

THE SATISFACTION OF INPATIENTS WITH THE USE OF MEDICAL SERVICES AT TAM DAO DISTRICT MEDICAL CENTER, VINH PHUC PROVINCE, IN 2024

Nguyen Van Vinh^{1*}, Nguyen Thi Thuong², Nguyen Chi Nam²,
Vu Thu Giang³, Hoang Thi Minh Thu², Nguyen Thi Hai Huong²

¹Tam Dao District Health Center, Vinh Phuc Province -

Nuc Ha Village, Ho Son Commune, Tam Dao Dist, Vinh Phuc Province, Vietnam

²Hanoi Medical University - 1 Ton That Tung, Kim Lien Ward, Dong Da Dist, Hanoi City, Vietnam

³Vinh Phuc General Hospital - 1 Ton That Tung, Lien Bao Ward, Vinh Yen City, Vinh Phuc Province, Vietnam

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ABSTRACT

Objectives: Assessment of inpatients' satisfaction with medical services in clinical departments at Tam Dao District Medical Center in 2024.

Method: Cross-sectional descriptive study.

Results: The study, conducted on 218 participants at Tam Dao Medical Center, revealed an average age of 55.27 ± 15.72 years. Most participants lived in rural areas and used health insurance. The overall patient satisfaction rate with Tam Dao Medical Center was 89.4%. The highest satisfaction was related to the attitude and professionalism of medical staff (98.6%), while the lowest was for service outcomes (79.8%), with cost appropriateness rated the lowest (23.9%).

Conclusion: The overall patient satisfaction rate with Tam Dao Medical Center was high (89.4%). This result serves as an important foundation for implementing further measures to improve service quality particularly in infrastructure, health communication, and treatment effectiveness with the aim of achieving comprehensive patient satisfaction and providing dedicated care for the community.

Keywords: Patient satisfaction, inpatient treatment, medical center.

1. INTRODUCTION

Patient satisfaction is one of the key indicators used to assess how well healthcare facilities meet the needs and expectations of their patients [1]. Service quality is a decisive factor in the survival and development of hospitals. Patient satisfaction not only reflects the quality of care provided but also contributes to the reputation of the healthcare sector. Therefore, periodic assessment of patient satisfaction is essential to continuously improve service effectiveness and better meet public healthcare needs [2].

In Vietnam, several studies have examined public satisfaction with healthcare services, such as the study conducted by Luong Thi Nhu at Phu Cu District Health Center, Hung Yen Province, in 2021, which reported a satisfaction rate of 74% [3], and

the study by Bui Tuan Khoa and colleagues at the 108 Military Central Hospital in 2017, which reported a satisfaction rate of 91.1% [4].

Tam Dao District in Vinh Phuc Province has unique natural and demographic characteristics, with the majority of residents being Sán Dìu ethnic minorities engaged primarily in agriculture, and a small portion involved in tourism. To date, there has been no field study conducted on patient satisfaction at Tam Dao Health Center.

With the patient-centered care approach, the Health Center aims to improve overall patient satisfaction. In order to design effective interventions and enhance service quality to better meet patient needs and reinforce the hospital's brand identity, we conducted this study

*Corresponding author

Email: nguyenvinh15102002@gmail.com Phone: (+84) 888200208 <https://doi.org/10.52163/yhc.v66ienglish.2869>

titled: "Inpatient Satisfaction with Healthcare Services at Tam Dao District Health Center, Vinh Phuc Province, in 2024."

Objective: To assess inpatient satisfaction with healthcare services at the clinical departments of Tam Dao District Health Center in 2024.

2. RESEARCH METHODS

2.1. Study Subjects

A total of 218 inpatients at Tam Dao District Health Center, Vinh Phuc Province, were interviewed using the standardized patient satisfaction questionnaire issued by the Ministry of Health.

2.2. Study Setting and Duration

The study was conducted at Tam Dao District Health Center during December 2024.

2.3. Study Design

This was a cross-sectional descriptive study.

2.4. Sample Size

The sample size was estimated using the formula for a single proportion as follows:

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

Where:

- + n: Minimum required sample size;
- + Z: Standard normal deviate corresponding to a confidence level of 95%, thus $Z^2_{1-\alpha/2} = 1,96$;
- + d: Relative precision, set at $d = 0.05$;
- + $p = 0,85$ referenced from the study "Assessment of inpatient satisfaction at Ea H'Leo District Health Center, Dak Lak Province" [5]. Substituting the values into the formula above, the calculated sample size is $n = 216$. Taking into account an estimated 5% non-response rate, the final sample size is $n = 218$ participants.

2.5. Sampling Method

Simple random sampling was employed to select participants.

