

QUALITY OF INPATIENT SERVICES IN CHAU THANH DISTRICT HEALTH CENTER, LONG AN PROVINCE IN 2023

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ABSTRACT

Introduction: Service quality is a crucial factor influencing patients' decisions to utilize medical services. This study aims to describe the service quality of the inpatient care in the studied hospital.

Methods: We employed a cross-sectional design (mixed-methods approach using quantitative and qualitative surveys) in the three clinical faculties of Chau Thanh District Health Center in 2023. The quantitative survey was done using a self-administered interview with 300 inpatients. A qualitative survey was conducted with 26 informants, comprising two in-depth interviews and four focus group discussions with health providers and inpatients.

Findings: Quality service is assessed at a reasonable level, with an average score of 4.03 points, and a rate of good or better evaluations of 73.8%. All five dimensions have an average service quality of over 3.96 points. The two dimensions with the lowest points were empathy (3.97 points with 76% rating as good or better) and tangible means (3.96 points with 76% rating as good or better). The remaining three dimensions were rated higher, specifically responsiveness (4.09 points, with 78.7% rating as good or better), assurance (4.08 points, with 76% rating as good or better), and reliability (4.06 points, with 79% rating as good or better).

Conclusion: The quality is good, as assessed by the patient. The study results recommend developing a plan to recruit human resources, utilizing an online app for patient counseling and communication, and providing incentives for highly specialized staff.

Keywords: Service quality, inpatient, Chau Thanh District Health Center.

1. INTRODUCTION

Service quality is indeed understood as the discrepancy between what customers expect from a product or service and what they experience after using it [1]. In other words, from the patient's perspective, quality healthcare service means that the care they receive not only meets their stated needs and expectations but also exceeds them [2]. Service quality assessment has been prioritized for implementation over the past 3 decades. This is not a new topic, but it has consistently drawn the attention of policymakers in their quest to find solutions that enhance service quality, thereby

better meeting patient expectations.

In Vietnam, service quality is assessed as weak in various dimensions, including waiting time, administration, and post-examination support. In addition, public health facilities are facing the challenge of maintaining and improving quality, as highly qualified medical staff tend to move to large and private hospitals [3]. There is an imbalance in dimensions of service quality as assessed by patients, similar to that in developing countries, which some studies have mentioned [4-7].

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The Chau Thanh District Health Center (DHC) in Long An Province performs two functions: disease prevention and treatment. It is a grade III hospital with a scale of 100 standard beds and 120 actual beds. The DHC also pays special attention to investing in facilities, equipment, and human resource training to continually improve the quality of treatment services, providing them in the best way possible. However, according to the hospital's 2022 report, many inpatients still complained about degraded facilities, a lack of medicine and equipment, and inappropriate staff attitudes. Therefore, the study was conducted to assess and describe the service quality of inpatient care in the studied hospital at Chau Thanh DHC, Long An Province, in 2023.

2. METHODS

2.1. Method design: Cross-sectional study

2.2. Time and duration: From August to November 2023 at Chau Thanh DHC, Long An province.

2.3. Sample size and sampling method

We calculated the sample size using the following formula for a population proportion with specified absolute precision:

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

In which, we chose $p=0.683$ following the result of positive rate in assessing service quality of the inpatients in the study in Phu Quoc DHC, Kien

Giang province in 2020 [8] and the absolute precision required ($d=0.04$). A total of 300 inpatients from the three departments (General Surgery, Obstetrics, and Internal Medicine) at Chau Thanh DHC were involved in the study.

2.4. Data collection

The questionnaire used the self-administered questionnaire method. The questionnaire was designed based on the SERVPERF scale, which was standardized by author Le Tan Phung and has been used in several studies to evaluate the quality of inpatient treatment services [6, 9].

Scoring

Inpatient service quality is assessed through 22 items in the toolkit, which is built according to the SERVPERF scale, based on five dimensions. Each dimension consists of 4 to 5 items, and each item is assessed using a 5-level Likert scale (ranging from 1 to 5). The overall service quality was evaluated using the average score (average of the scores of the 22 items).

2.5. Data analysis

The data analyses were carried out using SPSS 20.0. Descriptive analyses include percentages and mean values..

2.6. Ethical issues

The study was approved by the Institutional Review Board of the University of Public Health (No. 388/2023/YTCC-HD3 in 2023).

