



An Investigation Into the Barriers to Effective Nurse-Patient Communication from the Perspective of Nurses in Teaching Hospitals in Zanjan, Iran

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Abstract

Introduction: Effective nurse-patient communication is essential for providing high-quality care and increasing patient satisfaction. Conversely, poor communication often leads to patient dissatisfaction and a decline in service quality. This study aimed to identify the barriers to effective nurse-patient communication from the perspective of nurses working in teaching hospitals in Zanjan, Iran.

Methods: This cross-sectional study involved 195 nurses from various wards in Zanjan's teaching hospitals in 2025. Participants were selected using a stratified random sampling method. Data collection tools included a demographic questionnaire and the "Barriers to Effective Nurse-Patient Communication" questionnaire. This tool was developed in 2008, and its validity and reliability have been established in previous studies. Data were analyzed using SPSS version 26 via descriptive and inferential statistics, including independent t-tests, one-way analysis of variance (ANOVA), Kruskal-Wallis, Mann-Whitney U tests, and Pearson's correlation coefficient, with the significance level set at $P < 0.05$.

Results: The most important barriers to effective nurse-patient communication were identified as the difficulty of nursing work (92.9%), high workload (92.3%), low salary (90.8%), lack of welfare facilities (88.8%), physical and mental fatigue (87.2%), lack of recognition from officials (83.6%), and excessive patient expectations (80.5%). Job-related factors had the most substantial impact (35.69 ± 5.22). Notably, nurses' demographic and occupational characteristics indicated no significant relationship with communication barriers ($P > 0.05$).

Conclusion: The findings showed that communication barriers were mainly related to occupational conditions, specifically work difficulty, low salary, and nurses' exhaustion. It is recommended that intervention programs be designed and implemented to reduce nursing workloads and provide communication skills to enhance their ability to interact effectively with patients.

Keywords: Communication, Communication barriers, Nurses, Patients, Nurse-patient relationships

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Introduction

Communication is a dynamic process for exchanging thoughts, emotions, and beliefs, leading to mutual understanding and acceptance between individuals (1). In healthcare settings, communication is an essential element of the interaction between healthcare providers and patients. It is a vital skill for gaining patients' trust, which is essential for providing quality care and is an integral part of professional nursing responsibilities (2, 3).

Effective communication enables patients to better manage emotions, understand vital information about

their disease and treatment, and participate more actively and consciously in the health decision-making process (4, 5). Furthermore, positive communication between healthcare professionals and patients increases patients' willingness to provide information and adherence to treatment plans. This can lead to a reduction of approximately 50% in unnecessary tests and referrals (6), shorter hospitalizations, fewer complications, faster recovery, and improved post-discharge mental health of the patient even after discharge. Furthermore, robust communication is associated with better clinical outcomes,

a safer work environment for healthcare professionals, a reduction in preventable errors and transfer delays, as well as lower readmission rates and mortality rates (7).

When healthcare workers possess strong communication skills, numerous positive outcomes emerge. These include increased patient satisfaction, enhanced impact of patient training, and a greater awareness of patients' concerns and their acceptance of the disease. Furthermore, effective communication fosters a supportive attitude toward both individuals and staff, encourages a sense of participation within the treatment team, and improves professional skills, knowledge, and attitude. Consequently, productivity and job satisfaction at work increase; conversely, medical errors, length of hospital stay, treatment costs, stress and burnout, patient symptoms—such as anxiety, feelings of guilt, and pain—are significantly reduced (8, 9).

Among health care teams, nurses are the only professional group maintaining continuous and direct contact with patients throughout the entire care period (10). Effective nurse-patient communication is therefore essential for delivering high-quality nursing care and plays a critical role in accurately assessing and responding to patients' needs (11). Such interactions can lead to increased commitment to treatment plans, strengthened coping mechanisms, reduced stress levels, and greater satisfaction with overall care (12). Furthermore, effective communication reduces burnout and improves job satisfaction in nurses (13, 14).

On the other hand, several studies demonstrate that a lack of connection between nurse and patient increases the risk of misdiagnosis, medication prescription errors, or incorrect implementation of treatment protocols, primarily because patients may not accurately understand nursing instructions (15, 16). Inadequate or limited communication may lead to a failure to address patients' psychosocial and emotional needs, thereby increasing distress among patients (17).

