

THE RELATIONSHIP BETWEEN MEDICAL AND NON-MEDICAL STAFF INTERPERSONAL COMMUNICATION SKILLS AND OUTPATIENT PATIENT SATISFACTION AT DR. LEOKMONO HADI KUDUS REGIONAL HOSPITAL

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Abstract

This study is motivated by the importance of interpersonal communication between medical and non-medical staff in improving outpatient satisfaction in hospitals. The study aims to analyze the relationship between interpersonal communication skills of medical and non-medical staff and outpatient satisfaction at Dr. Loekmono Hadi Kudus Regional General Hospital. The study used a quantitative approach with an observational analytical design and a cross-sectional design. The study population was all outpatients at Dr. Loekmono Hadi Kudus Regional General Hospital with an average of 243 patient visits per day, while a sample of 152 respondents was determined using the Slovin formula with a purposive sampling technique. The research instrument used a questionnaire on interpersonal communication and patient satisfaction that had been tested for validity and reliability. Data analysis was carried out univariately and bivariately using the chi-square test. The results showed that 86.2% of respondents rated the staff's interpersonal communication skills as good and 89.5% of respondents were satisfied with outpatient services. Statistical tests showed a significant relationship between interpersonal communication skills and patient satisfaction ($p = 0.001$). The conclusion of this study is that good interpersonal communication contributes to increasing outpatient satisfaction in hospitals.

Keywords: Health Communication, Interpersonal Communication, Outpatient Satisfaction, Patient Satisfaction, Service Quality

INTRODUCTION

Outpatient care is the first and most frequent point of contact for patients within the hospital system, so the quality of interactions at this stage is crucial for patient perceptions of overall service quality. In recent years, global attention to the patient experience has increased as hospitals are no longer judged solely on clinical outcomes but also on communication, responsiveness, and the ability of healthcare professionals to build patient-centered relationships. This aligns with patient experience measurement frameworks that place doctor-nurse communication as a core component of hospital service assessment. Recent studies have also shown that healthcare communication skills are strongly associated with patient satisfaction, particularly when communication is clear, respects patient dignity, and is accompanied by a prompt response to service needs [Gao *et al.*, 2024; Khairiyah, 2023]. Thus, interpersonal communication is not merely a complement to service, but a strategic part of service quality that directly affects patient experience [Abqa *et al.*, 2023].

In the Indonesian context, the issue of interpersonal communication is becoming increasingly relevant because outpatient services often face high patient loads, long waiting times, complex

administrative processes, and demands for fast and accurate information. Empirical studies show that good communication and service dimensions are associated with outpatient satisfaction, while unclear communication, unfriendly attitudes, and low responsiveness tend to lead to patient complaints. [Arda Tama *et al.*, 2023]. Findings at Dr. Loekmono Hadi Kudus Regional General Hospital also show that the hospital has a customer satisfaction measurement mechanism in place, but the available data does not specifically describe the quality of outpatient satisfaction based on the contribution of interpersonal communication between medical and non-medical staff. This condition is important to examine because outpatient care is the primary face of the hospital in the eyes of the public, and the quality of communication at this point of service is very likely to shape patients' assessments of the hospital's overall quality [Kartikasari & Budi, 2023; Septyaningrum *et al.*, 2024].

Conceptually, previous research has confirmed that interpersonal communication of health workers is related to patient satisfaction through increased feelings of appreciation, patient understanding of service actions, and reduced uncertainty during the care process [Dyche, 2007; Hutagaol *et al.*, 2014; Khairiyah, 2023]. Studies assessing health communication show that dimensions such as respect, nonverbal closeness, and problem-solving skills significantly influence patient satisfaction. [[Chen *et al.*, 2025]. Other research on nursing services also confirms that therapeutic communication is related to patient satisfaction, including in the context of Dr. Loekmono Hadi Kudus Regional Hospital, although this study focused more on inpatients and did not specifically examine outpatient services. Furthermore, various outpatient studies at other hospitals indicate that responsiveness, clarity of information, and empathy are the dimensions that most frequently emerge as key determinants of patient satisfaction.

