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Satisfaction of inpatient at Hung Ha general Hospital, Hung Yen province in 2025

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ABSTRACT

***Objective**: To assess the level of satisfaction and identify factors influencing the satisfaction of inpatients at Hung Ha General Hospital, Hung Yen Province, in 2025. **Research Subjects and Methods**: A cross-sectional descriptive study was conducted on 410 inpatients across four clinical departments from February to May 2025. A questionnaire, developed based on the guidelines of Decision 56/2024/QD-BYT, was used for data collection. Data were analyzed using descriptive statistics, logistic regression, and Spearman's rho correlation. **Results**: The overall satisfaction rate was 93.4%, with an average score of 4.41/5. Of the respondents, 51.9% reported complete satisfaction. Factors found to be statistically significant in relation to satisfaction include: education level, department of treatment, and perceptions of treatment costs ($p < 0.05$). **Conclusion**: Hospitals should emphasize strengthening the medical staff's attitudes and professional competencies, while simultaneously prioritizing improvements in infrastructure, reducing waiting times, and enhancing support services to further increase patient satisfaction.*

***Keywords**: Satisfaction, inpatients, Hung Ha General Hospital.*

INTRODUCTION

Patient satisfaction is a critical factor in objectively assessing the quality of medical services. It also helps medical facilities identify areas of dissatisfaction among service users, providing a foundation for developing and implementing strategies to continually improve the quality of medical services [1]. This is essential for ensuring the protection, care, and health improvement rights of all individuals. In Vietnam, with the motto "Patient-Centered Care" driving the health sector, improving patient satisfaction has become a top priority and is increasingly regarded as a key objective for hospitals. On November 18, 2016, the Ministry of Health issued Decision No. 6858/QD-BYT, which set out the second version of hospital quality assessment criteria [2]. To standardize and unify the assessment of patient satisfaction, the Ministry of Health has implemented a system for measuring satisfaction, which is now applied to all hospitals nationwide. The goal is for public health service satisfaction to reach at least 85% by 2025, and at least 90% by 2030 [1].

Numerous studies globally have examined patient satisfaction and the factors that influence it. The findings indicate that in developed countries, satisfaction

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rates are typically high (> 90%), while in developing countries, the satisfaction rate tends to be lower (< 50%) [3, 4]. The aspects most commonly associated with lower satisfaction include waiting times, service fees, and the attitudes of medical staff[5,6]. In Vietnam, several studies have been conducted to assess patient satisfaction across various medical facilities, ranging from central to local levels, as well as public and private institutions, using criteria set by the Ministry of Health. Results from these studies indicate that satisfaction levels range from 71.1% to 95.3%, with various factors identified as influencing patient satisfaction[7-11].

Hung Ha General Hospital in Hung Yen Province is a non-public Grade 3 general hospital with over 20 years of establishment and development. In line with broader trends in the healthcare sector, the hospital has been striving to gradually enhance the quality of medical examination and treatment services. Alongside improving facilities, refining medical examination and treatment processes, and focusing on professional development, the hospital places significant emphasis on gathering and analyzing patient feedback as a key priority. Although the hospital has conducted patient satisfaction surveys in accordance with the Ministry of Health's standardized criteria, these surveys have mainly focused on collecting quantitative data, without exploring the relationship between patient satisfaction and specific characteristics. Given this context, this study aims to assess the current situation and identify factors affecting inpatient satisfaction at Hung Ha General Hospital in 2025. The study has two main objectives: *(1) To describe the level of satisfaction of inpatients, and (2) To identify the factors influencing inpatient satisfaction at Hung Ha General Hospital, Hung Yen Province in 2025*.

SUBJECTS AND METHODS

Research subjects: Inpatients receiving treatment in four clinical departments at Hung Ha General Hospital, Hung Yen Province.

Inclusion criteria: Patients aged 18 years or older, scheduled for discharge within the next 24 hours, who are able to communicate, respond to interview questions, and have consented to participate in the study.

Exclusion criteria: patients have a health condition that requires a medical evaluation at the time of the interview.

Research time and setting: The study was conducted from December 2024 to July 2025, with data collection taking place from February 25, 2025, to May 31, 2025.

Research design: A cross-sectional descriptive research design was employed.

