



Determinants of Inpatient Satisfaction: The Role of Communication Effectiveness and Patient Safety in a Multilingual Healthcare Environment

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Abstract

Introduction: Patient satisfaction serves as an essential measure of healthcare service quality; nevertheless, communication difficulties and patient safety issues continue to be prevalent in multilingual hospital environments. This study sought to analyze the influence of effective communication and patient safety on patient satisfaction at HoREX Baucau Hospital, Timor-Leste.

Method: A quantitative analytical approach employing a cross-sectional design was applied, involving 109 hospitalized patients selected through accidental sampling from a total population of 150 patients. Data were obtained using structured questionnaires that demonstrated acceptable validity and reliability (Cronbach's Alpha > 0.70) and were analyzed using multiple linear regression techniques.

Result: The results showed that effective communication ($\beta = 0.320$; $p = 0.001$) and patient safety ($\beta = 0.394$; $p < 0.001$) significantly influenced patient satisfaction, with patient safety demonstrating a stronger contribution. The model explained 39.6% of the variance in patient satisfaction ($R^2 = 0.396$). These findings highlight that in multilingual healthcare environments, strengthening patient safety systems and improving communication practices are critical to enhancing patient satisfaction.

Conclusion: Hospitals should prioritize continuous communication training and reinforce a safety culture to improve service quality and patient experience.

Keywords: effective communication, patient safety, patient satisfaction, multilingual hospital, cross-sectional study

Introduction

Patient satisfaction is widely recognized as a key indicator of healthcare quality and organizational performance. Hospitals are increasingly required to deliver safe, patient-centered services while maintaining effective communication between healthcare providers and patients. However, communication failures and patient safety incidents remain persistent challenges in inpatient care, often leading to reduced trust, dissatisfaction, and adverse outcomes. Previous studies have consistently reported that ineffective communication contributes significantly to patient dissatisfaction and safety-related incidents, highlighting the need for integrated strategies that address both aspects simultaneously (World Health Organization, 2019; O'Neill et al., 2021).

Effective communication enables accurate information exchange, shared decision-making, and therapeutic relationships, all of which are essential for safe nursing practice. Communication gaps, unclear information delivery, and language barriers may compromise patient understanding and increase the risk of errors during care transitions (Wang et al., 2022).

In parallel, patient safety systems aim to prevent harm through standardized procedures, risk management, and a culture of safety. When communication is inadequate, patient safety initiatives may fail to achieve their intended outcomes, thereby undermining service quality and patient satisfaction (Lee & Kim, 2020).

Although numerous studies have examined the relationship between communication or patient safety and satisfaction independently, limited evidence is available regarding their combined effect, particularly in hospitals with multilingual and multicultural contexts. HoREX Baucau presents a unique setting where diverse language use and varying clinical practices may influence communication effectiveness and safety implementation. This contextual gap highlights the need for empirical evidence that integrates both variables within a single analytical framework.

Grounded in theories of patient-centered care and healthcare quality, this study assumes that effective communication supports patient safety practices and enhances patients' perceptions of care. Patient satisfaction is influenced not only by clinical outcomes but also by interpersonal interactions, perceived safety, and trust in healthcare providers (Parasuraman et al., 1988; Meikayanti et al., 2021). Understanding these interrelationships is essential for designing targeted interventions that improve service delivery.

Although previous studies have examined communication and patient safety separately, limited research has analyzed their combined influence within multilingual and multicultural healthcare environments. HoREX Baucau operates in a unique linguistic context where Tetum, Portuguese, English, and other local languages are used simultaneously in clinical communication. This diversity may increase the risk of misinterpretation, incomplete information exchange, and variability in patient understanding, potentially affecting both perceived safety and satisfaction. Compared with monolingual settings, multilingual environments introduce additional communication complexity that may influence safety perception and patient trust. Therefore, this study addresses a critical contextual gap by integrating communication and patient safety within a single analytical framework in a multilingual hospital setting.

Research Methodology

This study employed a quantitative analytical design with a cross-sectional approach. The study population consisted of all inpatients receiving care during the data collection period, totalling 150 patients. A sample of 109 respondents was selected using

accidental sampling based on inclusion criteria of being hospitalized and willing to participate. Data were collected using structured questionnaires measuring effective communication, patient safety, and patient satisfaction.

The communication instrument assessed clarity of information, interpersonal interaction, and responsiveness, while the patient safety instrument measured perceived safety practices during care. Patient satisfaction was measured using indicators related to service quality and patient experience. All instruments were tested for validity and reliability prior to data collection. Data were collected through direct distribution of questionnaires and analysed using multiple linear regression to determine the effect of independent variables on patient satisfaction.

Ethical approval was obtained from the institutional ethics committee, and all respondents provided informed consent prior to participation. Confidentiality and anonymity were strictly maintained throughout the research process, and participants were assured of their right to withdraw at any time without consequences.

