

## Barriers to the development of medical tourism in East Azerbaijan province, Iran: A qualitative study



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### ABSTRACT

The purpose of the present study was to determine factors impeding the development of medical tourism in East Azerbaijan province, Iran. The data were derived from interviews with 16 key informants. Data analysis of the study was conducted through employing the software MAXQDA-12. The results show that marketing, international issues, culture, transfer, brokerage, management, and policy problems are the main barriers to the development of medical tourism. It seems that East Azerbaijan province should provide necessary context for the participation and investment of private sector in the field of medical tourism. Further, it should design and implement long and short-term strategies in proportion to the problems raised.

### 1. Introduction

As a new form of tourism and industry, medical tourism has substantially grown over recent years. Medical tourism may be defined as an economic activity based on integrated services provided by two sectors, i.e. medical and tourism (Heung, Kucukusta, & Song, 2010). Because of the potentials it offers, the market for medical tourism is rapidly expanding, making it intensely competitive on an international scale (Han & Hyun, 2015). Further, medical tourism gives patients access to high quality healthcare at lower costs and with shorter waiting times for treatments. Accordingly, patients seeking medical care are willing to travel from developed countries such as Australia, United Kingdom and USA to developing countries such as Costa Rica, India and Thailand for medical treatment (Yeoh, Othman, & Ahmad, 2013). It is reported that Thailand, Singapore and India have the highest share of medical tourism market in Asia. Also, Latin America is an important destination for medical tourism including countries such as Colombia, Brazil and Mexico as well as the Central Asian (Middle Eastern) countries like Jordan, Turkey and the UAE. Accordingly, Each of the above-mentioned countries is trying to fix its problems and promote global medical tourism (Beladi, Chao, Ee, & Hollas, 2015). The annual global income of medical tourism has grown about 20 percent (Yu & Ko, 2012). In 2014, the income from medical tourism approximated \$55 billion in America where about 11 million patients were referred to other countries for treatment, and every patient spent an equivalent of

\$3500 to \$5000 on each visit (John & Larke, 2016). Statistics on people traveling to other countries to receive medical services are unreliable and as figures presented by different studies they vary from country to country (Álvarez, Chanda, & Smith, 2011). However, the number of patients traveling to other countries is increasing annually and this increase is expected to rise even more sharply in years to come (Crooks, Kingsbury, Snyder, & Johnston, 2010). According to the global income of this industry, Iran has taken a number of measures to increase its share of the market for medical tourism; nevertheless, there is still a series of barriers including international and infrastructural prerequisites for the country's participation in the global market (Momeni, Janati, Imani, Khodayari-Zarnaq, & Arab-Zozani, 2014; Momeni, Varzi, Saki, Khodakaramifard, & Arab, 2017). The aim of the present study was to investigate and describe factors affecting the development of medical tourism in East Azerbaijan province, Iran, regarding the views of key stakeholders in the industry. It first provides a description of the concept of medical tourism development and medical tourism in Iran. The methodology employed in this study is discussed in the next section, followed by a presentation of the framework of barriers to the development of medical tourism.

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## 2. Literature review

### 2.1. Medical tourism development

Advances in information and technology, especially in transport, health and medical treatment, have brought about quite a few changes in the nature of transactions and communications among countries whereby interactions among people have increased worldwide (Heung, Kucukusta, & Song, 2011). The process has increased more than ever in the 21st century as a result of globalization. Hence, it has made an increasing number of people travel from developed countries to developing countries for health care. In addition, it has required developing countries to develop medical tourism to increase their share of the market (Fetscherin & Stephano, 2016). This growth in interactions has led to the formation of medical tourism industry in the world. In addition to developing advanced medical facilities and providing high-quality and affordable health care, development in medical tourism includes a wide range of support services such as visa applications, airport services with provision of special equipment, appropriate transfer of medical tourists from the country of origin to their destination, entertainment and recreation and safety provisions in the destination country (Ulaş & Anadol, 2016). Following these changes, countries have sought to expand the market for medical tourism and want to increase their share in the industry. In order to gain a bigger share of the market of medical tourism, countries around the world are engaged in building medical clinics, excellent hotels, improving facilities and health services and tourism (Han & Hyun, 2015).

Some Asian countries such as Singapore, Thailand and Malaysia have been very active in the development of medical tourism; as a result, these places have become top destinations for medical tourists. It is because these countries have developed infrastructure for tourism and medical treatment and provided good communication links between hospitals, insurance and tourism agencies as well as lowering costs and waiting times (Yu & Ko, 2012). For instance, some hospitals in Thailand have secured contracts with airlines to reduce ticket rates for foreign patients so as to attract more medical tourists (Buzinde & Yarnal, 2012). Taiwan has invested \$ 318 million in developing medical equipment and South Korea is planning to develop centers for healthcare for medical services to foreign patients (Sharma, 2013). Turkey has 42 hospitals approved by the Joint Commission International Organization (JCI) in partnership with popular institutions such as the Medical Center of Harvard University and Johns Hopkins University, the institutions that provide medical services to tourists. Outstanding features of such medical centers are having trained physicians in the field of medicine, staff fluent in English language and 5 star hotels close to hospitals to accommodate foreign patients and their relatives (Carrera, 2012). For example, Thailand is active in the field of medical tourism with participation of 37 hospitals and Singapore with 21 such hospitals approved by Joint Commission International (JCI) (Wong, Velasamy, & Arshad, 2014). Although medical care provision in Singapore is generally more expensive than in India or Thailand, it is still more than 50% cheaper than the cost of treatment in the United States of America (Woodhead, 2013). Medical Tourism in Singapore has world-class advanced medical infrastructure, standards of cleanliness, order and staff fluent in English, it, therefore, has a good reputation worldwide (Wong et al., 2014).

