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Patient trust in nurses: exploring the relationship with care quality and communication skills in emergency departments

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Abstract

Background Patient trust in medical staff is an important ethical issue that can influence various patient behaviors and attitudes, such as seeking healthcare, sharing confidential information, accepting treatment, and adhering to recommendations. This study aimed to assess patient trust in nurses and its relationship to the quality of care and communication skills of nurses in emergency departments.

Methods This descriptive correlational study was conducted in 2023 in the emergency departments of medical training centers of Ardabil University of Medical Sciences, Iran. A total of 378 patients was selected using a quota sampling method. Data were collected using three valid and reliable tools: the Quality Patient Care (QUALPAC) scale, the Health Communication Feedback Questionnaire (HCFQ), and the Trust in Nurses Scale (TNS). The data were analyzed using independent t-tests, one-way analysis of variance, and Pearson's correlation coefficient tests using SPSS version 24.

Results The majority of patients (99.2%) rated nurses' communication skills as moderate, with none rating them as poor. The average scores were 27.59 ± 2.76 for patient trust in nurses, 72.43 ± 3.30 for nurses' communication skills, and 198.30 ± 14.60 for the quality of nursing care. A significant correlation was found between patient trust in nurses and the overall quality of nursing care ($r=0.256$, $P < 0.001$) as well as its dimensions. However, there was no significant relationship between patient trust in nurses and patient's perception of the nurses' communication skills ($r=0.046$, $P=0.369$).

Conclusions The findings indicate that patient trust in nurses is positively and significantly associated with the perceived quality of nursing care. As the quality of care improves, patient trust in nurses also increases. Therefore, nurses should focus on providing high-quality care to enhance patient trust.

Keywords Trust, Nurse-patient communication, Quality of care, Patient satisfaction, Emergency nursing

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Introduction

Trust means believing that another person will take the necessary action to fulfill our wishes and expectations. In the healthcare system, patient trust refers to the expectation of the best performance from the treatment team [1]. Trust influences many behaviors and attitudes related to patients' health, such as the disclosure of confidential personal information, acceptance of treatment, and adherence to treatment recommendations. Evidence shows that patients who have more trust in their therapist are more satisfied with their care and are more likely to overlook treatment errors [2, 3]. Trust is at the heart of the nurse-patient relationship and is a fundamental interpersonal element in all such relationships. A patient's trust in nurses, along with an increased willingness to discuss anxiety and concerns with them can lead to improved patient satisfaction with treatment. Studies indicate that patients who trust their nurses, cooperate more in improving their health, feel more secure, and show a greater willingness to establish trusting relationships. Conversely, mistrust towards the treatment team negatively impacts compliance with treatment recommendations and imposes high costs on both the individual and the treatment system [1, 4].

Various factors contribute to patients' trust in nurses, including the comfort of the hospital environment, the quality of patients' sleep, caregivers' humane behavior, the level of nurses' professional competence, their communication skills, and their accessibility [2, 5]. A qualitative study on the factors affecting patient trust in nurses in Iran also found that professional characteristics of nurses—such as knowledge, skill, experience, eagerness to help others, commitment to the nursing profession, a sense of responsibility, and adherence to professional ethics, like confidentiality and truthfulness—significantly contribute to increasing patients' trust in nurses [6].

As mentioned, one of the factors that can affect patient trust in the healthcare workers is the interaction style and communication skills of healthcare providers. A lack of proper interaction between treatment staff and patients can undermine patients' trust [7]. This issue can adversely affect patient satisfaction, increase tension between patients and healthcare providers, and decrease adherence to prescribed treatments [8, 9].

Another factor that can influence patient's trust in the healthcare system is the quality of the services provided. It appears that patients' decisions in choosing a hospital to receive services are also based on factors such as service quality and trust in hospital services [10]. Haavisto and Jarva reviewed the factors affecting the development of patients' trust in nurses and identified five key factors: communication skills and nurse-patient interactions,

quality of care, nurses' professional competence, cultural characteristics, and the care environment [2].

