



Review Article

Communication Challenges and Demographic-Cultural Factors Influencing Patient Satisfaction: A Systematic Review

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Abstract

Introduction: Patient satisfaction is a key indicator of the quality of healthcare services and plays a significant role in improving clinical outcomes, increasing patient adherence to treatment, and enhancing the performance of healthcare centers. However, achieving this goal represents numerous challenges. Given the diversity and breadth of factors influencing patient satisfaction, this review aimed to examine two of the most important challenges.

Methods: This systematic review involved searching reputable domestic and international scientific databases, including PubMed, Scopus, Web of Science, Google Scholar, MagIran, and SID, from 2014 to 2024. Overall, 31 out of the 201 initially identified studies were selected for data extraction and analysis.

Results: Two major challenges affecting patient satisfaction were identified: communication-related challenges, including ineffective interactions between healthcare providers and patients, limited communication skills, and time constraints in communicating with patients; and challenges related to patients' demographic and cultural characteristics, consisting of educational level, health literacy, age, and cultural, linguistic, and racial differences.

Conclusion: Given the important role of patient satisfaction in treatment outcomes and healthcare system productivity, addressing existing challenges is essential to ensure the quality and efficiency of healthcare services. Coordinated and integrated efforts across all components of the healthcare system can help create a supportive environment for patient recovery, improve satisfaction, and consequently enhance patients' quality of life.

Keywords: Patient satisfaction, Communication challenges, Medical services, Nursing services, Cultural factors

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Introduction

In the current era, evaluating patient satisfaction has become a key indicator for assessing the quality of care in the healthcare system (1). From the perspective of many experts, using the patients' viewpoint is the most reliable method for examining the quality and quantity of healthcare services, as they are considered the competent authority to judge in this matter and are entitled to special and distinct rights (2, 3). Accordingly, the first step toward improving therapeutic care is to accurately and comprehensively measure the quality of services provided from the patients' perspective (4).

According to research, a country's level of development and the attention given to patients' rights are directly associated with their satisfaction with healthcare services. For example, patients' satisfaction levels in countries such as Australia (83%), France (78%), Finland (73%),

the UK (56%), Germany (50%), Canada (46%), and the USA (40%) have been reported to be significantly higher than those in countries such as Greece (19%) and Italy (24%) (5-7).

Moreover, patient satisfaction is the result of a complex interplay of various factors, including nursing and medical services, the efficiency of support departments, and the individual characteristics of patients (2, 8). In this regard, Hasjim et al proposed five key dimensions to achieve satisfaction: (1) tangibles (physical evidence), (2) reliability, (3) responsiveness, (4) assurance (trust), and (5) empathy (9). Factors influencing patient satisfaction can predict their future behaviors during and even after hospital discharge, potentially affecting their decisions in this regard (10).

Furthermore, patients who experience a higher level of satisfaction with healthcare services are more inclined to

follow their doctor's instructions, adhere more closely to prescribed treatment plans, and regularly attend follow-up visits. This can lead to greater effectiveness of the care provided, improved patient admission rates, a reduction in the incidence of adverse complications, and ultimately, a significant enhancement in treatment outcomes (11). On the other hand, dissatisfaction with healthcare services may have unpleasant consequences, including disengagement from the healthcare system, limited participation in treatment plans, a sense of helplessness among staff, and ultimately, reduced efficiency of the services provided (4).

Therefore, given the decisive role of patient satisfaction in the success of treatment and the improvement of service quality, it is essential to address the challenges related to their satisfaction with greater precision. This raises the question: *what are the challenges to patient satisfaction?* Among the numerous challenges that can affect patient satisfaction, the communication aspects between healthcare staff and the cultural and demographic differences of patients are considered prominent and key factors in this area. Considering that no review, to the best of our knowledge, has so far focused on the challenges of patient satisfaction in Iran, the present study aims at identifying the communication challenges and demographic-cultural factors that influence patient satisfaction.

Materials and Methods

Search Strategy

This systematic review examined the challenges related to treatment processes and infrastructure affecting patient satisfaction.