Miscommunication can lead to prolonged hospital stays, additional treatment costs, or litigation (16). In addition, ineffective communication may lead to patient mistreatment (18), reduced patient participation in treatment (19), negative effects on patient safety, satisfaction, and care experience (20), failure to respect patient rights and ethical principles (21), and an increased risk of violence in the treatment environment (22).

Nurse-patient communication, in both its verbal and nonverbal forms, is often limited, and the duration of interaction is usually short (23). The findings of Rostami et al also indicate inadequate communication skills between nurses and patients (9).

According to the findings of Ghanei Gheshlagh et al, the most significant communication barriers among nurses included excessive workload, low salaries, job dissatisfaction, a high number of shifts, lack of basic facilities such as adequate rest areas, emotional distress, inappropriate behavior of patient's companions, unnecessary questions from patients and their companions, limited awareness of the concept of

communication and communication skills among nurses, and inadequate training on the principles of effective communication with patients (24).

In another study, Atghaee Kordkolaee et al identified excessive patient expectations in the domain of individual-social factors, heavy nursing workload in the domain of job-related factors, the presence of a companion in the domain of patients' clinical conditions, and the lack of acceptance of nurses by authorities in the domain of environmental factors as the most important barriers to effective communication (25).

Effective nurse-patient communication plays a crucial role in the disease recovery process, and its formation and quality are influenced by cultural, organizational, and environmental variables. Given that the barriers to effective nurse-patient communication are multifaceted, prior studies conducted among nurses have reported inconsistent results (10, 24-27). This complexity implies that further research is warranted, particularly in the context of Zanjan, where such factors have not yet been explored. By enhancing knowledge through the identification and presentation of communication challenges and barriers, useful steps can be taken to address these barriers and promote effective nurse-patient communication, which is directly related to health, especially mental health. Therefore, this study aimed to identify the barriers to effective nurse-patient communication from the perspective of nurses in teaching hospitals in Zanjan, Iran. The findings of this study will contribute to the existing body of knowledge.

Materials and Methods

Study Design and Setting

This cross-sectional study was conducted in two large teaching hospitals, Ayatollah Mousavi and Vali Asr, in Zanjan from April to July 2025.

Study Participants and Procedure

The sample size was estimated according to the main aim of the study, which was to determine the prevalence of barriers to effective nurse-patient communication as perceived by nurses. Since this aim required the estimation of a proportion, Cochran's formula for sample size calculation in proportion-based studies was applied:

$$n = \frac{\frac{z^2 pq}{d^2}}{1 + \frac{1}{N} \left[\frac{z^2 pq}{d^2} - 1 \right]} = \frac{\frac{1.96^2 \frac{1}{2} \frac{1}{2}}{d^2}}{1 + \frac{1}{256} \left[\frac{1.96^2 \frac{1}{2} \frac{1}{2}}{d^2} - 1 \right]}$$

Assuming maximum variability in responses ($P=0.5$, $q=0.5$), a 95% confidence level ($Z=1.96$), and a margin of error of 0.05, the initial required sample size was calculated to be 154 nurses (28).

Because estimation of a proportion is most sensitive to response variability, the use of $P=0.5$ provides the

most conservative (largest) sample size estimate. To ensure adequate power and to account for a potential 25% non-response rate or incomplete questionnaires, the sample size was increased to 195 participants. This approach ensures that the study's main objective—accurately estimating the prevalence of communication barriers from nurses' perspectives—would be achieved with sufficient precision.

Because it was not feasible to examine the study objectives in some wards, such as the Intensive Care Unit (ICU) and Neonatal Intensive Care Unit (NICU), participants were selected from nurses working in the specified wards of two hospitals in Zanjan after obtaining the necessary permissions and a list of nursing staff from the hospital administrations. These wards included Internal Medicine, Neurology, Emergency, Cardiology, Orthopedics, Urology, and Surgery. The participants included 113 nurses from Ayatollah Mousavi Hospital and 82 nurses from Vali Asr Hospital. Holding a bachelor's degree or higher in nursing was considered an inclusion criterion, while incomplete questionnaire information constituted the exclusion criterion.