Given the importance of patient trust in nurses and its positive consequences, it is crucial to identify the factors that build patients' trust in nurses, investigate the causes of patient mistrust in the healthcare system, and make necessary improvements. According to the researchers' experience in the emergency department, two factors that are particularly effective in gaining patient trust are the quality of nursing care and the nurse's communication skills. Since the emergency department is the first point of contact for patients and their introduction to healthcare personnel, especially nurses, it can be pivotal in establishing trust and acceptance of the treatment process. Therefore, the present study was conducted to determine patient trust in nurses and its relationship to the quality of care and communication skills of nurses in emergency departments.

Materials and methods

Study design and participants

This study was a descriptive-correlational research conducted from May to September 2023 in the emergency departments of four academic centers in Ardabil city, Iran. These centers are the most important specialized and subspecialized hospitals for adults in Ardabil province, known for their large patient volumes as they admit a large number of patients from both within and outside the province.

$$n = \frac{\frac{z^2 pq}{d^2}}{1 + \frac{1}{N} \left(\frac{z^2 pq}{d^2} - 1 \right)}$$

The sample size was determined using Cochran's formula, with $p=0.5$, $q=0.5$, a statistical significance level of 0.05, and a measurement error (d) of 0.05. Based on the target population ($N=20,000$), the sample size was calculated to be 378 participants. Sampling was conducted using a quota method. Initially, the proportion of each center was determined based on the occupancy rate of emergency beds. From there, patients who met the inclusion criteria were selected through convenience sampling. The inclusion criteria for patients were: hospitalization in the emergency department for a minimum of 6 and a maximum of 24 h, age between 18 and 60 years, absence of mental disorders (as reported by the patient due to the short stay in the emergency department), and being in suitable physical condition to participate in the study. Withdrawal from the study at any stage was considered an exclusion criterion. All patients hospitalized in the emergency departments who met the eligibility criteria were included in the sample. Sampling continued

until data were collected from 378 participants. Since the questionnaires were completed through interviews, there were no incomplete questionnaires.

Instruments

Data were collected using a demographic data sheet (including age, gender, marital status, educational level, and number of hours spent in the hospital), the Quality Patient Care (QUALPAC) scale, the Health Communication Feedback Questionnaire (HCFQ), and the Trust in Nurses Scale (TNS).

The Trust in Nurse Scale, developed by Radwin and Cabral's (2010), consists of five items answered on a six-point Likert scale ranging from 1 (never) to 6 (always). The total score ranges from 5 to 30, with higher scores indicating greater trust in nurses. The reliability of this tool was confirmed in Radwin and Cabral's study with Cronbach's alpha of 0.77 [11]. This tool was psychometrically evaluated by Nouripour in Iran, and its validity and reliability were confirmed [12]. In the present study, the reliability of the scale was further confirmed with a Cronbach's alpha coefficient of 0.94.

The Health Communication Feedback Questionnaire (HCFQ) was developed in 2006 to assess patients' feedback on nurses' communication skills [13]. This questionnaire contains 24 positive and negative questions, graded on a five-point Likert scale from 1 (totally disagree) to 5 (totally agree). The total score ranges from 24 to 120 with scores of 24–40 indicating low, 41–80 moderate, and 81–120 high levels of communication. The validity and reliability of the HCFQ were tested and validated in a study by Fathi et al. (2015) [14]. In this study, the Content Validity Index (CVI) was used to determine the content validity of the questionnaire. The questionnaire was reviewed by 10 nursing faculty members from Ardabil University of Medical Sciences for relevance, simplicity, and clarity of the statements. The questionnaire, with a CVI of 0.82, was confirmed. The reliability of the tool was assessed using Cronbach's alpha, which yielded a coefficient of 0.727.

The Quality of Patient Care Scale (QUALPAC) was designed by Wandelt and Ager in 1974 [15]. This tool has 65 items across three dimensions: psychosocial (28 items), communication (13 items), and physical (24 items). Items are scored on a 5-point Likert scale ranging from 1 (rarely) to 4 (always), with an additional option of "does not apply" scored as 0. Nursing care quality scores are categorized as unfavorable (0–122), somewhat favorable (123–171), and favorable (172–260). The Persian version of this instrument was psychometrically evaluated in Iran by Neishabouri et al. (2009), and its reliability was reported with a Cronbach's alpha coefficient of 0.80 [16].