However, similar findings were also found in a study conducted at KRMT Wongsonegoro Regional General Hospital, Semarang, which is a type B teaching hospital in Central Java, showing that patient satisfaction is greatly influenced by various dimensions of service quality, including interactions with medical and non-medical personnel, with responsiveness having the greatest influence (0.322) [Ferreira *et al.*, 2023; Lekay *et al.*, 2025; Susanty *et al.*, 2023]. Although interpersonal communication among healthcare workers has been shown to influence patient satisfaction, comprehensive data on how staff communication quality contributes to outpatient satisfaction at Dr. Loekmono Hadi Hospital, Kudus, is not yet available. The trend in the Community Satisfaction Index (IKM) at Dr. Loekmono Hadi Hospital in 2025 showed a decline. In the first quarter, the IKM value was recorded at 95.33%, then decreased to 94.97% in the second quarter, and again decreased to 92.70% in the third quarter. However, these data do not specifically describe the level of outpatient satisfaction. Therefore, this study was conducted to examine the relationship between staff interpersonal communication and patient satisfaction at Dr. Loekmono Hadi Hospital, Kudus [Hasibuan *et al.*, 2022; Subhaktiyasa, nd].

Based on this gap, this study explicitly aims to analyze the relationship between the interpersonal communication skills of medical and non-medical staff and the level of outpatient satisfaction at Dr. Loekmono Hadi Kudus Regional Hospital. The urgency of this study lies in the hospital's need to obtain more specific empirical evidence to improve the quality of service interactions, especially in the outpatient unit, which serves as the first point of patient access and is also an important indicator of hospital quality [Wardani *et al.*, 2020; Wati & Meilita, 2025]. The novelty of this research lies in its focus on integrating the roles of medical and non-medical staff within a single analytical framework of outpatient satisfaction in the context of a regional hospital in Kudus, thus not only broadening the theoretical understanding of interpersonal communication in healthcare, but also providing a practical basis for developing

communication training, standardizing services, and strengthening a more empathetic, responsive, and patient-oriented service culture [Arda Tama *et al.*, 2023; WHO, 2025].

METHOD

This study employed a quantitative approach with an observational analytical design and a cross-sectional design. The quantitative approach was chosen because the study aimed to objectively examine the relationship between variables through statistically analyzed numerical data. The cross-sectional design allows for the measurement of independent and dependent variables at a single point in time, making it suitable for identifying the relationship between the interpersonal communication skills of medical and non-medical staff and outpatient satisfaction. Methodologically, this design is effective when researchers want to obtain a picture of the relationship in an actual situation without conducting long-term follow-up, and conceptually, it aligns with the tradition of quantitative research that emphasizes structured measurement, hypothesis testing, and inferential statistical analysis.

The study was conducted at the outpatient unit of Dr. Loekmono Hadi Kudus Regional Hospital because this unit is the primary service point with the most direct contact with patients and is therefore relevant to assess the relationship between communication quality and patient satisfaction. The research procedure began with the preparation of a proposal, literature review, and ethical approval or institutional permission, followed by field data collection from outpatients who met the inclusion criteria. The data collection process was carried out directly after respondents completed the service, with the researcher providing an explanation of the study, requesting written consent, and ensuring the confidentiality and comfort of respondents while filling out the instruments. These stages were then followed by data processing, statistical analysis, report preparation, and writing a scientific manuscript for publication according to the target output.

The population in this study were all outpatients of Dr. Loekmono Hadi Kudus Regional General Hospital, which during the observation period averaged 243 patients per day based on visit data from May to July 2025. The sample is part of the population selected to represent the characteristics of the population, and in this study the determination of the number of samples used the Slovin formula with a margin of error of 5 percent so that 152 respondents were obtained. This technique is commonly used in applied quantitative research when researchers need to determine an adequate sample size for analysis of relationships between variables. Inclusion criteria include outpatients who have received services, are at least 18 years old, are able to communicate in Indonesian, and are willing to be respondents, while exclusion criteria include inpatients, emergency patients, patients who are uncooperative, unable to communicate, or refuse to participate.