2.6. Study Variables

Patient satisfaction was measured using a standardized questionnaire issued under Decision No. 3869/QĐ-BYT by the Ministry of Health in 2019. The questionnaire consists of 33 criteria divided into 5 factor groups: Accessibility (5 variables); Transparency of information and procedures (7 variables); Facilities and equipment (11 variables);

Attitude and professional competence of medical staff (7 variables); Service delivery outcomes (7 variables).

The 5-level Likert scale was used to assess satisfaction, ranging from 1 point (very dissatisfied) to 5 points (very satisfied). Specifically: very dissatisfied (1 point); dissatisfied (2 points); neutral (3 points); satisfied (4 points); very satisfied (5 points). The level of patient satisfaction was calculated as the percentage of responses scoring 4 points or higher.

In addition, the survey also included general information about patients such as: age, gender, place of residence, length of hospital stay, and the department of current admission.

2.7. Data Collection Method

The official inpatient satisfaction survey form was used, in accordance with Decision No. 3869/QĐ-BYT (2019) by the Ministry of Health.

2.8. Data Processing and Statistical Analysis

- Each variable was assessed using the mean \pm standard deviation (SD) based on the Likert scale
- Satisfaction rate was calculated as the percentage of patients rating 4 or 5 (satisfied or very satisfied).
- The average score of each domain was computed as the mean of all variables in that domain.
- The overall average satisfaction score was the mean of the five domain scores.
- Data were cleaned and entered via Google Forms, then analyzed using STATA version 17.

2.9. Ethical Considerations

Patients and their families were informed about the objectives of the study and assured that all personal information would be kept confidential. The study was conducted only with the voluntary consent of participants and did not interfere with the treatment process.

3. RESULTS

Table 1. General Patient Information

General Information		n	%
Gender	1.Male	88	40.37
	2.Female	130	59.63
Age	Mean \pm SD: 55.27 \pm 15.72	Min: 18	Max: 90
Length of hospital stay (days)	Mean \pm SD: 5.13 \pm 3.19	Min: 1	Max: 11

General Information		n	%
Number of hospital admissions	Mean \pm SD: 3 ± 2.5	Min: 1	Max: 16
Use of health insurance during this admission	1. Yes	218	100
	2. No	0	0
Current residence	1. Urban	14	6.42
	2. Rural	200	91.74
	3. Remote or disadvantaged area	4	1.84
Household living standard	1. Poor	2	0.92
	2. Near-poor	12	5.5
	3. Other	204	93.58

Observation: Among 218 participants, 59.63% were female. The mean age was 55.27 ± 15.72 years. The average hospital stay was 5.13 ± 3.19 days. All patients (100%) used health insurance during their current admission.

Table 2. Inpatient Satisfaction with Accessibility

Content			
No.	Mean \pm SD	Satisfied	%
Signage guiding to departments and notification of consultation times are clear and understandable			
A1	4.12 ± 0.55	201	92,2%
Buildings, stairways, elevators, and wards are numbered and easily located.			
A2	4.17 ± 0.55	205	94,0%
Hospital pathways and corridors are flat, safe, and easy to navigate.			
A3	4.15 ± 0.56	203	93,1%
Waiting times for elevators, paperwork, and consultation are acceptable.			
A4	4.16 ± 0.55	202	92,7%
Patients can easily call for healthcare staff when needed.			
A5	4.17 ± 0.6	202	92,7%
Accessibility	4.16 ± 0.48	203	92,9%

Observation: Satisfaction with accessibility was 92.9%, with an overall mean score of 4.16 ± 0.48 . The highest satisfaction was for numbered and well-guided infrastructure (A2) at 94% (4.17 ± 0.55).

Table 3. Inpatient Satisfaction with Transparency of Information and Procedures

No.	Content	Mean \pm SD	Satisfied	%
B1	Administrative procedures (admission, discharge, internal transfers) are clear, publicized, and convenient.	4.08 ± 0.59	191	87,6%
B2	Medical service prices are clearly posted and explained before high-cost procedures.	4.10 ± 0.60	193	88,5%
B3	Discharge payment process is transparent and convenient.	4.12 ± 0.57	195	89,4%
B4	Inpatient regulations and necessary hospital information were clearly conveyed and complete.	4.16 ± 0.57	202	92,7%
B5	Patients were informed of diagnosis, treatment plan, and expected duration.	4.18 ± 0.61	193	88,5%
B6	Pre-test counseling was clearly and fully provided before specialized procedures.	4.11 ± 0.62	197	90,4%
B7	Information regarding medication use and treatment costs was openly communicated and updated.	4.16 ± 0.58	201	92,2%
	Transparency of information and procedures	4.13 ± 0.5	196	89,9%

Observation: Satisfaction with transparency was 89.9% (4.13 ± 0.50). Items B4 and B7 had the highest ratings at 92.7% and 92.2%, respectively.