In the present study, the reliability of the instrument was evaluated using Cronbach's alpha, yielding a value of 0.83.

This study was conducted after obtaining approval for research proposal and the necessary permissions from Ardabil University of Medical Sciences. The researcher visited the emergency departments of the participating hospitals during different shifts to identify qualified patients. After explaining the objectives of the study and obtaining informed written consent, the questionnaires were completed in a private environment, ensuring accuracy and honesty. Patients were assured that their information would be kept confidential and that non-participation would not affect their treatment process.

Data processing

The collected data were analyzed using SPSS version 24, employing both descriptive (frequency, percentage, mean, and standard deviation) and inferential (independent t-tests, one-way analysis of variance, and Pearson correlation) statistics. The level of statistical significance was set at 0.05.

Results

The results showed that 55% of the participants in this study were women. The average age of the participants was 36.63 ± 10.20 years (Table 1).

The average score of patients' trust in nurses was 27.59 ± 2.76 , with a range from 20 to 30. Additionally, the average score of nurses' communication skills was 72.43 ± 3.30 . The total average score for the quality of nursing care was 198.30 ± 14.60 (Table 2).

The Pearson correlation test did not reveal a significant relationship between the patients' trust in nurses and their perception of nurses' communication skills. However, there was a significant relationship between

Table 1 Individual characteristics of research participants

Variable	Mean	Standard deviation
Age (years)	36.63	10.20
Variable	Number	Percent
Gender	Male	45
	Female	55
Marital status	Married	81.2
	Not married	18.8
Education	High school or less	18
	Diploma	42.1
	University or higher	39.9
Hospitalization period (hours)	6-15	62.70
	16-24	37.30

Table 2 Frequency, mean and standard deviation of scores of nurses' communication skills, quality of care, and trust in nurses from the perspective of patients

Variable		N (%)	Mean ± SD	Minimum	Maximum	
Communication skills of nurses	Low level	0 (0)	72.43 ± 3.30	65	113	
	Moderate level	375 (99.2)				
	High level	3 (0.8)				
Quality of nursing care	Total quality of nursing care	Unfavorable	0 (0)	198.30 ± 14.60	144	256
		Somewhat favorable	2 (0.5)			
		favorable	376 (99.5)			
	Psychosocial dimension		82.80 ± 7.69	56	108	
	Communication dimension		40.29 ± 3.87	32	52	
physical dimension		75.20 ± 6.22	56	96		
Patient trust in nurses			27.59 ± 2.76	20	30	

patients' trust in nurses and the quality of nursing care and its dimensions ($r=0.256$, $P<0.001$) (Table 3).

Regarding the relationship between demographic characteristics and the studied variables, the results indicated that the mean score of nurses' communication skills, as perceived by female patients was significantly higher than by male patients ($P=0.015$). No significant relationship was found between other demographic characteristics and nurses' communication skills. Furthermore, there was no significant relationship between the demographic characteristics of the patients and their assessment of the quality of nursing care or their trust in nurses (Table 4).

Discussion

This study aimed to determine patient trust in nurses and its relationship to the quality of nursing care and the communication skills of nurses in the emergency departments of selected hospitals in Ardabil. The results of the study showed that patients had a high level of trust in nurses, consistent with the findings by Howarth in England [17]. However, in Zhao's (2017) study in China reported that the level of trust among cancer patients in nurses was closer to average [18]. Differences between studies may be attributed to the type of diseases among participants, the contextual and cultural conditions of the

study environment, and the instruments used for assessing patients' trust in nurses. This high level of trust may be because the value of nurses during the epidemic was highlighted through meticulous nursing measures. Consequently, the humanistic needs of patients during their hospitalization were greatly met, which promoted the affirmation of nursing care. Additionally, positive social media coverage may have contributed to patients' understanding of nursing care, their trust in nursing staff, and their willingness to cooperate with treatment.