The research process was conducted in six stages, beginning with the identification of the main research question, keywords, and inclusion/exclusion criteria, followed by a systematic search of reputable scientific databases. Next, titles and abstracts were reviewed for thematic relevance, and irrelevant articles were removed. Subsequently, the full texts of the selected articles were studied, and a qualitative assessment was performed using a checklist that included criteria such as source credibility, methodology, scientific citation, and structural coherence. It should be noted that only sources that scored at least 70% were included in the final analysis.

The databases used in this process were PubMed, Scopus, Web of Science, Google Scholar, SID, and MagIran. Keywords such as "challenge," "satisfaction," "patient," "treatment process," and "infrastructure" were designed with the help of MeSH terms, and a combination of Persian and English equivalents was employed in the search. To ensure a thorough approach to the search, synonyms and alternate terms to keywords were also included in the search and connected with the "OR" Boolean command. Moreover, the "AND" Boolean function was utilized to combine the search of different keywords. Furthermore, truncation searching was applied to the end of searched words in order to collect results

of terms with singular, plural, or variant endings. Finally, data from 31 selected articles out of a total of 201 were extracted after completing these stages, applying the inclusion and exclusion criteria, and removing duplicate articles. The inclusion criteria for the study were articles directly related to the topic, those published between 2014 and 2024, those with full-text access available, and Persian or English articles. Conversely, the exclusion criteria included duplicate articles, irrelevant articles, and articles with restricted access to full text.

Quality Assessment of Included Studies

Given that no single type of studies was included in this literature review, quality assessment was performed according to an appropriate quality scale of each type of study. Accordingly, the Case Report Guidelines (CARE) checklist (2016) was used to evaluate the quality of case reports. Likewise, the National Institutes of Health (NIH) quality assessment scale specialized for observational and cross-sectional studies was utilized to assess the quality of these observational studies. Additionally, Newcastle-Ottawa scoring tool was employed for the quality assessment of the included controlled trials. The questions of these scores focus on the key concepts for evaluating the validity of a study, the risk of bias, measurement, follow-ups, and confounding factors, and finally describe the quality of individual studies as a quality number. Hence, the CARE score has 14 items and a report can obtain up to 28 score. In addition, the NIH checklist includes 14 items and describes the quality of individual studies as a number of up to 14. Further, Newcastle-Ottawa scoring scale has three different parts, including "selection", "comparability", and "outcome", with 8 questions, and every study can obtain maximum 9 stars based on the items in this scale.

Appraisal and Analysis

A table in Google Sheets was used to manage and extract data from the articles. This table included columns for article details, study objectives, methodology, main findings, and study limitations. Furthermore, the data were manually entered into this table and regularly updated. To ensure accuracy, the researcher assessed and compared the entered data three times (Figure 1).

Due to the heterogeneity among the studies (differences in research methods, target populations, study designs, and study limitations), there was no need to conduct a meta-analysis.

A summary table of the data was created to present key information from each study (author, title, publication year, research location, and main findings).

Results

An examination of various studies indicated that challenges to patient satisfaction can arise from interactions between physicians/nurses and patients, treatment processes, hospital infrastructure and facilities, and challenges stemming from patients' demographic