After obtaining the required permissions, the researchers prepared a list of all nurses working in the targeted wards and assigned a number to each nurse to create a sampling frame. Participants were then selected using a two-stage stratified random sampling method. The selected nurses were approached individually in their wards, informed about the purpose of the study, and, after obtaining informed consent, were provided with the questionnaires.

Data Collection Tools

Data were collected using two questionnaires:

Demographic Questionnaire

This questionnaire gathered personal and occupational information, including age, gender, education, marital status, work experience, proficiency in the local language, hospital ward, and work shift.

Nurse-Patient Effective Communication Barriers Questionnaire

This tool was developed by Baraz Pordanjani et al (29) and included 30 questions assessing barriers to effective nurse-patient communication from nurses' perspectives across four dimensions: individual and social factors (8 items), such as patients' excessive expectations, Job characteristics (9 items), such as heavy workload, patients' clinical conditions (4 items), such as the presence of companions, and environmental factors (9 items), such as lack of appreciation by authorities. The questionnaire is scored on a 5-point Likert scale, with the highest score (5) indicating "completely agree" and the lowest score (1) indicating "completely disagree". Higher scores in each dimension indicate a stronger perceived barrier to effective nurse-patient communication, and vice versa.

The reliability of the questionnaire has been confirmed

in previous studies using the internal consistency method (25, 29-30). In the present study, the Cronbach's alpha coefficient for this tool was 0.85. The face and content validity of the questionnaire were also examined through face-to-face interviews and surveys with professors and instructors in nursing and midwifery (29, 31).

Statistical Analysis

Data were analyzed using SPSS software, version 26. Descriptive statistics were used to describe the data as mean (standard deviation) and frequency (percentage). After assessing the normality of the data, appropriate statistical tests were applied to analyze the relationship between demographic variables and the barriers to effective nurse-patient communication.

An independent samples t-test was applied to compare the mean communication barrier scores between two independent groups, such as male and female nurses. To compare mean communication barriers across three or more groups, one-way analysis of variance (ANOVA) was employed. When the assumption of normality was not met, the Kruskal-Wallis test was used for comparisons involving more than two groups, and the Mann-Whitney U test was utilized for comparisons between two independent groups. Additionally, Pearson's correlation coefficient was used to examine the linear relationship between quantitative variables, such as age and communication barriers. The *P*-value of less than 0.05 was considered statistically significant.

Results

Sample Characteristics

According to Table 1, of the 195 nurses who participated in the study, 60.5% were female, and the mean age of the participants was 30.75 years (Table 1).

Barriers to Nurse-Patient Communication

The mean overall score for barriers to nurse-patient communication was 107.43 ± 13.54 . The most frequently reported barriers from the nurses' perspective were the difficulty of nursing tasks (92.9%), high nursing workload (92.3%), low salary (90.8%), lack of welfare facilities (88.8%), physical and mental fatigue (87.2%), lack of appreciation by authorities (83.6%), and excessive expectations of patients (80.5%).

Based on the dimension scores, job characteristics were identified as the most important barriers to effective nurse-patient communication, with the highest mean score (35.69 ± 5.22). This was followed by environmental factors (32.57 ± 4.99), individual and social factors (25.71 ± 4.63), and patients' clinical conditions, which had the lowest mean score (13.46 ± 2.91).

Within the job characteristics dimension, the most prominent barriers were difficulty of nursing work (4.52 ± 0.75), high workload (4.46 ± 0.82), low salary (4.45 ± 0.79), and lack of welfare facilities for nurses (4.35 ± 0.90). In the environmental factors dimension, lack of appreciation of nurses by officials (4.25 ± 1.00) and

Table 1. Demographic and Occupational Characteristics of Participants (n = 195)