Sample size: The sample size was determined using the formula for estimating a proportion in a cross-sectional study, based on the World Health Organization's (WHO) sample size calculator.

$$n = Z^2_{(1-\alpha/2)} \frac{p(1-p)}{d^2}$$

In there:

n: ninimum number of patients for the study.

$Z_{1-\alpha/2}$ = 1.96 is the confidence level at 95%.

p: To obtain a representative sample size, minimize statistical errors, and enhance the reliability of the research, I selected p = 0.5 [12, 13].

d = 5% is the desired error range between the sample and the population, which is the acceptable relative error level specified by the researcher.

The calculated sample size is n = 385. Thus, the minimum sample size needed for the study is 385 patients. In fact, 410 patients participated in the study.

Sampling method: Random sampling divided into 2 stages:

(1) Selection of research subjects in clinical departments is proportional to the size of hospital beds and the number of inpatients in the department, meaning that the department with more inpatients will have more patients selected to participate in the study.

(2) Conduct patient interviews on the morning of the day the patient completes discharge procedures. Based on the criteria, select all patients discharged daily in each department until the required number is met.

Data collection: Using a pre-designed quantitative questionnaire consisting of 2 parts:

(1) General information of the study subjects and (2) Satisfaction questionnaire according to the Form "Inpatient Opinion Survey Form" issued with Decision No. 56 /2024/QD-BYT including 5 groups of indexes with 36 questions [1]. Patient satisfaction was assessed on a 5-point Likert scale: from 1 (very dissatisfied) to 5 (very satisfied), and 0 (not used).

Determine the genaral satisfaction index (%): By the total number of responses at the level of satisfaction and the level of great satisfaction divided by the total number of respondents (excluding those who did not use the service) multiplied by 100.

Determine the total satisfaction index (%): By dividing the total number of patients with all satisfied and very satisfied answers by the total number of respondents (excluding those who did not use the service) multiplied by 100.

Satisfaction level classification of patients according to general satisfaction index [1]:

Satisfaction level classification	Genaral satisfaction index (%)
Satisfied	≥ 85
Not satisfied	< 85

Data analysis*:* Data were cleaned, entered twice independently and processed using SPSS 22.0 software. Descriptive statistics (frequency, percentage, mean ± SD) were used to present sample characteristics and satisfaction levels. The correlation between component indicators and genaral satisfaction was tested using Spearman's rho ($p < 0.05$). Univariate and multivariate logistic regression analysis was performed to determine factors related to satisfaction levels. Variables with $p < 0.2$ in univariate analysis were included in the multivariate model [14].

Research ethics: The study was approved by the Ethics Council of Nam Dinh University of Nursing (Certificate No. 581/2025/GCN-HDDD dated March 5, 2025). All patients were clearly explained the objectives and methods of the study and signed a commitment to participate voluntarily, while ensuring confidentiality and the right to withdraw at any time without affecting their rights to medical examination and treatment.

RESULTS

Among the 410 patients who participated in the study, the gender distribution was nearly equal. The average age of the patients was 56.33 ± 16.21 years, with the youngest being 18 years old and the oldest 88 years old. The majority of patients were middle-aged or elderly (≥ 40 years old), accounting for 81.7%. Most patients were from Hung Yen province (74.9%). Additionally, the majority had a high school education or lower (79.8%), and the largest occupational group was self-employed, representing 45.6% of the participants.

Table 1. Characteristics of patients (n = 410)

	Characteristic	Frequency	Percentage
Number of days treatment	< 7 days	198	48.3
	≥ 7 days	212	51.7
	Mean ± SD; [Min – Max]	7.68 ± 3.65; [3-29]	
Use health insurance card	Yes	392	95.6
	No	18	4.4
Place of registration Initial medical care	Hung Ha General Hospital, Hung Yen Province	61	14.9
	Other medical facilities	331	80.7
	Do not use health insurance card	18	4.4
Time of inpatient stays	1 time	230	56.1
	≥ 2 times	180	43.9
Treatment department	Department of Internal Medicine	134	32.7
	Department of Obstetrics and Gynecology	152	37.1
	Department of Interdisciplinary	45	11.0
	Department of Traditional Medicine - Rehabilitation	79	19.2

The proportion of patients with a treatment duration of 7 days or more was 51.7%. A total of 95.6% of patients utilized health insurance during treatment; however, most of the health insurance cards were registered at medical facilities other than Hung Ha General Hospital, Hung Yen Province. Additionally, 56.1% of patients in the study were using inpatient treatment services for the first time.

