

BÀI BÁO NGHIÊN CỨU GỐC

Inpatient satisfaction with healthcare services of a public tertiary general hospital in Vietnam during COVID-19 pandemic

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ABSTRACT

Objectives: The article was to assess the satisfaction of inpatients with healthcare services of Vietnam – Sweden Uong Bi General Hospital (VSUGH), a public referral hospital in the Northeast of Vietnam, during the time of implementing prevention measures against Covid-19 and figure out the correlation between the variables and the satisfaction rate.

Methods: A cross-sectional survey using a 5 point Likert scale questionnaire was adopted in August 2020 with the sample of 117 inpatients/ family members of inpatients discharged from 23 clinical departments in VSUGH. The survey form was modified upon the Inpatient Satisfaction Questionnaire sample of Ministry of Health of Vietnam (MOH, 2019).

Results: The results showed the overall satisfaction rate on healthcare services of the hospital was 98.7% (absolute score: 4.8 ± 0.4). Of all respondents, 99.7% satisfied with the accessibility, 99.8% satisfied with the information and procedures, 96.4% satisfied with the facilities, 99.8% satisfied with the health workers and 99.0% satisfied with the results. The hospital met $95.7\% \pm 5.9\%$ of the patients' expectation. 100% patients replied that they would definitely return if needed or recommend to others. The comprehensive satisfaction index was 74.4%. There were no statistically significant differences between satisfaction rates of inpatients belong to different groups of gender, age, bed days and use of health insurance.

Conclusions: In spite of enormous difficulties in Covid-19 pandemic, the inpatient satisfaction rate of VSUGH was still high. From an aspect of view, it could be seen that the healthcare services provided by the hospital were quite good upon the inpatients' standard and assessment.

Keywords: patient satisfaction, healthcare service quality, Covid-19 pandemic, quality management, Vietnam – Sweden Uong Bi General Hospital, public hospital

INTRODUCTION

Nowadays, healthcare providers consider the importance of patient satisfaction more and more seriously. HealthLeaders Media's 2013 Industry Survey figured out that over half (54%) of healthcare executives say patient satisfaction is one of their top three priorities

(1). In fact, a patient who satisfies tends to be the loyal patient. It is estimated that, in the USA, loss of a patient due to dissatisfaction, can result in the loss of over \$200,000 in income over the lifetime of the practice (2).

Since 2016, MOH has strongly promoted patient satisfaction survey and quality



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improvement actions after surveying. VSUGH, a public hospital founded by the sponsorship of Sweden with the scale of 1,100 beds and over 2,000 in- and outpatients each day, also pays its attention to patient satisfaction survey and quality management. In order to continuously improve the quality of healthcare services in VSUGH, the inpatient satisfaction survey is implemented periodically.

Patient satisfaction was extensively researched over the last decades with various systematic reviews encompassing the most relevant studies in the field (3-7). It measures the extent to which a patient is content with the health care received from health care provider (8). In the viewpoint of Mohan et al. (2011), patient satisfaction was referred to as patients' emotions, feelings and their perception of delivered healthcare services (4).

Patient satisfaction is widely used in the healthcare sector to determine service quality (Fenton et al., 2012; Shabbir et al., 2016) (9, 10). Meanwhile, service quality in general absolutely affects patient satisfaction. An empirical study in Canadian hospitals conducted by Leiter et al. (1998) observed that patient satisfaction is significantly influenced by nurses, doctors and information. These elements led to high patient satisfaction¹¹. It has been noted that while perceived service quality is a cognitive construct, consumer satisfaction is an affective one, and this suggests a causal relationship between these two constructs, in which service quality plays the role of an antecedent of consumer satisfaction (Choi et al., 2005)¹².

On December 2019, Corona Virus Disease – 2019 (Covid-19) burst from Wuhan city, Hubei, China. Up to October 12th 2020, 235 countries, areas and territories in the world has reported 37,326,080 confirmed cases and 1,073,973 confirmed deaths, according to World Health Organization (WHO)¹³. Unfortunately, this statistical number has a tendency to increase.