Variable	Group	(%)n
Gender	Male	77 (39.5%)
	Female	118 (60.5)
Education	Bachelor	180 (92.3%)
	Master	15 (7.7%)
Marital Status	Single	91 (46.7%)
	Married	104 (53.3)
Work Experience	Less than 5 years	79 (40.5%)
	5-10 years	69 (35.4%)
	More than 10 years	47 (24.1%)
Place of Residence	Local	133 (68.2)
	Non-local	62 (31.8)
Proficiency in the Local Language	Yes	141 (72.3%)
	No	54 (27.7%)
Work Unit	Emergency	89 (45.6%)
	Neurology	40 (20.6%)
	Internal	12 (6.1%)
	Orthopedic	14 (7.2%)
	Cardiology	14 (7.2%)
	Surgery	16 (8.2%)
	Urology	10 (5.1%)
Work Shift	Morning	10 (5.1%)
	Night	4 (2.1%)
	Rotating	181 (92.8%)
Age	Mean±SD	30.75±5.46

Note. SD: Standard deviation.

feelings of injustice in the workplace (4.03 ± 0.90) received the highest scores. In the individual and social factors dimension, patients' excessive expectations had the highest mean score (4.07 ± 1.04). In the patients' clinical conditions dimension, the presence of a companion (3.53 ± 1.13) and contagious diseases (3.46 ± 1.07) were the most frequently reported barriers (Table 2).

The Most Important Barriers Based on Dimensions

Based on the results obtained for the four dimensions—individual and social factors, occupational characteristics, patients' clinical conditions, and environmental factors—the most important barriers were as follows:

- Individual and social factors: Patients' excessive expectations, nurses' unfamiliarity with the local language, and patients' lack of awareness of nurses' job responsibilities.
- Occupational characteristics: The difficulty of nursing tasks, high workload, low salary, lack of welfare facilities, and physical and mental fatigue.
- Patients' clinical conditions: Presence of companions, severity of illness, and patients' communicable diseases.
- Environmental factors: Lack of appreciation by authorities, perceived injustice in the workplace, and lack of welfare and healthcare facilities for patients.

Table 2. Frequency Distribution of Nurses' Views Regarding Barriers to Nurse-Patient Communication

No.	Barriers to Nurse-Patient Communication	Mean (SD)
Individual and Social Factors		25.71 (4.63)
1	Age difference between patient and nurse	2.60 (1.109)
2	Gender difference between patient and nurse	2.77 (1.118)
3	Nurse's unfamiliarity with local language	3.65 (1.099)
4	Class difference between patient and nurse	2.37 (1.073)
5	Nurses' problems outside the work environment	3.45 (1.202)
6	Patient's unfamiliarity with nurses' duties	3.76 (1.033)
7	Nurses' irritable mood	3.05 (1.317)
8	Patients' excessive expectations	4.07 (1.041)
Job Characteristics		35.69 (5.22)
9	Lack of welfare facilities for nurses	4.35 (0.903)
10	Low salary for nurses	4.45 (0.794)
11	Difficulty of nursing work	4.52 (0.748)
12	High workload in nursing	4.46 (0.820)
13	Shift work in nursing	3.71 (1.163)
14	Nurses' lack of interest in their work	3.54 (1.194)
15	Physical and mental fatigue of nurses	4.23 (0.920)
16	Patient contact with multiple nurses with different moods	3.35 (1.090)
17	Lack of nurses' information and skills in patient communication	3.08 (1.126)
Patient's Clinical Conditions		13.46 (2.91)
18	Previous hospitalization history	3.06 (0.998)
19	Presence of a companion	3.53 (1.132)
20	Severity of the patient's illness	3.41 (1.091)
21	Patients having contagious diseases	3.46 (1.066)
Environmental Factors		32.57 (4.99)
22	Lack of communication skills training during nursing education	3.34 (1.054)
23	Lack of in-service communication skills training	3.34 (1.030)
24	Lack of welfare and treatment facilities for patients	3.88 (0.900)
25	Improper performance of duties by other hospital staff	3.71 (1.026)
26	Unhygienic condition of patient rooms	3.30 (1.072)
27	High cost of treatment for patients	2.91 (1.183)
28	Feeling of injustice in the work environment	4.03 (0.896)
29	Lack of appreciation of nurses by officials	4.25 (1.002)
30	Lack of nurses' participation in workplace decision-making	3.82 (0.956)
Scale Total Mean (SD): 107.43 (13.54)		

Note. SD: Standard deviation.

