

THE RESEARCH ON SATISFACTION OF PATIENTS WITH THE MEDICAL SERVICES OF PRIVATE HOSPITALS IN THAI NGUYEN PROVINCE

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ABSTRACT

Now the relationship between patient satisfaction and quality of health services is becoming increasingly tight. If the quality of health services by health care establishments affects patient's satisfaction, on the contrary, degree of patient satisfaction is a basis to evaluate the quality of medical services. Therefore, measuring patient's satisfaction to medical service quality which is based on the scientific research methods will bring an objective view to improve health care quality and meet health care demand for people better. This research shows that there are 6 factors effecting to satisfaction of patients, includes: Tangibility, Reliability, Responsiveness, Assurance, Empathy and Expension. However, the level of influence on satisfaction of patients is different among 6 factors, Tangibility is the most effective factor while the cost is contrary.

Keyword: quality, health care services, satisfaction

1. INTRODUCTION

Thai Nguyen has been strictly following the Socio-economic Development Strategy presented in the National Party Congress XI in 2011, which states that "Building a democratic, disciplined, united, equitable, civilized society. Focusing on developing healthcare system and improving medical service's quality. The Government continues on investing and promotes socialization to upgrade public as well as non-public health systems, improving organizational structure and networking of medical establishments". However, in the operating process, provincial healthcare facilities still face some difficulties and hindrances which dissatisfies the patients.

Due to the urgent demand above, it is obviously necessary to research on solutions to improve patients' satisfaction, which not only gives a clear picture of medical service's quality but also enhance life standard of Thai Nguyen residences in the future.

2. RESEARCH MODEL AND ASSUMPTIONS

According to Parasuraman (1988), patients' satisfaction is measured by comparing between their experience and their expectation of the service. However, Cronin và Taylor (1992) researched and pointed out that analytical framework of Parasuraman (1988) can possibly cause a confusion between satisfaction and attitude. So that, judging the service's quality based on customers' feeling about actual experience is more accurate and convenient.

According to the research Parasuraman (1988), satisfaction is the combination of service's quality, product's quality, and prices. Nevertheless, due to the absence of tangible products, patient's satisfaction is evaluated based on the other factors. The criteria are reliability, sufficiency, guaranty, sympathy, and tangible facilities.

There are some following assumptions:

H1: The reliability of healthcare service (REL) and the satisfaction of patients (SAT) have a positive relationship.

- H2: The responsiveness of healthcare service (RES) and the satisfaction of patients have a positive relationship.
 H3: The assurance of healthcare service (ASS) and the satisfaction of patients have a positive relationship.
 H4: The empathy of healthcare service (EMP) and the satisfaction of patients have a positive relationship.
 H5: The tangibility of healthcare service (TANG) and the satisfaction of patients have a positive relationship.
 H6: The healthcare cost (COST) and the satisfaction of patients have a positive relationship.

3. RESEARCH METHOD

The research process is conducted through two stages: preliminary and primary research. In preliminary stage, the author uses the qualitative research method to generate the first scale and preliminary questionnaire; then, after a pilot investigation on a scale of 20 patients, the second scale is made based on adjustment to fit the actual condition of healthcare establishments as well as the questionnaire is completed for primary research. In the main stage, questionnaires are given directly to patients and their family in healthcare establishments and then gathered and stored to serve quantitative research, which involves scale evaluation, regression analysis and assumptions verification to clarify the factors' effect on the satisfaction of patients.

4. RESEARCH'S RESULTS

4.1. Descriptive statistics of research

After the survey in 3 public, 2 non-public healthcare establishments and 1 general clinic, there are 200 questionnaires are given out and gathered, all of them are valid. All the respondents are cooperative and responsible, so the results are totally objective. Moreover, according to research experience, the sample size is 5 samples/ 1 observed variables. The total of observed variables in the model consists of 36 questions, in which 35 questions are for SERVPERF scale and 5 questions are for satisfaction, thus, the minimum number of samples is 200. In fact, the total number of samples in this research is 200; therefore, the quality and quantity of research samples is guaranteed.

