

# **PATIENTS' EXPECTATION AND PERCEPTION OF HEALTH CARE SERVICES QUALITY AT THAINGUYEN NATIONAL HOSPITAL, VIETNAM**

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## **Abstract**

*This study was conducted to assess the patients' perceptions and expectations from the quality of in-patient health care services at Thai Nguyen National Hospital, Thai Nguyen city, Vietnam. The author attempts to find out the difference between patients' expectation and perception on health care service quality at Thai Nguyen National Hospital, Vietnam. In this study, 467 in-patients of the 7 selected wards and departments in Thai Nguyen National Hospital were surveyed by stratified random sampling method. After reviewing a number of related theories and empirical studies, the author decided to use the GAPS Model of Parasuraman, Zeithaml and Berry to assess the patient's satisfaction with health care service in this case. The research findings showed that empathy, reliability, responsiveness, assurance, and tangibility were positively impacted on patients' satisfaction. Among them responsiveness had a strongest influence on patient's perception. Based on these findings, some recommendations were proposed.*

*Keywords: Health care services, patient satisfaction, SERQUAL, expectation, perception*

## **INTRODUCTION**

Health quality can be defined as the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge. Because of increasing competition, service providers and more demanding patients, service quality has become a watchword for healthcare service providers

but as yet has proven difficult to measure. The quality of health care services plays an important role in hospital development. This quality is often measured by the satisfaction of patients who always have needs of being provided with good services.

The main mission of hospitals is to provide quality health care services for patients and to meet their needs and expectations. Fulfilling this important mission requires the quality institutionalization in hospitals. Hospital's success depends on patients' expectations, perceptions, and judgment on the quality of services they provided. Despite the increased number of hospitals and hospital activities, the improved quality of health care services has become a priority concern for patients. The quality of health services in many countries, especially developing countries has become a pressing issue. In Vietnam, patients are often looking for a hospital with better quality of health care services. Therefore, better service qualities can be considered as a means to achieve more support, competitive advantage, and long-term profitability.

Today, quality is defined by customers' demand & customer's perceptions and expectations are considered as the most fundamental determinant factors of quality. Providing sufficient information on the grounds of the customer's perception of the service quality can help organizations to identify the dimensions that affect the organization's competitive advantage and also prevent the wasting of resources. In fact, customer-centered organizations set their activities based on the expectations and preferences of their customers and are to satisfy the needs and expectations of customers and considering their expectations as service quality standards is of essence.

Thai Nguyen National Hospital (TNH) is a state own hospital - one of the largest hospital in Thai Nguyen province and in North mountainous region of Vietnam. TNH is maintained the first class hospital with bed size of 1200 units, the highest level of treatment is responsible for direct health care for more than 1.2 million people in Thainguyen province, and the ultimate treatment venue in North mountainous provinces. In order to assess the gap between the expectations and perceptions of service quality, patients' expectations and perceptions of service quality in 2015, the author decided to conduct research on the quality of health care services at TNH, Thai Nguyen province, Vietnam.

### **Research Objectives**

This study concentrates on quality assessment of the public health services at Thai Nguyen National General Hospital by using GAPS Model to measure the expectations and perception of in-patients as well as the GAP between them. Base on that, provide policy recommendation to

improve health service quality as well as the competition ability of hospital and contributing to meet the strategic objectives of Vietnam in terms of public health services quality up to 2020.

## RESEARCH METHODOLOGY

In order to determine the gap of the service quality in hospitals and health care centers, the GAPS Model has been used. This model positions the key concepts, strategies, and decisions in service in correct perspective. Because customer satisfaction and customer focus are so critical to competitiveness of the firms, any company interested in delivering quality service must begin with a clear understanding of its customers.

Customer expectations are standards or reference points that customers bring into the service experience. Customer perceptions are subjective assessment of actual service experience. Closing the gap between what customers expect and what they perceive is critical to delivering quality service. It forms the basis point for the GAPS model of service quality as designed by Parasuraman, Zeithaml and Berry in 1988.

This tool measures the patients' perceptions and expectations of services in 5 different dimensions, including physical or concrete dimensions, reliability, responsiveness, assurance, and empathy. The difference between customer's expectations and perceptions of service provided is called the service quality gap. Successful organizations are trying to meet the environmental demands and needs and this is not made possible unless organizations understand the need to move towards being customer-centered.