### 2.2. Previous studies

Previous studies on medical tourism have mostly emphasized challenges, barriers and development potential. In a study, Singh (2014), examined the development potential and barriers of medical tourism in India. The results highlighted India's strengths in the field of medical tourism including low cost, strong reputation in surgical procedures such as cardiovascular surgery, organ transplantation, eye surgery and the country's unique tourist attractions. According to the

study, the obstacles faced by the industry in India include a lack of government initiative in the field of medical tourism, a lack of concerted effort to promote the industry and a lack of uniform pricing policy and standards among hospitals (Singh, 2014). In another study, Jeremy Snyder et al. (2015) suggested that changes in healthcare policy were required to deal with an outflow of Mongolian medical tourists. Reforms expressed in this study include increased funding for health systems in Mongolia and efficient use of such funds to improve education opportunities and incentives for health staff and to eliminate corruption and favoritism in the health system (Snyder et al., 2015). In the same vein, Han and Hyun (2015) developed a model explaining the intentions of medical tourism by considering impacts of quality, trust, satisfaction, and reasonable pricing. The results proved quality, satisfaction, and trust in clinics to be the factors that strongly affected intention to revisit a clinic in the destination country. Their results also showed that satisfaction and trust were significant mediators. In general, the moderating impact of reasonable pricing was evident in the proposed theoretical model (Han & Hyun, 2015). The most important barriers to the development of medical tourism in Hong Kong, reported by Vincent C.S. Heung et al. (2011), included cost, infrastructure, policies, government support and promotion of medical tourism. Finally, strategies such as promotional activities, investment, communication skills with medical tourists, were considered to help remove barriers (Heung et al., 2011). In a study, Gultuvin Gur Omay and Cengiz (2013) expressed that the lack of a comprehensive government policy on health tourism management, the limited number of organizations supporting health tourism, high levels of bureaucracy in health tourism, political instability in regional countries, a lack of standardization in health tourism services were the main challenges and threats affecting health tourism in Turkey (Gultuvin Gur Omay & Cengiz, 2013).

### 2.3. Medical tourism in Iran

Like many countries, Iran has also decided to invest in medical tourism. Iran consists of 31 provinces and has a population of about 80 million. The country is located in central Asia and borders many countries such as Pakistan and Afghanistan to the east, Turkey and Iraq to the west and Turkmenistan to the north, as well as Azerbaijan and Armenia and Arabic countries (UAE, Qatar, Bahrain, Saudi Arabia, Kuwait and Oman) to the south. The majority of Iran's population are Shi'a Muslim (Moghimehfar & Nasr-Esfahani, 2011). In terms of economy, Iran's exchange revenues are dependent on crude oil exports to other countries. However, in order to reduce dependence on the oil industry, Iran is trying to capitalize on tourism as a source of income. Medical tourism represents one such plan (Jabbari, Zarchi, Kavosi, Shafaghat, & Keshtkaran, 2013). Iran has very attractive potential that includes low cost health care, internationally renowned doctors, successful performance of surgical procedures (transplantation of liver, heart, etc.) at the global level and low waiting times for treatments (Jabbari, Ferdosi, Keyvanara, & Agharahimi, 2013). However, Iran's medical tourism industry has some obstacles including: lack of a comprehensive information management system specific to medical tourists, inadequate marketing, insufficient infrastructure, lack of skilled professionals in the field, and shortage of relevant training programs (Azadi, Maleki, Tabibi, & Azmal, 2012). According to Iran document 1404 (2025), It is predicted that, 1,400,000 people will be attracted to medical tourism. Hence, Iran has the potential to gain top ranking in medical tourism in the Middle East (Mahdavi, Mardani, Hashemidehaghi, & Mardani, 2013). Paradoxically, Iran ranks tenth in the world for tourist attractions while its rank in attracting tourists is 52. Unfortunately, statistics regarding the number of medical tourists entering Iran are unavailable and only statistics relating to 2004 and 2005 are accessible. Figures show that in those years 12,000 and 17,500 patients were treated, respectively; however, in 2012, Iran secured only 0.35% of the global income from health tourism, the figure which places Iran 53rd among countries in the world (Izadi et al.,

2012). Nevertheless, a few cities such as Tehran, Mashhad (neighboring Afghanistan), Isfahan, Shiraz (close to Arabic countries) and Tabriz (neighboring Azerbaijan, Armenia and Turkey) in Iran have been active in attracting medical tourists from their respective neighboring countries. The present study will probe into the issues hindering health tourism in Tabriz, East Azerbaijan province, Iran.