All instruments underwent validity and reliability testing prior to data collection. The communication scale demonstrated good reliability (Cronbach's Alpha = 0.87), the patient safety scale showed strong reliability (Cronbach's Alpha = 0.89), and the patient satisfaction scale was also reliable (Cronbach's Alpha = 0.91). All item-total correlation values exceeded the minimum threshold ($r > 0.30$), indicating acceptable construct validity.

Accidental sampling was selected due to the limited inpatient population ($N = 150$) and the practical need to recruit available participants during the data collection period. While this approach allowed efficient recruitment and adequate statistical power, it may limit the generalizability of findings because the sample may not fully represent the broader inpatient population. Therefore, the results should be interpreted cautiously, and future studies using probability sampling across multiple hospitals are recommended to enhance external validity.

Result

A total of 109 inpatients participated in this study. The demographic characteristics of respondents are presented in Table 1. Most respondents were aged 21–30 years (33.0%) and predominantly female (63.3%). More than half of the respondents had completed senior high school education (51.4%), were married (73.4%), and worked as housewives (43.1%). The majority of respondents had no prior history of hospitalization at HoREX Baucau (74.3%).

Table 1. The Characteristics of the Respondents

Characteristic	n	Percentage (%)
Age (years)		
11–20	12	11.0
21–30	36	33.0
31–40	20	18.3
41–50	14	12.8
51–60	12	11.0
61–70	8	7.3
71–80	6	5.5
81–90	1	0.9
Gender		
Male	40	36.7

Female	69	63.3
Education level		
No formal education	15	13.8
Elementary school	14	12.8
Junior high school	6	5.5
Senior high school	56	51.4
Diploma	5	4.6
Bachelor	13	11.9
Marital status		
Single	26	23.9
Married	80	73.4
Widow	2	1.8
Widower	1	0.9
Occupation		
Housewife	47	43.1
Student	15	13.7
Farmer	25	22.9
Private employee	14	12.8
Civil servant or police	6	5.5
Previous hospitalization		
Yes	28	25.7
No	81	74.3

The distribution of research variables is presented in Table 2. Nearly half of the respondents perceived communication as less effective (47.7%). Patient safety was mostly perceived at a moderate level (58.7%), while patient satisfaction was predominantly moderate (61.5%).

Table 2. Characteristics of Research Variables

Variable	n	Percentage (%)
Effective communication		
Effective	43	39.5
Less effective	52	47.7
Ineffective	14	12.8
Patient safety		
High	18	16.5
Moderate	64	58.7
Low	27	24.8
Patient satisfaction		
High	33	30.3
Moderate	67	61.5
Low	9	8.2

Bivariate analysis using Spearman correlation showed that effective communication was significantly associated with patient satisfaction (value = 0.540; significance < 0.001). Patient safety also demonstrated a significant positive association with patient satisfaction (value = 0.562; significance < 0.001). Assumption testing confirmed that the data met requirements for

multivariate analysis. Multiple linear regression analysis revealed that both effective communication and patient safety significantly influenced patient satisfaction. Patient safety showed a stronger standardized coefficient than effective communication. The model explained 39.6% of the variance in patient satisfaction.

Table 3. The Effect of Effective Communication and Patient Safety on Patient Satisfaction

Independent Variable	Standardized Beta	Significance
Effective communication	0.320	0.001
Patient safety	0.394	0.000

The simultaneous test demonstrated that effective communication and patient safety collectively had a significant effect on patient

satisfaction, confirming the robustness of the regression model.

Discussion

This study demonstrates that effective communication has a significant influence on patient satisfaction at HoREX Baucau Hospital. Patients reported greater comfort and trust when healthcare providers delivered clear, understandable information and demonstrated empathy during care interactions. Effective communication reduces patient anxiety, improves understanding of medical procedures, and strengthens therapeutic relationships, which ultimately contributes to higher satisfaction levels (Meikayanti et al., 2021; Nurfitriani et al., 2025). From a psychological perspective, communication clarity helps patients feel valued and respected, which enhances emotional security and promotes positive perceptions of healthcare services (Kulinska et al., 2022).

These findings are consistent with previous studies indicating that nurse–patient communication plays a crucial role in shaping patient satisfaction in inpatient settings. Studies in hospital environments have shown that patients who perceive communication as clear, timely, and respectful tend to evaluate healthcare services more positively (Ramadia et al., 2022; Masmumah et al., 2024). Communication extends beyond information transfer and includes emotional support, active listening, and interpersonal engagement, which are central components of patient-centered care and contribute to improved patient experiences (Firdausi, 2022).

From a professional nursing perspective, effective communication enables patients to better understand their health conditions, treatment plans, and expected outcomes. This understanding promotes patient cooperation, adherence to treatment, and shared decision-making, which ultimately improves clinical and experiential outcomes (Tarigan & Ginting, 2019). Continuous communication training for healthcare providers is therefore essential to maintain service quality, enhance therapeutic interactions, and improve patient satisfaction, particularly in inpatient care settings where prolonged interaction occurs (Wandira et al., 2022).