Table 4. Inpatients' satisfaction with facilities and support equipment

No.	Content	Mean \pm SD	Satisfied	%
C1	Hospital rooms are spacious, clean, and equipped with suitable temperature control devices such as fans, heaters, or air conditioners.	4.02 \pm 0.87	188	86,2%
C2	Hospital rooms are quiet, ensuring safety, security, order, theft prevention, and peace of mind during hospitalization.	4.02 \pm 0.60	199	91,3%
C3	Beds, sheets, and pillows are provided adequately for each patient, sturdy, and function well.	4.05 \pm 0.82	190	87,2%
C4	Clean and sufficient clothing is provided.	4.17 \pm 0.59	195	89,4%
C5	Toilets and bathrooms are convenient, clean, and function well.	4.13 \pm 0.64	195	89,4%
C6	Hot and cold drinking water is sufficiently provided in the treatment department.	3.95 \pm 0.96	180	82,6%
C7	Patients and caregivers can access wireless internet (Wi-Fi) in the hospital room.	3.68 \pm 1.39	166	76,1%
C8	Curtains, partitions, or separate areas for privacy are available.	3.93 \pm 0.91	175	80,3%
C9	The hospital canteen adequately meets food and basic living needs with acceptable quality.	3.98 \pm 0.74	173	79,4%
C10	The hospital compound environment is green, clean, and beautiful.	4.16 \pm 0.66	200	91,7%
C11	Transportation within the hospital, such as wheelchairs, stretchers, electric carts, is provided sufficiently, promptly, and functions well when needed.	4.17 \pm 0.64	198	90,8%
Facilities and support equipment		4.04 \pm 0.58	187	85,9%

Observation: 85.9% of patients were satisfied with the facilities and support equipment, with an overall mean score of 4.04 \pm 0.58. The highest-rated items were "Sufficient provision of internal hospital transportation such as wheelchairs, stretchers, and electric carts" (4.17 \pm 0.64) and "Clean and sufficient clothing is provided" (4.17 \pm 0.59). The lowest-rated item was "Patients and caregivers can access wireless internet (Wi-Fi) in the hospital room," with a mean score of 3.68 \pm 1.39, and 21 patients (9.63%) answered "No."

Table 5. Inpatients' satisfaction with the attitude and professional competence of healthcare staff

No.	Content	Mean \pm SD	Satisfied	%
D1	Doctors and nurses communicate appropriately, with proper attitude and language.	4.22 \pm 0.54	207	95,0%
D2	Support staff (orderlies, security, accountants...) communicate appropriately, with proper attitude and language.	4.13 \pm 0.62	198	90,8%
D3	Patients are treated with respect, fairness, care, and assistance from medical staff.	4.20 \pm 0.50	208	95,4%
D4	Doctors and nurses collaborate well and handle tasks proficiently and promptly.	4.20 \pm 0.60	202	92,7%
D5	Patients are visited and encouraged by doctors in their treatment rooms.	4.16 \pm 0.56	200	91,7%
D6	Patients are advised on diets, mobility, monitoring, and complication prevention.	4.18 \pm 0.55	204	93,6%
D7	Patients are not solicited for gratuities by healthcare workers.	3.80 \pm 1.35	185	84,9%
Attitude and professional competence of healthcare staff		4.13 \pm 0.49	215	98,6%

Observation: 98.6% of patients expressed satisfaction with the attitude and professional competence of healthcare staff, with a mean score of 4.13 ± 0.49 . The highest-rated item was “Doctors and nurses communicate appropriately, with proper attitude and language” (4.22 ± 0.54). The lowest-rated was “Patients are not solicited for gratuities,” with a mean score of 3.80 ± 1.35 and 21 patients (9.63%) answering “No.”

Table 6. Inpatients’ satisfaction with the outcomes of provided services

No.	Content	Mean \pm SD	Satisfied	%
E1	Waiting time for medical examination and treatment is acceptable.	4.09 ± 0.52	197	90,4%
E2	Medications are dispensed on time, with clear instructions and explanation of side effects.	4.16 ± 0.55	200	91,7%
E3	Patients are reminded of follow-up appointments and given instructions on diet, exercise, and home care before discharge.	4.14 ± 0.61	190	87,2%
E4	Medical equipment and supplies are modern, sufficient, and meet examination/treatment needs.	4.12 ± 0.6	190	87,2%
E5	Treatment outcomes meet patients’ expectations.	4.1 ± 0.64	190	87,2%
E6	Patients rate the overall quality of medical services as trustworthy.	4.18 ± 0.57	199	91,3%
E7	Patients’ opinion on whether the cost is commensurate with the quality of medical services.	3.37 ± 0.71	52	23,9%
Outcomes of provided services		4.02 ± 0.47	174	79,8%

Observation: 79.8% of patients were satisfied with the outcomes of services, with an overall mean score of 4.02 ± 0.47 . The item “Is the cost of service commensurate with the quality?” had the lowest satisfaction rate of 23.9% (mean: 3.37 ± 0.71). The highest-rated items were “Medications are dispensed on time, with full instructions” (91.7%) and “Trust in the quality of medical services” (91.3%).