Despite implementing tough measures to curb Covid-19, Vietnam has experienced two Covid-19 outbreaks with 1,110 infected cases and 35 deaths. For VSUGH, suspected and isolated cases existed. In the current situation of Covid-19 global pandemic, a lot of prevention measures have been carried out in VSUGH, namely as hand sanitization, wearing facemask, travel restrict and distance to inpatients; quantity limitation, hand sanitization, temperature check and health declaration to inpatient relatives, etc. There emerged difficulties and challenges for the hospital as well as for the patients. Therefore, it was extremely meaningful for the hospital to conduct the patient satisfaction survey in these tough times in order to investigate the patient satisfaction, factors that affect the patient satisfaction and accompany patients to overcome the epidemic.

The research was aimed to reach two main objectives. In the first place, the survey research was implemented in order to investigate the satisfaction rate of inpatients in clinical departments of VSUGH during the time of implementing prevention measures against Covid-19 pandemic. In the second place, the study was to analyze whether there was any relationship between independent variables and the patient satisfaction. From the result of the survey, the hospital identified the issues with which the patients dissatisfied and implemented the solutions to improve its healthcare service quality, aiming to satisfy its patients as much as possible. The difficulties which the inpatients met in this pandemic time would receive timely support.

METHODS

Study design

A cross-sectional design was utilized in this study to access the inpatients satisfaction with the healthcare service of VSUGH.

Study dates

The study was conducted from the 18th to the 21st in August 2020.

Study participants

The participants of the study were all the inpatients/ relatives of the inpatients discharged from 23 clinical departments of VSUGH in the time of the cross-sectional survey who meet the inclusion criteria: more than three bed days and consent to participate to the survey. The suspected and isolated inpatients were excluded. In case the patients were children or unconscious ones, their relatives who satisfied the condition of at least 3 caring days would be requested for responses.

Sampling

According to MOH's sample size estimation guideline, with more than 100 and less than 1,000 inpatient admissions per day, VSUGH should conduct a cross-sectional survey with the sample of minimum 100 participants. This study employed a simple random sampling approach, inviting all inpatients discharged from 23 clinical departments to do the survey until the sample size was eligible and to the end, there were 117 inpatients/relatives in total.

Data collection

The data collection tool was the questionnaire which was modified Inpatient Satisfaction Questionnaire sample of MOH (2019), consisted of 6 administrative items, 31 assessment items and 2 open questions. These 31 assessment items covering 5 dimensions of healthcare services: accessibility, transparency of information and procedures, infrastructure and facilities, attitude and professional capacity of health workers and results of service provision (*see Appendix*). Each assessment item had 5 choices ranged

from 1- strong dissatisfied, 2- dissatisfied, 3- neutral, 4- satisfied, 5- strongly satisfied. The choice of 4 and 5 was considered as satisfaction.

The hard-copies of the questionnaire were delivered to participants and the response rate was 100%. The ones who were in charge of delivering and collecting the questionnaires would be responsible for warning the respondents for any missing item. All the questionnaires were fully filled.

Variables and summarize the groups of variables

The independent variables in this study are patients' gender (male/ female), age, length of hospital stay and use of health insurance (yes/ no). The two variables: inpatients' age and length of hospital stay were divided into three groups namely under 30, 31 - 55, over 55 years old and less than 5, 5 - 10 and more than 10 bed days.

Data analysis

The data were imported in IBM SPSS Statistics software version 20.0 for analysis. In one side, descriptive statistics method was used to analyze the general information and the satisfaction rate of survey participants. In the other side, the compare means were also utilized to clarify the extent of relationships between independent variables. The one-way ANOVA test was used to test the hypotheses whether there were any statistically significant differences between patient satisfaction rates of groups of different gender, age, length of hospital stay and use of health insurance.

Ethics approval

The data were collected based on the MOH questionnaire and without interference from staff. The ethical committee at the VSUGH approved the methodology and data collection procedure of the study. The inpatients were

informed the purpose of the study that was to assess the patient satisfaction with healthcare services of the hospital so as to carry out further improvement in services and support inpatients with any difficulties in hospitalization in Covid-19 time. The patients were also told that the investigator was not part of the treatment team and they were free to give their responses. The day of giving

response was also the day of their discharge, hence, their responses could never affect their treatment.