3. RESULTS

3.1. General information about inpatients

Table 1. Socio-demographic information of the inpatients in Chau Thanh DHC

Socio-demographic information	Obstetrics (n=80) n (%)	General Surgery (n=110) n (%)	Internal Medicine (n=110) n (%)	Total (n=300) n (%)
Sex				
Female	80 (100)	48 (43.6)	43 (39.1)	171 (57)
Male	0 (0)	62 (56.4)	67 (60.9)	129 (43)
Age				
< 39 years old	75 (93.8)	42 (38.2)	45 (40.9)	162 (54)
≥ 39 years old	5 (6.2)	68 (61.8)	65 (59.1)	138 (46.0)
	Mean (Standard Deviation)			
	27.3 (6.2)	42.3 (21.2)	41.1 (18.4)	32.2 (15.3)

Socio-demographic information	Obstetrics (n=80) n (%)	General Surgery (n=110) n (%)	Internal Medicine (n=110) n (%)	Total (n=300) n (%)
Education level				
Under high school	42 (52.5)	69 (62.7)	72 (65.5)	183 (61)
High school or higher level	38 (47.5)	41 (37.3)	38 (34.5)	117 (39)
Occupation				
Farmer	42 (52.5)	48 (43.6)	52 (47.3)	142 (47.3)
Having a monthly salary	21 (26.3)	26 (23.6)	27 (24.5)	74 (24.7)
Other (small business, daily workers,...)	17 (21.3)	36 (32.7)	31 (28.2)	84 (28.0)
Income level				
< 7 million VND/Month	61 (76.2)	57 (51.8)	53 (48.2)	171 (57.0)
≥ 7 million VND/Month	19 (23.8)	53 (48.2)	57 (51.8)	129 (43)
	Mean (Standard Deviation)			
	6.6 (3.2)	7.2 (3.5)	6.9 (4.2)	7.0 (3.9)

Table 1 presents general information about the 300 inpatients participating in the study. In terms of sex, males accounted for a lower proportion than females (43% compared to 57%). In terms of age, the age of the inpatients is in the middle-aged group with an average age of 32.5 (SD: 15.3 years), in which the group of employees <39 years old is higher than the group ≥39 years old (54% compared to 46%). By department, the age in the Obstetrics Department is the youngest (27.3 years old), next were inpatients in the Internal Medicine (41.1 years old), and the Surgery Department (42.3 years old).

Regarding education level, inpatients have a low level, with 61% having a degree below high school.

By department, the education level of inpatients in the Internal Medicine department is the weakest, with only 34.5% having a high school degree or higher. In contrast, inpatients in the Obstetrics department have the highest level of education, with 47.5% holding a high school degree or higher.

Corresponding to a low education level, the majority of inpatients work in agriculture or freelance, trading. Only 24.7% work in monthly paid jobs (civil servants, soldiers, workers). The average monthly income of inpatients is 7.0 million VND, with 43% having an income of ≥7 million VND per month.

3.2. Service quality assessment

Table 2. Quality service assessment by five dimensions

Dimension	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Mean ± SD
	n (%)	n (%)	n (%)	n (%)	n (%)	
Reliability	8	14	41	127	110	4.06
	2.7	4.7	13.7	42.3	36.7	(± 0.96)
Responsiveness	6	11	47	123	113	4.09
	2.0	3.7	15.7	41.0	37.7	(± 0.92)
Assurance	7	15	50	104	124	4.08
	2.3	5.0	16.7	34.7	41.3	(± 0.99)
Empathy	5	16	51	152	76	3.97
	1.7	5.3	17.0	50.7	25.3	(± 0.86)
Tangibles	5	16	51	142	86	3.96
	1.7	5.3	17.0	47.3	28.7	(± 0.91)

Table 2 indicates that the quality of service is assessed as good. All five dimensions have an average service quality of over 3.96 points. The two dimensions with the lowest points were empathy (3.97 points with 76% rating as good or better) and tangible means (3.96 points with 76% rating as good or better). The remaining three dimensions were rated higher, specifically responsiveness (4.09 points, with 78.7% rating as good or better), assurance (4.08 points, with 76% rating as good or better), and reliability (4.06 points, with 79% rating as good or better).

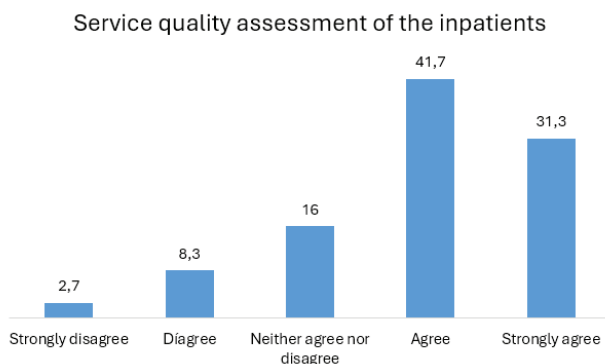


Figure 1. Assessment of service quality using SERVPERF

Figure 1 shows the assessment of inpatient service quality at the health center. The average assessment score is 4.03 points (standard deviation is 0.75), with the rate of inpatients assessing the quality of service at the health center as good or better being 73%. Of which, the excellent level is 31.3%. There are 11% of inpatients who assess the quality as very poor or poor.

