



Barriers and Facilitating Factors of Communication in Iranian Educational Health Care Centers: A Systematic Review

Fatemeh Zeynab Kiani ¹ and Ali Ahmadi ^{2,*}

¹Modeling in Health Research Center, Shahrekord University of Medical Sciences, Shahrekord, Iran

²Virtual University of Medical Sciences, Ministry of Health and Medical Education, Tehran, Iran

*Corresponding author: Modeling in Health Research Center, Shahrekord University of Medical Sciences, Shahrekord, Iran. Email: aliahmadi2007@gmail.com

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Abstract

Context: Communication, as an essential human skill, is one of the most influential factors in the performance of healthcare workers. In fact, the establishment of effective communication with the recipients of healthcare services and patients can increase their satisfaction and quality of life. Due to the paucity of comprehensive research in this area, the present study aimed to investigate the barriers and facilitating factors concerning communication among healthcare workers.

Evidence Acquisition: This systematic review was conducted by searching PubMed, Scopus, Web of Science, MagIran, Iranmedex, Google Scholar, and SID databases, using the following keywords: “communication”, “communication barrier”, “communication facilitator”, “health system”, “nurse”, “physician”, “faculty member”, “teacher”, “student”, “health manager”, and “patient”. All searches were conducted within a 10-year period from 2008 to 2018.

Results: According to our literature review, 44 articles (38 quantitative and 6 qualitative) met the inclusion criteria. In these studies, “pleasant greetings” and “tidy appearance” were the most important factors facilitating the patient-physician relationship, “teacher’s modesty”, “patience”, and “respect for students” were the main factors facilitating the teacher-student relationship, and finally, “responsibility”, “empathy”, and “companionship” were identified as the most significant factors in the patient-health care worker relationship. On the other hand, the most important barriers to communication in the clinical setting were “poor introduction of the healthcare provider to patients”, “high workload and fatigue”, and “lack of training on the principles of communication skills and environmental factors”.

Conclusions: Based on the findings, identifying the facilitating factors and barriers to communication is the most important step in the management of health services. Communication skills training can have a beneficial effect on the health education programs for the healthcare staff. In addition, it can improve the efficacy of health services.

Keywords: Communication Facilitator, Communication Barrier, Health Care, Systematic Review, Iran

1. Context

Communication is the cornerstone of human societies, without which social life cannot be sustained. Social life and dynamic social interactions provide an opportunity for individuals to develop their capacities, abilities, and personal traits. In fact, without effective communication, it is not possible to boost one’s creativity and vision (1). Generally, communication is described as the process of transmitting information and common understanding from one person to another. There are at least three essential components in communication, including the sender, receiver, and message (2).

Communication takes place in both verbal and non-verbal forms (3). Verbal communication involves all aspects of speech and verbal tools and is widely used by

healthcare workers to facilitate communication with patients and other people in the healthcare setting and present oral medical reports to colleagues (4). On the other hand, more than two-thirds of every communication is non-verbal. Non-verbal communication integrates a wide range of physical responses, such as facial expressions, eye contact, hand and head movements, noise, and silence. It represents an individual’s feelings and attitudes toward others and is otherwise known as body language (5).

Among non-verbal skills, facial expressions are of particular importance, as they can reveal the individual’s feelings and attitude toward others’ actions or behaviors (6). It should be noted that non-verbal messages are often subconsciously transmitted; therefore, they can be more reliable than verbal communication (7). In order to establish an effective and dynamic relationship, both verbal

and non-verbal skills should be used effectively. Among different groups of people, healthcare workers including faculty members, students, residents, nurses, consultants, and health care administrators have the most direct and indirect interactions with each other, people and health care recipients. In educational health centers, therapeutic services are provided in addition to education and training for students. Therefore, effective communication is the key to provide the desired health services in these centers.

Failure in communication has adverse effects, such as poor student training, increased rate of misdiagnosis, increased medical errors, reduced knowledge, and information of patients, patient dissatisfaction, patient non-compliance with health care, lack of treatment or incomplete treatment, and mortality. By the same token, it has harmful effects on the physical, psychological, and socio-economic aspects of an individual's life and negatively affects healthcare services (8). Evidence shows that physicians who are well connected with patients are more likely to make accurate diagnoses and identify emotional distress in patients (9); accordingly, mastery of communication skills is vital. Overall, the identification of barriers and facilitating factors concerning communication among healthcare workers in different domains of education, research, health, and treatment, along with the acquisition of communication skills, seems crucial.

Multiple factors are known to influence the process of communication. Various studies have been published on communication skills and related factors, each focusing on one or more indicators or one aspect of communication. Since no research has comprehensively examined all the contributing factors of communication, the purpose of this study was to summarize relevant studies in this area and to meet the requirements of knowledge development related to communication. In addition, the present study focused on facilitating factors and barriers to communication among healthcare workers.

2. Methods

This systematic review was conducted on studies and data sources related to the facilitating factors and barriers to communication in the Iranian Educational Health Care centers. Overall, a systematic review is a structured search of the literature according to a predefined set of rules. This type of review, by integrating strategies with minimum error and bias, presents a summary of the results of primary studies. In other words, a systematic review is an observational study of quantitative and qualitative research, which allows the researcher to concentrate on major results.

2.1. Search Strategies and Data Sources

Two assessors independently searched the literature in PubMed, Scopus, MagIran, Web of Science, Iranmedex, Google, SID and reviewed the references of articles found in the primary search. All studies published in the last decade (2008 - 2018) were reviewed without any language restrictions (both Persian and English articles were included). However, studies without an English abstract, such as letters to the editor, proposals, poster presentations at congresses, and case reports were eliminated.

The electronic databases were searched based on the Medical Subject Headings (MeSH). An extensive search was carried out using a combination of the following keywords: "communication", "communication barrier", "communication facilitator", "healthcare system", "nurse", "physician", "faculty members", "instructors", "students", "health managers", and "patients". To increase the sensitivity of primary search, available resources were thoroughly searched to avoid missing relevant documentation. Therefore, papers which were possibly unrelated to our subject were included in the initial stage, while in the later stages, less relevant articles were removed. We tried to only include relevant and reliable information in this study.

2.2. Selection and Quality Assessment of Articles

At first, all retrieved articles were entered in EndNote. Duplicate articles were identified and removed from the analysis. The remaining articles were listed based on their title and abstract. Afterward, studies with abstracts, which were clearly irrelevant to the research topic, were excluded. Next, the full-text of relevant and partially relevant articles was reviewed to ensure the relevance of their subject matter to the purpose of our study and to identify and classify the main findings.