This study is applied regarding the objective of the study. This is a descriptive – analytical study. In terms of data collection, it is regarded as a survey. Two methods were used to gather information: library method and the standard SERVQUAL questionnaire. This questionnaire consists of general questions (age, sex, income, education, hospitalization records of Thai Nguyen National Hospital, the number of hospitalizations in this Hospital, length of hospitalization) as well as 25 questions in the areas of tangibility (questions 1 to 5), reliability (questions 6 to 11), responsiveness (questions 12 to 16), assurance (questions 17 and 20), and empathy (questions 21 and 25) in a 5-point Likert scale (strongly disagree, disagree, indifferent, agree and strongly agree), respectively. To calculate the validity of the questionnaire, content validity was used in the way that, considering the questionnaire being standard, professors of this field were also consulted with and the content validity was approved. To test the reliability, internal consistency (Cronbach's alpha) was used. The study population included those patients with at least 3 days of being inpatients in internal labor, gastroenterology, traumatology, cardiology, odontology, and ICU and poison control wards of Thai Nguyen National Hospital.

To measure the quality of health services, should develop criteria for evaluation and corresponding criteria  $i$  is the index to measure. Measuring point distance is the calculation of the average score of each criterion through the index. The evaluation of the object of study on the quality of service was calculated according to the formula:

$$\text{GAP score } i = E_i - P_i$$

Where; Gap score  $i$ : Quality of item  $i$ ;  $E_i$ : is expected value of patient with item  $i$ ; and  $P_i$ : is perception value of patient with item  $i$ .

The customer gap which is defined as the difference between customer Expectation and customer Perceptions. In ideal situations, expectations and perceptions would be identical – customer would perceive that they have perceived what they thought they would and should. In practice this concepts are often separated by some distance. Broadly, it is the goal of service provider to bridge this distance.

Groups of samples were selected using stratified random sampling method in which the hospital sector is regarded as a class and the sample size in each class was also selected proportional to the size of the class. Heterogeneous samples are obtained that reflect, as much as possible, all patients who would receive health care in the hospital. Evaluating the representativeness of such samples is problematic. According to the latest statistics from GSO of Vietnam in 2015, every month there are more than 3500 in-patients came to stay in Thai Nguyen National hospital with different demographical characteristics. The variability in demographics ensured varied opinions and responses of individuals covering all the sampling criteria to be used in the present research. Based on research by Hair, Anderson, Tatham and Black (1998) to refer to the expected sample size. Accordingly, the minimum sample size was 5 times the total number of observed variables. Applying in this study, the number of observed variables are 25, so we can get  $n = 125$ . But the author decided to choose  $n$  equal to 367 patients in order to make the sample be more reliable. It covers almost one third of the hospital scale of patient bed. In order to ensure the representativeness, the process of choosing sample was followed this procedure:

- ✓ Ask the patients at 7 departments including 3 types of bed rate from high, medium and low level of using bed rate.
- ✓ In each department, choose patient according to the list of them in the record book. Choose name of the patient according to the first letter of their name.
- ✓ Choose 3 letters in one day, and continue that process until reach the number of respondents of 30 - 70 patients in each department.
- ✓ In the list of patient associated with department, choose only one who has been stayed at the hospital at least 3 days or more.

## ANALYSIS AND DISCUSSION OF FINDINGS

### General information of respondents

Out of 367 participants, 186 (50.7%) were women; 129 individuals (35.3%) received services over 3 times; The survey results showed that most patients were examined using health insurance cards (representing 86.4%), including various types of insurance, such as pension insurance, voluntary insurance, health insurance for the poor, for family policies.. the remaining 20% of patients are subject to premium, health insurance cards when not in use examined and treated at the hospital. The average age of study subjects was most patients aged 18 to 30 (representing 35.7%); followed by ages 30-60 (31%), concentrated mainly in the Orthopedic department, other gastrointestinal and hepatobiliary obstetrics; 24% of patients over 60 years of age, mostly retired officers, are treated in cardiovascular internal medicine and digestive ...The career of respondents was diversity, 19.6% are farmers and workers and 26.43% are self-employed, 12% were retired, 16:07% are State civil servants, students, the rest are students.

There have 91% of patients interviewed residents in Thainguyen, of which 52% is urban population, 48% came from rural areas. Only 9% of the patients come from other mountainous provinces in North part of Vietnam ... Most of them come from the rural areas. Results showed that 36.3% of patients who choose to use the service at the hospital because the hospital has a good reputation; followed by the level of trust in doctors (23.6%); then the right choice online (almost 20%); 13.2% selected hospitals is due to better facilities. Medical expenses by a majority of respondents are in accordance with the general provisions of the State and of health insurance; spirit of service attitude is the last option for only approximately 5.3%.