RESULTS

Socio-demographic characteristics of the inpatients

Table 1. Socio-demographic characteristics of the inpatients (N = 117)

Variables		Frequency	Percentage	Mean (SD)
Gender	Male	49	41.9	
	Female	68	58.1	
Age (years old)	≤ 30	30	25.6	46.7 (24. 8)
	31 - 55	38	32.5	
	> 55	49	41.9	
Length of hospital stay (days)	< 5	41	35.0	
	5 - 10	53	45.3	
	> 10	23	19.7	
Use of health insurance	Yes	112	95.7	
	No	5	4.3	

Of the total 117 inpatients in 23 clinical departments included in the survey, the mean age was 46.7 ± 24.8 with 41.9% male and 58.1% female. The group of patients over 55 years old accounted for the largest percentage (41.9%). The patients with number of hospitalization day between 5 and 10 days showed the highest rate at 45.3%. Most of patients owned and used their health insurance (95.7%).

Inpatient satisfaction rate on 5 dimensions of healthcare services

With 87/117 responses had all the items chosen 4 or 5, the comprehensive satisfaction index of this survey was 74.4%.

The data collected from the question “How many percentages do you think that the hospital meet your expectation before admission?” demonstrated that the hospital met $95.7\% \pm 5.9\%$ of the inpatients’ expectation, in which 95.7% of the inpatients assessed that the treatment was beyond 80% of their expectation before hospitalization. Meanwhile, the last question “If needed, will you return to VSUGH or will you recommend VSUGH to others?” gained the percentage of 100% of inpatients/ inpatients’ relatives replied that they might come back and would definitely return if needed and recommend to others. The illustrative figures as follow:

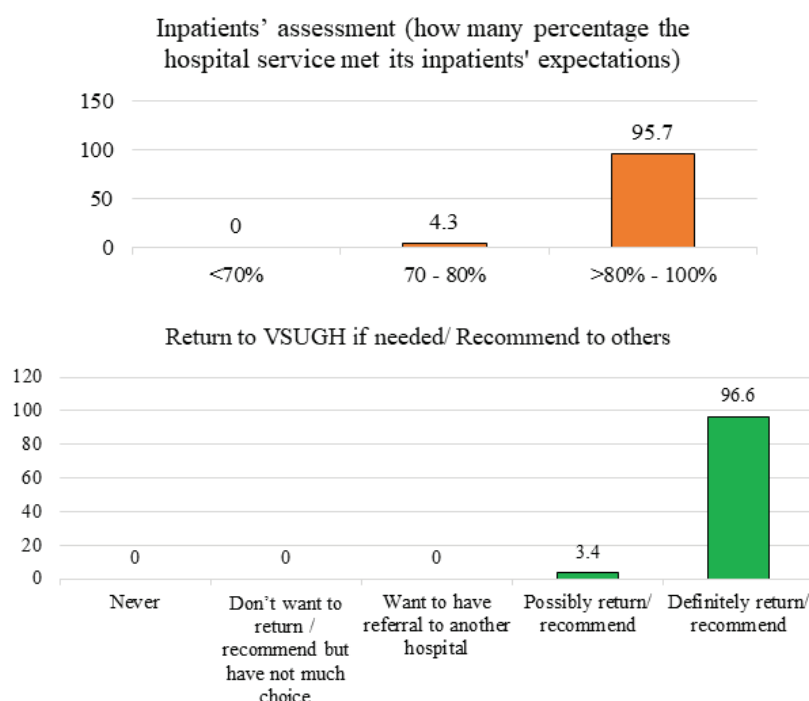


Figure 2 & 3: Statistics on Inpatient expectations and return to the hospital needs (%)

The overall satisfaction rate of each dimension was statistically calculated from the inpatients'/relatives' assessment on all the items in that dimension.