Qualitative assessment of articles was based on the main guidelines for improving the quality of systematic review methodologies for scholars and reviewers. The evaluated items in the checklist included the year of study, type of study, study location, sample size, population, data collection tools, validity and reliability of tools, data analysis methods, and report of findings. In the evaluation of articles, the checklist items were scored from 0 to 10. Based on scientific consensus, studies which at least obtained 50% of the total score were considered eligible for the study after approval by methodology experts (10, 11).

2.3. Data Analysis and Synthesis

The research team agreed on the type of information to be extracted from the articles. The collected information included the study objectives, year of the study,

study methods (quantitative and qualitative), study design, study population, main findings, and references. In the present study, we tried to focus on the important sections of studies to extract the main findings. These sections included the final part of the introduction section (objectives), primary results, and findings presented in the discussion and conclusion sections of the articles.

Information was extracted and analyzed by the research team. Meanwhile, to increase the accuracy of our study, all articles were examined by the research team to avoid any errors caused by personal differences. Then, the research team approved the review, summary, and abstraction of articles, and facilitating factors and barriers to effective communication were evaluated in the educational-health care centers of Iran. This article is based on a research project with the title of Survey and community need assessing of three populations in Chaharmahal and Bakhtiari province, Iran (ethics code, IR.SKUMS.REC.1397.104).

3. Results

The search process of articles is presented in [Figure 1](#).

To increase the search sensitivity and avoid missing relevant articles, the search was first conducted without any time limitations. Almost 1125 articles were retrieved. Also, five articles were identified from the reference lists of articles. A total of 1130 papers were found in our primary search.

In the second phase of the study, 824 articles were removed, and 170 full-text articles were selected, based on their title, abstract, subject, and time frame and general assessment of researchers. In the third phase, the articles were evaluated using a checklist. A total of 44 studies were found to be eligible for our systematic search, including 15 papers on the teacher-patient relationship, 20 papers on the patients' relationship with managers, nurses, and caregivers, eight articles on the patient-physician relationship, and one article on the relationship between nurses and caregivers and patients' families. Papers were classified and evaluated with respect to their topic (including teacher-student relationship, physician-patient relationship, the relationship between health managers, nurses, caregivers, and patients, and the relationship between nurses, healthcare team, and patient's family) and communication barriers and facilitating factors in Iranian Educational Health Care centers. The characteristics of these studies are presented in [Table 1](#).

3.1. Factors Facilitating Communication in the Educational Health Care Environment

Patient-physician relationship: In the patient-physician relationship, the physician's professional meeting and greeting and appearance were the most significant facilitating factors ([Table 2](#)).

Student-teacher relationship: Factors such as teacher's humility, ethics, and respect for students accounted for the highest percentage of facilitating factors ([Table 2](#)).

Relationship of patients with managers, nurses, and healthcare providers: Empathy and sympathy for patients and expressing a friendly feeling with the patient were the most important factors in communication with patients ([Table 2](#)).

Relationship of nurses and healthcare providers with patients' families: Spiritual and emotional aspects, counseling, guidance in decision making as well as treatment selection were the most important factors affecting the relationship with patients' family members and companions ([Table 2](#)).

3.2. Barriers to Communication in the Educational Health Care Environment

Patient-physician relationship: Poor physician's introduction to the patient accounted for the highest percentage of barriers to establishing communication with patients ([Table 3](#)).

Teacher-student relationship: Some of these barriers included behaviors, which increase students' anxiety, frustration, and fear ([Table 3](#)).

Relationship of nurses and healthcare providers with patients: The high workload, followed by language and cultural differences, is one of the most important factors, affecting the quality and quantity of communication with patients ([Table 3](#)).

4. Discussion

The purpose of this study was to systematically review the evidence, documents, and articles regarding the facilitating factors and barriers to effective communication among healthcare personnel in order to strengthen the facilitators of effective communication, remove the barriers, and use creative strategies for establishing effective communication with the healthcare team. In the present review, articles were categorized according to their subject into four areas: physician-patient relationship; teacher-student relationship; nurse-manager relationship; healthcare team, nurse, and manager relationship; and the relationship of the healthcare team with the patient's family and companions. Comparisons and discussions about these relationships are presented in this section.