Table 7. Overall inpatient satisfaction evaluation

Content	Mean \pm SD	Satisfied	%
Accessibility	4.16 ± 0.48	203	92,9%
Transparency of information and procedures	4.13 ± 0.5	196	89,9%
Facilities and equipment	4.04 ± 0.58	187	85,9%
Staff attitude and professional competence	4.13 ± 0.49	215	98,6%
Service outcomes	4.02 ± 0.47	174	79,8%
Overall hospital satisfaction	4.1 ± 0.44	195	89,4%

Observation: The overall patient satisfaction rate with the hospital was 89.4%, with a mean score of 4.1 ± 0.44 . The lowest satisfaction rate was related to service outcomes (79.8%), while the highest was for staff attitude and professional competence (98.6%).

4. DISCUSSION

This study was conducted on 218 participants using the inpatient satisfaction questionnaire issued by the Ministry of Health in 2015 [6]. The findings showed that the average age of hospitalized patients was 55.27 ± 15.72 years, with the majority residing in rural areas (91.74%). Notably, 100% of patients used health insurance upon admission, indicating relatively good healthcare coverage in the locality.

The overall patient satisfaction rate with Tam Dao District Health Center was 89.4%, reflecting a high level of appreciation for the quality of care provided. Compared with previous studies, this result is significantly higher than that reported by Luong Thi Nhu in Hung Yen Province in 2021 (74%) [3], and nearly equivalent to the study conducted by Bui Tuan Khoa and colleagues at the 108 Military Central Hospital in 2017 (91.1%) [4]. These results suggest that Tam Dao District Health Center is steadily asserting its position within the local healthcare system and has made considerable improvements in medical service quality and patient-centered care.

Among the five dimensions of service satisfaction evaluated, "Healthcare staff attitude and professional competence" received the highest satisfaction rate at 98.6%. Specific aspects such as communication, respect, cooperation, and task performance were all highly rated. This result exceeds the findings of Phan Thi Huyen Trang and colleagues in Dak Lak (2023), where satisfaction reached 91.7% [5]. This highlights the Center's commitment to training, enhancing communication skills, and reinforcing professional ethics and patient care responsibilities—an essential factor in building a positive image for district-level healthcare facilities.

Satisfaction with accessibility (92.9%) and transparency of procedures and information (89.9%) was also high, suggesting that administrative and medical services at the Center are user-friendly and efficient. In terms of infrastructure, although the satisfaction rate was relatively good (85.9%), specific aspects such as Wi-Fi availability in patient rooms (76.1%), hospital canteen services (79.4%), and privacy measures (e.g., curtains or partitions, 80.3%) received lower ratings. This indicates that infrastructure investment at the district level still faces limitations.

The lowest satisfaction score among the five dimensions was service outcomes (79.8%). Of particular concern was the criterion "cost of service is reasonable in relation to service quality," with only 23.9% of patients expressing satisfaction. This discrepancy compared to other aspects—and notably to Bui Tuan Khoa's 2017 study reporting a treatment outcome satisfaction rate of 94.5% [4]—may be attributed to the relatively low income levels in rural areas. Although health insurance is widely used, medical costs follow state-regulated pricing,

which can still represent a significant financial burden for many patients. Expectations regarding treatment efficacy versus the perceived cost may remain unmet, especially among those with chronic conditions requiring long-term care.

Nevertheless, continuous improvement in healthcare service quality at Tam Dao District Health Center remains a top priority. These findings demonstrate that while the Center has achieved commendable results in patient care delivery, there is still a need to enhance overall service quality to further improve patient satisfaction.

5. CONCLUSION

The overall inpatient satisfaction rate at Tam Dao District Health Center was 89.4%. Among the five satisfaction domains, the highest-rated was healthcare staff attitude and professional competence (98.6%), while the lowest was service outcomes (79.8%), particularly the perception of cost-effectiveness (23.9%). These results provide a critical foundation for developing targeted strategies to enhance service quality, especially in improving infrastructure, patient communication, and treatment efficacy—ultimately aiming toward comprehensive patient satisfaction and dedicated service to the community.

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