

THE EFFECT OF HEALTHCARE COMMUNICATION ON PATIENT SATISFACTION IN INDIVIDUALS APPLYING TO EMERGENCY SERVICE

Mehmet Yorulmaz¹, Burhanettin Uysal², Nidanur Demirhan*²

1. Faculty of Health Sciences, Department of Health Management, Selçuk University, Turkey

2. Faculty of Health Sciences, Department of Health Management, Bilecik Seyh Edebali University, Turkey

Correspondence: nidanur.demirhan@bilecik.edu.tr

ABSTRACT

OBJECTIVE:

This study aims to examine the impact of healthcare communication on patient satisfaction among individuals utilizing emergency services. Specifically, it focuses on understanding how the communication process during patients' most recent emergency department visits influences their satisfaction levels.

METHODS:

The study was conducted among individuals aged between 18 and 65 years who had applied to an emergency service within the past year in Türkiye. To assess patient satisfaction, the Emergency Service Patient Satisfaction (ESPS) Scale was utilized, and the Healthcare Communication (HC) Scale was employed to evaluate participants' perceptions of communication during their emergency care experience. The study analyzed demographic data from 579 participants, and simple linear regression analysis was used to determine the relationship between healthcare communication and patient satisfaction.

RESULTS:

The regression analysis revealed a statistically significant and positive relationship between healthcare communication (HC) and emergency service patient satisfaction (ESPS) ($p < 0.05$). It was found that healthcare communication accounts for 11.4% of the variance in patient satisfaction with emergency services ($R^2 = 0.114$). Moreover, each one-unit increase in healthcare communication resulted in a 0.337-unit increase in patient satisfaction perception ($\beta = 0.337$).

CONCLUSION:

The findings demonstrate that effective healthcare communication significantly enhances patient satisfaction in emergency service settings. These results underscore the importance of developing and strengthening communication skills among healthcare professionals as a strategic approach to improving patient satisfaction. Furthermore, focusing on communication processes can contribute substantially to enhancing the overall quality of emergency healthcare services.

KEYWORDS

patient satisfaction, emergency service, healthcare communication

INTRODUCTION

Patient satisfaction is the principal measure of quality in the delivery of health services and a prerequisite for high-quality service [1,4]. Determining patient satisfaction as the first goal in the provision of health services helps health institutions to improve service quality [5,6]. In other words, patient satisfaction is a patient-centered concept that measures their satisfaction with healthcare [7]. In the treatment process, it is essential to improve patient satisfaction, manage their expectations effectively, and minimize the factors that may negatively affect their experience [8]. Patient satisfaction is one of the important quality indicators in healthcare services [9]. When the quality of service in health can be improved by identifying existing problems and defects, the level of patient satisfaction can also be increased [10].

Hospital emergency departments are one of the most basic and critical departments of healthcare services and have a vital function in terms of public health. It is necessary to respond quickly and effectively to the immediate healthcare needs of patients in emergency services [11,12]. The hospital emergency room is a department where first aid and necessary care services are provided to patients applying for unplanned and urgent situations [13,14]. The importance of emergency services in health services stems from the fact that they provide fast and effective health services that individuals need in sudden health problems and life-threatening situations [15]. Since the emergency department is generally a chaotic, hectic environment where immediate healthcare needs are met, patient satisfaction may vary according to the patient's experience [16,17]. Regarding patient satisfaction, the interaction between the health service provider and the patient is very important in the emergency department. Because the emergency department is a stressful, risky environment that requires rapid decision-making and implementation, strong communication is crucial in emergency medical care services [18,19]. In other words, effective communication in healthcare processes will positively affect patient satisfaction [20,21]. For instance, patients may experience negative feelings because of treatment-related issues, delays, or unanticipated outcomes. Nonetheless, educating patients about these circumstances beforehand and explaining the procedure helps to mitigate adverse effects [8,22]. The relationship between patient satisfaction and health communication has a multi-layered structure that can be explained by multiple theoretical approaches. In this context, the Expectancy–Disconfirmation Theory suggests that the difference between patients' expectations prior to receiving healthcare services and their experiences after receiving such services determines their level of satisfaction. Effective communication can balance this difference, preventing dissatisfaction and improving perceived service quality. The Social Exchange Theory, on the other hand, defines the healthcare process within the framework of mutual benefit and trust; according to this approach, open and empathetic communication between patients and healthcare professionals ensures that the interaction is perceived as fair and satisfying. As key elements within patient-centered communication models, openness, active listening, respect, information sharing, and joint decision-making processes are highlighted as crucial factors that boost patient satisfaction. In high-pressure settings like emergency departments, strong communication from healthcare professionals builds trust and boosts patient satisfaction by addressing emotional needs. In line with these theoretical approaches, effective healthcare communication is not merely about information transfer but is also considered a decisive factor in shaping the patient experience and building satisfaction.