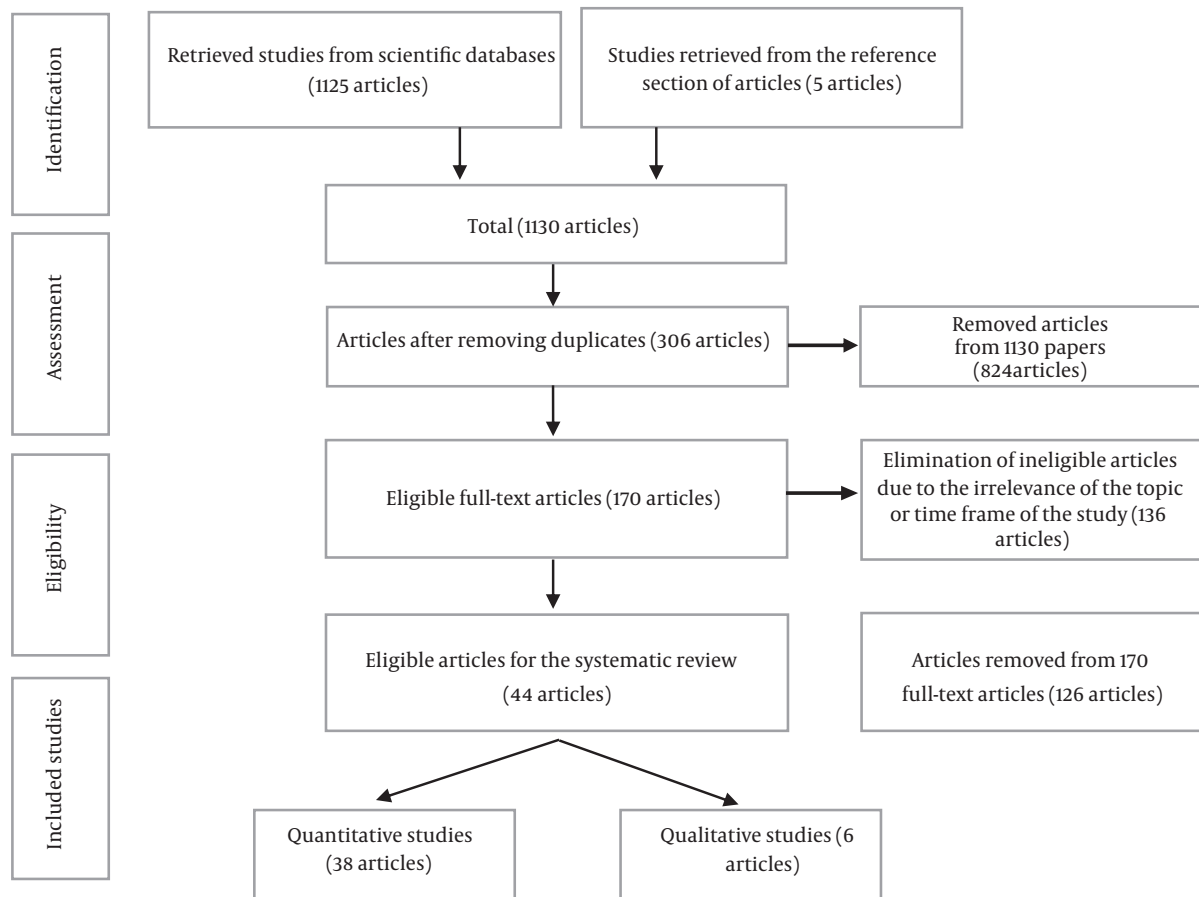


Figure 1. The structured search strategy of databases and selection of articles

Different studies have pointed to one or more determinants of physician-patient communication. Since each study has focused on one aspect of this phenomenon, not all indicators were investigated in one single article. Therefore, it is natural that all indicators are not observed in non-overview studies, and in this research, we tried to summarize and describe all factors associated with communication skills. According to previous studies, the level of communication skills in three areas of a teacher-student relationship (1, 12-15, 18, 19), physician-patient relationship (22, 23, 26, 32), and healthcare provider-patient relationship was generally assessed at a moderate level (8, 33, 38, 39).

4.1. Physician-Patient Relationship

Medical practice is an integration of science and art. A competent physician should have several skills, including effective communication skills for interacting with patients. Communication skills are considered a vital com-

ponent of clinical practice, as they are effective tools for accurate diagnosis of disease and convincing them through medical consultation. On the other hand, interpersonal and communication skills are considered as one of the main areas of competence assessment for medical students, residents, and physicians (48). In fact, proper interaction and communication between physicians and patients is an effective factor in treatment outcomes.

The physician's professional and empathetic attitude towards patients, based on active communication, increases the patient's trust in the physician for accurate and timely treatment. In fact, by building trust in patients, physicians can improve the patients' compliance with treatment and increase their satisfaction (28, 53, 54). In addition, increased patient satisfaction improves patient compliance with medical directives increases and predisposition to follow up with the provider is strengthened, while 30-day readmission rates are lower, and ultimately, the cost of treatment is reduced (55).

Table 2. The Most Important Findings on the Facilitators of Communication in the Educational Health Care Environment in the Systematic Descriptive Review

| Factors | Findings |
|--|---|
| Patient-physician relationship | Start of interview: Meet and greet (28, 31, 32), physician's demeanor and appearance (16, 28, 31), addressing patients and asking their names (25, 30, 31), explaining the purpose of assessment to patients and even comforting them (28, 31), and finally introduction of physicians to patients (25, 30, 32). |
| | During interview: Physician's friendly attitude towards patients (25, 28, 31), empathy for patients (25, 31, 32), giving time to patients to discuss their problems (25, 26, 31, 32), having respect for the beliefs and ideas of patients (25, 26, 31), establishing non-verbal communication with patients (25, 26), respecting patient privacy (25, 31), presenting questions in a simple manner in accordance with the patient's literacy level (25, 26, 28, 31), encouraging patients to further discuss their issues (25, 30, 31), listening to patients (25, 26, 28, 31), giving appropriate answers to the patients' questions and ensuring the patient's understanding of the discussed subjects (25, 26, 31). |
| | End of interview: Asking patients about the topics which are left undiscussed and answering the patients' possible questions (28), summarizing the findings of interviews and assessing the patients' understanding of interview results (25, 26, 28, 31), and announcement of the end of interview through verbal and non-verbal communication (28, 30). |
| Student-teacher relationship and nurse-physician relationship and collaboration | Personal factors: humility and good manners (1, 12-15, 17-19, 21, 23), high work motivation (1), gender (1, 22), age (1, 18, 20), marital status (1), demeanor and appearance (1, 6, 24), religious beliefs (1, 14, 24), secrecy and confidentiality (12, 13, 24), eloquence (1, 24), patience (1, 12-15, 18, 19, 23, 24), speaking skills (1, 12, 13, 15, 24), clarity of the presented subjects (1, 24), good listening skills (1, 20, 23, 24), teacher's intimacy and politeness (1, 17, 24), respect for students (1, 12-15, 18, 19, 23, 24), student guidance (17, 23, 24), amiability (13, 14, 23, 24), positive an attitude (24), flexibility (14, 23, 24), impartiality in treating students (13, 14, 18, 24), students' understanding and empathy (1, 15, 18, 24), and assistance with the students' problems (23). |
| | The scientific factors and attributes included: having up-to-date information (1, 12, 13, 18, 24), experience (13, 15, 24), having teaching knowledge, and mastery of subject matter (12, 13, 15, 18, 21, 24). |
| | The professional qualities included: professional competence (1, 24), strict teaching disciplines (1, 13), presentation of study subjects and teaching skills (1, 12, 15, 21, 24), teacher's emphasis on regulations (1, 13, 24), motivating and involving students (23, 24), motivation and desire to guide students (15, 17, 24), punctuality (24), and interest in the teaching process (24, 25). |
| | Environmental and physical factors of the work environment (1, 21). |
| Relationship of patients with managers, nurses, and healthcare providers | Gender (37, 46-48), age (12, 33, 36, 41, 46), cooperation of physicians and nurses in treatment decision-making and teamwork (29), employees' appearance and demeanor (44), empathy for patients (29, 38, 39, 42), friendliness (29, 39, 42), assuming responsibility (29, 39, 42, 49), respectful behavior and attitude (39, 42), ensuring the safety of patients (49), appropriate clinical conditions (38, 42, 44), timely and proper delivery of services (38, 49), genuine interest in helping patients (39, 49), patient's trust in the scientific and practical competence of therapists (39), interest in cooperation and helping patients (29, 38), guidance and response to patients' questions (44, 49), being knowledgeable (42, 49), experience of providing care for patients in the family (39), being respectful (39, 42), gaining the trust of patients (44, 49), secrecy (44, 49), being accessible and communicating with patients (44, 49), competence in providing care (42, 44, 49), and use of simple sentences instead of complicated medical terms (44, 49). |
| Relationship between the healthcare team and the patient's family | Spiritual factors (faithfulness and adherence to religious rules), emotional factors (empathy, mutual understanding, and feelings of trust and comfort), attracting cooperation (participation in decision-making and physical care), and consultation and guidance in the selection of optimal treatment (50). |

Since the clients referred to healthcare centers may have different cultural backgrounds, complaints, or socioeconomic and health literacy levels, they may have different expectations from physicians. Accordingly, physicians should consider the basic needs and causes of patient referrals with respect to cultural, social, and economic conditions in order to communicate effectively with patients; therefore, communication skills are essential to medical performance. On the other hand, these skills can be taught and learned. In recent years, many medical universities around the world have added communication skills training to their curriculum. Overall, a vital factor in the effectiveness of healthcare services is maintaining patient centrality through effective communication (56).

