Original Article

Barriers of health equity in the Iranian health system from the medical ethics viewpoint

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Abstract

In order to lessen health inequalities, the obstacles to health equity will need to be identified. This study aimed at investigating the barriers to access to health-care services from the medical ethics point of view.

Data were collected through a qualitative study by performing semi-structured interviews. Purposive sampling was used to recruit participants involved in health provision and/or management. Content analysis was done using MAXQDA software.

Overall, 30 interviews were conducted. The content analysis of the interviews identified two themes including "micro factors" and "macro factors", five sub-themes including "cultural, financial, geographical, social and religious barriers", and 44 codes. Based on our findings, differences in individuals' perceptions, cultural control, religious beliefs and social stigmas create cultural barriers. Financial barriers consist of the financial connection between service recipients and service providers, insurance premiums, and inadequate coverage of health-care services.

The most important geographical barriers identified in our study were differences in urbanization, inequality in various geographical areas, marginalization, and inequality in resource distribution. Finally, differences in the level of income, education and occupational diversity were among the social barriers.

Given the wide range of barriers to access to health-care services, a comprehensive plan covering various dimensions of health equity should be implemented. To this end, innovative and progressive strategies emphasizing the principles of equity and social equality should be developed.

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Introduction

Health is considered as a foundation for achieving social equity, a precondition, indicator and output of sustainable development of societies. Hence, as a basic right of all individuals, health-care services of desired quality and without financial difficulties should be provided by governments. Among the various complexities of health-care provision, health equity as one of the ultimate goals of the care system has a significant impact on health outcomes, and therefore health managers and decision makers should carefully and persistently consider it in planning and implementations (1, 2) It is also important to consider equity as an extension of the four principles of medical ethics. Ethical theories have different perspectives on justice and equity in terms of access to health services. According to the utilitarian theory, health equity and allocation of health resources should be done in a way that maximizes profit (3). According to the theory of egalitarianism, the government has a responsibility to actively remove potential barriers to equal opportunities for all individuals, and because illness and disability create such a constraint, it is the duty of the government to promote health conditions for everyone (3, 4). Equity in access to health services is one of the most important dimensions and manifestations of justice in an Islamic society that should be considered by the Islamic system. Moreover, health as a human right has received special attention in Islam (5).

Although fulfilling equity in health-care service provision is a significant objective, health systems, especially in the context of average- and low-income countries, have been facing fundamental challenges in this regard. According to the most successful health-care systems worldwide, attending to the important concept of equity and ensuring underprivileged patients' access to quality health-care at a reasonable cost is essential in achieving sustainable health development (6). The issue of health inequalities can be inspected from three aspects: equitable financing contribution, inequalities in health-care access and utilization, and inequalities in health outcomes (7).

Equitable access to health-care services for all community members includes providing the right services at the right time and in the right situation. This promotes the health level and thereby prepares the ground for social activities as well as growth and development in the community. Thus, access to health-care services is a prerequisite for

achieving equity in the society, and the right to health services creates equal opportunities for community members (8). Access to health-care services has three main dimensions including geographical access, financial access, and cultural accessibility (or acceptance) (9).

Access to healthcare involves various factors including service affordability, availability, acceptability, and adaptability to needs. These factors are interconnected with the provision of access to health-care services; likewise, enhancement of one factor alone cannot improve the access level, promote equitable access, or facilitate use of the services (10).

Substantial research has been conducted in several countries on the various aspects of health equity (equitable financial involvement, access to healthcare, and health outcomes, to name a few). Studies show that treatment expenses vary according to the type of disease, and the costs are significantly higher in households with patients suffering from chronic conditions, particularly cancer. In Iran, the percentage of households exposed to catastrophic expenses has changed in the last two decades (6 - 9), which was somehow reduced after the implementation of the health transformation plan (HTP) in 2014. The minimum rate of catastrophic costs in these studies was 1.3% (10), and the highest recorded rate was 42.6% (11). Some of the factors that significantly affect catastrophic costs are: the socio-economic status and the education level of the head of the household, presence of a person over 65 years of age in the household, health services, health insurance status, and using inpatient services, rehabilitation and dentistry (11 - 18).