Table 2. Inpatient satisfaction rate on 5 dimensions of healthcare service (N=117)

Dimensions of healthcare service	Inpatient satisfaction	
	%	mean (SD)
Accessibility	99.7	4.8 (0.4)
Transparency of information and procedures	99.8	4.8 (0.4)
Infrastructure and Facilities	96.4	4.7 (0.4)
Attitude and professional capacity of health workers	99.8	4.8 (0.4)
Results of service provision	99.0	4.7 (0.4)
Overall satisfaction rate	98.7	4.8 (0.4)

SD = standard deviation; mean scores are calculated on the basis of the Likert scale of 1 – 5.

As Table 2 revealed, for 5 aspects of healthcare services of VSUGH, the transparency of information and procedures satisfied its inpatients most with the satisfaction rate of 99.8%, though all the aspects gained high satisfaction rates. The inpatients did not

appreciate the infrastructure and facilities in VSUGH as other dimensions. The satisfaction rate with this dimension only reached 96.4%. It is not easy to quickly overcome the problems relating to infrastructure, especially in the case of a nearly 40-year-old

hospital (VSUGH was built in 1981 with the sponsorship of Sweden). However, the mean score of this dimension was the same as that of “Results of service provision” (4.7 ± 0.4).

The overall satisfaction rate was 98.7% and the absolute score of 4.8 ± 0.4 .

The correlation between inpatient

satisfaction and selected variables (gender, age, length of hospital stay, use of health insurance)

There were no statistically significant differences between the satisfactions of inpatients in different groups of gender, age, length of hospital stay and use of health insurance.

Table 3. The correlation between inpatient satisfaction and selected variables

Variables	Groups	Frequency	Mean of Satisfaction rate	P-value
Gender	Male	49	98.5%	0.651
	Female	68	98.8%	
Age (years old)	≤ 30	30	97.0%	0.068
	31 - 55	38	99.4%	
	> 55	49	99.1%	
Length of hospital stay (days)	< 5	41	98.7%	0.947
	5 - 10	53	98.7%	
	> 10	23	98.5%	
Use of health insurance	Yes	112	98.6%	0.626
	No	5	99.4%	

The result in table 3 pointed out that all the sub factors were not related to the satisfaction and that the relationship between them were not significant as compared to alpha value = 0.05 (all *P*-value were greater than alpha value). Indeed, the relationship between age and satisfaction was at the margin of statistical significance with *P* = 0.068. The young inpatients were likely to have lower satisfaction rate than the older inpatients.

DISCUSSION

Patient satisfaction towards health services plays an important role, which is what the director board accompanied by all health workers of VSUGH acknowledge. In the

time of taking measures to prevent Covid-19 pandemic spreading, inpatient satisfaction plays a much more important role. If the inpatients satisfy, stay by the hospital's side and comply with the regulations, patient safety in the hospital is strongly boosted. Due to the fact that inpatients who already had serious health conditions or chronic diseases are the most vulnerable to Covid-19 infections, if they don't strictly comply with the preventative measures, the risk of transmission will be much higher.

The research results indicated that VSUGH gratified its inpatients in spite of difficulties and challenges of Covid-19. The satisfaction rate and the absolute score were high as usual. In the survey, the satisfaction rate on

infrastructure and facilities was lowest partly because the essential needs like canteen services did not meet inpatients' demand. In Covid-19 time, all the meals were served and shipped to the inpatients for the reason that the inpatients were not allowed to be out of their departments (in order to control the distance, movement and close contact of inpatients to others). Consequently, what was shipped to the inpatients/inpatients relatives sometimes did not please them and they found it less satisfied.

These findings are in line with some previous research results although those researches were not conducted in the Covid-19 time. The VNA revealed that the average patient satisfaction index (PSI) in 2018 improved slightly to 4.04/5, or 80.8 percent of their expectation¹⁴. A research of Nguyen & Mai in 2014 also showed that the majority of patients (80% or more) expressed satisfaction with their care, with a few responding negatively to any given items¹⁵.