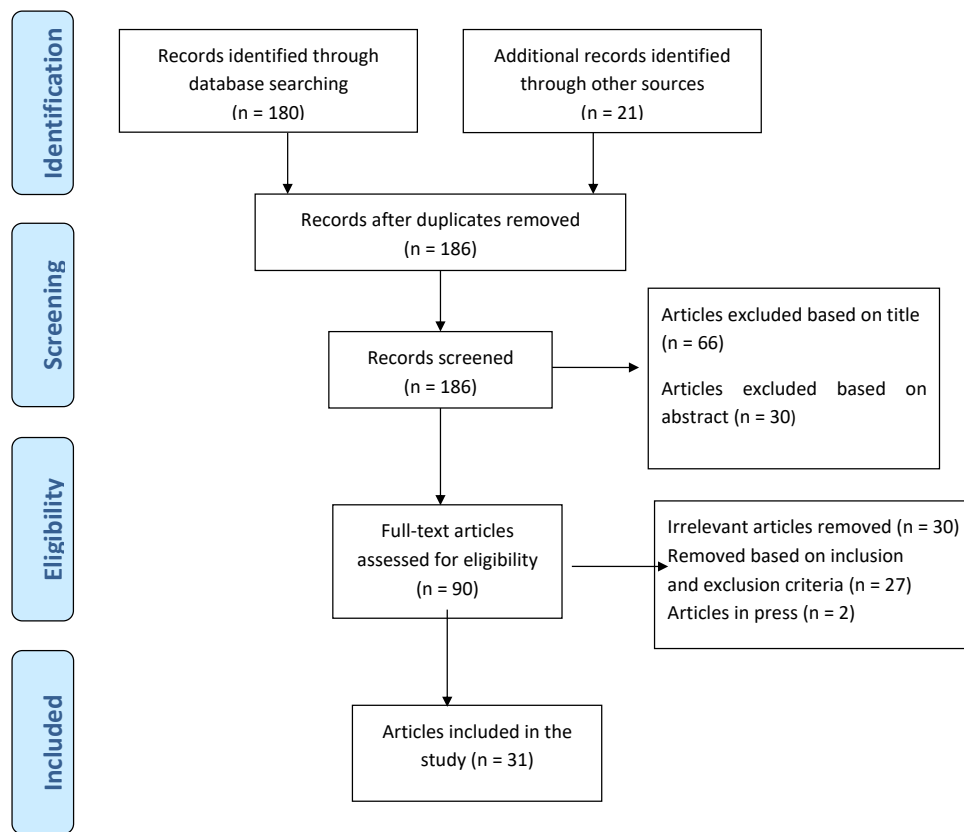


Figure 1. PRISMA Flow Diagram

Note. PRISMA: Preferred Reporting Items for Systematic Reviews and Meta-Analyses

and cultural factors. Accordingly, this study investigated two of the most important challenges related to patient satisfaction, namely, communication challenges between healthcare providers and patients and challenges related to patients' demographic and cultural factors.

Communication Challenges Between Physicians and Nurses and Patients

(a) Physician-Patient Communication Model

Effective communication between a physician and a patient is the cornerstone of providing quality healthcare and ensuring patient satisfaction. Akbari et al coined the term “the physician as a drug,” emphasizing the physician’s powerful role as a means of treating patients. Similarly, he introduced the concept of a “two-way investment” in the physician-patient relationship, believing that this beneficial interaction brings advantages to both the physician and the patient over time (12).

Esmaili et al demonstrated that proper physician-patient communication plays a key role in increasing patient trust and satisfaction. This positive interaction specifically encourages patients to better accept medical recommendations and follow their treatment plan more seriously. In contrast, a weak relationship can lead to problems such as a lack of transparency in discussing health issues, an increased likelihood of medical errors, reduced trust, higher treatment costs, and a decline in quality of life (13).

Therefore, establishing appropriate communication between physicians and patients can be crucial in engaging

the patient in the treatment process. However, patients occasionally express dissatisfaction with their physician’s communication style, which creates a challenge. Based on studies in this area, there are various communication models, including paternalistic, mutualistic, informative, and contractual, which are explained as follows:

- 1. Paternalistic Model:** In this communication style, the interaction between the physician and patient is asymmetric and physician-centered. The physician acts as the absolute decision-maker, while the patient is merely a passive recipient, with no participation in the decision-making process.
- 2. Mutualistic Model:** In this approach, the physician-patient interaction is based on equality and collaboration. During a consultation, the level of participation is balanced between both parties, and decisions are made jointly. It is noteworthy that mutual satisfaction, autonomy, and an equal distribution of power are highly important in this model.
- 3. Informative Model:** In this type of communication, the physician’s role is to act as a guide and provide specialized information, while the final decision rests with the patient. Based on the received information, the patient chooses their desired therapeutic intervention.
- 4. Contractual Model:** This approach is formed in a competitive environment based on market principles. In this model, medicine is transformed from a humanistic profession into a business, and

the patient appears as a customer. Moreover, the physician-patient interaction is regulated by supply and demand, and its nature is more commercial than therapeutic (13).