The most common physician-patient communication weaknesses were reported at the beginning and end of the examination (28, 30, 51); however, fewer shortcomings were reported during the examination process. One of the barriers to physician-patient communication in health-

care settings is the lack of job motivation and satisfaction among physicians, inattention to the importance of patient involvement in diagnostic and therapeutic decisions, unsuitable workplace conditions, and unsuitable location of the patients' waiting room (43). Moreover, the presence of physicians in clinics after visiting the patients in the area that is often tired is one of the reasons for poor communication between physicians and patients (57).

Based on the findings, basic physician-patient communication skills, including meet and greet, respect for patient's beliefs and ideas, active listening, confidentiality, empathy, humility, patience, information collection and presentation, patient education, and ensuring the patient's understanding, should be strengthened (25, 31, 32).

4.2. Teacher-Student Relationship

Communication in the process of learning occurs by the exchange of information and knowledge in a two-way interaction between the teacher and student. Teachers by

Table 3. The Most Important Findings on Barriers to Communication in the Educational Health Care Environment in the Systematic Descriptive Review

| Barriers | Findings |
|--|---|
| Physician-patient relationship | Poor physician's introduction to patients (28, 30, 32, 51), lack of explanation about the purpose of medical examinations (28, 30), lack of understanding and respect for patients (24, 25), use of medical jargon (25, 28), lack of understanding for the patients' beliefs (26, 28, 31, 32, 52), and patients' lack of access to physicians (27). |
| Student-teacher relationship | Behaviors leading to the students' anxiety and stress, discrimination between students, lack of understanding about the students' needs, tidy appearance and demeanor, poor behavior, and lack of teaching knowledge. Factors related to department management and healthcare team communication with patients: high workload (34, 36-38, 46), disregard for the needs of nurses and patients (41, 48), difficult work (8, 34, 38, 41, 46), Additional work shifts and lack of supervision (36, 48), effective management (49), supervisor's professional and supportive care (49), mutual trust and interaction of physicians, nurses, and other hospital staff (29, 49), imbalanced patient-to-nurse ratio (8, 34, 36, 38), lack of training on the principles of in-service communication skills (35, 42), aggressive or unprofessional attitude towards patients (8, 35, 46), work-related fatigue and stress (35, 36, 42-44, 46), lack of motivation and enthusiasm at work (8, 38, 43), personnel's low self-esteem (44), sense of vulnerability and negative attitude towards patients, especially those with contagious and chronic diseases (41), care for chronic patients (34), lack of interest in communication (34, 37, 42, 45, 48), unpleasant experiences in previous encounters with patients, inadequate understanding of the patients' needs and status (8, 43, 49), occupational burnout (34, 36, 38), feeling of injustice in the workplace, work experience (38), lack of speech clarity (42), use of medical jargon (45), insufficient explanation of the treatment process (40, 43), physician's abrupt cessation of communication with patients and attention to other issues (43), frequent phone calls made by the patients' family (40), delayed purchase of drugs from pharmacy (40), delayed attention to new medical guidelines, and inadequate physicians' information (40). |
| Relationship between patients and managers, nurses, and healthcare team | Mutual factors: age and gender differences between the patient and personnel (33, 37, 41, 46-48), cultural and religious differences (43, 47, 48), language differences (34, 37, 41, 46-48), illiteracy and low health literacy (48). Environmental factors: Overcrowded environment, inappropriate environmental conditions, presence of chronic patients in the department, noisy environments, frequent hospital visits, poor ventilation, unpleasant smell, insufficient light in the room, low room temperature, presence of patient in the unfamiliar environment of the hospital, and poor sanitation of the patient's room (33, 34, 36-39, 44, 45). |

using effective communication skills and knowledge and creating an appropriate environment can improve the students' learning. In fact, they can facilitate the process of learning through appropriate communication with students and even compensate for the lack of educational facilities. In contrast, the teacher's inability to communicate properly with students can turn dynamic environments into inactive and unproductive settings (13).

The most significant part of learning takes place in the university environment and is shaped by instructors and lecturers. Education is considered to be of greater importance if the provided training is related to community health. Also, medical students are among groups of learners, who acquire communication skills in the university environment. Overall, these skills can significantly affect their performance and patient satisfaction (58). Accordingly, improving the quality of learning process through effective communication is important (16). Since students of medical universities come from different geographical regions and cultural backgrounds, instructors should pay particular attention to cultural factors in order to establish effective communication with the students. Also, they should interact with the students based on their primary assessment and students' conditions.

Review of different studies showed that among individual, ethical, scientific, professional, and workplace factors, the teacher's ethical and scientific characteristics had the greatest influence on the teacher-student relationship. These factors included the teacher's ethics and hu-

mility, respect for the students' morale and understanding their psychological needs, amiability, patience, impartiality, confidentiality, being up-to-date, mastery of subject matter, and rhetoric skills.

According to the findings from various studies, it is necessary for teachers to understand the importance of patience, respect for students, and mastery of subject matter in communication with students (1, 12-15, 18, 19, 21, 23, 24). Also, Universities are required to organize workshops on communicating with the students, organizing and setting up lessons and teaching methods for the teacher, to increase student's satisfaction with increasing educational quality. However, negligence in this area will lead to the reduced quality of education, and ultimately, reduced quality of services in the health sector of the country (19). Although there isn't any literature on barriers to teacher-student communication, we believe that different factors, such as no attention to the main issue and Professor's hardening and behaviors lead to anxiety and intimidation of students, can affect effective communication. In fact, all effective factors in effective communication, if not followed, can be considered as a barrier to communication.

4.3. Relationship of Nurses and Healthcare Team with Patients

Communication is considered as one of the most important principles and prerequisites for the personnel of primary healthcare settings (24). In the healthcare system, health care providers encounter different clients, each requiring a different method of communication (59). Ef-

fective communication with patients in the educational health care environment improves their satisfaction and quality of life (59). On the other hand, one of the main reasons for inattention to the psychosocial needs of patients is the lack of proper communication between patients and clinical staff (14).