Effective communication in health services is essential to ensure patient satisfaction [23,25]. Effective communication between patients and healthcare providers helps to improve healthcare outcomes [25,26]. Effective healthcare communication plays a significant role as part of patient satisfaction-centered care in health services. Creating an environment of trust by understanding the concerns of patients in hospitals and approaching them empathically can increase the success of treatment processes and positively affect patient satisfaction [16,24]. At the same time, patients in the emergency department are often agitated, frightened, or in pain. For this reason, calm and courteous communication of the staff in the emergency department is welcomed by the patients. Effective communication in the emergency department contributes positively to the diagnosis and treatment process of patients and improves the management of stressful situations by facilitating the work of healthcare professionals [2,27]. Practical communication skills are competencies that can enhance the quality of the relationship between patient and physician in the provision of emergency health services. Coupled with clear and direct empathy, effective communication can foster a positive perception among patients, leading to satisfaction and loyalty [19]. Effective and consistent communication has a

favorable impact on the treatment experience. Patients who are better educated about their treatment process through communication are more likely to feel confident and involved. As a result, recognizing and managing patients' expectations is critical to their happiness with the treatment process. Effective communication and constant information sharing help to mitigate negative patient perceptions about their medical treatment experience by boosting their active engagement in the treatment process [8,28].

This study aims to make a substantial contribution to the literature by investigating the crucial role of healthcare communication in enhancing the satisfaction of individuals who visit the emergency department for healthcare services. Given that patient satisfaction is a key indication in determining the quality of healthcare, the study's findings could be used to build communication strategies and improve patient experiences in emergency rooms. What makes this study unique and different is that it focuses on the dynamics of health communication in a high-pressure context such as emergency health services, which is often overlooked in existing research on patient satisfaction. While much literature discusses general factors influencing patient satisfaction, there's a limited number of systematic studies on how real-time communication affects perceived service quality in high-stress environments like emergency departments. This study fills an important gap in the literature by focusing on individuals' most recent emergency department visit experiences and providing context-specific data. Additionally, it offers practical implications for improving healthcare professionals' communication skills, which are critical for enhancing both clinical outcomes and patient trust in acute care settings.

METHODS

POPULATION AND SAMPLE

A quantitative research technique was employed in the study. The target population consisted of individuals aged 18–65 living in Turkey who had applied to an emergency department within the past year. According to the Turkish Statistical Institute [29], this age group comprises approximately 65% of the population, or about 55 million people. The sample size was calculated using the formula $n = t^2 \times p \times q / d^2$, with parameters set at $p = 0.5$, $q = 0.5$, $t = 1.96$, and $d = 0.05$, resulting in a minimum required sample of 384 participants. However, a total of 579 participants were ultimately reached. This was a deliberate choice, based on the assumption that increasing the sample size would enhance statistical power and improve the generalizability of the findings. Especially in survey-based research, a larger sample size reduces the margin of error and enhances the reliability of multivariate analyses such as regression and correlation. Furthermore, a broader sample allows for subgroup comparisons across demographic variables such as age, gender, and education level. During the data collection process, it was anticipated that there might be invalid or incomplete responses; therefore, a wider target group was initially reached. As no invalid data was detected, the analyses were conducted using all 579 valid responses. Accordingly, the final sample size strengthens the statistical representativeness of the study and contributes to achieving more robust and reliable results.

DATA COLLECTION TOOLS

In this study, data were collected using a structured questionnaire technique. The questionnaire, administered online to participants, consisted of three main sections: a Personal Information Form, the Emergency Service Patient Satisfaction (ESPS) Scale, and the Healthcare Communication (HC) Scale. Each of these tools is described in detail below.