A review by Adhikari et al revealed that elderly patients feel more comfortable and satisfied with the paternalistic approach compared to patient-centered care models (8). In the physician-patient relationship, it is essential to correctly understand the desired level and type of patient participation. Ignoring this issue can lead to at least three negative consequences: (1) increased patient stress during treatment, (2) reduced adherence to medical instructions, and (3) an increased likelihood of the patient changing their physician (12).

(b) Lack of Sufficient Communication Skills in Physicians and Nurses

A physician or nurse may be unable to explain complex medical information to a patient in simple language and may not pay sufficient attention to the patient's feelings and concerns. According to research by Mazhariazad et al, weaknesses in nurses' communication skills (e.g., speaking too fast, not making eye contact, speaking from a distance, and using complex and unfamiliar terminology), along with a lack of sufficient knowledge to answer patients' questions, are among the main communication barriers from the perspective of both nurses and the elderly (14).

Abedini and Nehrir's review showed that, in the nursing profession, communication challenges arise in the interaction between nurses and patients. These challenges are categorized into four main areas: (1) inability to achieve mutual understanding due to linguistic differences, (2) biases resulting from cultural diversity, (3) unawareness of cultural boundaries in communication, and (4) the influence of behavioral stereotypes related to different cultures. These barriers are particularly evident when dealing with immigrant patients and can affect the quality of therapeutic interactions (15). Furthermore, the results of a study by Moein et al indicated that patients' satisfaction with communication with physicians is at a moderate level, which is not ideal. This issue may be due to physicians' insufficient awareness of communication skills or a lack of attention to their importance (5).

(c) Insufficient Time for Physicians and Nurses to Communicate with Patients

The high workload of physicians and nurses and the large number of patients per shift limit the opportunity for meaningful interaction between healthcare staff and patients. The patient's insufficient awareness of their condition and treatment process is one of the negative consequences of these communication challenges, which can lead to increased emotional distress. According to studies by Moaddab et al, a lack of time and high work pressure, due to an inappropriate alignment of human resources with treatment needs, has hindered nurses from effectively communicating with patients and their families, leading to patients' emotional and supportive

needs not being adequately met. Likewise, nurses have reported that they dedicate most of their time to administrative, technical, and managerial tasks, and these duties are prioritized over communication. Consequently, communication with patients and their families is affected and contributes to their dissatisfaction (16).

Additionally, studies by Mazhariazad et al have emphasized that factors such as time constraints, high workload, frequent overtime, and fatigue resulting from work pressure are among the main barriers that negatively affect the quality of nurse-patient communication and hinder effective interaction (14). Limited examination time is recognized as a significant challenge in providing healthcare. In addition, short visits prevent a comprehensive assessment of the patient's condition and the expression of the physician's sense of care and compassion, ultimately leading to a decrease in patient satisfaction.

Based on the findings of Esmaeili et al, longer visit times improve the physician-patient relationship. When patients have enough time to talk, they feel that they are being heard. In fact, the length of the visit is considered a measure of the physician's level of care. However, many patients expressed dissatisfaction that the physician did not fully address their problem and did not allocate sufficient time to explain the illness and answer their questions. Therefore, insufficient visit time was cited as a common factor in patient dissatisfaction, as they felt unable to ask all their questions, leaving some unanswered (13).

Challenges Arising From Demographic and Cultural Factors

(a) Patient's Education Level and Health Literacy

The study by Salmanian et al demonstrated no significant correlation between age and patient satisfaction (17), suggesting that other factors have a more significant impact and create more challenges. Furthermore, the age gap between a nurse and a patient is recognized as a major barrier to effective communication. Similarly, a study by Mazhariazad noted that this generational gap can hinder constructive communication between a nurse and a patient (14).