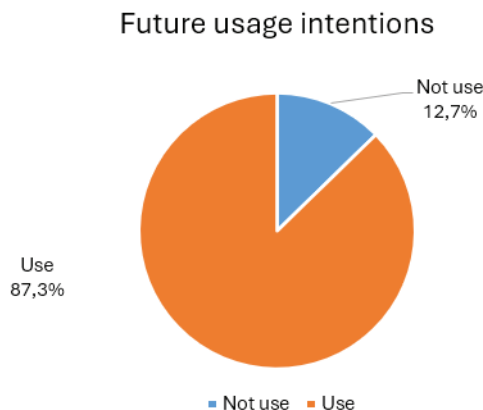


Figure 2. Future usage intentions

Figure 2 shows the rate of continued use of services at Chau Thanh DHC by inpatients at the time of discharge. 87.3% of inpatients said they intended to choose the center for their next visit.

4. DISCUSSION

The average service quality score is 4.03 points out (maximum 5 points). With this average, service quality is classified as "good" (ranging from 3.41 to 4.20). The results in this study are lower than the research results of author Vo Tran Xuan Dao at Binh Dan Hospital (average 4.24 points), author Vu Thi Kim Ly at Tuyen Quang Traditional Medicine Hospital (average 4.2 points), and author Ogunmowo in Nigeria (average 4.2 points) [7, 10, 11].

In terms of percentage, 73% of inpatients rated the inpatient service quality as good or better, with the two dimensions of empathy and tangibles having lower average scores than the other three dimensions. Compared with the results of the patient satisfaction survey conducted annually by the Ministry of Health, the results in this study were lower (satisfied and very satisfied rates of 99%) [12]. When compared with the results of some studies applying the SERVPERF scale to evaluate service quality such as the study by author Le Tan Phung in 2015 at 12 general hospitals in Khanh Hoa province (rate of 89.6%) or in the 108 Central Military Hospital in 2020 (rate of 87.1%), the results in this study are lower [13, 14]. This indicates that Chau Thanh DHC needs to focus more on the so-called "weak" dimensions, such as tangible aspects and empathy, to enhance service quality and create a breakthrough towards greater user satisfaction in inpatient treatment services. This is a suitable development orientation, and this is also demonstrated in the qualitative research section

* Reliability

The reliability dimension refers to the patients' perception of the brand, reputation, and commitment of the health center in providing services. The average score for this dimension is 4.06 points, with 79% of respondents rating it as good or better. This result is lower than some studies on outpatient services of other hospitals in the country, such as the study in Mekong Maternity Hospital (96.1%) [5], in 108 Central Military Hospital (4.17 points) [15] and in Jordan (3.61 points) [16].

* Responsiveness

The responsiveness dimension reflects the timely provision of contact, feedback, and support for the legitimate wishes of inpatients. The average score for this dimension is 4.09 points, with 78.7% of respondents rating it as good or better. This result is equivalent to the results of similar studies [6, 7, 10, 17]. The item with the lowest rate of inpatients rating service quality as 'good' or above in the responsiveness dimension is "Healthcare workers are expected always to help the customers" (3.98 points, with 80% rating as 'good' or above).

* Assurance

The assurance dimension refers to the level of professional competence as well as the communication attitude of medical staff when interacting with inpatients. The average score of this dimension is 4.08 points, with 76% of the ratings being good or better. This demonstrates that the health center has ensured the provision of quality treatment services, as evidenced by the professional competence and communication of the medical staff, thereby helping patients gain trust and peace of mind when interacting with them. For severe cases, patients often lack options for treatment, relying on the recommendations of lower-level medical facilities and being required to seek specialized treatment at top-level hospitals with advanced techniques. However, for diseases that are not too complicated, patients will have more choices. At that time, the two factors that patients are most concerned about are the professional competence and communication attitude of medical staff [18].

* Empathy

The empathy dimension refers to the care and sharing of the health center and medical staff with inpatients through regulations, policies, as well as the caring attitude in communication of medical staff towards inpatients. The average score of this dimension is 3.97 points, with 76% of the ratings being good or better. The results in this study are lower than the results in some studies at higher-level public hospitals, as well as private hospitals, such as the study in Khanh Hoa provincial general hospitals, Binh Dan hospital, Oncology Hospital, and Mekong Maternity Hospital [4, 5, 7, 13].