PERSONAL INFORMATION FORM

The first section of the questionnaire included a Personal Information Form designed to gather basic demographic data about the participants. This section contained closed-ended questions related to variables such as age, gender, marital status, education level, and monthly income. These variables were used to provide a descriptive profile of the sample and to conduct subgroup analyses when necessary.

EMERGENCY SERVICE PATIENT SATISFACTION SCALE

To assess patient satisfaction among individuals who had utilized emergency department services, the study employed the Emergency Service Patient Satisfaction (ESPS) Scale. Originally developed by Atari (2015), the Turkish adaptation and validation of the scale were conducted by Konateke and Yılmaz (2022). The ESPS is a 5-point Likert-type scale composed

of 18 items distributed across five sub-dimensions: Nurse Satisfaction, Admission Staff Satisfaction, Emergency Department Environment, Physician Care Satisfaction, and General Patient Satisfaction. The internal consistency of the original scale was confirmed with a Cronbach's alpha coefficient of 0.940, indicating excellent reliability [30,31].

HEALTHCARE COMMUNICATION SCALE

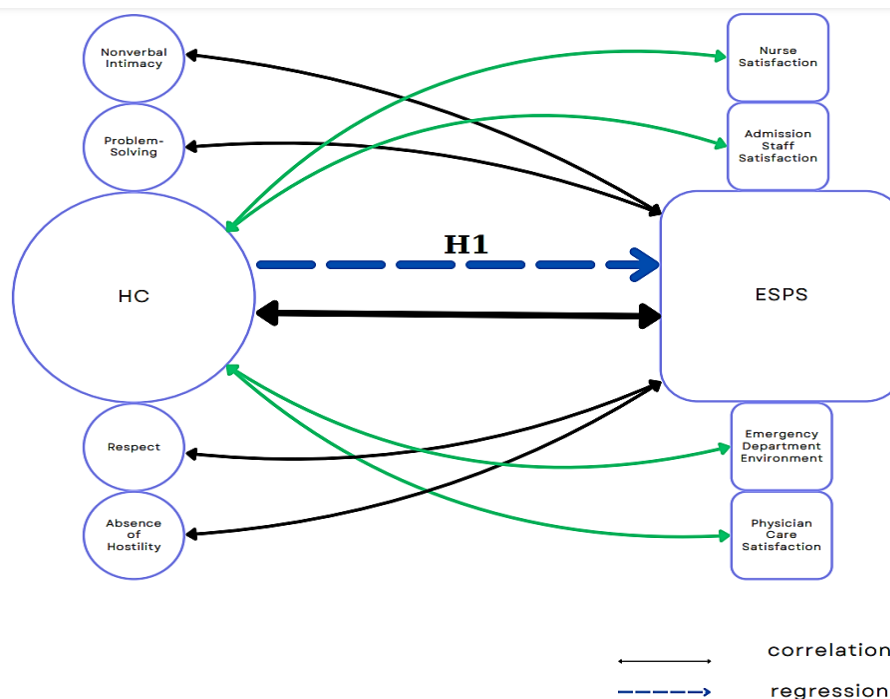
The level and quality of communication between patients and healthcare professionals were evaluated using the Healthcare Communication Scale (HC), originally developed by Gremigni et al. (2008). The Turkish version of the scale was validated by Kalkan and Özbaş (2021). The scale comprises 13 items and is structured around four sub-dimensions: Nonverbal Intimacy, Problem-Solving, Respect, and Absence of Hostility. The reliability analysis of the Turkish version yielded a Cronbach's alpha of 0.83, indicating a high level of internal consistency [32,33].

RESEARCH MODEL AND HYPOTHESIS

The conceptual model of the study is presented in Figure 1. This model illustrates the hypothesized effect of healthcare communication on patient satisfaction among individuals who applied to emergency departments. Within this framework, hypothesis 1 (H¹) was tested through linear regression analysis to determine the predictive power of healthcare communication on overall patient satisfaction. Additionally, the associations between the sub-dimensions of the scales were examined using Pearson correlation analysis, providing a more detailed understanding of the relational dynamics between communication behaviors and satisfaction outcomes.

H¹: Healthcare communication has a statistically significant and positive effect on patient satisfaction among individuals who apply to emergency services.