According to a study by Martin, a patient's health literacy level has a major impact on their understanding of their health status and diseases (18). Low health literacy is associated with negative outcomes such as increased illness, disability, and mortality (11). This problem is more common among specific groups, including the elderly, racial minorities, and individuals with a lower socioeconomic status who face significant challenges in managing health-related matters, especially healthcare. On the other hand, studies by Yim et al revealed that patients with higher health literacy, or at least a four-year bachelor's degree, have greater satisfaction with their interactions with healthcare providers. Although education and health literacy are directly related, these two concepts are completely distinct, and an increase in years of schooling does not necessarily lead to an increase

in health literacy. Moreover, these findings are supported by other studies, indicating that patients with low health literacy are subjectively dissatisfied with the information they receive. Based on reports and complaints, some physicians and nurses disregard patients' health literacy levels when communicating information, leading to poor communication and a lack of proper understanding of the patient's health status, ultimately resulting in dissatisfaction. Accordingly, physicians can use various methods to improve the quality of communication with patients at different levels of health literacy. One important principle is that physicians should assume that all patients need clear and understandable explanations. This can be achieved by using simple language instead of complex medical terms, focusing on a limited number of key messages (two to three points), speaking slowly and methodically, and using effective teaching and feedback techniques. Additionally, any written materials should be presented in a clear and easily comprehensible manner for patients (19).

(b) Age

Studies by Adhikari et al clearly demonstrated that age plays a significant role in determining patient satisfaction, and the perspectives of older and younger individuals regarding services can be different. This may stem from differences in how they perceive treatment, the greater experience older people have with healthcare, and their awareness of potential systemic weaknesses. As a result, older adults may be less likely to be fully satisfied with the services provided compared to younger age groups (8). Therefore, to obtain positive feedback from patients, it is crucial to carefully consider patients' ages and their associated expectations.

(c) Racial, Cultural, and Linguistic Differences

Studies show that cultural, racial, and linguistic factors have a significant impact on the quality of healthcare services provided to individuals. In this regard, paying attention to these factors, especially concerning immigrants, is of particular importance. Sotoudeh et al reported that when providing healthcare services to immigrants, it is essential and unavoidable to take into account cultural nuances, specific beliefs, customs, and racial issues (20). Likewise, Hosseinabadi Farahani et al confirmed that race, religion, and language are key factors that can lead to discrimination and inequality in access to healthcare services (21).

In a study conducted by Baummer-Carr and Nicolau, African Americans, Latinos, and Asian Americans shared their healthcare experiences, believing they would have likely received better care if they belonged to another race or ethnicity. Their findings further demonstrated that minorities frequently feel they are treated disrespectfully during treatment and that physicians do not sufficiently understand their cultural values. This issue, along with communication and language barriers, leads to this group's low participation in the treatment process,

insufficient involvement in medical decisions, and, ultimately, the provision of lower-quality services, which fuels their dissatisfaction (11). Ultimately, Hosseinabadi Farahani et al also concluded that discrimination in healthcare is a serious problem in the United States. Based on these studies, approximately one-third of American adults experience healthcare discrimination in their daily lives (21).

Discussion

In examining the communication challenges between physicians and nurses and patients, our findings revealed that effective communication from healthcare staff can play a major role in patient satisfaction. The manner of interaction, communication skills of the staff, and the time spent all influence the patient's experience. The results of various studies have also emphasized the decisive role of the interaction between healthcare providers and patients on their satisfaction levels. In this regard, a review by Akbari et al confirmed that a constructive relationship between a patient and a physician not only has therapeutic value but also, by increasing patient satisfaction, encourages them to cooperate more in the treatment process (12). In addition, Zarei et al indicated that the quality of interaction between a patient and a physician is recognized as one of the three main factors influencing patient satisfaction (22). Furthermore, Salmanian et al reported that patients' satisfaction level is affected by the amount and quality of information they receive from their physician (17).