Table -1: Descriptive statistics of research samples

Age group	18-30t	31-45t	46-55t	Above 55t	Total
Number (people)	67	81	32	20	200
Rate %	33,5%	40,5%	16%	10%	100%
Academic level	High School	Diploma	Undergraduate	Post-graduate	Total
Number (people)	28	45	116	11	200
Rate %	4%	22,5%	58%	5,5%	100%
Income per month	Under 5mil	5-10mil	10-15ml	Above 15ml	Total
Number (people)	73	84	35	8	200
Rate %	36,5%	42%	17,5%	4%	100%
Occupation	State officials	Business officials	Students	Other	Total
Number (people)	54	79	26	41	200
Rate %	27%	39,5%	13%	20,5%	100%
Health insurance participants	Yes	No			Total
Number (people)	182	18			200
Rate %	91%	9%			100%

(Source: Survey)

4.2. Testing the observed variables

Examining the scale using the Cronbach's Alpha: The scale is acceptable when the Cronbach's Alpha is equal or greater 0.6 and the correlation coefficient is equal or greater than 0.3 [2]. Based on the mentioned criteria, after using the Cronbach's Alpha, 5 observed variables are eliminated, which are: REL4, RES3, ASS1, EMP7, EMP9, TANG1, TANG6, COST3, SAT3.

Examining the EFA (Exploratory Factor Analysis): The method of using EFA help us to evaluate two important values in the scale: convergent and divergent validity. After analyzing the EFA, all the observed variables are kept for the next steps.

4.3. Building regression model

To identify, measure and evaluate on what level the factors related to service's quality affect to satisfaction of patients, the multiple linear regression is used among 6 factors which are found from analyzing reliability coefficient, namely: (1) Reliability, (2) Responsiveness, (3) Assurance, (4) Empathy, (5) Tangibility, (6) Cost while dependent variable is the patient's satisfaction.

Table – 2: Regression result Enter

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.837 ^a	.701	.692	.66172	2.156

Result is that $R^2 = 0,837$; the value of R^2 implies that the independent variables in the model can account for 83.7% change in dependent variable.

To verify the autocorrelation in regression model, the Durbin-Watson value is examined from the regression result table. As the total number of observations is 200 samples and the number of independent variables is 6, t should have the value of $dL=1.613$ and $du=1.735$. Therefore, as the Durbin-Watson value is 2.156, which is between $\{du=1.735$ and $4-du=2.265\}$, the regression model does not violate autocorrelation. [2]

Table – 3: Researching variance ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.	
1						
	Regression	198.142	6	33.024	75.418	.000 ^a
	Residual	84.510	193	.438		
	Total	282.653	199			

To verify the suitability of the general regression model, the value of F in table 3 is calculated. $F = 75.418$ and $sig=0.000$, thus, the multiple linear regression model is initially suitable and can be used. [2]

Table – 4: Result of multivariate regression

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1							
	(Constant)	-.694	.251		-2.768	.006	
	REL	.271	.081	.190	3.371	.001	.487
	RES	.202	.075	.145	2.712	.007	.538
	ASS	.311	.108	.183	2.885	.004	.387
	EMP	.281	.102	.176	2.752	.006	.377
	TANG	.331	.120	.203	2.760	.006	.286
	COST	.159	.065	.133	2.440	.016	.521

a. Dependent Variable: F_hailong. Significance level: $p_value < 0.05$

To verify the multicollinearity phenomenon, the value VIF is examined. From table 4, the variance inflation factor (VIF) of each factor is smaller than 10, which means the regression model does not have multicollinearity phenomenon.

According to above result, we can identify the multiple regression equation as following:

$$\text{SAT} = -0.694 + 0.271*\text{REL} + 0.202*\text{RES} + 0.311*\text{ASS} + 0.281*\text{EMP} + 0.331*\text{TANG} + 0.159*\text{COST}$$