#### 2.4. Place of study

East Azerbaijan province is located to the north west of Iran with 3,724,620 population. It borders the Republic of Azerbaijan, Armenia, Nakhchivan and is close to Turkey and Iraq. Tabriz is the center of East Azerbaijan province. Geographically, the province bridges Iran and Europe. Hence, it has been an important economic and administrative center of the region and the country for a long period of history (Zarghami, Abdi, Babaeian, Hassanzadeh, & Kanani, 2011). Azerbaijani is the language spoken by most of the people of the province and the majority of people are Shi'a Muslim. The province has quite a few historical, natural, religious and cultural attractions; therefore, it would be of interest to tourists. The province has temperate summers and cold winters (Farajzadeh & Matzarakis, 2009). Tabriz, center of the province, provides patients with services in various specialties in 23 hospitals, 10 public, 6 private, 3 military and 4 non-governmental public, and some diagnostic clinics. Indeed, provision of medical services to medical tourists in the city of Tabriz must be provided by both private and public hospitals (The number of hospitals in the province., 2017). There are 16 hotels, two 5-star hotels, four 4-star hotels and 25 3-star, 2-star, and 34 guesthouses in Tabriz to accommodate tourists (The number of hotels and guesthouses in Tabriz city, 2017). Having internationally renowned physicians, hospitals in the city (include one specialized hospital), which is one of the distinct characteristics of the city to attract medical tourism. According to the Department of Health Tourism of Tabriz University of Medical Sciences, the number of international patients to visit Tabriz from 2011 to 2016, has fallen sharply (Fig. 1). The present study tried to, first, investigate the causes of decline in the number of foreign patients admitted to Tabriz hospitals and, second, explain the main obstacles of medical tourism in East Azerbaijan province.

### 3. Methodology

In the present study, a qualitative method was applied. Generally, a qualitative research method refers to kind of research producing findings not arrived at by quantification (Savin-Baden & Major, 2013). Further, qualitative methods are generally employed when the researcher needs to identify variables that will later be tested quantitatively or when he or she has determined that quantitative measures cannot adequately describe or interpret a situation (Marshall & Rossman, 2014). There are different types of qualitative data collection methods which vary using unstructured or semi-structured techniques. Owing to the exploratory nature of the present study, the grounded theory approach was employed.

#### 3.1. Theoretical background

Grounded theory is an all-purpose research methodology which involves the progressive identification and integration of categories of meaning from data. It is both the process of category identification and integration (as method) and its product (as theory) (Strübing, 2014). Grounded theory as a method provides the researchers with a procedure regarding how to recognize categories, how to make links between categories and how to create relationships between them. In addition, it provides us with an explanatory framework through which we can understand the phenomenon under investigation. To identify, refine and integrate categories, and ultimately to develop theory, grounded theory researchers use a number of key strategies, including constant comparative analysis, theoretical sampling and theoretical coding (Corbin, 2017); the process which is applied in the present study.

#### 3.2. Data collection

To carry out the study, data collection was done through in-depth face to face interviews with key informant participants in the field of medical tourism industry from East Azerbaijan province including Cultural Heritage, Handicrafts and Tourism Organization, Health Tourism Department of Tabriz University of Medical Sciences, The Governor, Representative Office of Ministry of Foreign Affairs in Northwestern Iran, the Medical Council, public and private hospitals, physicians, researchers in the field of medical tourism and foreign patients. The type of sampling used was purposive and snowball which was used during interviews. This study was introduced to the Ethical Committee of Tabriz University of Medical Sciences and approved by TBZMED.REC.1395.452 code, and permission for the study was granted to the researchers. Then, with an official letter from the Vice Chancellor for Research, Tabriz University of Medical Sciences, the researchers referred to the organization of the respective key informant to interview. Normally, there was a discussion on the topic of the interview with the person. Afterwards, the interview questions were presented to the interviewee. The meeting had two objectives. The first was to ensure that the interviewee was ready for the interview on that very day. The second was to collect more detailed information on the subject. The date of an interview varied from 7 to 90 days, determined by the interviewee. Meanwhile, consent to the interview was taken orally. In two cases, interview dates were postponed due to the busy schedule of the interviewees, the times had been offered by the interviewees though. For a foreign patient coming from Azerbaijan, arrangements for the interview were made by the authority of the International Patients' Department (IPD) of one of the private hospitals in Tabriz. The entry criterion for the interview was having made more than two visits to Tabriz for treatment. The interview was performed at the time of discharge from hospital. The interviewee from Azerbaijan had come to one of the treatment centers of Tabriz to receive medical treatment. The interview was done in a relaxing atmosphere with an interpreter. The purpose of the interview was fully explained to each interviewee before running it. The interviews were conducted in the months of April, May