The results of previous studies indicate that most public complaints and incorrect application of directives by patients and health care workers are not the results of the incompetence of the staff, but they are due to communication problems (60).

Studies show that most public complaints and incorrect application of directives by patients and health care workers are not the results of the incompetence of the staff, but they are due to communication problems (14).

In this regard, Zamanzadeh et al. concluded that patients lose confidence and respect for nurses due to their lack of knowledge and skills (44). Therefore, communication skills are a prerequisite for providing high-quality health services. It is also vital for physicians to know how to communicate with different patients under different circumstances. Accordingly, healthcare personnel should receive training in communication skills.

Culture plays an important role in communication. In order to establish effective communication, the medical staff should be aware of the patients' cultural differences, as culture affects how patients perceive death and illness and communication will be impaired without this knowledge. Overall, the provided care should be in line with the patient's culture (60, 61). The medical staff should establish a good relationship with patients, regardless of their individual characteristics or culture. This type of relationship is built on trust, and physicians should be honest in their relationship. Also, building trust in patients encourages them to express their needs, concerns, and fears. In this case, the health care environment can be used for evaluating, planning, and managing the patient's disease (42, 62).

Language and gender differences between the patient and nurse were among barriers of an effective relationship; these differences were mostly addressed by female nurses and male patients. Differences in spoken language and culture are among the most important factors affecting the quality and quantity of communication with patients. Environmental factors and working conditions are also among barriers affecting the quality of communication. Therefore, providing a safe psychological and physical environment can increase the comfort and satisfaction of patients and health authorities. Evidence suggests that working in an environment where the safety and welfare of employees are taken into consideration increases their motivation and interest in communication and facilitates

effective communication with patients (47).

Based on the results of previous studies, high workload, anxiety, physical pain, and discomfort were the main barriers to understanding therapeutic communication. The hospital authorities should ensure that the nursing workload is reduced in order to facilitate effective therapeutic communication (63). According to the findings reported by Keall et al. (64) and Strang et al. (65), lack of knowledge and awareness of the medical staff about effective communication is one of the most important communication barriers. Therefore, in-service communication skills training is essential.

4.4. Relationship of the Healthcare Team with Patients' Family

Anxiety and stress are among the main psychological problems, which affect the families of patients. In fact, the main concerns of families are the consequences and complications of diseases and cost of treatment (49). Therefore, the relationship between the clinical staff and patients' family members and companions is of great importance. Inadequate interpersonal authority, high workload, and imbalanced staff-patient ratio result in the reduced efficacy of clinical staff and consequently inadequate support and information about the disease and treatment for patients (21).

The results of a qualitative analysis of effective communication between the medical team and patients' family indicated five major classes: spiritual factors (faithfulness and adherence to religious rules), emotional factors (empathy, mutual understanding, and feelings of trust and comfort), cooperation (participation in decision-making and physical care), interactive education (identification of the information needs of families, answering the families' questions, and patient education), and consultation and guidance in the selection of optimal treatment (50).

The main strength of the present review was that since each study had focused on one aspect of the subject matter and not all indicators were included in one study, the findings of various studies were merged, and all aspects of the relationship were combined and summarized. The present findings can present a deep insight into the facilitating factors and barriers of communication in Iranian Educational Health Care centers.

The main limitation of all systematic reviews is selection and publication bias. No language restrictions were considered in this study to prevent bias (both Persian and English articles were extracted); also, information sources were searched by two individuals both electronically and manually. Another limitation of this review was the low contribution of English articles.

5. Conclusions

Identification of factors affecting communication can be the first step in solving communication problems. Different studies have pointed to one or more factors related to effective communication. Since each study had evaluated the phenomenon from one particular aspect, not all indicators were evaluated in one single study. It is also obvious that non-review studies do not examine all relevant indicators. According to various studies conducted in Iran, the level of communication skills was generally assessed at a moderate level in three areas of teacher-student relationship, physician-patient relationship, and healthcare provider-patient relationship, but there was a great gap to reach the desired situation which indicates the need for deep attention to the issue of communication in the university and clinical settings.

These findings also indicate the need for attention to communication in academic and clinical settings. Since communication is a key factor in achieving positive treatment outcomes, reducing stress and anxiety, increasing the quality of life and satisfaction of patients' health; therefore, administrators and policymakers should do their utmost to strengthen communication skills, as well as the necessary steps to remove or moderate barriers to communication in the educational health care setting. Moreover, a complete understanding of communication in the Iranian healthcare system is a prerequisite for planning and policymaking in order to address the barriers and propose the best communication model. It is suggested to conduct further research to determine the quantity contribution of each of these indicators to effective communication. It is also recommended to examine the impact of communication styles on effective communication. So far, most studies have focused on the barriers to communication between clinical therapists and patients. It would have been interesting to have a balanced outlook on both barriers and facilitators to effective communication.

Supplementary Material

Supplementary material(s) is available [here](#) [To read supplementary materials, please refer to the journal website and open PDF/HTML].

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Footnotes

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Table 1. Characteristics of the Extracted Articles in the Systematic Descriptive Review