The instruments used in this study were structured questionnaires modified from previous studies, namely the interpersonal communication questionnaire from Novitasari modified by Tama *et al.* with item validity values of 0.456 to 0.977 and Cronbach's alpha of 0.968, and the patient satisfaction questionnaire from Mutiasari modified by Tama *et al.* with validity values of 0.316 to 0.546 and Cronbach's alpha of 0.682. The use of standard instruments that have been tested for validity and reliability is important to ensure that the collected data truly measure the constructs studied, namely interpersonal communication skills and patient satisfaction. The measurement scale used a 4-point Likert, with the categorization of results for interpersonal communication into good and less, while patient satisfaction was classified into satisfied and dissatisfied, so that the data could be analyzed ordinally and processed in appropriate relationship tests.

The research data was collected using primary data through the distribution of questionnaires to respondents who met the inclusion criteria in outpatient settings. This technique was chosen because it efficiently obtained data from a large number of respondents in a relatively short time, while also allowing researchers to obtain direct information about patients' experiences with staff communication and satisfaction with the services they received. To increase the completeness of responses, researchers provided a brief explanation of the study's purpose, how to complete the instrument, and provided a consent form before completing the questionnaire. If necessary, respondents could also complete the questionnaire online via Google Forms for greater flexibility, as long as respondent identification procedures, data confidentiality, and voluntary participation were maintained.

Data analysis was conducted through editing, coding, scoring, and tabulating stages before entering statistical analysis. Univariate analysis was used to describe the characteristics of respondents and the distribution of each variable, while bivariate analysis was conducted to examine the relationship between the interpersonal communication skills of medical and non-medical staff and outpatient satisfaction. The statistical test used was chi-square because the research variables were categorized in ordinal form which were then grouped into categories of good or poor, and satisfied or dissatisfied, making it suitable for examining the relationship between categorical variables. This approach is in line with the tradition of quantitative research that emphasizes systematic data processing so that the analysis results can be used to answer the problem formulation and test the research hypothesis.

This research was conducted in accordance with the ethical principles of research, namely informed consent, confidentiality, anonymity, non-maleficence, and justice. All respondents were provided with adequate information regarding the research objectives and procedures and participated voluntarily without coercion. Personal identities were kept confidential, and data were used solely for scientific purposes. Furthermore, this research prioritized the safety, comfort, and protection of respondents' rights, ensuring that the research did not pose any physical or psychological risks. These principles are essential for maintaining scientific integrity and ensuring that data collection adheres to ethical standards in health research.

RESULTS AND DISCUSSION

Outpatient Characteristics Results at Dr. Leokmono Hadi Kudus Regional Hospital

Table 1 Frequency Distribution and Percentage of Outpatient Statistics at Dr. Leokmono Hadi Kudus Regional Hospital 2026

characteristics	frequency	percentage
Gender		
Man	64	42.1
Woman	88	57.9
Total	152	100.0
Age		
17-25 (late teens)	14	9.2
26-35 (early adulthood)	37	24.3
36-45 (late adulthood)	45	29.6
46-55 (early elderly)	29	19.1
56-65 (late elderly)	20	13.2
66 and above (senior citizens)	7	4.6
Total	152	100.0
Education		
S1	40	26.3
D3	3	2.0
SENIOR HIGH SCHOOL	89	58.6

JUNIOR HIGH SCHOOL	20	13.2
Total	152	100.0
Work		
Teacher	14	9.2
housewife	30	19.7
self-employed	56	36.8
Student	4	2.6
Nurse	3	2.0
civil servant	10	6.6
Etc	35	23.0
Total	152	100.0

Based on Table 1, respondents of outpatients at Dr. Loekmono Hadi Kudus Regional Hospital in 2026 were dominated by women, 88 people (57.9%), aged 36–45 years, 45 people (29.6%), with a high school education of 89 people (58.6%), and working as self-employed, 56 people (36.8%).