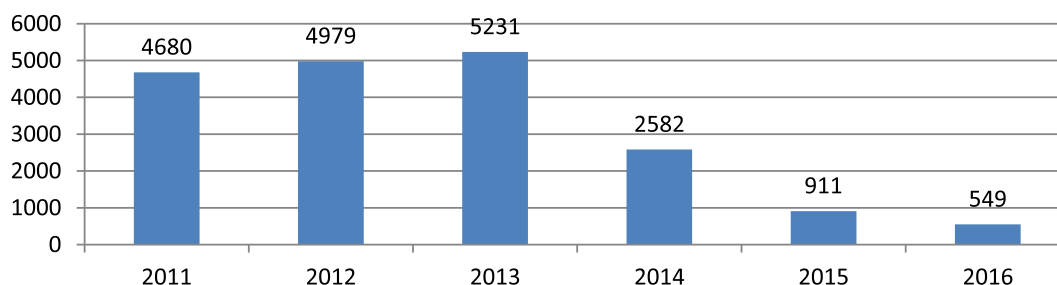


Fig. 1. The number of medical tourists to visit Tabriz, 2011–2016 (Source: adapted from Annual Reports of Health Tourism office of Tabriz University of Medical Sciences)

**Table 1**  
Interview questions.

What are the weaknesses of medical tourism in East Azerbaijan province?
What are the threats to medical tourism in East Azerbaijan province?
What are the medical services provider centers challenges regarding medical tourists in East Azerbaijan province?
What are the transfer challenges of medical tourists?
What are the private and public sectors problems in medical tourism in East Azerbaijan province?
Is the necessary infrastructure to attract medical tourism appropriate? Why or why not?
What are management problems in this area?
Can you think of any other factors that could be a barrier to development?

and June 2016. Any interview was conducted by two interviewers one of whom raised questions and the other took notes and recorded voices. Each in-depth interview lasted for about 50–70 min. A semi-structured questionnaire was prepared to guide the interviews. The questions were first developed based on the available literature. However, later, the questions were developed further and then were finalized. Also, over the three pilot interviews some alterations were made to the questions before finalizing them. The questions targeted to determine barriers to the development of medical tourism in East Azerbaijan Province. The interview questions were open-ended and mainly focused on weaknesses and threats of East Azerbaijan Province Medical Tourism Industry. The interview questions are listed in Table 1.

### 3.3. Data processing; data analysis

First, the interviews were transcribed to provide text for content analysis. Initial content analysis was performed by examining transcripts and notes. After multiple reviews, 10 main themes were identified by the researchers and then were entered into the software MAXQDA-12.

In the next step, after identifying the main theme, sub-themes were highlighted so that by reviewing the transcript of the interview by two people and their agreement, sub-themes were placed in the subsets of the main themes in the software MAXQDA-12. In cases with no agreement between the two people in the field for placing sub-themes in the subsets of the main themes, a third person was called upon to express his/her opinion. To further ensure identification of all the sub-themes that had not been identified in the previous step, researchers reviewed the implemented versions.

Axial coding permitted the refined sub-themes to be put together to identify themes and relationships. During this process, identification of the themes and sub-themes was validated by comparing the information provided by different respondents and then further comparison of the information obtained from the interviews with data gleaned through observations and analysis of secondary documents (Heung et al., 2011).

Finally, considering the review of themes and sub-themes and interpretations of researchers from interviews, a framework of relations was constructed as a framework representing barriers to the development of medical tourism in East Azerbaijan province.

In order to increase consistency of the data and prevent prejudice, researchers discarded any possible presumption about the subject during interviews and data analysis (bracketing) (Fischer, 2009). For validity of the interview content, and transparency of any uncertainty, every interview was immediately listened to and transcribed verbatim in the shortest possible time after the interview, and then it was sent to the interviewee for approval (Mabuza, Govender, Ogunbanjo, & Mash, 2014).

All recordings were transcribed and were approved by the interviewees. Only one of the transcribed interviews was not approved because the patient had returned to his country on the same day.

**Table 2**  
Characteristics of the participants.

Industry sector	organization	Participants position Participant Number	
Public	Madani Hospital chief executive	1	
	Imam Reza Hospital chief executive	1	
	Representatives of the Ministry of Foreign Affairs in the northwest of the country Supervisor	1	
	Health Tourism Department of Medical Council Supervisor	1	
	Health Tourism Department University of Medical Sciences Expert	1	
	Cultural heritage, Handicrafts tourism organization The Deputy Tourism	1	
	Tabriz governor The deputy governor	1	
	Faculty of Geography & Planning, University of Tabriz Associate Professor	1	
	Private	Behboud Hospital chief executive	1
		Shams Hospital chief executive	1
Tabriz International Hotel chief Medical Tourism Corporation chief		1	
Other	Clinic Cardiologist	1	
	Patient	1	
Total	Researcher	2	
		16	

## 4. Findings and discussion

### 4.1. Characteristics of participants

The data were collected through interviews with managers and representatives (12 people), stakeholders of medical tourism organizations of East Azerbaijan province, a cardiologist, a foreign patient and researchers in the field of medical tourism (two people). In total, there were 16 interviewees as subjects, eight of whom were from the public sector, 5 from the private sector, and the rest included one patient and two researchers. Table 2 shows the characteristics of the interviewees.