FIGURE 1. RESEARCH MODEL



STATISTICAL ANALYSIS

Data collected in this study, investigating the effect of healthcare communication on patient satisfaction in emergency service applicants, were analyzed using SPSS 21 (Statistical Package for the Social Sciences) and JASP 0.19 software. The results were then reported. For the research findings, the data were first analyzed for normality, and skewness and kurtosis coefficients were examined. The research data was checked for normality and, showing a normal distribution, allowed for the application of parametric tests. Pearson Correlation analysis was performed to examine the relationships and then simple linear regression analysis was performed to assess the measured effect.

ETHICAL CONSIDERATIONS

Prior to the study, the necessary permissions were obtained by applying to Selcuk University Faculty of Health Sciences Non-Interventional Clinical Research Ethics Committee in May 2024 (Decision number: 2024/478).

RESULTS

The results and statistical interpretations of the analyses are provided as a consequence of the data analysis conducted.

TABLE 1. DESCRIPTIVE CHARACTERISTICS OF PARTICIPANTS

Demographic Characteristics	Groups	N	%
Gender	Female	310	53.5
	Male	269	46.5
Age	18-33	245	42.3
	34-49	185	32.0
	50-65	149	25.7
Educational Status	Primary School	88	15.2
	High School	171	29.5
	Graduate	181	31.3
	Postgraduate	139	24.0
Health Status	Poor	134	23.1
	Middle	278	48.0
	Good	168	28.8
Income Status	Low	118	20.4
	Middle	293	50.6
	High	168	29.0
Total		579	100.0

The descriptive characteristics of 579 individuals participating in the study were analyzed through frequency (n) and percentage (%) values. According to the age variable, 42.31% of the participants were between 18-33, 31.95% between 34-49, and 25.73% between 50-65. In terms of gender variable, it was observed that 53.55% of them were female and 46.45% were male. According to educational status, 15.19% of them had primary school education, 29.53% had high school education, 31.26% had undergraduate education, and 24.0% had graduate education. When their health status was analyzed, it was observed that 20.38% had poor health status, 50.60% had moderate health status, and 29.01% had good health status. Lastly, according to the table, 20.4% of the participants are in the low-income group, 50.6% are in the middle-income group, and 29.0% are in the high-income group (Table 1).

TABLE 2. NORMALITY AND DESCRIPTIVE STATISTICS OF THE SCALES

Scales	Median	IQR	Skewness	Kurtosis			
Normality test	ESPS	2.88	0.66	Statistic	Std error	Statistic	Std error
				-.413	.102	-.373	.203
	HC	3.15	1.00	.030	.102	-1.337	.203
Reliability Test and Descriptive Statistics	N of Items		Cronbach alpha (α)	X	SD		
	ESPS	18	0.74	2,85	.372		
	HC	13	0.75	3,15	.482		

ESPS: Emergency Service Patient Satisfaction, HC: Healthcare Communication

When the normality of the scales is examined, the skewness and kurtosis coefficients fall within the acceptable range of ± 1.5 , indicating that the data are approximately normally distributed (Tabachnick et al., 2013). Furthermore, the median and interquartile range (IQR) values provide additional descriptive insight, with median scores of 2.88 (ESPS) and 3.15 (HC), and IQRs of 0.66 and 1.00, respectively. The mean and standard deviation values were calculated as 2.85 (SD = 0.372) for the ESPS scale and 3.15 (SD = 0.482) for the HC scale, suggesting moderate levels of patient satisfaction and perceived healthcare communication. In terms of reliability, Cronbach's alpha values were 0.74 for the ESPS scale and 0.75 for the HC scale, indicating acceptable but not high. These findings confirm that the scales used in the study are appropriate for further statistical analyses (Table 2).

TABLE 3. COMPARISON OF EMERGENCY SERVICE PATIENT SATISFACTION AND HEALTHCARE COMMUNICATION BY SOCIODEMOGRAPHIC VARIABLES

Scales		Variables										
		Age			Gender		Income Status			Health Status		
		18-33	34-49	50-65	Female	Male	Poor	Middle	Good	Poor	Middle	Good
ESPS	X ± Sd	2,86	2,77	2,93	2,94	2,74	2,76	2,79	3,01	2,94	2,82	2,81
	F/t	7,901			6,867		26,289			6,113		
	p	,000			,000		,000			,002		
HC	X ± Sd	3,12	3,18	3,15	3,21	3,07	3,21	3,14	3,12	3,05	3,23	3,10
	F/t	0,895			3,554		1,168			7,649		
	p	0,409			,000		,312			,001		