Univariate Analysis

Table 2 Frequency Distribution and Percentage of Interpersonal Communication Skills of Medical and Non-Medical Staff at Dr. Leokmono Hadi Kudus Regional Hospital 2026

Indicator	Frequency (f)	Percentage (%)
Good	131	86.2
Not enough	21	13.8
Total	152	100.0

Based on the frequency distribution table and percentage of interpersonal communication skills of medical and non-medical staff at Dr. Leokmono Hadi Kudus Regional Hospital in 2026, it shows that the interpersonal communication skills of staff are in the good category for 131 respondents (86.2%) and poor for 21 respondents (13.8%). Most patients rate the communication skills of medical staff as good.

Table 2 Frequency Distribution and Percentage of Outpatient Satisfaction at Dr. Leokmono Hadi Kudus Regional Hospital 2026

Indicator	Frequency (f)	Percentage (%)
Satisfied	136	89.5
Not satisfied	16	10.5
Total	152	100.0

Based on the frequency distribution table and percentage of patient satisfaction at Dr. Leokmono Hadi Kudus Regional Hospital in 2026, it shows that the interpersonal communication skills of staff are in the satisfied category for 136 respondents (89.5%) and dissatisfied for 16 respondents (10.5%). This indicates a strong trust in healthcare workers.

Bivariate analysis

Table 3 The Relationship Between Interpersonal Communication Skills of Medical and Non-Medical Staff and Outpatient Satisfaction at Dr. Leokmono Hadi Kudus Regional Hospital

Patient Satisfaction	
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Staff Interpersonal Communication	Satisfied		Not satisfied		Total		P - Value
	f	%	f	%	f	%	
Good	125	64.2%	6	35.8%	131	100.0%	0.001
Not enough	11	8.1%	10	91.9%	21	100.0%	
Total	136	89.5%	16	10.5%	152	100.0%	

The majority of respondents were satisfied with interpersonal communication between medical and non-medical staff (89.5%). There was a significant correlation with outpatient satisfaction ($p = 0.001$), and good communication resulted in approximately three times greater patient satisfaction.

Discussion

1. Respondent Characteristics

In this study, the majority of outpatients were women (57.9%). Nearly half of the respondents were over 44 years old, with the >44 – ≤64 age group dominating (around 47%). A total of 45 patients (29.6%) were in the 36–45 age range, with the remainder being younger. The majority of patients had a high school education (around 45%), and many were self-employed (56 or 36.8%). This finding is consistent with other studies. For example, a study (Kusumawati, 2023) in Surakarta reported a predominance of female patients (67%) in the >44 age group (47.1%). Similarly, a study by (Lekay *et al.*, 2025) in Makassar showed that women comprised 65.3% of the total outpatients. This suggests that women are more likely to seek outpatient treatment, perhaps because women tend to be more proactive in utilizing health services or accompanying family members for treatment.

The high percentage of late-adult and elderly patients can be explained by health factors. As people age, their physical condition declines, and individuals become more susceptible to chronic diseases. Therefore, older age groups tend to require more frequent healthcare services. A study (Wulandari *et al.*, 2019) found that middle-class elderly people dominate the use of outpatient services in urban areas. In other words, the growing elderly population with a higher disease burden leads to more outpatient visits in this age group. The predominance of high school education is likely related to age demographics, with many adult patients having completed a high school education.

The predominance of respondents with self-employed work, a self-employed person tends to be able to adjust treatment time without being bound by work permits or institutional regulations, so more often utilize outpatient services. Furthermore, health needs factors also play a role, where individuals who work independently have a higher risk of work fatigue due to irregular working hours, thus increasing the need to access health services. This finding is in line with (Wulandari, *et al.*, 2019) who revealed that groups of people with informal jobs, including the self-employed, utilize health services more due to flexibility of time and higher health needs.

Overview of Interpersonal Communication Skills of Medical and Non-Medical Staff at Dr. Leokmono Hadi Kudus Regional Hospital

In general, the interpersonal communication skills of staff (medical and non-medical) are rated as good by the majority of patients. Survey results showed that approximately 86.2% of respondents rated outpatient staff communication as good. Other research confirms the importance of these key elements in interpersonal communication. (Hutagaol *et al.*, 2017) noted that factors such as openness, empathy,

supportiveness, positivity, and equal treatment significantly influence successful communication between healthcare workers and patients. These factors foster a positive bond with patients, thus creating a favorable first impression.