| Resources | Study Title | Study Population | Study Type | Primary Results |
|------------------------------------|---|--|------------------------------|---|
| Ghazi Mir Saeed et al. (12) | Identifying effective factors in communication between students and professors from the viewpoint of postgraduate students at the Faculty of Paramedical, Tehran University of Medical Sciences | A sample of 52 MS and BS students of the Paramedicine Faculty of Tehran University of Medical Sciences | Descriptive, cross-sectional | The most effective factors in establishing student-teacher communication included respect for students, being up-to-date, rhetoric and teaching skills, and confidentiality. Meanwhile, sex, age gap, stringency, and professors' appearance were not crucial to establishing communication. |
| Obeidi (13) | Effective factors in communication between students and faculty members from the viewpoint of paramedical students | A sample of 181 students of the paramedicine faculty of Bushehr University of Medical Sciences | Descriptive, cross-sectional | From the students' viewpoint, teacher's amiability, humility, and confidentiality were significantly effective in improving the learning of students. |
| Bahador et al. (14) | Effective factors in communication between teacher and student: Viewpoints of students of basic sciences | A sample of 147 students of basic medical sciences | Descriptive, cross-sectional | Professors' respect for students, indiscrimination in dealing with students, and accepting criticism were the most important factors, while religiosity, sex, and age were the least significant factors from the perspective of students. |
| Ghadami et al. (15) | Students' point of view regarding effective factors in establishing communication between students and faculty members | A sample of 162 students of Arak University of Medical Sciences | Descriptive, cross-sectional | According to the students, the most effective factors in establishing communication were faculty members' rhetoric and teaching skills, knowledge, experience, and moral behavior, while more than 50% of students reported that faculty members' age and sex had no effects on communication. |
| Rezaeian et al. (16) | A survey on communication skills of Rafsanjan University of Medical Sciences faculty members in 2013 | A sample of 132 faculty members of Rafsanjan University of Medical Sciences | Descriptive, cross-sectional | There was no significant relationship between communication skills and variables, such as age, gender, teaching experience, number of presented credits, university department or faculty, academic rank, administrative responsibilities, administrative type of engagement, and participation in communication skills workshops. |
| Torabipour and Zahiri (1) | Study of influencing factors in the relationship between teacher and student in the view of students of Ahvaz University of Medical Sciences | A sample of 384 students of Ahvaz University of Medical Sciences | Descriptive, cross-sectional | From the students' point of view, the impact of teacher's individual, ethical, and personal characteristics on communication was highly evaluated. Among these factors, the teacher's ethical behavior and modesty, as well as proficiency, had the greatest impact from the students' point of view. Professional and scientific factors also showed a major influence. The effects of environmental and physical factors in the teacher's workplace were the least significant. |
| Haghighi et al. (17) | The study of interactions between students and instructors from the perspective of Shushtar nursing students | A sample of 82 students of Shushtar nursing branch of Ahvaz University of Medical Sciences | Descriptive, cross-sectional | The majority of students believed that restriction in communication between the instructor and student, such as indigenous knowledge of Islamic laws and ethical standards of communication, counseling, and balance between intimacy and communication restrictions could build confidence and improve effective communication between teachers and students and improve the learning process. |
| Abedini et al. (18) | The effective factors in communication between students and faculty members from the students' perspective in Birjand University of Medical Sciences | A sample of 323 students of Birjand University of Medical Sciences | Descriptive, cross-sectional | Teacher's behavior, age, respect for social norms, mutual respect between the teacher and student, teacher's mastery of subject matter, teaching quality, teaching methods, and teacher's appearance were the most effective factors in the teacher-student relationship. |

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| Abedini et al. (19) | The effective factors in communication between students and faculty members from the student's perspective in Babol University of Medical Sciences | A sample of 111 clinical students of Babol Dentistry Faculty | Descriptive, cross-sectional | From the viewpoint of clinical students, the most important factors affecting the student-teacher relationship included the teacher's patience, respect for students, and mastery of subject matter. On the other hand, the teacher's gender, presentation of the lesson plan to students, and academic level were among factors which were considered less important by the students. |
| Norouzinia et al. (20) | Communication skills of academic members and its relation with evaluation outcomes in Alborz University of Medical Sciences | A sample of 85 professors of Alborz University of Medical Sciences | Descriptive, cross-sectional | Teaching experience, age, and academic rank had the highest scores in establishing communication. The results showed that there was a significant relationship between the faculty members' communication skills and evaluation scores. |
| Samyari et al. (21) | Assessment of communication skills and related factors in dental school teachers in 2010 | A sample of 755 students of dental schools | Cross-sectional survey | From the viewpoint of 48% of students, professors had acceptable communication skills, while 52% believed that they had poor skills. Non-verbal communication skills included amiability, humility, self-esteem, interest in teaching, calmness, appearance, attention to students, and use of body gestures for conveying messages were among influential factors in student-teacher communication. However, the teacher's rank, teaching experience, and place of the study did not play a role in communication skills. There was a direct relationship between the teacher's limited use of teaching aids and lack of communication skills. |
| Peyman et al. (22) | Assessment of interpersonal communication skills in lecturers of Ilam University of Medical Sciences: A case study | A sample of 60 lecturers of Ilam University of Medical Sciences | Descriptive, analytical | Based on the results, the interpersonal communication skills of lecturers were evaluated to be average. Gender was the only factor which had a significant relationship with the level of interpersonal communication skills of faculty members. There was no significant relationship between communication skills scores and age, educational background, or academic rank. |
| Dehnavi et al. (23) | Communication skills of undergraduate students' advisors in Kerman University of Medical Sciences | A sample of 379 students of Kerman University of Medical Sciences | Descriptive, analytical | The average scores of counseling professors in the domains of communication skills (including oral and written skills), feedback communication, empathy, listening skills, and being influential were 54.60%, 95.50%, 57.76%, 58.38%, and 55.49%, respectively. Overall, attempts to increase motivation by the consulting professors, counselors' feeling of responsibility towards students' problems, and being a good listener were the most influential factors in the communication of counseling professors with the students. |
| Sabbahi Bigdeli et al. (6) | Students' viewpoints on advisors' nonverbal communication skills: A survey in schools of health and allied health sciences of Kashan University of Medical Sciences | A sample of 202 students of Kashan schools of health and paramedical sciences | Descriptive, cross-sectional | Among non-verbal communication skills, appearance, facial expressions, perception of signs, and tone of speech had the most significant effects. |
| Yaghoobinia et al. (24) | Student-educator relationship in clinical nursing education: Qualitative content analysis | A sample of eight nursing students with a Bachelor's degree and 10 clinical nursing educators | Qualitative | The participants considered characteristics, such as respect, trust, and mutual understanding as essential factors in establishing communication. Also, some communication skills, such as effective listening, confidentiality, academic impartiality, and amiability, were found necessary, especially for clinical professors. |
| Rezaei and Askari (25) | Evaluation of the relationship between physicians' communication skills and outpatients' satisfaction in the clinics of Isfahan Al-Zahra Hospital in 2011 | A sample of 55 physicians in the surgical, pediatric, urology, obstetrics, nephrology, cardiac, rheumatology, and hematology wards of Al-Zahra Hospital and 275 patients referred to these hospitals | Descriptive, analytical | Uninterrupted speech of patients, physicians' active listening to patients, active participation of patients in treatment, patient privacy, emotional support for patients, interpersonal interactions of physicians in medical visits, and building trust in patients can have great effects on communication and patient satisfaction. |