ESPS: Emergency Service Patient Satisfaction, HC: Healthcare Communication

The table examines whether ESPS and HC scores differ significantly according to age, gender, income level, and general health status. ESPS scores show significant differences based on age ($F = 7.901$, $p < .001$), gender ($t = 6.867$, $p < 0.001$), income level ($F = 26.289$, $p < 0.001$), and general health status ($F = 6.113$, $p = 0.002$). The highest satisfaction scores were observed among individuals aged 50 and over, female participants, those with higher income levels, and individuals with poor health status. Regarding HC, no significant differences were found based on age ($F = 0.895$, $p = 0.409$) and income level ($F = 1.168$, $p = 0.312$), while significant differences were observed in relation to gender ($t = 3.554$, $p < 0.001$) and general health status ($F = 7.649$, $p = 0.001$). Female participants and those with moderate health status reported higher healthcare communication perceptions. These findings indicate that both patient satisfaction and healthcare communication perceptions vary significantly according to sociodemographic characteristics (Table 3).

TABLE 4. CORRELATION ANALYSIS FOR SCALES AND SUB-DIMENSIONS

Pearson Correlation (Scales and Sub-Dimensions)		Pearson's r	p
ESPS	HC		
(General)	(General)		
	HC Nonverbal Intimacy	0.277	<.001
ESPS (General)	HC Problem-Solving	-0.255	<.001
	HC Respect	0.340	<.001
	HC Absence of Hostility	0.419	<.001
	ESPS Nurse Satisfaction	0.266	<.001
HC (General)	ESPS Admission Staff Satisfaction	0.046	0.267
	ESPS Emergency Department Environment	0.250	<.001
	ESPS Physician Care Satisfaction	0.235	<.001
	ESPS General Patient Satisfaction	0.209	<.001

ESPS: Emergency Service Patient Satisfaction, HC: Healthcare Communication

Table 4 presents the Pearson Correlation analysis results for the general average scores of ESPS and HC, as well as their sub-dimensions. The analysis revealed a moderate positive significant relationship between the overall ESPS score and HC

($r=0.337$; $p<0.01$). A moderate positive significant relationship was found between the 'Respect' and 'Absence of Hostility' sub-dimensions of HC and the overall ESPS score ($r=0.340$, $r=0.419$; $p<0.01$). A weak positive significant relationship was found with 'Nonverbal Intimacy', and a weak negative significant relationship with 'Problem-Solving' ($r=0.277$, $r=-0.255$). A weak positive significant relationship was observed between overall HC and ESPS sub-dimensions such as 'Nurse Satisfaction' ($r=0.266$), 'Emergency Department Environment' ($r=0.250$), 'Physician Care Satisfaction' ($r=0.235$), and 'General Patient Satisfaction' ($r=0.209$) ($p<0.01$). However, no significant relationship was found with 'Admission Staff Satisfaction' (Table 4).

TABLE 5. THE EFFECT OF HEALTHCARE COMMUNICATION ON EMERGENCY SERVICE PATIENT SATISFACTION

Variables		Unstandardized Coefficients		Standardized Coefficients	t	p	F	R ²
Dependent Variable	Independent Variable	B	Std. Error	Beta				
ESPS	Constant	2.027	0.096	0.337	21,00	0.000*	74,072	0.114
	HC	0.261	0.030		8,607			

R=0.337; *p<0.01

Regression analysis results for the effect of HC on ESPS are given in Table 5. The simple linear regression analysis between the ESPS and the HC yielded significant results. ($p < 0.05$). 11.4% of the change in the dependent variable, ESPS, can be explained by healthcare communication ($R^2=0.114$). Furthermore, a 1-unit increase in healthcare communication leads to a 0.337-unit increase in the perception of ESPS ($\beta=0.337$). As a result of regression analysis, Hypothesis 1 was accepted (Table 5).

When the findings obtained were evaluated, it was seen that healthcare communication had a significant effect on patient satisfaction in patients applying to the emergency department. It was concluded that effective communication and information sharing with healthcare professionals, especially in busy and stressful environments such as emergency services, can increase satisfaction by contributing to patients feeling safe.