### 4.2. Themes and extracted framework of the study

In Table 3, the main themes and sub-themes and their repetitions by the participants are represented. There were 10 themes and 40 sub-themes. The most prevalent sub-themes, indicated by all participants, related to the following three sub-themes; “strengthened medical tourism infrastructure in countries of the region, financial abuse, weak transfer of medical tourists”.

The framework shown above is the result of themes and sub-themes of the findings of the study and presents an outline of the relations between them. Fig. 2 illustrates the barriers to development of medical tourism in East Azerbaijan province. The solid arrows show the direct effects on the development of medical tourism, and the dashed arrows show the relationships between factors. For example, management issues, as the main theme, has a direct impact on the development of medical tourism and this main theme affects other themes, including brokers, marketing and transfer of international patients.

In a study, Singh (2014) examined the development of potential barriers of medical tourism in India. Some of the barriers identified in this study, such as a lack of concerted effort to promote the industry and a lack of uniform pricing policy, are similar to our study, whereas other barriers such as international issues, culture, language, hospitals, transfer, brokerage, structure, were investigated for the first time (Singh, 2014).

The exploratory study carried out by Alsharif, Labonté, and Lu (2010) on the motivations of four countries (India, China, UAE, Jordan) and the barriers to medical tourism identified some factors similar to those revealed here, for example, factors like ethical and policy challenges, advertising and communication (language) (Alsharif, Labonté,

**Table 3**  
Results of content analysis.

Themes	Sub-Themes	Frequency <sup>a</sup>
Marketing	Medical tourism companies not active in neighboring countries	10
	Not having brand of treatment	7
	Poor communication of medical tourism industry with local and overseas media to demonstrate the capabilities of this field	8
International	Lack of cooperation and communication with the World Tourism Organization (WTO) and the World Health Organization (WHO)	2
	Strengthening medical tourism infrastructure in regional countries	16
	Investment by Israel, America and Turkey in the Azerbaijan Medical sector	3
	Offering a distorted image of Iran to the international community	5
	International sanctions (non-SWIFT)	12
	The possibility of terrorist groups entering in the form of comrades or international patients	3
	The possibility of transmission of communicable diseases	6
Cultural	Decrease in value of Azerbaijan's National currency (manat) in recent years	11
	Negative ideological and political attitudes toward tourism industry	6
Language	Existence of inappropriate cultural tourism development	13
	Restrictions on foreign language skills (hospital staff, drivers, etc.) to communicate better with medical tourists	13
Transfer	Hospitals Non JCI-accredited hospitals	9
	Lack of medical services price listed on the website of some hospitals	5
	Saturation capacity of government hospitals	2
	Lack of follow-up and post-discharge care	8
	Weak transfer of medical tourists	16
Broker	lack of airlines Between Baku and Tabriz	3
	At the border customs mafia	7
	Financial abuse	16
Structural	Moral abuse 10	10
	Drug trafficking 4	4
	Lack of Ministry of Tourism (MOH)	3
	Lack of adequate infrastructure	14
	Currency exchange	9
	different prices in service centers (restaurants, shops, transport, etc.)	4
	Lack of attention to health tourism in the educational content of schools and universities	4
Management	Lack of School of Tourism	2
	Lack of Comprehensive and systematic plan	13
	Lack of Intersectoral effective coordination	14
	frequent change of managers	3
	Lack of monitoring proper implementation of medical tariffs	6
	Inadequate supervision on the patients and their relatives hotels and resorts	5
Policy, Rules	Inadequate supervision of police	4
	Public sector (policy makers, planners and executors)	11
	Inadequate government support of private sector	14
	The need for new rules and policies	10
	Lack of insurance coverage for international patients	8

<sup>a</sup> The number of sub-themes repeated by the participants.

& Lu, 2010).

In “Medical tourism development in Hong Kong: An assessment of barriers”, Vincent C.S. Heung et al. (2011) identified infrastructure, policies, government support and promotion of medical tourism as the barriers to Medical tourism development in Hong Kong. These factors are consistent with the present study. However, in our study, international challenges, brokers, cultural, accreditation and transfer are the factors that were probed for the first time (Heung et al., 2011).

In Gultuvin Gur Omay and Cengiz (2013) study, lack of a comprehensive government policy on health tourism management, limited number of organizations supporting health tourism, high levels of bureaucracy in health tourism, political instability in regional countries, lack of standardization in health tourism services were identified as the main challenges and threats affecting health tourism in Turkey. Consistently, our findings revealed similar barriers including management and policy making in medical tourism (Gultuvin Gur Omay & Cengiz, 2013).

Our findings also were consistent with Torani and Tofighi (2010) study that proved “lack of governmental support of private section toward development of medical tourism, lack of insurance coverage for international patients and marketing infrastructure” to be barriers to health tourism. In our study, international challenges, cultural, medical tourist transfer, hospitals and language are considered for the first time (Snyder, Crooks, & Johnston, 2012).