Table 2. Patient satisfaction according to criteria

TT	Criteria	Genaral satisfaction (%)	Total satisfaction (%)	Point satisfied X ± SD
A	Accessibility (n = 410)	95.6	82.2	4.51 ± 0.46
B	Transparency of Information and Medical Examination and Treatment Procedures (n = 410)	96.1	84.6	4.48 ± 0.46
C	Infrastructure and Equipment for Patient Service (n = 379)	86.0	57.3	4.20 ± 0.48
D	Attitude, Behavior, and Professional Competence of Healthcare Staff (n = 410)	98.5	92.4	4.59 ± 0.43
E	Service Delivery Outcomes (n = 410)	95.6	84.4	4.39 ± 0.47
Satisfied with medical examination and treatment services (n = 379)		**93.4**	**51.9**	**4.41 ± 0.41**

The genaral satisfaction rate for the criteria ranged from 86.0% to 98.5% and the average score ranged from 4.20 to 4.59. The total satisfaction rate for these criteria ranged from 57.3% to 92.4%. Overall, the genaral satisfaction with the medical examination and treatment service reached 93.4%, total satisfaction was at 51.9%, with an average score of 4.41 ± 0.41.

Table 3. Demographic factors associated with inpatient satisfaction (Univariate analysis)

Factors	Satisfied		OR (CI 95%)	p
	No (frequency, %)	Yes (frequency, %)		
Gender				
Female	32 (17.6)	150 (82.4)	0.943 (0.55 – 1.60)	0.830
Age				
< 40 years old	10 (15.2)	56 (84.8)	1	
40 – 60 years old	31 (21.5)	113 (78.5)	0.651 (0.29 – 1.42)	0.282
> 60 years old	24 (14.2)	145 (85.8)	1,079 (0.48 – 2.40)	0.852

Factors	Satisfied		OR (CI 95%)	p
	No (frequency, %)	Yes (frequency, %)		
Place of residence				
Other provinces	16 (16.5)	81 (83.5)	1,065 (0.57 – 1.97)	0.843
Educational level				
> high school	20 (28.2)	51 (71.8)	0.436 (0.23 – 0.80)	0.007
Occupation				
Student	1 (12.5)	7 (87.5)	1	
Worker	4 (8.3)	44 (91.7)	1,571 (0.15 – 16.18)	0.704
Freelance worker	32 (18.4)	142 (81.6)	0.634 (0.07 – 5.33)	0.675
Civil servant and public employee	8 (36.4)	14 (63.6)	0.250 (0.26 – 2.41)	0.231
Retired	20 (15.7)	107 (84.3)	0.764 (0.08 – 6.55)	0.806

Only educational level showed a statistically significant association with patient satisfaction. Patients with higher education were 0.436 times less likely to be satisfied than those with high school education or less ($p < 0.05$).

Table 4. Inpatient characteristics factors associated with patient satisfaction (Univariate analysis)

Factors	Satisfied		OR (95% CI)	p
	No (frequency, %)	Yes (frequency, %)		
Number of days in hospital				
≥ 7 days	34 (17.2)	164 (82.8)	0.997 (0.58 - 1.70)	0.991
Using health insurance card				
Have	62 (17.1)	300 (82.9)	1,037 (0.28 - 3.71)	0.956