Average monthly income of the respondents mainly from 2-5 million, (45.5%), equivalent to the average income of residents in urban area. Some patients have a high proportion of income is very low, only about 4.6%; income patients fairly (5-10 million) account for nearly 30%, the rest is poor (earning less than 2 million / month) accounted 19.3%. Educational level of the majority of patients are asking is a new high school graduation or finished level 2; Some patients have a university degree and postgraduate very low (only 8.63% occupied). Thus it is possible that people who have higher levels of education and income are less good option to use medical services at the hospital.

### Main results of the GAP between patients' expectations and perceptions

Our findings indicate that the participants evaluated staff's empathy as the most important dimension and tangibles as the least important dimension of healthcare service. Dimensions of reliability, responsiveness and assurance ranked second through fourth respectively. In all five dimensions, we found gaps between expectations and perceptions with expectations exceeding

the perceptions (negative gap). The mean quality of service gap was -6.52. The greatest quality gap score pertained to empathy (-1.48) and the smallest to the physical and tangible dimension (-1.11). Dimensions of reliability, assurance and staff's responsiveness followed it. Wilcoxon's test revealed that the gap between respondents' expectations and perceptions was significant overall as well as for all five dimensions.

Table 1: The average score of expectations, perceptions and gap between them

Dimensions	Explanations	E	P	GAP
<b>Tangibility (TAN)</b>	The hospital has modern equipment	4.94	4.29	- 0.65
	The physical facilities at the hospital are visually appealing.	4.97	4.02	- 0.95
	Employees are neat appearing at hospital	4.96	4.46	- 0.50
	Materials associated with the health care service are visually appealing and clean	4.99	4.44	- 0.55
	Parking facilities enabled patients to access hospital without undue effort	4.69	2.93	- 1.76
<b>Reliability (REL)</b>	Healthcare service of Hospital is reliable	4.97	4.28	- 0.69
	The nurses and doctors treated patients with dignity and respect	4.99	4.37	- 0.62
	High quality of doctor and medical staffs	4.93	4.24	- 0.69
	The hospital provides services at the time they promise to do so	4.99	4.46	- 0.53
	The hospital keeps patient's information and complains on record and keep it secret.	4.98	4.25	- 0.73
<b>Responsiveness (RES)</b>	Patients were informed of any risks associated with the of tests that were recommended to patients' related health issues	4.96	3.97	- 0.99
	Employees of hospital tell patients exactly when services will be performed	5.00	4.53	- 0.47
	If patients had pain while at the hospital, staffs did everything they could to control the pain	5.00	4.37	- 0.63
	Employees of hospital always be willing to help patients	4.98	4.39	- 0.59
	Employees of hospital have hotline respond to customers' requests	4.96	4.24	- 0.72
Employees of Thai Nguyen C hospital will give prompt service to patients	4.89	3.74	- 1.15	

<b>Assurance (ASS)</b>	Employees of hospital have good knowledge to answer patients' questions quickly and exactly	4.99	4.36	- 0.63
	Employees of hospital always have polite, friendly and gets on well with patient	5.00	4.47	- 0.53
	The fees applied were reasonable in relation to what other hospital charge for similar services	4.99	3.90	- <b>1.09</b>
	Patients of hospital feel comfortable in using health care service	4.99	4.29	- 0.70
<b>Empathy (EMP)</b>	Hospital will give patients individual attention	4.98	4.14	- 0.84
	Employees of hospital understand the needs and wants of patients	4.96	4.34	- 0.62
	All procedures of health service in hospital are easy and convenient for patient	4.97	4.16	- 0.81
	Health service in hospital have operating hours and communication space convenient to all their customers	5.00	4.26	- 0.74
	No discrimination between HIC and paired fee patients	4.99	4.29	- 0.70

The overall expectation score is higher than perception score with the average gap is 0.75 (by absolute value). The highest gap related to dimension 1 (tangibility aspect). The lowest gap refers to dimension 2 and 3 (reliability and responsiveness). The empathy dimension is still getting quite high gap (0.74). So we can infer that, even the facilities and equipment are lacking, the responsibility of medical staff still quite good and get patient's believe in general.