* Tangibles

Tangible means is a dimension that refers to factors such as facilities, equipment serving treatment, as well as medical staff uniforms. This is one of the two dimensions with the highest rate of inpatient service quality, rated as good or better, at 3.96 points, with 76% of ratings falling within this category. Compared to Grade 3 hospitals, Chau Thanh District Medical Center has a small area and is in a state of decline, making it challenging to meet patient needs. This result is also equivalent to or lower than other studies, such as a study in the Mekong Maternity Hospital (93%) [5], in 108 Central Military Hospital (4.39 points) [15].

5. CONCLUSION

The quality services at Chau Thanh DHC, Long An Province, are implemented for 300

inpatients. Quality service is assessed at a reasonable level, with an average score of 4.03 points and a rate of good or better evaluations of 73.8%. All five dimensions have an average service quality of over 3.96 points. The two dimensions with the lowest points were empathy (3.97 points, with 76% rating as good or better) and tangible means (3.96 points, with 76% rating as good or better). The remaining three dimensions were rated higher, specifically responsiveness (4.09 points, with 78.7% rating as good or better), assurance (4.08 points, with 76% rating as good or better), and reliability (4.06 points, with 79% rating as good or better).

Based on the research results, we recommend developing a plan to recruit human resources, utilizing an online app for patient counseling and communication, and providing incentives for highly specialized staff.

REFERENCES

- [1] Parasuraman, A., V.A. Zeithaml, and L.L. Berry, Servqual: A multiple-item scale for measuring consumer perc. Journal of Retailing, 1988. 64(1): p. 12.
- [2] Manaf, N.H.A., Quality management in Malaysian public health care. International Journal of Health Care Quality Assurance, 2005.
- [3] Ministry of Health, Continuing education materials for hospital quality management. 2018: Medical Publishing House.
- [4] Nguyen Viet Huy, Quality of inpatient treatment services at Department of Internal Medicine 4, Ho Chi Minh City Oncology Hospital. 2020, Hanoi University of Public Health.
- [5] Tran Ha Diem, Service quality of Mekong Maternity Hospital through the perception of outpatients. 2019, Hanoi University of Public Health.
- [6] Tran Thuy Nhung, Quality of inpatient care services at Vinh Long City Medical Center in 2018 and some influencing factors. 2018, Hanoi University of Public Health.
- [7] Vo Tran Xuan Dao, Evaluation of the quality of robotic laparoscopic surgery services at Binh Dan Hospital through customer feedback. 2019, Hanoi University of Public Health.
- [8] Nguyen Dinh Sang, Quality of inpatient care services at Phu Quoc District Medical Center, Kien Giang in 2021 and some influencing factors. 2021, Hanoi University of Public Health.
- [9] Le Tan Phung, Research on assessing the reliability and validity of the patient satisfaction assessment scale in Khanh Hoa. Vietnam Journal of Public Health, 2014. 30.
- [10] Ogunnowo, B.E., T.F. Olufunlayo, and S.S. Sule, Client perception of service quality at the outpatient clinics of a general hospital in

- Lagos, Nigeria. Pan African Medical Journal, 2015. 22(1).
- [11] Vu Thi Kim Ly, Some solutions to improve the quality of medical examination and treatment services at Tuyen Quang Provincial Hospital of Traditional Medicine. 2019, Hanoi University of Science and Technology.
- [12] Ministry of Health, Service quality in 2021. 2021.
- [13] Le Tan Phung, Patient satisfaction survey at 12 public hospitals in Khanh Hoa province in 2015. Vietnam Journal of Public Health, 2015.
- [14] Ta Duc Chung, Evaluation of patient satisfaction with post-operative care services at 108 Central Military Hospital. Journal of Clinical Medicine and Pharmacy 108, 2019. 14(7/2019).
- [15] Le Thi Thu Hai, Ban Nguyen Thi Hang, and Vu Hong Van, Evaluation of the quality of outpatient medical examination and treatment services at 108 Central Military Hospital. Science Journal of Ho Chi Minh City Open University, 2021. 500(1): p. 23-27.
- [16] Al-Damen, R., Health care service quality and its impact on patient satisfaction: the case of Al-Bashir Hospital. 2017.
- [17] Akdere, M., M. Top, and S. Tekingündüz, Examining patient perceptions of service quality in Turkish hospitals: The SERVPERF model. Total quality management & business excellence, 2020. 31(3-4): p. 342-352.
- [18] Dinh Ngoc Thanh, Nursing communication and inpatient satisfaction in internal medicine departments, Thai Nguyen Central General Hospital. 2014..