Regarding the manner of communication, based on research by Akbari et al conducted on a group of individuals aged 30–70, the results showed a strong correlation between physician empathy and patient satisfaction (12). Additionally, a study by Siddique et al found that patients with a moderate level of communication with their physician were nearly twice as likely as other patients to report dissatisfaction (23).

Concerning the lack of communication skills, some studies have pointed to the negative impact of a lack of communication skills in increasing patient dissatisfaction. The findings of Tuyen and Hung concluded that to achieve greater patient satisfaction, it is essential to pay special attention to improving the professional knowledge and skills of physicians and nurses (24). The results of studies by Moein et al also suggested that one of the reasons for the relatively moderate satisfaction of patients with their communication with physicians may be their lack of awareness of communication skills, which has a significant impact on the quality of their treatment experience (5). In contrast, the findings of a study by Adhikari et al revealed that about 92% of patients were satisfied with the interpersonal behavior of their physicians (8), which contradicts the results of many previous studies, demonstrating the varying impact of different factors in shaping patients' opinions.

With regard to the time spent, some research pointed to a lack of time dedicated to patients. Adhikari et al showed

that only 50% of patients were satisfied with the amount of time allotted for their doctor's appointment. This could be due to time constraints for patients as well as an insufficient effort to establish a more effective doctor-patient relationship (8). Likewise, Moaddab et al stated that nurses do not have the opportunity to build deeper and more effective relationships with patients because of heavy workloads and multiple duties (16). However, other studies indicated that patients were satisfied with the time physicians allocated, or they consider this factor to have a slight impact on their overall satisfaction. In a study conducted at a private hospital in India, 91% of patients were satisfied with the time spent by the medical staff (8). Additionally, based on the findings of Salmanian et al, there was no significant relationship between the duration of a doctor's visit and patient satisfaction. Nonetheless, 95.1% of patients mentioned that they were fully satisfied with the medical services they received (17).

From another perspective, examining patient characteristics and their impact on the quality of communication with physicians is also important. According to a study by Moein et al, patient satisfaction varied across different groups. Married individuals reported higher satisfaction than single people. In addition, housewives were more satisfied than unemployed and university-educated individuals, while older people reported greater satisfaction with their communication with physicians than younger individuals. Furthermore, although no significant relationship was found between education level and its impact on communication with a doctor, it is noteworthy that illiterate individuals reported higher satisfaction than other groups (5). Therefore, as mentioned, numerous studies have emphasized the importance of interaction and communication between medical staff and patients. While some research has pointed to patient dissatisfaction with communication skills and the time allocated by medical staff, the results of other studies have downplayed the significance of this relationship or evaluated satisfaction levels as favorable.

In examining the challenges associated with patient demographic and cultural factors, the findings of this study indicated that certain demographic factors (e.g., education level, health literacy, patient age, and racial differences) influence the patient experience, leading to greater patient satisfaction.

Regarding patient education, research evidence suggests that patient satisfaction has a significant relationship with education level, which does not match the findings of other studies in this area. For instance, Alharbi et al reported a significant relationship between education level and patient satisfaction (25), while Kalhor et al and Abbasi Farajzadeh et al did not find such a relationship (3, 10).

Conflicting results have been reported on the effect of education on patient satisfaction. The findings of Siddique et al and Dinsa et al revealed that patients with lower levels of education are more satisfied with the performance of medical staff (23, 26); conversely, the results of studies conducted in Oman and India contradict this result

(25). Furthermore, a study by Yim et al on health literacy demonstrated that patients with an optimal level of health literacy experience greater satisfaction (19). In summary, a review of various studies represents that the relationship between education level and patient satisfaction remains debatable, with contradictory findings reported in this area.