Factors	Satisfied		OR (95% CI)	p
	No (frequency, %)	Yes (frequency, %)		
Place of initial medical examination and treatment registration				
Do not use health insurance card	3 (17.6)	14 (82.4)	1	
Hung Ha General Hospital	11 (19.3)	46 (80.7)	0.896 (0.21 - 3.67)	0.879
Other medical facilities	51 (17.2)	314 (82.8)	1,067 (0.29-3.84)	0.921
Inpatient treatment at Hung Ha General Hospital, Hung Yen province				
≥ 2 times	24 (14.3)	144 (85.7)	1,447 (0.83 - 2.50)	0.188
Treatment department				
Department of Internal Medicine	11 (8.6)	117 (91.4)	1	
Department of Obstetrics and Gynecology	35 (24.0)	111 (76.0)	0.298 (0.14 - 0.61)	0.001
Department of interdisciplinary	5 (15.2)	28 (84.8)	0.526 (0.16 - 1.63)	0.268
Department of Traditional Medicine and Rehabilitation	14 (19.4)	58 (80.6)	0.389 (0.16 - 0.91)	0.030
Perception of the amount of payment compared to the quality of medical services				
More expensive	19 (46.3)	22 (53.7)	1	
Proportionate	45 (13.8)	281 (86.2)	5,396 (2.70 - 10.75)	0.000
No self-payment	1 (8.3)	11 (91.7)	9,500 (1:12 - 80:51)	0.039

In the treatment department, the perceived cost of payment factor compared to the quality of service showed a statistically significant relationship ($p < 0.05$). Other factors such as the number of days in hospital, use of health insurance card, place of initial medical examination and treatment registration, and number of inpatient treatments did not have a statistically significant relationship with satisfaction ($p > 0.05$).

Table 5. Factors related to patient satisfaction (Multivariate analysis)

Factors	B	SE	OR (95% CI)	p
Educational level				
≤ high school			1	
> high school	-0.858	0.339	0.424 (0.21 - 0.82)	0.011
Inpatient treatment at Hung Ha General Hospital, Hung Yen province				
First time			1	
≥ 2 times	0.358	0.313	1,430 (0.77 - 2.64)	0.254
Treatment department				
Department of Internal Medicine			1	
Department of Obstetrics and Gynecology	-1,335	0.395	0.263 (0.12 - 0.57)	0.001
Department of interdisciplinary	-0.816	0.614	0.442 (0.13 - 1.47)	0.183
Department of Traditional Medicine and Rehabilitation	-1,014	0.461	0.363 (0.14 - 0.89)	0.028
Cost of treatment (Perception of the amount paid compared to the quality of medical services) (E7)				
More expensive			1	
Proportionate	1,786	0.379	5,964 (2:83 - 12:53)	0.000
No self-payment	2,439	1,140	11,459 (1:22 - 106:96)	0.032

Patients with higher education levels were less satisfied than those with a high school education or lower (OR = 0.424; 95% CI: 0.218–0.824). Compared to the Department of Internal Medicine, satisfaction levels in the Department of Obstetrics and Gynecology and the Department of Traditional Medicine - Rehabilitation were significantly lower (OR = 0.263; 95% CI: 0.121–0.571; p = 0.001 and OR = 0.363; 95% CI: 0.147–0.895; p = 0.028). The most influential factor was the perception of treatment costs: patients who considered the cost to be "commensurate with the quality" were 5.96 times more likely to be satisfied than those who perceived it as "more expensive" (OR = 5.964; 95% CI: 2.838–12.533; p < 0.001).

DISCUSSION

Satisfaction of inpatients at Hung Ha General Hospital, Hung Yen Province: The general satisfaction rate of inpatients at Hung Ha General Hospital, Hung Yen Province, was high, reaching 93.4%. Among these, 51.9% of patients reported being completely satisfied, and 41.5% were satisfied with the services provided by the hospital. This indicates that the hospital's services largely met the expectations of its inpatients. The satisfaction rate at Hung Ha General Hospital is notably higher than that observed in a study by Luong Thi Nhu at Phu Cu District Medical Center, which reported a satisfaction rate of 74% [8]. However, when compared to other private hospitals, the satisfaction rate at Hung Ha General Hospital is still relatively lower. For example, a study at Tam Anh General Hospital recorded a satisfaction rate of 98.7% [10], and at Hoang Tuan General Hospital (2024), the satisfaction rate was 95.3% [9]. In contrast, Hoan My Da Lat Hospital recorded an overall satisfaction rate of 71.1% [7]. The difference in satisfaction rates can be attributed to several factors. Hung Ha General Hospital, although a private facility, is located in the center of Hung Yen City, which allows easy access to high-quality human resources and attracts patients with higher expectations and payment abilities compared to those seeking care at district-level medical centers in the same province. On the other hand, hospitals such as Tam Anh, Hoang Tuan, and Hoan My are large-scale private hospitals with a high-end service model, modern operations, heavy investments in facilities, staff communication, supporting services, and personalized experiences. Meanwhile, although Hung Ha General Hospital is a private facility, it operates on a smaller scale with more modest investments and has not yet fully developed a specialized service culture.