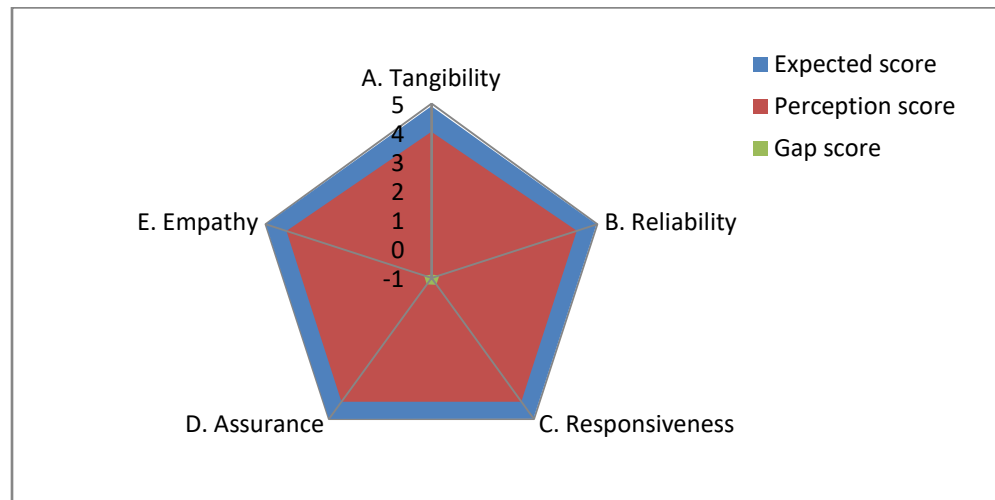
Table 2: Expectation and perception of overall 5 dimensions

Dimensions	Expected score	Perceived score	Gap score
A. Tangibility	4.91	4.03	- 0.88
B. Reliability	4.97	4.26	- 0.71
C. Responsiveness	4.97	4.26	- 0.71
D. Assurance	4.99	4.26	- 0.73
E. Empathy	4.98	4.24	- 0.74
Average	4.96	4.21	- 0.75

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Figure 1. Overall expectation and perception of five dimensions



The diagram above shows the gap between expectations and perceived by patients to quality medical services at hospitals is relatively uniform in all 5 levels (point gap ranged from - 0.71 to - 0.88) in which is the distance of the highest quality facilities. This suggests that hospitals need further investment to improve facilities, tangible means of serving patients, especially improving the garage and the equipment serving healthcare. The gap between the expected second-largest and the patient's perception of empathy factor of health workers. The medical staff should have an interest in each patient, listen and understand them to better serve the health care needs and create trust for their patient greater confidence in the quality of patient rim. The level of confidence and meet patients to better evaluate other factors but there is still a certain gap between expectations and realistic feel when using the health service of the hospital.

## CONCLUSIONS

Closing the gap between what customers expect and what they perceive is critical to delivering quality service. The results of this research appear to show that the SERVQUAL instrument is a useful measurement tool in assessing and monitoring service quality in health care service at TNH, and enabling staff to identify where improvements are needed, from the patients' perspective. There were service quality gaps in the reliability, assurance, and empathy. This study suggested that physicians should increase their discussions with patients; which has, of course, already been proven to be an effective way to increase patient's satisfaction with medical care, regardless of the procedure received.



The quality health services in the GAPS model shows the average gap score between perception and expectation of patients is - 0.754, the highest of which is the distance of the Tangibility, followed by Empathy, and ultimately the level of Responsibility and Reliability. Average gap score of the tangibility is -0.88, the highest in the evaluation criteria for the quality of services and patient satisfaction. Most patients have said that the hospital's garage was cramped, without roof; it takes a lot of time to wait for parking vehicles in rush hour. About empathy of the staffs, survey results showed that many patients think this factor plays an important role in creating trust and comfortable psychology, willing to continue using the service at the hospital if medical staffs have sympathetic attention to each patient.

The medical staffs should have an interest in each patient, listen and understand them to better serve and create trust for patients that make them have greater confidence in the quality of hospital. Patients evaluate the factor level of confidence and meet better than other factors but there is still a certain gap between expectations and realistic feelings when patients using the service of hospital.

## **LIMITATIONS AND FUTURE RESEARCH**

Firstly, the sample selected for this study is from Thai Nguyen city. Hence the conclusions drawn are mostly applicable to the health care sector in this city. Hence the results of the study cannot be generated to other countries or healthcare system. Secondly, the research only focused on the process of deliver service at TNH, so the outcome of service to patient and population was not well mentioned. Although the author tried to cover quite large number of respondents, the author need to ask other stake holder which have relate benefit in health sector such as out-patient, policy maker, managers, payers... to get qualitative information to analyses the quality of health services in public hospital.

The future research may cover wider range with the comparisons of different hospitals or in different countries. The researcher could also add more dimensions to measuring the outcome of healthcare services or develop a new scale for evaluating the quality of services in health care sector.

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