DISCUSSION AND CONCLUSION

In our study conducted on individuals aged 18-65 years who applied to the emergency department in Türkiye, it was determined that healthcare communication had a significant effect on emergency department patient satisfaction. In addition, various studies supporting these findings in the literature were also analyzed. In another study, it was pointed out that the fact that emergency services are very busy and crowded can have negative consequences on patient satisfaction and that communication factors should be utilized effectively to prevent this situation [22]. A study on emergency department readmissions and discharges found that effective communication interventions led to better treatment outcomes, shorter waiting times, and improved treatment compliance. This, in turn, was linked to higher patient satisfaction and fewer hospital readmissions [9]. In a study examining patient satisfaction in the emergency department in Portugal, it was emphasized that the main determinant of patient satisfaction is the communication between the patient and healthcare professionals. Researchers have focused on the importance of identifying ways to improve this interaction and emphasized the need to seek solutions for improvement [34]. In a study examining the emergency department experiences of disadvantaged individuals who applied to the emergency department, it was concluded that they tended to avoid and distrust health services due to the miscommunication and lack of understanding they experienced [35]. In a study on effective communication skills training between patients and health professionals, it was concluded that in addition to ensuring patient satisfaction, quality outcomes and cost-effectiveness was also improved [28]. In addition to these studies, studies on the importance of communication in crisis and extraordinary situations in healthcare are frequently included in the literature. Especially during the Covid-19 pandemic, there was an extraordinary intensity in these areas with the increasing demand for intensive care and emergency health services. This has shown that

ensuring effective and effective communication plays a critical role in reducing the devastating effects of the disease. During the COVID-19 pandemic, several studies [36,40] examined the contribution of effective communication not only to patient satisfaction but also to preventing disease spread, accelerating treatment processes, and reducing mortality rates. Although conducted in different contexts and with various methods, these studies supported similar results.

The intensity of emergency services, which play a significant and critical role in healthcare, is increasing daily and can disrupt work processes in some circumstances. Healthcare workers bear significant responsibility in this field, which must be carried out with the utmost professionalism. By forming deep links with patients presenting to the emergency department, effective communication can help to overcome the service's challenges. As a result of this study, the effect of healthcare communication on patient satisfaction in individuals seeking emergency department care has been investigated, and it has been determined that there is a significant positive relationship, and a higher level of patient satisfaction is achieved as healthcare communication improves. This study was conducted on a specific sample in Turkey, and it is believed that similar studies should be conducted across different health facilities, and any communication issues should be addressed by emphasizing patient satisfaction, which is an indicator of quality. From a health policy perspective, the findings of this study suggest several practical implications for improving emergency care services. Strengthening healthcare communication skills among emergency department personnel should be integrated into national health strategies, particularly in countries with high patient density in emergency units. Policymakers should prioritize structured training programs that promote effective, patient-centered communication to reduce dissatisfaction, improve treatment outcomes, and minimize repeated admissions. Additionally, communication-based performance metrics can be included in quality monitoring systems for emergency departments. By doing so, communication will not only be perceived as an interpersonal skill but also as a measurable component of healthcare quality. These implications underline the importance of transforming research results into actionable strategies that inform decision-making processes in healthcare systems.

LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

This study aimed to examine the effect of healthcare communication on patient satisfaction among individuals admitted to emergency services; however, it has certain limitations that should be acknowledged. First, the study was limited to individuals aged between 18 and 65 years who applied to emergency departments within the last year in Türkiye. Therefore, the generalizability of the findings is limited, and groups such as older adults or patients with chronic illnesses were not included in the scope of this research. For future research, it is recommended to conduct similar studies on broader and more representative samples, including different age groups and diverse socioeconomic backgrounds. Moreover, employing mixed method designs that incorporate qualitative approaches may offer deeper insights into the relationship between healthcare communication and patient satisfaction. Longitudinal studies could also explore how healthcare communication affects patient satisfaction over time. Finally, conducting comparative analyses across different types of healthcare institutions (public, private, university hospitals) and various professional groups (physicians, nurses, paramedics) may provide a more comprehensive understanding of how healthcare communication impacts patient satisfaction in diverse settings. In addition, future research may benefit from developing theory-driven frameworks that incorporate mediating or moderating variables such as health literacy, patient empowerment, or institutional trust. Employing validated multi-dimensional scales and advanced statistical methods (e.g., SEM, multi-group analysis) may also enhance the methodological rigor of future studies. "Investigating contextual factors like organizational culture, digital communication tools, or time constraints in emergency departments could yield specific evidence for clinical practices and health policies."