Factors related patient satisfaction based on inpatient characteristics: The results of the multivariate regression analysis indicated that patients with higher education levels had a lower satisfaction rate (42.4%) compared to those with a high school education or lower (OR = 0.424; 95% CI = 0.218–0.824; p = 0.011). Similar findings were reported in large-scale cross-sectional studies by Thuy Nguyen (2020) [6] and Nguyen Thi Bich Thuy (2024) [7] at Hoan My Da Lat Hospital. These differences suggest that patients with higher education levels tend to have higher expectations for service, information clarity, and the professionalism of healthcare staff. Additionally, higher education enables patients to more easily identify errors, unclear information, or unreasonable procedures.

In the multivariate regression model, the satisfaction level by treatment department was ranked as follows: Internal Medicine, Traditional Medicine - Rehabilitation, Obstetrics ($p < 0.05$), and Interdisciplinary ($p > 0.05$). The difference in satisfaction levels between departments can be attributed to three main factors: staff communication, work processes, disease characteristics, and patient expectations.

Patients who perceived the cost to be "commensurate with the quality" were 5.96 times more likely to be satisfied than those who felt the cost was "more expensive than the quality" (OR = 5.964; 95% CI = 2.838–12.533; $p < 0.001$). Similarly, Thuy Nguyen (2020) study noted that patients who paid additional fees tended to be less satisfied with the cost of treatment, with an 11% lower satisfaction rate ($p < 0.05$)[6]. Although

95.6% of patients at Hung Ha General Hospital were covered by health insurance, 80.7% of the health insurance cards were registered at other medical facilities. When the health insurance card is not registered at Hung Ha General Hospital initially, patients are required to pay for services outside the scope of insurance in addition to the coverage provided by their health insurance.

Apart from these three factors, the study did not identify any other statistically significant relationships with patient satisfaction. This indicates that patient satisfaction is not significantly influenced by difficult-to-change personal characteristics such as age, gender, place of residence, occupation, type of service, length of stay, or number of visits for treatment. From these findings, it can be concluded that to improve patient satisfaction, efforts should focus on factors related to the medical facility itself.

Strengths and limitations of the study: The study has several notable strengths: (i) It is highly relevant and practical, closely aligned with the Ministry of Health's focus on improving service quality and prioritizing patient-centered care; (ii) The sample size exceeds the minimum required, and the stratified random sampling method enhances representativeness and reduces sampling bias; (iii) The data collection questionnaire is based on the Ministry of Health's standardized form, incorporating a 5-point Likert scale, ensuring reliability and comparability; (iv) The data collection, entry, and analysis process (using SPSS, logistic regression analysis, and Spearman's rho correlation) was rigorously implemented, enhancing the scientific value of the study.

However, the study also has some limitations: (i) The cross-sectional descriptive design allows for the identification of associations but does not establish cause-and-effect relationships; (ii) The study was conducted at a single hospital, so the findings may not be generalizable to other facilities; (iii) Patient satisfaction was assessed primarily based on self-reports, which may be influenced by social desirability bias; (iv) The study did not conduct in-depth analyses of environmental or organizational factors (such as work processes or medical staff workload) that may indirectly affect satisfaction.

CONCLUSION

Inpatients at Hung Ha General Hospital have a high level of satisfaction (93.4%), particularly with the attitude and professional competence of the medical staff. However, the total satisfaction level remains relatively low (51.9%), indicating that improvements are still needed in areas such as facilities, support services, and waiting times. The factors significantly influencing satisfaction include education level, treatment department, and cost perception.

RECOMMENDATIONS

Based on the research findings, we offer the following recommendations: (i) Invest in and upgrade facilities and amenities in patient rooms to enhance the overall treatment experience; (ii) Reduce waiting times by improving processes and applying technology in medical examination and treatment management; (iii) Develop additional support services, such as nutrition counseling, rehabilitation, and psychological support, to meet the comprehensive needs of patients; (iv) Provide continuous training for medical staff to maintain and improve their service attitude and professional capacity.

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