Responsiveness	19.8	81.2
Assurance	15.9	84.1
Empathy	12.8	87.2
All dimensions	18.4	81.6

Table 3 Association between patient satisfaction with socio-demographic characteristics, access to information, hospital service communication, perceived need and personal experience.

Variable	n	Patient Satisfaction Dissatisfied (%)	Satisfied (%)	Crude OR	95% CI	X^2	p-value
Age				1		14.74	<0.001*
Adult	219	87.2	12.8	3.021	1.692-5.39		
Youth	101	69.3	30.7				
Gender				1		0.117	0.732
Female	142	82.4	17.6	1.105	0.624-1.956		
Male	178	80.9	19.1				
Level of education				1		0.099	0.753
Higher than secondary	119	82.4	17.6	1.100	0.608-1.988		
Secondary and below	194	80.9	19.1				
Family Income				1.013	0.517-1.985	0.001	0.971
High income	85	81.2	18.8	1			
Low income	161	81.4	18.6				
Occupation				1		0.439	0.508
Civil servants	121	82.6	17.4	1.229	0.668-2.262		
Non civil servants	156	79.5	20.5	1.229	0.668-2.262		
Access to information						2.916	0.088
No	112	86.6	13.4	1			
Yes	208	78.8	21.2	1.735	0.917-3.282		
Word of mouth communication							
No	13	61.5	38.5	2.500	0.775-8.064		0.154
Yes	195	80.0	20.0	1			
External communication						0.089	0.765
No	162	78.4	21.6	1.133	0.500-2.570		
Yes	46	80.4	19.6	1			
Perceived needs						9.905	0.002*
High	261	85.1	14.9	1			
Low & Moderate	47	66.0	34.0	2.938	1.470-5.873		
Personal experience							0.702[f]
No	12	91.7	8.3	1			
Yes	305	81.3	18.7	2.528	0.320-19.981		
No of times got services from OPD						0.355	0.551
< 10 times	102	82.4	17.6	1			
≥ 10 times	140	79.3	20.7	1.219	0.635-2.342		

*P-value = <0.01
[f] Fisher's exact test

Table 4 shows that the details of the factors found to be associated with patient satisfaction. In Chi-square test, there were only 2 variables (age and perceived needs), which had a significant association with patient satisfaction After adjusted other variables, multiple logistic regressions shows that, age and perceived needs were the factors which strongly predict patients' satisfaction towards the service quality of OPD (*p-value* <0.01). The results further revealed that, patients of youth age group were 2.84 times more likely to be satisfied than those of adults, and likewise those patients

Table 4 Multiple logistic regression for patient satisfaction

Independent variable	Adjusted OR	95 % CI		*P-value*
		Lower	**Upper**	
Age				
Adult	1			
Youth	2.841	1.517	5.320	0.001*
Occupation				
Civil servants	1			
Non civil servants	1.319	0.689	2.523	0.404
Perceived needs				
High	1			
Low & Moderate	2.676	1.286	5.565	0.008*
Access to information				
No	1			
Yes	1.713	0.867	3.382	0.121

*P-value <0.01

who had low and moderate perceived needs were 2.68 times more likely to be satisfied than those having high perceived needs.

DISCUSSION

The results of this study revealed that, 18.4% of the patients were satisfied with service quality of the OPD and the majority of patients (81.6%) were dissatisfied with the service quality of the OPD of the hospital. This was similar with the results of the study conducted at IGMH in 2008. It was found that 10.4% patients were highly satisfied with the health services at OPD and 89.7% patients were lowly satisfied [11]. On the basis of the results of this study, a slight improvement on the satisfaction of the patients was found, compared to the study conducted before the health system reform. This may be because the health system reform in 2010 was to deliver health care services through corporate bodies [13]. Health professionals and hospital staffs had to provide better and quality health services for the citizens of the country that play a role in promoting patient satisfaction [14]. Comparatively, the same results were found in previous studies conducted in Malaysia and Thailand that most of patients were dissatisfied towards health service [8, 9].

In this study, all dimensions have negative satisfaction scores, which imply that none exceeded patients' expectations. A similar finding was noted in a study conducted by John [15]. According to the results, patients' expectations of service quality are highest in relation to assurance, tangible and reliability and patients ranked responsiveness and empathy as the lowest perceived among all the dimensions. The results of this study found that responsiveness and empathy are the more serious problems facing towards the service quality of the ODP as there was a vast difference between consumer expectations and perceptions. The result was consistence with the previous study conducted in Malaysia. It found that the patients gave the greatest importance to responsiveness when receiving the service [15].

Main reasons for patients expressing higher dissatisfactions normally are the internal service quality gaps which influence the patients' expectations and perceptions. From the patients perspective, the service quality gaps occurs because of disconnect between patients expectations and their perceptions. The study conducted by Parasuraman concluded that there are four major organizational deficiencies or internal service quality gaps within the organization. These gaps result the gap between the customers' expectations and perceptions. The first gap is the market information gap, which is the difference between what customers' expectations really are and what the management understanding of those expectations. The second gap is the standard gap which is the differences between the way management perceives the customers' expectation and the specification of the quality of the service. The third gap is the difference between the delivery of the service and the service quality. The fourth gap is the difference between the delivery of the service and what is informed to the customer about the services [3].

In this study, only age and perceived need were found to have a significant association with patient satisfaction. The youths were more likely to be satisfied than adults. This was a comparable result of the previous study conducted at the OPD of IGMH [11]. One of the possibilities might be because youths at the age of 18-24 years most probably were involved in studies and they will

have fewer responsibilities compared to the adults, and the need of the visit to get the services might be low than the adult age group. The same reason was given by Howard et al. [16]. The contradiction of result was found in a study conducted in Norway that older patients were more satisfied than the younger patients [17]. The result also showed that the patients who had low and moderate perceived need were more likely to be satisfied than high perceived need. Similarly, Parasuraman [3] stated that the perceived need was found to be an influencing factor for patients' expectation, and if the expectation is higher than what is perceived, than the patient evaluates the service quality as low, resulting dissatisfaction.

CONCLUSION

The results of this study indicate that, there was expected service and perceived service quality gap in all the dimensions. In other words, patients had expressed higher dissatisfaction towards all the dimensions. Age and perceived needs found to be the predicting factors of patient satisfaction. Therefore, to close the gap between performance and expectations, it is recommended to design procedures for being able to measure service performance against patient expectations, and to conduct frequent satisfaction surveys to identify the rising expectations of patients to be able to meet their expectation. It is also recommended to assess the quality of the internal service provided by departments and divisions to identify the weakness in order to make improvements. Further research on the quality of services provided within the departments and assessment of employee performance will greatly contribute the hospital management in making necessary changes that will lead to improving the quality of services provided by the hospital that is better in meeting with the patient expectations.

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