In this study, the vast majority of patients rated nurses' communication skills as average, with no one evaluating these skills as weak. Similar findings were reported in studies by Safavi (2015) and Zangeneh, where the communication skills of nurses were also evaluated as average [19, 20]. Conversely, Rostami (2012), and Lotfi (2019) found that patients in Tabriz rated the communication skills of nurses as weak to moderate [21, 22]. A study in Kirkuk, Iraq, also reported that most patients were not satisfied with nurses' communication skills [23]. In contrast, a study in India found that 47% and 53% of patients were satisfied or extremely satisfied with their nurses' communication skills [24]. Given that emergency nurses encounter a wide range of clients, each with specific conditions,

Table 3 Correlation coefficients between patients' trust in nurses with nurses' communication skills and quality of nursing care

Variable	The patient's trust in the nurse R (P- value)	
Communication skills of nurses	0.046 (0.369)	
Quality of nursing care	Total score	0.256 (<0.001)
	Psychosocial dimension	0.238 (<0.001)
	Communication dimension	0.118 (0.022)
	Physical dimension	0.233 (<0.001)

Table 4 Comparison of average scores of nurses' communication skills, quality of care, and patient's trust in nurses according to patients' demographic variables

Variable		Communication skills of nurses Mean \pm SD	P value	Quality of nursing care Mean \pm SD	P value	Patients' trust in nurses Mean \pm SD	P value
Gender	Male	71.97 \pm 2.66	¹ 0.015	198.04 \pm 13.83	¹ 0.705	27.72 \pm 2.67	¹ 0.415
	Female	72.80 \pm 3.71		198.66 \pm 14.64		27.49 \pm 2.83	
Marital status	Married	72.41 \pm 3.45	¹ 0.794	196.73 \pm 14.41	¹ 0.317	27.59 \pm 2.76	¹ 0.896
	Single	72.52 \pm 2.57		199.39 \pm 13.04		27.63 \pm 2.79	
Education	High school or less	72.29 \pm 5.59	² 0.868	199.34 \pm 13.55	² 0.382	27.56 \pm 2.61	² 0.973
	Diploma	72.53 \pm 2.62		198.02 \pm 16.30		27.57 \pm 2.87	
	University or higher	72.38 \pm 2.49		203.53 \pm 16.37		27.64 \pm 2.73	
Age	R	-0/01	³ 0.847	R	³ 0.706	0.05	³ 0.362

¹ Independent Sample T-Test² One-Way ANOVA Test³ Pearson Correlation Test

characteristics, and needs, they must be able to communicate effectively to meet their needs. Additionally, the importance of a favorable nurse-patient relationship in satisfying patients and promoting the quality of nursing services highlights the need to strengthen nurses' communication skills through education and continuous training programs.

In the present study, the quality of nursing care from the patients' perspective was reported as favorable. Other studies have shown varying results regarding patients' evaluation of the quality of nursing care. In Azizi-Fini et al.'s study, the caring behavior of nurses was rated as average by patients [25]. However, studies conducted in Brazil and Ethiopia reported that patients rated the quality of nursing care as favorable and unfavorable, respectively [26, 27]. Mostafa et al. (2020) also evaluated the quality of care provided in 75% of cases as unfavorable in a study conducted in Egyptian children's departments [28]. Conversely, a study in Turkey involving 635 patients reported that about 64% of patients rated the care received in the hospital as excellent [29]. Another study in Saudi Arabia found that patients were highly satisfied with nursing care [30]. It is important to note that nurses play an essential role in the quality of hospital services, and the concept of nursing care quality encompasses the patient's access to physical, communication, psychological, and social needs [31]. Patients' assessment of nursing care quality is considered one of the key criteria in the evaluation and accreditation of medical institutions [32]. In general, it appears that participants in the present study evaluated the quality of nursing care at an optimal level and were satisfied with it. Considering that most of the

nurses working in emergency departments are experienced and prioritize care based on patient needs, this finding is reasonable.