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| Barati et al. (26) | Professional communication skills of medical practitioners and related factors in Bahar healthcare centers of Hamadan, Iran, 2010 | A sample of 309 employees of Bahar healthcare centers of Hamadan | Descriptive, analytical | The verbal, listening, and feedback skills of the participants were 62.2%, 57.1%, and 60.2%, respectively. The communication skills of more than half of the participants were poor or moderate. The factors influencing communication skills included age, gender, educational level, employment status, workplace, and experience. |
| Bigdeli et al. (27) | Factors affecting the relationship between doctor and patient and their effects on the self-care behaviors of type II diabetes patients | A sample of 500 patients with diabetes referred to healthcare facilities facilitated to Abyek Health Center | Cross-sectional, analytical | Patients' lack of access to specialists was an effective factor in the relationship between doctor and patient. Trust in the physician and satisfaction with treatment obtained the highest scores, while lack of access to the physician was the most important barrier to communication. |
| Banidavoodi (28) | Comparison of the characteristics of effective teaching from the students' perspective in Ahvaz Jundishapur University of Medical Sciences | A sample of 50 physicians (specialists, general doctors, assistants, and interns) and 50 patients admitted to the educational centers of Ahvaz Jundishapur University of Medical Sciences | Descriptive, cross-sectional | In both viewpoints, most defects occurred at the beginning, at the end, and finally during the examination. |
| Zeyghami Mohammadi and Haghghi (29) | The association between nurses' communication skills and nurse-physician relationship and collaboration in Alborz Hospital of Karaj in 2008 | A sample of 100 nurses working in Alborz State Welfare Hospital of Karaj | Descriptive, correlational | There was a significant relationship between communication skills and nurse-physician communication; however, there was no significant relationship between communication skills and collaboration between physician and nurse. Personnel shortage, organizational policies, and lack of communication skills were the most important factors affecting the relationship between doctors and nurses. |
| Farajzadeh et al. (30) | Interns' communication with patients during interviews: The perspectives of patients and observers | A sample of 72 medical interns of Kerman University of Medical Sciences | Descriptive, cross-sectional | From the viewpoint of patients and observers, most problems occurred in the final stage, followed by the interview. In most cases, the patients' and observers' views were not consistent. In older patients, the score of communication significantly increased from the patients' point of view. |
| Moin and Anbari Akmal (31) | The patient-physician communication and related factors | Unspecified | Review study | The basic required skills included interpersonal skills of physicians and patients (e.g., meet and greet, active listening, empathy, respect, humility, patience, confidentiality, information documentation, information presentation, and patient education). |
| Khatami and Asefzadeh (32) | Communication skills of medical interns of Qazvin teaching hospitals | A sample of 110 medical interns of teaching hospitals | Descriptive, analytical | Overall, 38.18% of medical interns greeted their patients, while only 1.82% introduced themselves to patients. Also, 21.88% empathized with and accompanied the patients, while none of the patients requested a treatment protocol from their physician. Moreover, 49.09% of patients were fully aware of their problems. Finally, 61.82% of patients had a good feeling about sympathy and companionship of interns. |
| Vafaei et al. (8) | Barriers of effective communication between midwives and parturient women in hospitals of Khuzestan Province, Iran | A sample of 310 participants (157 midwives and 153 parturient women) | Cross-sectional | From the viewpoint of midwives, midwife's difficult work, staffing shortage, and lack of work motivation were the most important barriers. Also, from the viewpoint of parturient women, being bad-tempered, inadequate understanding of the parturient needs, and inappropriate environmental conditions were reported as the most important barriers to effective communication between midwives and parturient women. |
| Mirhaghjou et al. (33) | Communication skills and related factors in nursing students of Shahid Beheshti Faculty of Nursing and Midwifery, Rasht | A sample of 176 nursing students of Shahid Beheshti Faculty of Nursing and Midwifery, Rasht | Descriptive, analytical | The communication skills of students were moderate to good. There was a significant association between the mean score of communication skills and variables including marital status, communication skills training, and patient care experience in the family. There was a significant positive correlation between age, the importance of clinical conditions, and communication skills. Also, marital status was one of the related factors and predictors of communication skills. |

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| Ardalan et al. (34) | Barriers of nurse-patient communication from the nurses' point of view in educational hospitals affiliated to Kurdistan University of Medical Sciences | A sample of 90 nurses of Sabzevar educational hospitals | Descriptive, analytical | Nurses' communication barriers included the high nursing workload in the hospital unit, imbalanced nurse-patient ratio, negligence of medical staff in performing the tasks, nurses' unwillingness to acquire communication skills, and lack of nursing information and skills were important in establishing proper communication with patients. Patient's anxiety, stress, physical discomfort, and companion's interference were among communication barriers from the patients' viewpoint. The most important environmental barriers included busy environment and unsanitary patient rooms. |
| Mohammadi et al. (35) | Barriers to effective nurse-patient communication from the perspective of nurses employed in educational hospitals of Ilam | A sample of 80 nurses of Ilam teaching hospitals | Descriptive, analytical | Nurses' poor behavior among personal and social factors, physical and psychological fatigue among work-related factors, presence of patient's companion among clinical factors, and lack of in-service training of communication skills among environmental factors were the most important barriers to communication. |
| Ramezani et al. (36) | Barriers of nurse-patient effective communication from the nurses' viewpoint | A sample of 100 nurses of teaching hospitals affiliated to Jahrom University of Medical Sciences | Descriptive | The most important barrier to effective nurse-patient communication was the nurses' job characteristics. Environmental factors, individual-social factors, and patient's clinical condition were the most important communication barriers mentioned by nurses. Also, there was a significant relationship between barriers to communication and nurses' age and working hours. |
| Ardalan et al. (34) | Barriers of nurse-patient communication from the nurses' point of view in educational hospitals affiliated to Kurdistan University of Medical Sciences | A sample of 151 nurses of teaching hospitals affiliated to Kurdistan University of Medical Sciences | Descriptive, cross-sectional | Cultural differences between nurses and patients were the most important barriers to nurse-patient communication. The most important patient-related barrier was the companion's interference. Among environmental barriers, care for a critical patient was the most important barrier. |
| Norouzinia et al. (37) | Communication barriers perceived by nurses and patients | A sample of 70 nurses and 50 patients from hospitals affiliated to Alborz University of Medical Sciences | Descriptive, cross-sectional | Differences in the spoken language of nurses and patients, nurses' work overload, patient's family involvement, and the presence of emergency patients in the ward were the most important communication barriers according to nurses. Also, according to patients, gender differences between the nurse and patient, nurse's reluctance to communicate, environmental conditions of the ward, anxiety, and patient's physical pain and discomfort were the most important communication barriers. |
| Rahdar et al. (38) | Investigating the viewpoint of nursing students in relation to barriers to effective communication between nurses and patients in hospitals of Iranshahr | A sample of 67 nursing students in Iranshahr | Descriptive, analytical | From the viewpoint of students, occupational and environmental factors were the most important factors, while individual and clinical factors were the least significant barriers to communication. |
| Nakhaee et al. (39) | Factors affecting a student-patient relationship: The nursing students' viewpoints in Birjand University of Medical Sciences | A sample of 91 nursing students of Birjand University of Medical Sciences | Descriptive, cross-sectional | From the students' point of view, important individual factors included the student's and patients' religious beliefs and physical and mental fatigue. The most important social factor was nursing status, and the most important professional factor was the student's previous experience in establishing communication with patients. Also, major environmental factors included the number of students and patients' companions, and the clinical factors included patient's trust in the academic and practical skills of students. The students' viewpoints on personal, educational, environmental, professional, and demographic variables (gender, marital status, religion, history of communication problems, employment during education, and educational year) did not show any significant relationship. |
| Rajaeian and Masoudi Alavi (40) | Barriers to the nursing performance from the perspective of nurses working in intensive care units | A sample of 80 nurses of intensive care units of the selected hospitals in Kashan, Iran | Descriptive, cross-sectional | The most common barriers included receiving frequent phone calls from the patients' families, delay in drug delivery by the pharmacy, delayed observation of new medical guidelines, and inappropriate information provided by doctors. |