Given the scope of the problem, one of the conditions that must be met throughout the nation is establishing a thorough system to monitor health equity. Due to the ongoing limitations in availability of resources and the increasing demand for health-care services, health managers at various levels aspire to the highest performance using minimum facilities, so that all individuals have equitable access to health-care services**.** To minimize health-care inequalities, the system's maximum capacity must be identified to make the necessary plans for promoting health equity in the short, medium and long term. The present study aimed at assessing access to health services from the medical ethics perspective and examining the barriers from geographical, financial and cultural aspects as well as providing solutions to overcome such barriers.

Methods

Qualitative Approach

This qualitative study was conducted using semi-structured interviews. The multi-triangulation approach was adopted for data collection to ensure completeness of the findings and confirm them.

From June 22, 2018 to March 6, 2019, data were collected through semi-structured, open-ended interviews with experts in the fields of health management and economics, medical ethics and specialized medical fields by purposive sampling until data saturation (Table 1).

Table 1. Descriptive analysis of interviewees

Variables	Statistics	Value
Gender	Number of Females (%)	5 (16.6)
	Number of Males (%)	25 (83.3)
Age (years)	Mean (SD)	47.8 (7.3)
	(Min./Max.)	(32/60)
Work Experience (years)	Mean (SD)	24.4 (5.9)
	(Min./Max.)	(10/35)
Length of Interview (minutes)	Mean (SD)	45 (12)
	(Min./Max.)	(25/84)

Researcher Characteristics and Reflexivity

Four out of eight members of the research team were female. The study was conducted by DN who was an MD and PhD candidate in medical ethics. AO, MET and EM, were the academic members of a national research institute, while BL, RR, and FB were the academic members of a research center affiliated to Tehran University of Medical Sciences, Tehran, Iran. All the team members contributed to the study, but the interviews were performed by DN. The researchers intended to find out the barriers to equity in access to health-care services by obtaining the viewpoints of health managers, economics experts and ethicists.

Context and Sampling Strategy

The purposive sampling method was used in this study. To achieve maximum variation views, participants were chosen from among general practitioners, specialists in medical sciences and public health who were experts in the fields of health management, economics and medical ethics, and specialized medical experts. At first, 15 participants were selected, and at the end of the interview, they were asked if they could introduce other experts in the field. In this way, 15 more people were identified and added to the study.

Ethical Issues Pertaining to Human Subjects

The study participants were contacted so that they could be prepared for the interview sessions and answer the questions at their preferred time and location. In the introductory sessions, informed consent was obtained for participation and interview recordings, and the necessary explanations were given regarding the principles of confidentiality, non-disclosure of information, and preservation of audio records.

The study protocol was approved by the research ethics committee of the School of Medicine, Tehran University of Medical Sciences, Tehran, Iran (IR.TUMS.MEDICINE.REC.1401.110).

Data Collection Instrument

The interview framework was designed based on the objectives of the study. At first, the initial interview questions were formulated. Next, to ensure the validity of the content and structure of the framework, the questions were shared with the members of the research team (including the supervisors and consultants) and their opinions on the questions were obtained. Finally, the framework was reviewed and agreed upon by the team members. The framework was designed so as to request the study participants' point of view about barriers to access to health-care services by considering difficult situations, as well as cultural, financial, geographical, social and religious differences, and ask them to suggest solutions.

Data Collection Methods

To collect data, in-depth, face-to-face and individual conversations were conducted. Each interview lasted between 25 to 80 minutes. Notes were taken during the interviews, which were audio recorded and transcribed verbatim. Data collection continued until data saturation, which was reached at 30 interviews.

Units of the Study

A total of 30 interviewees participated in this study. Overall, 7 general practitioners, 14 specialists in medical sciences and 9 PhDs in public health who were involved in health management were enrolled in the study.