#### 4.3. Barriers to development of medical tourism in East Azerbaijan province

The ten factors shown in Table 3 present the main barriers to development of medical tourism in East Azerbaijan province, Iran. The factors include marketing, international issues, cultural issues, communication, medical centers, transfer of international patients, dealers, structural issues, issues of management and policy, which are further investigated below.

##### 4.3.1. Marketing

Almost all of the participants emphasized that an effective advertising system was needed to attract more patients. Four sub-themes were identified as major marketing challenges. One of the challenges was that medical tourism companies were not active in the country of origin.

Tourism agencies can attract more international patients if they establish representation in their countries of origin, otherwise, patients will be caught by brokers. We had an agent residing in the city of Baku. He distributed promotional leaflets and attracted patients; and wages were paid to him (Participant 1).

Despite availability of treatment services with various specialties in Tabriz, marketing was a major challenge due to the lack of a brand through which medical tourism could be promoted.

Unfortunately, in this regard (building brand), we have not made any attempt. For example, India is a brand in cardiac surgery. At least, we can build a brand in a specialized treatment so that Tabriz may be

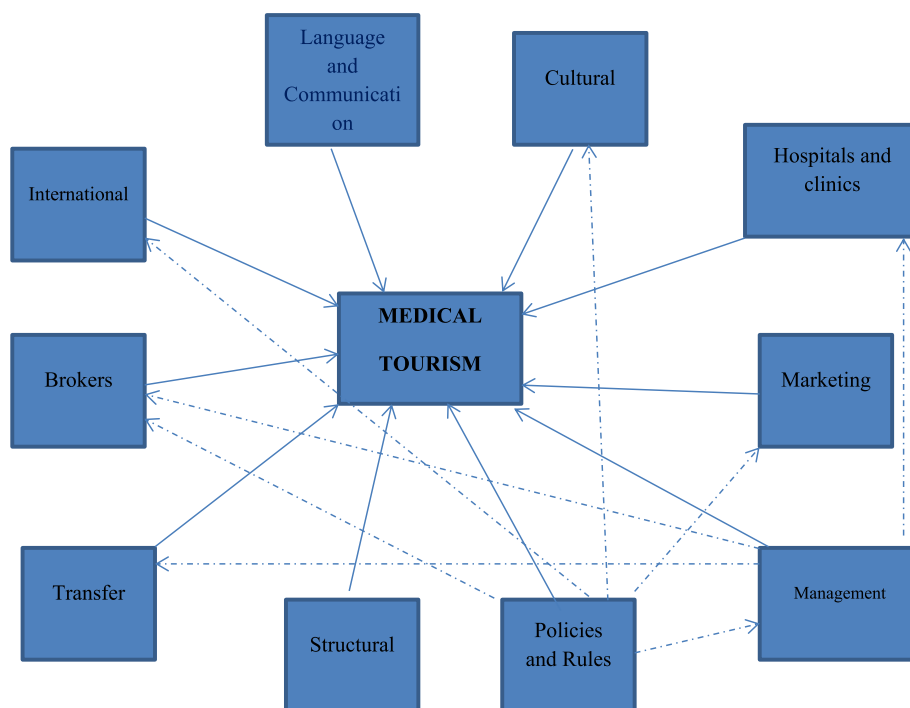


Fig. 2. Framework of barriers to the development of medical tourism in East Azerbaijan Province.

recognized with this treatment; of course, according to the facilities and specialties we have in Tabriz, the city can become a brand in the field of eye and cardiovascular surgery (Participant 2).

#### 4.3.2. International

No doubt, the progress of any country requires constructive, global interaction in all areas, and medical tourism is no exception. Although after the “agreement on a Joint Plan of Action” (E3/EU + 3 negotiations with Iran) it was expected that sanctions against Iran would be lifted and global interactivity would resume, this has not been the case. The participants cited seven sub-themes as international barriers the most prevalent of which were “strengthening medical tourism infrastructure in regional countries” and “international sanctions”.

Turkey has made remarkable progress in the field of medical tourism. Structures, medical equipment and its behavior have been updated along with medical tourism (Participant 5).

In Turkey, they do a great job in picking you up from the airport until discharging you from the hospital and performing additional follow-up procedures after that. They do not waste the patient's time, and the patient does not face any challenges in receiving medical services. They have made state of the art hospitals fully mobilized to accommodate patients and their families (Participant 6).

Azerbaijan is doing a very good job. They have established hospitals based on international standards. Medical tourism development plan has been written and its way of implementation has been conveyed. They have sent about 7000 students to Europe for attending medical courses (Participant 7).

International sanctions (non-SWIFT): *Hospitals ask patients to prepay for any procedure. Given that, the SWIFT has not been reestablished in Iran and transferring money from outside of Iran is not possible. If the patients could pay the charges, he would reserve the hospital bed like hotel reservations. If a patient has trouble at the time of discharge, how should his family send money from abroad? What should the patient do in this situation?* (Participant 4).

The possibility of entering members of terrorist groups as a companion or as an international patient: *While everybody's entry to the country should be vetted in borders, sometimes, people from foreign intelligence agencies may enter the province as a medical tourist (international*

*patients). Generally, we do not check people's background; we think that they are ordinary patients and we provide services* (Participant 9).