References

1. Abass G, Asery A, Al Badr A, AlMaghlouth A, AlOtaiby S, Heena H. Patient satisfaction with the emergency department services at an academic teaching hospital. *J Family Med Prim Care*. 2021;10(4):1718-25.
2. Abidova A, Silva PAD, Moreira S. The mediating role of patient satisfaction and perceived quality of healthcare in the emergency department. *Medicine (Baltimore)*. 2021; 19;100(11):e25133.

3. Bin Traiki TA, AlShammari SA, AlAli MN, et al. Impact of COVID-19 pandemic on patient satisfaction and surgical outcomes: A retrospective and cross sectional study. *Ann Med Surg (Lond)*. 2020; 58:14-9.
4. Stefanini A, Aloini D, Gloor P, Pochiero F. Patient satisfaction in emergency department: Unveiling complex interactions by wearable sensors. *J Bus Res*. 2021; 129:600-11.
5. Berning MJ, Oliveira J e Silva L, Suarez NE, et al. Interventions to improve older adults' Emergency Department patient experience: A systematic review. *Am J Emerg Med*. 2020;38(6):1257-69.
6. Cuddihy MJ, Servoss JM, Lee J, et al. A Patient-Centered Design Thinking Workshop to Improve Patient-Provider Communication in Cardiovascular Medicine. *J Patient Exp*. 2021; 8:23743735211049662.
7. Goodrich GW, Lazenby JM. Elements of patient satisfaction: An integrative review. *Nurs Open*. 2023;10(3):1258-69.
8. Afrashtehfar KI, Assery MKA, Bryant SR. Patient Satisfaction in Medicine and Dentistry. *Int J Dent*. 2020;6621848.
9. Becker C, Zumbunn S, Beck K, et al. Interventions to Improve Communication at Hospital Discharge and Rates of Readmission: A Systematic Review and Meta-analysis. *JAMA Netw Open*. 2021;4(8):e2119346.
10. Qian Y, Wang X, Huang X, et al. Bounded rationality in healthcare: unraveling the psychological factors behind patient satisfaction in China. *Front Psychol*. 2024; 15:1296032.
11. Ataman MG, Sariyer G, Saglam C, Karagoz A, Unluer EE. Factors Relating to Decision Delay in the Emergency Department: Effects of Diagnostic Tests and Consultations. *Open Access Emerg Med*. 2023; 15:119-31.
12. Darraj A, Hudays A, Hazazi A, Hobani A, Alghamdi A. The Association between Emergency Department Overcrowding and Delay in Treatment: A Systematic Review. *Healthcare (Basel)*. 2023;11(3).
13. Harrou F, Dairi A, Kadri F, Sun Y. Forecasting emergency department overcrowding: A deep learning framework. *Chaos Solitons Fractals*. 2020; 139:110247.
14. Kim S, Chang H, Kim T, Cha WC. Patient Anxiety and Communication Experience in the Emergency Department: A Mobile, Web-Based, Mixed-Methods Study on Patient Isolation During the COVID-19 Pandemic. *J Korean Med Sci*. 2023;38(39):e303.
15. Muir R, Carlini JJ, Harbeck EL, et al. Patient involvement in surgical wound care research: A scoping review. *Int Wound J*. 2020;17(5):1462-82.
16. Nanda M, Sharma R. A Review of Patient Satisfaction and Experience with Telemedicine: A Virtual Solution During and Beyond COVID-19 Pandemic. *Telemed J E Health*. 2021;27(12):1325-31.
17. Oyegbile YO, Brysiewicz P. Measuring patient experience in the emergency department: A scoping review. *Afr J Emerg Med*. 2020;10(4):249-55.
18. Bull C, Latimer S, Crilly J, Spain D, Gillespie BM. 'I knew I'd be taken care of': Exploring patient experiences in the Emergency Department. *J Adv Nurs*. 2022;78(10):3330-44.
19. Orcajada Muñoz I, Amo Setien FJ, Díaz Agea JL, et al. The communication skills and quality perceived in an emergency department: The patient's perspective. *Int J Nurs Pract*. 2020;26(3):e12831.
20. Dil S, Çam M. The mediator role of mindfulness in the relationship between the listening skills and anger management skills of emergency health care professionals. *Int Emerg Nurs*. 2024; 75:101475.
21. Milton J, David Åberg N, Erichsen Andersson A, et al. Patients' perspectives on care, communication, and teamwork in the emergency department. *Int Emerg Nurs*. 2023; 66:101238.
22. Savioli G, Ceresa IF, Gri N, et al. Emergency Department Overcrowding: Understanding the Factors to Find Corresponding Solutions. *J Pers Med*. 2022;12(2).
23. Baek H, Han K, Cho H, Ju J. Nursing teamwork is essential in promoting patient-centered care: a cross-sectional study. *BMC Nurs*. 2023;22(1):433.
24. Blackburn J, Ousey K, Goodwin E. Information and communication in the emergency department. *Int Emerg Nurs*. 2019;42:30-5.
25. Kwame A, Petrucka PM. A literature-based study of patient-centered care and communication in nurse-patient interactions: barriers, facilitators, and the way forward. *BMC Nurs*. 2021;20(1):158.
26. Al-Kalaldeh M, Amro N, Qtait M, Alwawi A. Barriers to effective nurse-patient communication in the emergency department. *Emerg Nurse*. 2020;28(3):29-35.
27. Heo S, Kim S-H, Lee SU, et al. A trial of a chat service for patients and their family members in an emergency department. *BMC Health Serv Res*. 2024;24(1):1058.