Data Processing, Analysis, and Confirmation

The primary data analysis was done simultaneously with the interviews. After data saturation, the researchers started the second and main stage of data analysis through content analysis. These two steps are typically performed at the same time in qualitative studies. Data analysis was performed through multiple readings of interview transcripts. First, important sentences and concepts were identified, and to facilitate subsequent sorting, they were written on index cards or information control

files to determine main concepts and topics. After the interviews and reaching data saturation, the main topics were extracted, and then the relationships among these concepts and a comprehensive description of the study subject, main themes and codes were inserted into tables. Using the common technique of inductive-deductive coding of qualitative content analysis, the analysis units were summarized. At this stage, the explicit or implicit messages of the semantic units were categorized to form the primary codes, followed by removing duplicates, summarizing, merging and aggregating. Next, the team members started the review and qualitative evaluation of the codes and classes extracted from the text. The results were then analyzed using qualitative study analysis methods and related software such as MAXQDA 10.

*Techniques to Enhance Trustworthines*s

All interviews were recorded and transcribed verbatim. To ensure transparency of the statements, we sent the transcripts to interviewees and asked them for clarification whenever necessary. We also verified the accuracy of all interviews by cheking them with interviewees.

Reporting

This study is presented according to the "Standards for Reporting Qualitative Research" (SRQR) guideline (12).

Results

In this study the barriers to access to health-care services in Iran were identified and categorized based on Lichter's model (13) in two themes including "micro factors" and "macro factors", five sub-themes including cultural, financial, geographical, social and religious barriers, and 44 codes (Table 2).

Theme 1: Micro Factors

1.1. Cultural barriers

Analysis of cultural barriers to health-care services yielded 11 sub-themes (Table 2). As a primary concern in achieving equity in healthcare, the initial barrier in effectiveness of health interventions involves the provision and accessibility of primary, secondary and tertiary health-care services. Other barriers are related to the method of providing health-care services and accessing them, as well as health literacy and its impact on service recipients' perceptions of the nature of health effects, risk factors and management of such factors. One participant stated:

"The differences in individuals' understanding and acceptance indicate the importance of preventive measures, which are called screening or rehabilitation services." [Interviewee No. 1]

Cultural barriers to equitable access can be related to service providers' induction of demand or false demand for commercial brands and cultural control targeting the community's perception and acceptance through advertising, especially in the private sector. Such cultural barriers affect the service recipients' culture and lead to confusion, magnification and ultimately biases in choosing services, thereby causing inequity in access to healthcare. Depending on their religious and social beliefs, service recipients may have conflicting reactions to certain types of health-care services and providers.

Social stigmas can act as a cultural barrier to access to health-care services; however, in public services where stigmas and margins do not exist, access to healthcare does not involve a particular challenge, and the main bottleneck can be related to individuals' health literacy. Accordingly, one participant mentioned:

"Having cultural outlook means that the cultural differences of service recipients should be taken into account. Requesters of health-care services may or may not receive customized access in line with their culture. Generally, there are no stigmas, margins and barriers [in public sector], and the level of health literacy is such that when you set up a service center, requesters come to use health services. If there are no other barriers, the cultural barrier will have less effect on access." [Interviewee No. 13]

From another cultural aspect, health-care providers may be influenced by their religious, psychological and philosophical beliefs and backgrounds in providing services to a specific group of service recipients (e.g., the elderly, the physically-disabled, the mentally-disabled, or patients with certain mental health conditions). One of the study participants stated:

"Except in special cases, the impact of cultural issues is often not considered. Some subgroups, such as the elderly or those kept in distinct prisons and camps, may be affected by cultural issues that are typically not taken seriously." [Interviewee No. 13]

Senior and intermediate system managers are often physicians, and consciously or unconsciously have conflict of interests in policymaking and defining, implementing, communicating, monitoring and reviewing equity in healthcare. As a result, they are driven to assign and distribute the services based on their personal interests or perceptions.