Measuring patients' satisfaction is a complex task, highly dependent on the type of measurement, moment of measurement, type of services, or context^{3, 16}. Even though this study has limitations in sample size, was cross-sectional and conducted at a single hospital, it can be applied in any other healthcare provider situations without obstacles.

The findings of this study can help the managers enhance the patient satisfaction level by concentrating on the aspect that got the lower satisfaction rate.

CONCLUSIONS

To sum up, during the time of implementing prevention measures against Covid-19 in the hospital, despite of enormous difficulties and challenges in the pandemic, the inpatient satisfaction rate of VSUGH was still high

and from an aspect of view it could be seen that the healthcare services provided by the hospital were quite good upon the standard and assessment of the hospital's inpatients. The research also reported there were not any significances in the relation between sub factors and inpatients satisfaction. On the whole, VSUGH keeps weighting patient satisfaction and healthcare services quality to provide patients the best services.

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REFERENCES

1. Tšernov K. The Importance of Patient Satisfaction 2017 [Available from: <https://www.qminder.com/importance-patient-satisfaction/>].
2. Luecke RW, V. R. Rosselli, and J. M. Moss. The economic ramifications of "client" dissatisfaction. *Group Pract J*. 1991;40:8-18.
3. Druică E, Viorel Mihăilă MB, Vasile Cepoi. Combining Direct and Indirect Measurements to Assess Patients' Satisfaction with the Quality of Public Health Services in Romania: Uncovering Structural Mechanisms and Their Implications. *International Journal of Environmental Research and Public Health (IJERPH)*. 2020;17(1).
4. Rashid Al-Abri AA-B. Patient Satisfaction Survey as a Tool Towards Quality Improvement. *Oman Medical Journal*. 2014;29(1)(2014 Jan):3-7.
5. Gregory C. Pascoe CCA, Robert E. Roberts. Comparison of indirect and direct approaches to measuring patient satisfaction. *Evaluation and Program Planning*. 1983;6(3-4):359-71.
6. John Sitzia NW. Patient satisfaction: A review of issues and concepts. *Social Science & Medicine*. 1997;45(12):1829-43.
7. Liz Gill LW. A critical review of patient satisfaction. *Leadership in Health Services*.

- 2009;22(1):8-19.
8. Bekalu Mossie Chekol DAA, Tamirie Andualem Adal. Dimensions of patient satisfaction with comprehensive abortion care in Addis Ababa, Ethiopia. *Reproductive Health*. 2016;13(144).
9. Joshua J. Fenton AFJ, Klea D. Bertakis, Peter Franks et al. The cost of satisfaction: a national study of patient satisfaction, health care utilization, expenditures, and mortality. *Archives of Internal Medicine*. 2012;172(5):7.
10. Asma Shabbir SAM, Shujah Alam Malik. Measuring patients' healthcare service quality perceptions, satisfaction, and loyalty in public and private sector hospitals in Pakistan. *International Journal of Quality & Reliability Management*. 2016;33(5):20.
11. Leiter MP, Harvie, P. and Frizzell, C. The correspondence of patient satisfaction and nurse burnout. *Social Science & Medicine*. 1998;47(10):7.
12. Kui-Son Choi HL, Chankon Kim, Sunhee Lee. The service quality dimensions and patient satisfaction relationships in South Korea: comparisons across gender, age and types of service. *Journal of Services Marketing*. 2005;19(3):10.
13. Numbers at a glance: WHO; 2020 [cited 2020 October 12th]. Available from: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>.
14. VNA. Patient satisfaction improves, concerns remain about costs Hanoi: Vietnamplus; 2019 [cited 2022 18 April]. Available from: <https://en.vietnamplus.vn/patient-satisfaction-improves-concerns-remain-about-costs/153476.vnp>.
15. Nguyen CT, Mai, N. T. T. Service quality and its impact on patient satisfaction: An investigation in Vietnamese public hospitals. *Journal of Emerging Economies and Islamic Research*. 2014;2:14.
16. Pascoe GC. Patient satisfaction in primary health care: A literature review and analysis. *Eval Program Plann*. 1983;6(3-4):185-210.