Regarding patient age, the results of some studies confirmed a significant relationship between age and patient satisfaction, with older individuals being more satisfied with the quality of services provided. Studies by Dinsa et al and Ferreira et al showed a statistically significant association between age and patient satisfaction (26, 27). Additionally, Kalhor et al indicated that as age increases, satisfaction substantially rises as well (3). On the other hand, Alharbi et al concluded that patients aged 58 and above had higher satisfaction with medical services compared to other age groups (25). However, the results of some other studies are not in conformity with these findings, and these studies have evaluated the effect of age on patient satisfaction differently. For instance, Salmanian et al found no significant relationship between age and patient satisfaction (17). Furthermore, a study conducted in Turkey revealed that older patients were less satisfied with the quality of nursing care (25).

Regarding racial and cultural differences, the results of various studies demonstrated that these disparities can lead to discrimination in access to healthcare services. The research of Sotoudeh and Motaghi emphasized the need to pay attention to cultural differences, beliefs, and racial biases in their impact on patient satisfaction (20). According to the findings of Hosseinabadi Farahani et al, among European countries, the UK and Cyprus reported the highest (11.6%) and lowest (2.6%) instances of discrimination in healthcare, respectively. Likewise, Hosseinabadi Farahani et al found that at least one out of every 10 Spanish immigrants has experienced discrimination in receiving healthcare services (21). Similarly, Zaboli and Sanaeinasab concluded that health equity in Iran is not favorable across different provinces, with significant inequalities observed in various areas among patients (28). This is consistent with a study by Bailey et al, which found that despite the growing need to understand how social factors influence poor health outcomes, many academics, policymakers, and elected officials remain reluctant to identify racism as the primary root of racial inequalities in healthcare (29).

Therefore, concerning the second challenge, some studies showed that older patients and those with lower levels of education have higher satisfaction with healthcare services. However, other research reported different results, emphasizing the lack of a significant relationship between age and education with patient satisfaction. Further, in some studies, racial and cultural differences have been cited as a factor of discrimination in receiving healthcare services.

Selected findings from various studies on patient satisfaction challenges are presented in [Table S1](#).

Limitations of the Study

The present review study had several limitations that should be noted. Firstly, many of the studies examined in this article used different criteria for measuring patient satisfaction, which may have caused differences in the existing results and interpretations. In addition, most studies employed questionnaires and interviews to evaluate patient satisfaction. These methods may be influenced by personal preferences, social norms, or environmental pressures, thereby affecting the accuracy of the results. Moreover, the limited access to some resources in different languages or specific countries may have affected the comprehensiveness and conclusions of the research. Additionally, differences in the time frames of relevant research may have caused inconsistencies in the findings and impact the comparability of results, since over time, medical developments and changes in care standards and methods influence patients' experiences and expectations. In this regard, it is suggested that longitudinal studies be conducted to evaluate changes in patient satisfaction and the types of challenges that arise over time, taking into account healthcare developments.

Application of Findings in the Clinic

Given that patient satisfaction is one of the important measures of healthcare quality, it is essential to pay attention to the cultural, communication, and demographic challenges of patients, and addressing these challenges will lead to an increase in the quality of their care.

Conclusion

Given the direct impact of patient satisfaction on treatment outcomes and healthcare system productivity, addressing existing challenges is essential. Challenges such as the quality of communication within the healthcare team, treatment processes, infrastructural problems, and demographic and cultural differences can hinder patient satisfaction.

To achieve a high level of patient satisfaction, patients' needs and expectations must be accurately identified, and treatment and care processes should be optimized accordingly. Systematic evaluation of patient feedback and complaints can help identify weaknesses and support reforms across various healthcare system structures, thereby contributing to overall service improvement. This approach allows organizations to address specific problems in a targeted manner while laying the foundation for broader reforms and a better understanding of challenges within the healthcare system.

To ensure the quality and efficiency of healthcare services, all components of the healthcare system must act in a coordinated and integrated manner, thus creating a desirable environment for patient recovery, increased satisfaction, and consequently, an improvement in their quality of life.

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Competing Interests

The authors declare they have no conflict of interests.

Ethical Approval

The present study was approved by the Ethics Committee of the Faculty of Nursing and Midwifery, Lorestan University of Medical Sciences (ethical code IR.LUMS.REC.1404.186).

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