Despite the availability of access to typical healthcare services, the tendency to make unusual choices about service delivery to recipients is another cultural barrier that was presented by one participant:

"Religious and ethnic beliefs have a profound effect on health culture and acceptance of the services provided." [Interviewee No. 25]

Table 2. Themes, sub-themes and codes of barriers to access to health-care services in the Iranian health-care system

Themes	Sub-Themes	Codes
Micro Factors	Cultural barriers	1. The difference between individuals' perception of the type, method and level of access 2. The effect of religious, psychological and philosophical perceptions, beliefs and backgrounds on health-care service providers 3. Patients' admission and treatment in the private sector 4. Induction of demand or false demand 5. Utilizing advertisements and commercial brands 6. Health-care recipients' religious beliefs 7. Factors affecting cultural acceptance in the context of health 8. Social stigma 9. Contradictory reactions to healthcare 10. Individuals' religious and ethnic beliefs 11. Perspectives based on lack of early benefits
	Financial barriers	1. Designating equitable insurance premiums 2. Receiving larger fees from individuals with higher incomes 3. Direct payments 4. Lack of adequate financial support for service recipients 5. Financial connection between physicians and patients 6. Challenges in the coverage of health-care services 7. Not allocating sufficient resources to the insurance industry 8. Segmentation of insurance systems 9. Discrimination on the grounds of income level 10. Induced demands 11. Barriers to access to outpatient services 12. Incompatibility of legal and sometimes primary and supplementary insurance obligations
	Religious barriers	1. Preference of certain religions 2. The religious attitude of service providers 3. Typical therapeutic interventions and modern technologies 4. Not observing some religious issues
Macro Factors	Geographical barriers	1. Geographical access under four categories 2. Natural hazards, natural disasters and accidents 3. Lack of access to resources 4. The effect of managerial biases 5. Concentration of health-care services in provincial capitals 6. Considering the needs of specific geographical areas 7. Establishment of high-tech services in a geographical area 8. Availability of services as a main infrastructure 9. Lack of service leveling and referral system 10. Physical distances and geographical dispersion 11. Not differentiating among different geographical areas
	Social barriers	1. A direct relationship between income level and social access 2. The effect of the type of occupation on social access 3. Literacy level and social access to health-care services 4. Tendency of low-income individuals to avoid health services 5. Social level or class as a significant barrier 6. The impact of social factors such as income and literacy levels

1.2. Financial barriers

Analysis of financial barriers to health-care services yielded 12 sub-themes (Table 1). The financial connection between physicians and patients is an important barrier that must be eliminated through different methods. High service costs and cash payments are other financial barriers.

Lack of adequate insurance coverage affects health promotion and is an obstacle to accessibility of service delivery, prevention, treatment, rehabilitation and palliative care. This issue was explained by one of the study participants:

"One measure is to provide public insurance with adequate coverage. To achieve proper public health coverage, we must provide all five levels of services including health promotion, prevention, treatment, rehabilitation, end-of-life care or palliative care in a fair and non-discriminatory manner without any financial pressure on individuals." [Interviewee No. 17]

Moreover, the difference in coverage offered by various insurance companies creates financial inequalities. One participant stated:

"Presently, 7 to 9 percent of individuals do not have insurance coverage. Apparently, primary insurances are all similar. Insurance plans offered by some companies, for instance the Ministry of Oil, the Municipality, the Ministry of Energy and banks always have supplementary health insurance. But the supplementary health insurance in our workplace is not really considered an additional service...." [Interviewee No. 17]

"Supplementary health insurance for government employees or other insurance holders may induce demands and waste the resources in many countries, and primary and essential services may be overshadowed by the supplementary health insurances." [Interviewee No. 26]

Depreciation due to rampant inflation and sanctions against Iran has affected individuals' financial ability to receive health-care services, which has resulted in under-utilization and less access to health-care services. The public sector tries to offset the financial burden on the lower income groups within the community by accepting a deductible. One interviewee mentioned:

"In the public sector, the franchise is a justifiable amount for at least 30% of the population and can be a hindrance for a percentage of people, even in the public sector." [Interviewee No. 17]