1. Transparency: Staff who are honest and transparent in providing information make patients feel trusted.
2. Empathy: Empathetic staff who listen to complaints and understand the patient's feelings can reduce patient anxiety.
3. Supportive attitude: Staff who are supportive and helpful to patients can increase the comfort of the service.
4. Positive attitude: Friendly and enthusiastic staff foster a friendly service atmosphere.
5. Equality: Providing services without discriminating against patients creates trust.

With these factors in place, interpersonal communication between staff and patients generally runs smoothly. This strong level of communication is what resulted in a "good" rating from the majority of respondents.

Overview of Outpatient Satisfaction at Dr. Leokmono Hadi Kudus Regional Hospital

The study results showed that the majority of patients (89.5%) were satisfied with outpatient services. This is consistent with various previous studies that also reported satisfaction levels in the satisfied or very satisfied categories. For example, (Kartikasari & Budi, 2023) concluded that "most patients were satisfied with outpatient services" at a private hospital. Similarly, research (Cahyani *et al.*, 2024) noted that patients were satisfied with outpatient pharmacy services, particularly regarding physical evidence (facilities), although several other dimensions (assurance, reliability, responsiveness, and empathy) received satisfactory to moderately satisfied scores.

More broadly, patient satisfaction is typically influenced by various dimensions of service quality. The SERVEQUAL theory identifies five key dimensions: tangibles, reliability, responsiveness, assurance, and empathy. These studies indicate that these factors consistently contribute to patient perceptions of service quality. For example, good facility conditions (tangibles), reliable and timely service (reliability and responsiveness), and reassuring and caring staff (assurance) have been shown to increase satisfaction. These factors underlie why the average patient in this study was also classified as satisfied with the service they received, as most aspects influencing satisfaction were met.

The Relationship between Interpersonal Communication Skills of Medical and Non-Medical Staff and Outpatient Satisfaction at Dr. Leokmono Hadi Regional Hospital

Statistical testing showed a significant relationship between nurses' interpersonal communication skills and patient satisfaction ($p < 0.05$). This means that the better the nurses' communication skills, the higher the patient satisfaction levels. This finding is consistent with other studies. For example, the *Faletahan Health Journal* (2024) reported that "the higher the nurses' interpersonal communication skills, the higher the patient satisfaction levels."

This is understandable because effective communication helps meet patient expectations. Good communication can build trust, enthusiasm, and hope in patients. The study emphasized that nursing care that consistently addresses interpersonal communication by providing verbal support and empathy increases patient satisfaction.

When patients feel the information provided is clear and the staff cares, their expectations are met, leading to satisfaction. In other words, good communication acts as a bridge between patient needs and quality of care, making interpersonal communication a key factor in fostering outpatient satisfaction.

CONCLUSION

The conclusion of this study shows that the interpersonal communication skills of medical and non-medical staff have a significant relationship with the level of outpatient satisfaction at Dr. Loekmono Hadi Kudus Regional General Hospital. Most respondents rated staff interpersonal communication as good (86.2%), and the majority of patients were satisfied with the services received (89.5%). The statistical test results showed a p-value of 0.001, indicating that good interpersonal communication contributes to increased outpatient satisfaction. These findings confirm that aspects of openness, empathy, supportiveness, positive attitudes, and equal treatment from health workers are important factors in building a positive service experience, increasing patient trust, and strengthening the image of hospital service quality.

However, this study has limitations due to its cross-sectional design, meaning the relationships found cannot fully explain causality. Furthermore, data collection was conducted in only one hospital and focused on outpatient perceptions, so the results cannot be broadly generalized to all healthcare facilities. Future research is recommended to use a longitudinal or mixed methods design with a wider sample size to explore other factors influencing patient satisfaction, such as waiting time, facility quality, and service systems. Practically, the results of this study can serve as a basis for hospitals to improve service quality through interpersonal communication training for medical and non-medical staff, strengthening an empathetic and responsive service culture, and periodically evaluating communication to increase patient satisfaction and loyalty.

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