28. Drossman DA, Chang L, Deutsch JK, et al. A Review of the Evidence and Recommendations on Communication Skills and the Patient–Provider Relationship: A Rome Foundation Working Team Report. *Gastroenterology*. 2021;161(5):1670-1688.e7.
29. TURKSTAT. Turkish Statistical Institute Population and Demography Data Portal. Accessed August 10, 2024. Available from: <https://nip.tuik.gov.tr/>
30. Atari M. Brief Emergency Department Patient Satisfaction Scale (BEPSS); Development of a New Practical Instrument. *Emerg (Tehran)*. 2015 Summer;3(3):103-8.
31. Konateke S, Yılmaz M. Turkish validity and reliability study of the Brief Emergency Department Patient Satisfaction Scale. *Int Emerg Nurs*. 2022; 61:101145.
32. Gremigni P, Sommaruga M, Peltenburg M. Validation of the Health Care Communication Questionnaire (HCCQ) to measure outpatients' experience of communication with hospital staff. *Patient Educ Couns*. 2008;71(1):57-64.
33. Kalkan EC, Özbaş AA. Turkish Validity and Reliability Study of the Health Care Communication Questionnaire. *Journal of Turkish Nurses Association*. 2021;2(1):42-53.
34. Abidova A, da Silva PA, Moreira S. Predictors of Patient Satisfaction and the Perceived Quality of Healthcare in an Emergency Department in Portugal. *West J Emerg Med*. 2020;21(2):391-403.
35. Wong AH, Ray JM, Rosenberg A, et al. Experiences of Individuals Who Were Physically Restrained in the Emergency Department. *JAMA Netw Open*. 2020;3(1):e1919381.
36. Ataguba OA, Ataguba JE. Social determinants of health: the role of effective communication in the COVID-19 pandemic in developing countries. *Glob Health Action*. 2020;13(1):1788263.
37. Uppal A, Silvestri DM, Siegler M, et al. Critical Care and Emergency Department Response at the Epicenter of the COVID-19 Pandemic. *Health Aff (Millwood)*. 2020;39(8):1443-9.
38. Verdonk F, Feyaerts D, Badenes R, et al. Upcoming and urgent challenges in critical care research based on COVID-19 pandemic experience. *Anaesth Crit Care Pain Med*. 2022;41(5):101121.
39. Walton H, Navaratnam AV, Ormond M, Gandhi V, Mann C. Emergency medicine response to the COVID-19 pandemic in England: a phenomenological study. *Emerg Med J*. 2020;37(12):768-72.
40. Wei EK, Long T, Katz MH. Nie Lessons Learned From the COVID-19 Pandemic for Improving Hospital Care and Health Care Delivery. *JAMA Intern Med*. 2021.