The possibility of transmission of infectious diseases: *In some cases, international patients, patients who come from other countries, may have some communicable disease such as Hepatitis, HIV/AIDS, or tuberculosis. We have received some reports of these cases which contributed to the prevalence of the communicable diseases in this area* (Participant 7).

Azerbaijan's reduced value of its national currency (manat) in recent years: *In recent years, the value of currency (manat) of Azerbaijan has come down. Three years ago, a manat was 45,000 Rials, but now a manat is 22,000 Rials. This is one of the factors lowering the number of medical tourists in the province* (Participant 7).

#### 4.3.3. Cultural

There was consensus for the effects of all types of development, including cultural development (Kazemi, 2008). Due to the possibility of cultural exchanges in tourism industry, without due attention, any tourism development program will fail. It is claimed that the best and most valuable souvenir for tourists is the morality and social culture of the people of the host country (Masoud, Alireza, Mahmoud, & Zahra, 2013). Two factors were raised by the participants as cultural challenges one of which was negative ideological and political attitudes to tourism. One knowledgeable individual said: *Chiefs and elders of the area are against health tourism Given this, nothing can be done. They believe that health tourism brings its different culture (e.g. tourists inappropriately dressed) and it will hurt our culture. But, I do not know why our culture should be so weak that is easily influenced by medical tourism culture* (Participant 6).

Another factor was development of inappropriate cultural attitude to tourism: *A few years ago, many of my countrymen came to Iran, but now very few come here. The main reason is not only economic, but also changes in people's behavior and morality. I ask the address of a hotel, they say they do not know. It is because of the benefits they may gain and thus we do not trust them anymore.* (Participant 11).

#### 4.3.4. Language and communication

In order to provide services that meet international standards, destination countries for medical tourism need personnel who can

speak foreign languages and interact appropriately with patients (Crooks et al., 2010). Although Azerbaijani is the official language of the province and most admitted foreign patients are speakers of Azerbaijani, there were reports of poor foreign language skills among hospital staff and drivers for good communication with medical tourists. One participant said; *In our hospital, there is no person who is fluent in English Language. Once, a German patient was referred to our hospital. We had to ask an interpreter from outside the hospital to translate his talk (Participant 8).*

#### 4.3.5. Hospitals or medical centers

Medical centers with international standards and modern equipment are very important factors in choosing a destination for medical tourism (Samadbeik et al., 2017). The participants raised four sub-themes as barriers to accommodating foreign patients. They are mentioned below.

Lack of internationally certified hospitals:

*No hospital in Tabriz has obtained Joint International Commission (JCI) license. It means that international standards need to be applied in the hospitals of the city (Participant 13).* Lack of a price list for medical services on the websites of some hospitals: *They should write down the prices of radiology and ultrasound in our own language so that we know the prices. All the bills should be written in English in order that we could read them easily (Participant 11).*

Saturation capacity of public hospitals: *After implementation of the Health Transformation Plan (HTP) in Iran (2014), an increasing number of people flood government hospitals; so, it is not possible to admit foreign patients to government hospitals. Occupancy rate in these hospitals is nearly 100 percent, so government hospitals are not able to provide medical services to foreign patients” (Participant 12).*

Lack of follow-up and post-discharge care: *“Follow-up after discharge of foreign patients does not take place by hospitals (Participant 13).*

#### 4.3.6. Transfer

No doubt, the main concern for foreign patients after improving their health and receiving treatment was method of transfer to the destination country. Participants agreed that there was no integrated management system in place to transfer foreign patients and problems with transfers were expressed as follows:

Weak transfer of medical tourists from origin to destination and vice versa: *There is no integrated transportation system for patients in this city and transferring of a patient to the city is one of the main problems. Patients have to deal with taxi drivers. Patient transport route from the border to medical specialist center is wrong (Participant 2).*

Lack of airline service between Baku and Tabriz: *Baku-Tabriz flight was canceled a few years ago, but negotiations have been conducted to establish this flight (Participant 5).*

#### 4.3.7. Brokerage

Unfortunately, brokers cause dissatisfaction among foreign patients. This is thought to have a defamatory effect on Iran, internationally (Penney, Snyder, Crooks, & Johnston, 2011). The participants mentioned three sub-themes as the main obstacles to the distrust of the province among medical tourists brought about by dominance of brokerage. One problem was financial abuse of international patients: *A middleman brings patients from border illegally and he guides them to the hospitals or hotels which commission the middleman. Hospitals have to commission middlemen and hence they charge patients extra money. To get more commission, middlemen should convince patients to do more diagnostic procedures, radiology and so on, while the patients do not need to receive many of these services. In fact, the middlemen can make a decision for patients without any experience and knowledge. When the patients see that they are paying as much as they have to pay in their own country, they decide not to come as a medical tourist. Thus, the existence of middlemen is one of the reasons why the number of medical tourists has been reducing recently (Participant 9).*

Some people bring patients to their own home instead of hotels. They charge patients a high amount of money without offering services that the patients are supposed to receive in hotels (Participant 5).