1.3. Religious barriers

Analysis of religious barriers to access to health-care services yielded four sub-themes (Table 1). The main concern of religion-oriented clients is related to the observance of religious issues. Non-

acceptance of typical therapeutic interventions and modern technologies (e.g., fertility treatments) should be examined from religious perspectives. Moreover, the religious attitude of health-care service providers can be an obstacle in diagnosing and treating diseases and conditions such as AIDS and alcohol abuse. In this regard the participants said:

"Religious views undermine policymaking in terms of diagnosis and treatment of diseases and conditions such as HIV and alcohol consumption." [Interviewee No. 10]

"Rejection of some typical treatments and use of modern technologies, especially in matters related to infertility, is a religious barrier." [Interviewee No. 25]

Theme 2: Macro Factors

2.1. Geographical barriers

Analysis of barriers to geographical access to health-care services yielded 11 sub-themes (Table 1).

Inequality in regional development is among the topics that have recently been raised in the regional planning culture. In Iran, the rapid pace of urbanization in the past several years has created marginalization, and consequently, geographical deprivation. The latter can be examined from different perspectives: geographical differences among different provinces and the impact of these differences on their inhabitants' health and life expectancy, differences between urban and rural areas, marginalization and distinct geographical areas. Inequality in regional development was examined under the four categories of urbanization, inequality in geographical areas and provinces, border settlement, and marginalization. These issues were mentioned by one of our participants:

"Unfairness in geographical access is based on the following factors: first, inequity in the physical distance; second, inequity in accessing provincial centers and medical universities for marginal cities; third, the urban-rural inequality; and fourth, inequity in the areas surrounding cities." [Interviewee No. 1]

In the specialized and sub-specialized leveling systems, the distribution of equipment and facilities can always be improved. One obstacle in the geographical distribution of health resources and facilities is managerial bias. Natural disasters can also be examples of geographical barriers to human health. These barriers were further explained by the interviewees:

"One problem is that we do not distribute our resources based on the needs and conditions of the geographical areas." [Interviewee No. 2]

" Management biases play a major role in the geographical distribution of resources and facilities." [Interviewee No. 2]

"Natural barriers can be geographical or caused by epidemics. This classification that you suggested lies in the category of geography." [Interviewee No. 1]

The functionality of health-care services in many situations violates equity. The best services are mainly provided by provincial centers, which may be equitable from the health-care standpoint, but unfair from the service recipients' perspective. On this point, one participant said:

"Geographically, the best service is provided in the provincial capitals, and not all facilities are available for everyone, which is inequitable from the service recipient's point of view. However, such provision may implement equity from the health-care perspective." [Interviewee No. 6]

Participants also mentioned social inequity and the benefits enjoyed by individuals living in more affluent provinces:

"Psychological vulnerability varies in rural and urban areas, and even in diverse parts of a city, from the suburbs to affluent neighborhoods. Therefore, an approach commensurate with the needs of a particular geographical area is required." [Interviewee No. 10]

"Coverage is very important in geographical access, and service leveling is crucial to achieving such coverage." [Interviewee No. 10]

Lack of essential infrastructure was another barrier to access to health-care services in deprived areas that was presented in this study.

"You can provide high-tech services, such as MRI. For example, you can install MRI equipment in a place where the related services can be delivered." [Interviewee No. 12]

Despite its facilitative nature, the leveling of the referral system can limit access to health-care services from a geographical perspective. The health-care system inevitably uses the service leveling model to ensure equity in access to health-care services. The leveling model expedites provision of maximum access, but imposes several restrictions as well, which was stated by one participant:

"The leveling of the referral system, despite its advantages, forcibly imposes restrictions on access to health-care services in the geographical dimension." [Interviewee No. 24]

2.2. Social barriers

Analysis of social barriers to access to health services yielded six sub-themes (Table 1). Social class, income level, occupation type, literacy and education level all affect equity. Lower income

levels, stressful jobs and social class pertinent to literacy level affect access to health-care services. The participants stated:

"Low-income populations lose access to certain health-care services due to their income level." [Interviewee No. 8]

"Many social classes have disappeared, and incorrect information is distributed through social networks in villages and in the southern and northern parts of the city." [Interviewee No. 11]