In addition to communication, patient safety was found to exert a strong influence on patient satisfaction. Patients who perceived that safety standards were consistently implemented reported greater confidence, trust, and comfort during hospitalization. This finding supports previous studies that identify patient safety as a core dimension of healthcare quality and a primary determinant of patient satisfaction (Azizah et al., 2023; Oktarina et al., 2024). From a quality-of-care perspective, safety serves as a foundational requirement that shapes patients' overall perception of healthcare reliability and professionalism (World Health Organization, 2019). Earlier research has highlighted that prevention of medical errors, accurate patient identification, medication safety, and infection control significantly enhance patients' perception of care quality. When patients feel protected from harm, they are more likely to trust healthcare providers and report higher satisfaction with hospital services (Juniarti & Mudayana, 2018; Raynaldi et al., 2024). The psychological sense of security plays a central role in shaping patient satisfaction, as safety perception directly influences emotional comfort and trust toward healthcare systems (Kulinska et al., 2022).

The stronger influence of patient safety compared to communication in this study may reflect patients' prioritization of physical security and protection from harm during hospitalization.

In clinical environments where patients depend heavily on healthcare providers, visible safety practices such as safe medication administration, monitoring, and infection prevention become critical determinants of trust and perceived service quality. Safety, as a structural dimension of healthcare quality, may therefore carry greater weight in shaping patient satisfaction compared to communication alone (World Health Organization, 2019; Raynaldi et al., 2024).

The combined influence of effective communication and patient safety on patient satisfaction represents a key contribution of this study. Effective communication facilitates the correct implementation of safety procedures, while strong safety practices reinforce patient trust and satisfaction. Previous studies have demonstrated that teamwork, communication, and safety culture interact synergistically to improve patient outcomes, service quality, and satisfaction levels (Hastuti, 2020; Junita et al., 2021). This synergy indicates that communication and safety should be addressed simultaneously rather than independently in healthcare quality improvement strategies.

The findings of this study are particularly relevant in the context of HoREX Baucau, where multilingual communication and diverse educational backgrounds may influence patient understanding and perception of safety. The use of multiple languages such as Tetum, Portuguese, and English may create variability in message clarity and patient comprehension. Misinterpretation or incomplete communication may cause patients to perceive safety implementation as inconsistent, even when clinical procedures are correctly followed (Wang et al., 2022). This multilingual context represents a unique characteristic of the study setting and highlights the importance of culturally and linguistically adaptive communication strategies.

The implications of these findings suggest that healthcare institutions should prioritize strengthening communication competencies alongside reinforcing patient safety culture. Regular communication and safety training, open and non-punitive communication environments, improved teamwork, and continuous quality improvement initiatives are essential to enhance patient satisfaction and healthcare service quality. Strengthening these aspects can support patient-centered care and improve trust, safety perception, and overall patient experience (O'Neill et al., 2021; World Health Organization, 2019).

Study Limitations

This study has several limitations that should be acknowledged to ensure a balanced interpretation of the findings. First, the cross-sectional design limits the ability to establish causal relationships between effective communication, patient safety, and patient satisfaction. The observed associations reflect conditions at a single point in time and may not capture changes in perceptions over longer periods. Future studies employing longitudinal or experimental designs are recommended to better explore causal pathways.

Second, the use of self-reported questionnaires may introduce response bias, as participants' answers could be influenced by personal perceptions, recall limitations, or social desirability. Although confidentiality was assured, respondents might have provided favorable responses toward healthcare services. Incorporating objective indicators, such as incident reports or observational assessments, may strengthen future research.

Third, this study was conducted in a single hospital setting, which

may limit the generalizability of the results to other healthcare institutions with different organizational cultures, patient characteristics, or resource availability. Expanding the study to multiple hospitals or regions would enhance external validity and provide broader insights into the relationship between communication, patient safety, and satisfaction.

Conclusion

This study concludes that effective communication and patient safety play important roles in determining patient satisfaction among inpatients at HoREX Baucau Hospital. Patient safety emerged as a more influential factor, while effective communication contributed by strengthening patient trust, comfort, and understanding during care. The findings emphasize that communication and safety are interconnected elements that jointly shape patient experiences and perceptions of healthcare quality.

The results highlight the importance of integrating communication skills development with consistent implementation of patient safety practices. Strengthening these aspects may improve service quality, support patient-centered care, and enhance patient satisfaction. Future research is encouraged to explore intervention-based strategies and broader settings to further develop evidence in this area.

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Conflict of Interest

The authors declare that they have no competing interests.

Credit Author Statement

Saturnina Fernandes Belo: Conceptualization, methodology, investigation, data curation, formal analysis, writing—original draft. Ratna Wardani: Supervision, validation, methodology review, writing—review and editing.

Novita Ana A: Supervision, validation, writing—review and editing, project administration.

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