These findings indicate that, among the four dimensions examined in the present study, the most prominent barriers to nurse-patient communication were mainly related to nurses' occupational characteristics. The results also showed no significant relationship between nurses' demographic and occupational characteristics and communication barriers. Accordingly, none of the statistical tests reached a significant level ($P > 0.05$), as illustrated in Table 3.

Discussion

This study aimed to identify barriers to effective nurse-patient communication from the perspective of nurses working in teaching hospitals. The results showed that the greatest communication barriers were related to occupational and environmental factors. The difficulty of nursing tasks, high workload, low salary, lack of welfare facilities, physical and mental fatigue, lack of appreciation by authorities, and patients' excessive expectations were identified as the most important communication barriers.

These findings are consistent with the study by Atghae Kordkolaee et al conducted on emergency nurses in teaching hospitals of Mazandaran, which examined communication barriers across four dimensions and found that the most significant barriers, in order, were occupational characteristics, environmental factors,

individual-social factors, and patients' clinical conditions. These results indicate that job-related and environmental factors exert a greater impact as barriers to communication than individual characteristics (25).

Furthermore, the findings of this study are consistent with those reported by Ghanei Gheshlagh et al, who conducted a Q-methodology study among Iranian nurses (24). In that study, four main dimensions of nurse-patient communication barriers were identified: (1) organizational factors and working conditions (20%), (2) emotional stress and psychological barriers (11%), (3) decreased professional motivation (9%), and (4) lack of mutual understanding and awareness (7%). The first dimension (organizational factors and working conditions) included issues such as staff shortage, heavy workload, and lack of welfare facilities, which directly align with the job characteristics and environmental factors identified in the present study. Additionally, emotional stress and psychological barriers (e.g., physical and mental fatigue), reduced professional motivation (e.g., lack of appreciation by authorities), and lack of mutual understanding (e.g., patients' unrealistic expectations and unfamiliarity with nurses' duties or the local language) correspond with the individual-social dimension in the present study (24).

The findings of the present study, along with similar

Table 3. Results of Statistical Tests for the Association of Demographic and Occupational Variables With Barriers to Effective Communication

Variables	Category	Mean (SD) of Barrier Score	Test Statistics	Effect Size	P-value
Age	-	-	Pearson correlation	$r = 0.047$	0.523
Gender	Male	106.57 (11.35)	Independent samples t-test	MD = -1.40	0.475
	Female	107.99 (14.81)			
Education	BSc	107.23 (13.89)	Independent samples t-test	MD = -2.56	0.482
	MSc	109.80 (8.10)			
Marital Status	Singl	105.78 (14.36)	Independent samples t-test	MD = -3.09	0.111
	Married	108.87 (12.67)			
Work Experience	<5	107.10 (13.52)	One-way ANOVA	$\eta^2 = 0.007$	0.527
	5-10	108.80 (11.38)			
	>10	105.98 (16.32)			
Place of Residence	Native	108.13 (13.89)	Independent samples t-test	MD = 2.19	0.293
	Non-native	105.93 (12.73)			
Proficiency in Local Language	Yes	107.23 (13.91)	Independent samples t-test	MD = -0.71	0.744
	No	107.94 (12.62)			
Work Unit	Emergency	106.86 (11.50)	One-way ANOVA	$\eta^2 = 0.048$	0.152
	Neurology	105.72 (17.34)			
	Internal	115.66 (9.06)			
	Orthopedic	108.28 (7.78)			
	Cardiology	108.71 (16.02)			
	Surgery	102.87 (17.92)			
	Urology	113.70 (8.46)			
Work Shift	Morning shift	109.40 (16.44)	Kruskal-Wallis test	H = 4.202	0.122
	Night shift	120.25 (15.46)			
	Rotating shift	107.04 (13.26)			

Note. SD: Standard deviation; MD: Mean difference; BSc: Bachelor of Science; MSc: Master of Science; ANOVA: Analysis of variance.

studies conducted in Iran, such as those carried out in Mazandaran (25) and Alborz (27), and in other countries such as Canada (10), indicate that occupational factors (e.g., the difficulty of nursing tasks, high workload, low salary, lack of welfare facilities, and physical and psychological fatigue) constitute the primary barriers to effective nurse–patient communication.