Achieving equity in access to health-care services requires that the service coverage be equitable. Government employees receive insurance coverage; however, the unemployed and the rural residents are usually either completely or partially deprived, which is a form of discrimination, whereas all social classes are community members and should have equal human rights. This issue was mentioned by one interviewee:

"Without providing fair coverage, high-income individuals receive better services. Why? Because low-income individuals do not have access to proper healthcare due to catastrophic costs." [Interviewee No. 12]

Discussion

Observing justice by achieving equity is the most important ethical principle in providing health-care services. Understanding inequity and observing equity in providing access to health-care services are significant in policymaking and development, implementation and monitoring of health-care systems, but are subject to criticism and the opinions of health-care system experts and seniors, as well as top-, middle- and field-level managers and supervisors in the Ministry of Health and Medical Education (14). In this study the barriers and challenges associated with access to equitable health-care services were found to fall under five categories: cultural or perceptual (acceptability), financial (affordability), geographical (availability), social and religious factors.

Among the important criteria in access to health-care services, cultural or perceptual aspects affect the service recipients' assumptions and context, and consequently how health-care services are provided (15). Acceptability should be considered when designing, evaluating and implementing health-care interventions, and mutual understanding between service providers and recipients can help optimize the content and quality of health-care services. One of the cultural barriers identified in this study was understanding the importance of access to a particular service, which was influenced by factors such as induced demand. Various studies have also shown the effect of

induced demand and advertising in this regard (16). According to these studies, induced demand can change the way patients think about health-care services, which in many cases results in reduced access to care (17). Social stigma is another cultural barrier to accessing services. A review of other studies also confirms this, and the fact that it is especially true for the disabled (18). One study showed that the conflict of interests of managers in the health system can affect the volume, dimension and provision of health services. It seems that this problem can be solved by controlling conflicts of interests by choosing the right managers and policymakers within the health system (19).

Understanding and accepting service recipients is an important factor affecting the type and manner of service delivery; however, this perception can be influenced by advertisement of brands that induce demand and affect the health system. For example, increasing the demand for medications can affect the functionality of the health-care system (20, 21). In line with our findings, other studies have shown that individuals' assumptions and beliefs have a significant effect on service recipients' cultural component, and mutual understanding between service providers and recipients can improve the quality of the services (21, 22).

In agreement with this study, many studies have highlighted the significant effect of individuals' financial capacity on access to health-care services, and hence on health level (23-25). Insurance premiums can play a major role in facilitating access to health services, and evidence shows that health insurance improves the health status of insured individuals. By adjusting out-of-pocket payments and thus managing catastrophic back-up costs, insurance premiums provide service recipients with access to health-care services and reduce the burden of disease (26, 27). Challenges related to insurance mechanisms such as inefficiency of insurance funds in pooling resources, setting equitable premiums, determining health-care service packages and purchasing services, in addition to affecting equitable financing, can lead to inequality in access to healthcare (25-27).

Geographical differences are among the major barriers to equitable access to health-care services due to the disproportionate distribution of services and disparities in the infrastructures of diverse provinces and regions (28, 29). One of the most important geographical barriers identified in this study was the different condition of informal settlements and marginal areas. Studies in other countries also confirm this finding, stating that

border regions and provinces often face special issues and problems that non-border provinces do not (30-34). These deprivations and challenges affect the health of residents in various ways, because in addition to the lack of access to health facilities, the human resources of the health sector, including physicians, nurses, midwives, etc. are less willing to serve in these areas and as a result, their benefit from health services is reduced (35). Also, a study of access to slum health services showed that on average, more than 10% of the population lived in informal settlements, 21% of the households did not have physical access to health centers, and 34% of the pregnant women did not receive prenatal care (35). Limited access to health services combined with slum dwellers' insufficient knowledge of healthcare is the most important barrier to accessing health services in urban slums (35). From a geographical perspective, having a biosocial view can help achieve a realistic outlook on the circumstances (36). The leveling of services and referral systems are significant measures through which natural hazards and distances between urban and rural areas can be managed. If it is not possible to provide services in some areas, the travel costs should be compensated; however, the localization of services can also help achieve equity in access to healthcare (37).