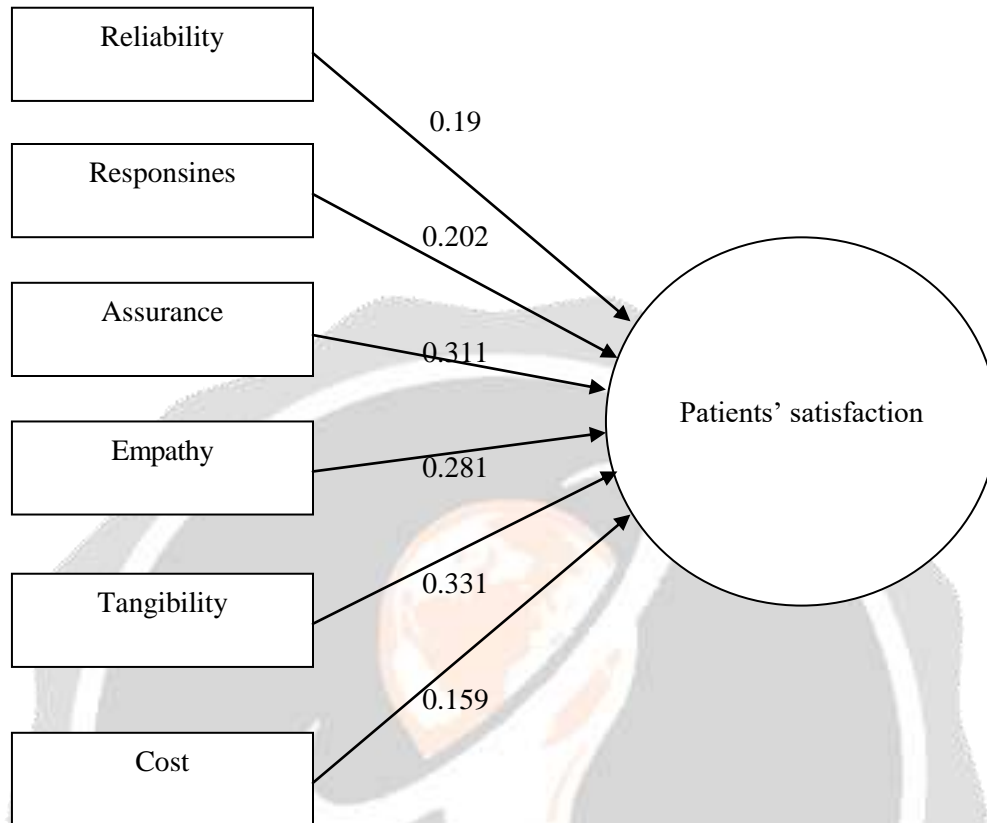


Fig -1: Modeling analyzing regression result

Based on the result of multivariate regression, all 6 factors of the model have significance level p value < 0.05 , which means these independent variables affect patient's satisfaction. Besides, all regression coefficients B are greater than 0, so there is a positive relationship between these factors and patients' satisfaction.

To examine the significance of each independent variable to the dependent one, we consider the absolute value of standardized regression coefficient (coefficient B); factors with bigger absolute value have greater impact on the patients' satisfaction. Therefore, patient's satisfaction is affected most by "Tangible facilities" (Beta=0.203); then by "Reliability" (Beta = 0,19); "Guaranty" (Beta = 0,183); "Sympathy" (Beta = 0.176); "Sufficiency" (Beta = 0.145); least by "Healthcare cost" (Beta = 0,133).

5. CONCLUSIONS

Research's result shows that there are some solutions to upgrade the patient's satisfaction by affecting the factors. Firstly, renovate and decorate the surroundings of healthcare establishments to attract patients and create relaxing atmosphere for patients in treatment process. Besides, hygiene assurance is important, for example, regularly checking and supervising cleaners' work to quickly identify and solve any hygienic problems. Also, medical staffs should be required to wear decent clothes. Maintaining policies encouraging the training and development of medical staffs in the healthcare system. Upgrading the information technology system and supplement professional staffs to handle this part, which finally helps reduce mistakes and confusion in providing the service. Training staffs with both knowledge and skills to inform patients the exact time for their service, for instance, examination or test results returning time. Medical establishments should step up socialization in healthcare field according to the

Ministry of Health's policy in 2015. The policy states that healthcare system needs to focus on improving the efficiency of examination and treatment process, diversifying the service provided. It is crucial to creating comprehensive solutions to gather all resources for the development of the health system, as well as to encourage the participation of departments, organizations, and individuals in this field. Also, strengthening the social bonds by holding activities in underprivileged areas can help medical staffs become more sympathetic with patients.

Every medical establishment should build a strategy for improvement and renovation in quality of healthcare service. A department, which is responsible for the quality of healthcare service should be founded. This department would focus on supervising the application of the approved strategies and plans as well as keep the role of consultants, suggesting new policies of improving the medical system and correcting present ones to meet the demand of patients.

6. REFERENCES

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