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| Anoosheh et al. (41) | Nurse-patient communication barriers in Iranian nurses | Three hospitals randomly selected from major cities of Iran (61 patients and 75 nurses) | Descriptive | According to nurses, difficult nursing tasks and lack of facilities for nurses were the main barriers to communication. From the patients' point of view, nurses' unfamiliarity with the patient's spoken language, having contagious diseases, and gender differences were the main communication barriers. The common communication barriers included differences in age, social class, and chronic diseases. |
| Pejhmankhah et al. (42) | Effective factors in communication with patients and barriers from the perspective of nurses of Val-e-Asr Hospital, Birjand | A sample of 70 nurses of Val-e-Asr Hospital, Birjand | Descriptive, analytical | Nurse's attention to communication, knowledge about the processes of disease and treatment, personal problems (fatigue and stress), inclination towards communication, physical health, and self-confidence, besides skill and knowledge, including knowledge about communication skills, proper application of communication skills, and establishment of in-service training courses on communication skills, were the most important factors in this relationship. Knowledge about communication skills, the proper performance of communication skills, and in-service training courses in communication skills were the most important factors in the nurse-patient relationship. The least important factors were related to the environment and place of communication and physical features of the environment (e.g., ventilation, light, noise). The most important barrier to the patient-nurse relationship was lack of knowledge and skills in this area. |
| Shafipour et al. (43) | Barriers to nurse-patient communication in cardiac surgery wards: A qualitative study | A sample of 10 nurses and 11 patients from three hospitals affiliated to Tehran University of Medical Sciences | Qualitative content analysis | The findings were categorized into three main themes, including job dissatisfaction (sub-themes of workload tension and decreased motivation), routine-centered care (sub-themes of habitual interventions, routine and technical interventions, and objective supervision), and distrust incompetency of nurses (sub-themes of cultural difference, less responsible nurses, and apathy towards patients). |
| Zamanzadeh et al. (44) | Factors influencing communication between the patients with cancer and their nurses in oncology wards | Nine patients, three family members, and five nurses of two major oncology centers of Tabriz (Alinasab Hospital and Shahid Ayatollah Qazi Tabatabaei Hospital) | Qualitative content analysis | The characteristics of patients, nurses, and care environment seem to affect communication. |
| Aghamolaei and Hasani (45) | Communication barriers among nurses and elderly patients | A sample of 150 nurses of Bandar Abbas hospitals, Iran | Cross-sectional | The most important communication barriers for nurses included the use of medical jargon, professional behavior, and unfriendly attitude towards patients. The communication barriers for elderly patients included nursing distrust in nurses, fatigue, forgetfulness, and hearing problems. Also, important barriers in the hospital environment included the presence of chronic patients in the ward, noise in the hospital environment, and the unfamiliar environment of the hospital for patients. |
| Baraz Pordanjani et al. (46) | Assessing barriers of nurse-patient' effective communication in educational hospitals of Ahwaz, Iran | A sample of 80 nurses and 80 patients from three educational hospitals | Descriptive, analytical | From the nurses' perspective, nursing work overload, demanding nursing tasks, deficiency of welfare facilities for nurses, physical and emotional fatigue, and lack of appreciation for nurses were the main barriers to effective communication. Patients considered nurses' unfamiliarity with the local language, work overload, bad temper, and age and sex differences as the main barriers to effective communication. |
| Aghabarari et al. (47) | Barriers to the application of communicative skills by nurses in nurse-patient interaction: Nurses and patients' perspectives | A sample of 90 nurses and 45 patients from two hospitals affiliated to Tehran University of Medical Sciences | Descriptive, analytical | Differences in spoken language had the greatest impact as a communication barrier, followed by cultural and gender differences. Also, age and religious differences were the least significant. |

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| Rassouli et al. (48) | Patient-centered communication barriers: Experiences of patients with cancer, their family members, and nurses | A sample of nine patients, three family members, and five nurses of oncology wards of Tabriz, Iran | Qualitative content analysis | In the organizational context, the discrepancy between nurses' workload and time, disregard for the needs of nurses and patients, routine rather than patient-centered care, extra work shifts, and lack of supervision were the most significant barriers to communication. In the psychological context, emotional problems of patients due to cancer diagnosis and invasive treatments and nurses' feeling of vulnerability due to risks related to working with cancer patients were the most significant barriers. Also, in the cultural-social domain, language and gender differences, illiteracy, low health literacy, and misconceptions about communication prevented patient-centered communication. |
| Nobahar (49) | Professional communication among nurses, patients, and physicians in intensive cardiac care units: A content analysis | A sample of 15 nurses, three physicians, three patients, and two family members in the cardiac intensive care unit of Fatemieh Hospital of Semnan | Qualitative content analysis | The main extracted theme was the necessity of developing trust in professional communication. Also, eight subthemes, including nurses' sense of responsibility, head nurses' supportive actions, supervisors' professional relationship, effective management, interaction with physicians, cooperation with service providers and security guards, patients' trust, and dealing with the concerns of patients' relatives, were extracted. |
| Loghmani et al. (50) | Factors affecting the nurse-patient's family communication in intensive care units of Kerman: A qualitative study | A sample of eight nurses and 10 family members of patients admitted to the intensive care units of hospitals, affiliated to Kerman University of Medical Sciences | Qualitative content analysis | According to the data analysis, facilitative factors for the communication of nurses with family members included spiritual care, emotional support, participation, informing, and consultation. The barriers included misunderstandings about treatment and patient difficulties. |