Social status is considered as a classifier, and the levels of income and health literacy affect access to health-care services. High-income groups benefit more from the available facilities as they have better access to health-care services (38). One of the most important factors that determine the social status of individuals is their level of education; numerous studies confirm the positive impact of literacy on access to health services and health outcomes (39-41). For example, pregnant mothers with higher education are more aware of the significance of healthy nutrition and child care as well as the prerequisites for being healthy (42). In this study, factors such as occupational class, income and education level have been identified as the most important social determinants of access to health services. Low-income groups are often deprived of the available minimums and refer to medical centers less often; such lack of referral is not due to their high health levels, but rather because they cannot afford health-care costs and expensive services (37).

Religion has also been identified as an effective barrier to accessing health services. One study examined religious barriers at three levels: first, the patient level, which is related to the patient's

culture, including religious beliefs and practices; second, the physician level, suggesting that clinicians' views on religion can affect how they interact with patients; third, the system level, which means it is important to understand the designation of religious institutions in health service delivery (43). Despite the fact that using the clergy for some health services produces acceptable outcomes, our understanding of the structure of faith-based health service delivery is limited (44). In addition, the optimum balance between faith-based services and formal health services has often been lacking (44). Provision of adequate access to health-care services for different groups of individuals is not enough as it alone cannot guarantee access for all individuals, regardless of their religious and ethnic backgrounds (45). The general approach of the health-care system in Iran is to provide maximum access for all religious and ethnic groups, regardless of their tendencies and inclinations, in order to observe equity, beneficence and non-maleficence. Moreover, offering special or customized types of health-care services for various religions, beliefs, and indigenous or ethnic groups provides freedom and satisfies the principle of autonomy.

From the perspective of the social determinants of health (SDH), most studies on inequality in access to health-care services have focused on the health-care system (33, 11). However, the other factors affecting healthcare and health inequalities have not been examined, including genetics and biology, food and nutrition, environmental and social factors, and governments' macro-social and economic policies. Therefore, as future work, comprehensive studies emphasizing various factors affecting healthcare from the health equity perspective should be conducted. It seems that most of the shortcomings in this field are due to lack of valid, reliable and comprehensive databases to be used in equity-oriented health advocacy. Therefore, a comprehensive, complete and longitudinal data system should be designed and implemented to conduct equity-oriented studies on healthcare in Iran.

To the best of our knowledge, this is the first deep and extensive study of the barriers to achieving equity in access to health-care services in the Iranian health system from the medical ethics viewpoint. The findings of this study can answer some long-waiting questions of health policymakers in this regard, and the proposed solutions are based on scientific and objective evidence that have been approved by experts. However, our study had some limitations; for instance, to examine the barriers to accessing

health services from an ethical standpoint, it would be better to add people's perspectives to the study, but this was not done due to time and cost constraints.

Conclusion

According to the present study findings, the realization of the principle of equity in access to health-care services requires attention to the existing barriers, including cultural, financial, geographical, social and religious obstacles. To achieve such equity, Iranian policymakers and planners should keep in mind the three main stages of access to health-care services (acceptability, affordability and availability) in line with the four principles of bioethics (justice, autonomy, beneficence and non-maleficence). Therefore, in addition to adapting the health-care system structure to methods of achieving equity in access to health-care services, the challenges in policies and plans, and their implementation and monitoring need to be addressed and resolved. The desired equity in the health-care system, a mission considered by policymakers and planners, needs to be put to practice with minimum discrepancy and opposition with other aspects of healthcare.

Promoting equity in access to health-care services requires attention to several structural factors. Moreover, policymaking and legislative aspects of this structure must be reformed and reinforced. Initially, assessment and evaluation of previous actions and the current situation in the health-care system can change and correct attitudes. Subsequently, the development of innovative and progressive strategies with emphasis on the principles of equity and social equality and protection of the deprived and the outcast in particular will be a primary requirement in improving morality in the health-care system.

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Conflict of Interests

The authors report there are no competing interests to declare.

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