In the present study, a significant correlation was found between patients' trust in nurses and their rating of the quality of nursing care. A study on 227 patients with COVID-19 also showed a significant relationship between the level of patients' trust in nurses and their perception of the quality of nursing services [33]. Gonzalez similarly found that good-quality healthcare services increases patient trust [34]. Undoubtedly, people seek quality care services and there is an important relationship between patients' perception of service quality, the professional competence of caregivers, and patients' trust in the healthcare providers and the system. Therefore, if people do not evaluate the quality of health services as favorable, it could lead to a lack of trust in caregivers and hospitals.

In the present study, no significant correlation was found between patients' trust in nurses and their assessment of nurses' communication skills. Rørtveit reported that the way nurses communicate with patients is important in gaining trust, concluding that the development of patient trust in nurse depends on the nurses' communication skills and their commitment to creating a respectful human relationship with the patient. Therefore, it is necessary for nurses to regularly evaluate and develop their communication skills [35]. Haavisto and Jarva, in reviewing the factors affecting the development of patient trust in nurses, identified five basic factors, with communication skills and the way nurses interact with patients being the most important [2]. It seems that one reason for the absence of a significant relationship between these two

variables in this study could be the relatively insufficient communication skills among nurses. Therefore, measures should be taken to enhance the communication skills of medical personnel to gain more trust. Further studies in this area would help clarify the relationship between patients' trust in nurses and nurses' communication skills.

In our study, female patients had a more positive evaluation of nurses' communication skills. However, other individual characteristics of patients had no significant effect on their assessment of nurses' communication skills and the quality of care. This finding is consistent with the results of Lotfi et al.'s study on the relationship between patient satisfaction and nurses' communication skills [22]. On the other hand, Abbasi did not find a significant relationship between the gender of patients and their assessment of nurses' communication skills [36]. A study in Norway reported that female patients were less satisfied with all aspects of nursing care compared to male patients [37]. One possible reason for the positive assessment of nurses' communication skills by female patients in our study could be the gender of the nurses, as most participating nurses were female, which may have facilitated better relationships with their female patients. Additionally, cultural factors in the relationship between men and women in the study context may have influenced the communication established with male patients. However, due to the differing results in studies on this subject, more research is needed to investigate the causes of the differences in the opinions of male and female patients regarding nurses' communication skills.

Limitation

The study participants were non-randomly selected from emergency departments of educational medical centers in a single local city, which may limit the generalizability of the findings to other medical centers or larger populations. Additionally, patients with diverse chronic and acute diseases may have different perspectives on the quality of care and communication in medical centers, further limiting generalizability. Therefore, conducting multicenter studies in different cities and departments with random sampling is recommended.

Conclusion

In the present study, patients expressed a high level of trust in nurses. They evaluated nurses' communication skills as average and the quality of nursing care as favorable. Furthermore, patients' trust in nurses was positively associated with the quality of nursing care, indicating that increasing trust in nurses could positively affect patient's perception of the quality of nursing care. Therefore, nursing managers are encouraged to provide conditions that

foster trust in the healthcare team, including nurses, through training programs and by addressing communication barriers, such as the shortage of nursing staff. Improving the care environment and enhancing monitoring of nursing care and communication quality can help healthcare systems and staff enhance their perceived trustworthiness in emergency departments.

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Authors' contributions

Z.B., Sh. M. and N.V wrote the main manuscript text. N.R. edited and M.A. confirmed it. All authors provided content of critical importance to the work, read and approved the final manuscript for publication and agreed to be accountable for all aspects of the work in ensuring that any part of the study is appropriately investigated.

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Availability of data and materials

The data utilized to support the results of the research are accessible to the corresponding author upon request.

Declarations

Ethics approval and consent to participate

The study was approved by the Ethics Committee in Biomedical Research at Ardabil University of Medical Sciences (ARUMS) (ethic code IR.ARUMS.REC.1401.157). The study was conducted following the recommendations of the Declaration of Helsinki developed by the World Medical Association. Participation in the survey was voluntary, no personal data were collected, and anonymity was always maintained. All participants who received written information on the study had the opportunity to contact the investigators in case of questions at any time of the study. Informed written consent to participate was obtained from all of the participants.

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests.

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