However, in contrast to the present findings, Al-Kalaldeh et al, in a study conducted in the West Bank, Palestine, reported that environmental factors were perceived as the most significant barriers to effective nurse–patient communication (32). Similarly, a study conducted in Jeddah, Saudi Arabia, identified cultural and social factors as the main barriers to nurse–patient communication. In that study, language differences between nurses and patients received the highest mean score, followed by cultural and religious differences, nurses’ lack of communication skills and self-confidence, and patients’ resistance or negative attitudes (26). These differences suggest that communication barriers vary across cultural and healthcare contexts. While occupational factors appear to be more prominent in Iran, linguistic and cultural differences may constitute the greatest challenge in other settings, such as Saudi Arabia.

The findings of the present study further indicated that nurses’ demographic characteristics, including age, gender, marital status, work experience, place of residence, and proficiency in the local language, were not significantly associated with the overall communication barrier score. This result is consistent with the findings of Abdulla et al, who reported no significant relationship between nurses’ demographic characteristics and communication barriers in primary healthcare centers in Bahrain (33). In contrast, Bakhshi et al found a significant relationship between nurses’ age and communication barriers, with older nurses reporting lower barrier scores (34). Such inconsistencies may be explained by differences in contextual conditions, sample size, and the physical and psychological state of participants across studies.

Conclusion

The findings of this study indicate that the most important barriers to nurse–patient communication were related to nurses’ occupational characteristics. Factors such as high workload, difficulty of nursing tasks, lack of welfare facilities, low salary, and physical and psychological fatigue played the greatest role in weakening effective communication. In addition, barriers such as patients’ excessive expectations (individual and social factors), lack of appreciation by authorities (environmental factors), and problems related to patients’ clinical conditions also affected this communication.

These findings highlight the importance of establishing an appropriate framework to enhance both the quantity and quality of communication between nurses and patients, improve the care process, increase patient satisfaction, and improve the quality of health services. The findings underscore the need for healthcare

managers to improve nurses’ occupational and welfare conditions, including workload, salary, welfare facilities, physical and psychological fatigue, and institutional recognition. Improving these conditions may be more effective in strengthening nurse–patient communication than focusing solely on individual-level factors. Greater awareness of communication barriers between nurses and patients can inform managerial decision-making and lead to stronger nurse–patient communication, increased patient satisfaction and trust, reduced dissatisfaction, and improved quality of nursing care. In addition, by reducing medical errors, stress, and burnout, improved communication may enhance nurses’ productivity and job satisfaction.

Nursing managers can reduce nurses’ workload by increasing the number of staff, improving shift scheduling, and enhancing welfare facilities. In addition, holding communication skills training and cultural sensitivity workshops can help improve nurses’ ability to interact effectively with patients. Furthermore, implementing motivational and supportive measures, such as regular organizational recognition, salary improvements, and the provision of welfare services, is essential for improving nurses’ motivation and job satisfaction. Finally, educating patients about nurses’ roles and fostering realistic expectations may help reduce communication barriers. These measures require organizational coordination and should be further investigated in future research to determine their effectiveness in different contexts.

The study had several limitations. First, due to the context-based nature of communication, the findings may have limited generalizability to other populations and settings. Second, because barriers to effective communication were assessed using a self-reported questionnaire, the possibility of socially desirable responses cannot be excluded.

It is recommended that future studies consider a broader and more diverse study population, with greater variation in nurses’ age, work experience, and educational level, in order to better assess the impact of these variables under different contextual conditions.

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Competing Interests

The authors declare that they have no conflict of interests.

Data Availability Statement

The data supporting the findings of this study may be available from the corresponding author upon reasonable request.

Ethical Approval

Ethical Approval was granted by the Ethics Committee at Zanjan University of Medical Sciences under approval number IR.ZUMS.REC.1403.331. Written informed consent was obtained from all participants, and the principles of confidentiality, anonymity, and data security were strictly maintained throughout the study.

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