Moral abuse of patients and their relatives was another issue: *Unfortunately, we have witnessed such behaviors that foreign patients have been raped by taxi drivers (Participant 16).*

One of the participants reported fraudulent medicine by middlemen: *Due to similarity of names among patients from Azerbaijan to Iran, middlemen would go to drug store and get medicine using their own health insurance. Then, they would sell those medicines to foreign patients for 2 or 3 times more expensive than its real price (Participant 14).*

#### 4.3.8. Structural

Existence and strengthening of tourism infrastructure, which not only plays a direct role in providing better services but also increases satisfaction of medical tourists. The respondents stated 6 factors as structural barriers which follow:

Lack of Ministry of Tourism (MOH): *As long as the tourism does not have a ministry, nothing can happen from structural, institutional and organizational standpoint. The minister of tourism should be in Cabinet so as to health tourism be effective. Countries like Nepal, Bhutan, Iraq, India, Pakistan etc. have ministry of tourism but Iran does not have. That is why tourism does not have any role in macro decision-making and policy making in Iran. If the issue were resolved, other related problems would be resolved automatically (Participant 10).*

Inadequate infrastructure for tourism: *There are not adequate 4 and 5 star-hotels in Iran. It is better to build high quality hotels near hospitals in addition to tourism police. Everywhere, the Police should have some information about tourism. Unfortunately, there is no international police in Tabriz and the city does not have clear route maps or timetables that tourist could find his/her route easily (Participant 14).*

Currency exchange: *International patients and their relatives get in trouble to exchange their currency (dollar, Manat, etc.) with Iranian Rial. Unfortunately, they are trapped by dealers and they have to pay higher fees (Participant 4).*

Price variations in different service centers (restaurants, shops, transport, etc.): *In my view, it is better to use foreign language for prices of every service and product. When we go to stores, there is no price label. For example, while purchasing some stuff, we do not know the prices! This is one of the priorities. Even different stores or restaurants have different prices for similar brand or equal quality (Participant 11).*

Lack of attention to health tourism in the educational content of schools and universities: *The culture of tourism acceptance should be started from schools. We should train students in schools so that they consider international tourists as their compatriots. Unfortunately, there is nothing about tourism on the curriculum of schools as well as universities (Participant 4).*

Lack of School of Tourism: *Every metropolitan city should have the school of tourism in undergraduate, masters and PhD degrees to take a responsibility of the management of this area. You can see that people are talking and also making decisions about tourism industry without any knowledge (Participant 13).*

#### 4.3.9. Management

Most organizations in Iran are considered to be important beneficiaries of tourism industry and contribute to its management. Having multiple players in management (planning, coordination, supervision) means that medical tourism faces major challenges, and multiplicity of decisions means that decision-making has not been coordinated. These challenges have been expressed by the respondents as follows:

Lack of comprehensive and systematic planning: *The implementation of activities related to medical tourism needs a roadmap. Trial and error is not beneficial. Doing random activities is not helpful. It is because; incorrect planning has led to bankruptcy of some private agencies (Participant 3).*

Lack of intersectional effective coordination between tourism stakeholder organizations: *Governors at province level are not be able to*

create coordination among Tourism Organization, Deputy of Treatment of Medical University, Representative of the Ministry of Foreign Affairs and the Medical Council to become strategically active in attracting the international patients and staying on the same path to reach ultimate goals. For example, no measure has been taken to license tourism agencies for about last six years (Participant 9).

Lack of monitoring the proper implementation of medical tariffs: *The physicians and health providers charge patients much more than the real cost without being controlled and monitored by any relevant organizations (Participant 2).*

Inadequate supervision by police: *I think that the police should monitor middlemen and drivers. For example, in order to get more patients, drivers drive at high speeds between border and the health centers. More often than not, high speed leads to accidents and death of people on board (Participant 9).*

#### 4.3.10. Policies and rules

The following 3 sub-themes were raised by the respondents as barriers regarding policy. One of the problems raised by the respondents is that the public sector is active in policy making, planning and executing. One of the respondents expressed the following:

It is a big problem that the government be either policy maker or executor of those policies. Private sector should implement government policies. There is something called motivation in private sector that public sector lacks (Participant 16).

Inadequate government support of the private sector: *Private sector can be active in every area. However, due to lack of government advocacy, private sector is afraid of losing capital. Hence, they do not enter this area. By giving subsidies and loans, it would be possible to encourage their participation (Participant 1).*

The need for new rules and policies: *Barriers to medical tourism industry (brokers, management, marketing, international and cultural issues) result from precise and evidence-based policy making so that policies should be constantly updated and evidence-driven. There is no specific policy in the field of tourism. Laws and policies are not updated. For example, in terms of hospitalization, there are no hotels near hospitals called hospital hotels. It is because the government has not ratified any policies in this regard (Participant 10).*

## 5. Implications, recommendations, and conclusion

This study has a number of important implications for the main stakeholders of medical tourism in Iran and other countries. The study findings recognized main barriers (10 factors) to medical tourism in East Azerbaijan province. The study suggested quite a few general implications to improve these barriers. The following suggestions were recommended by the participants to the development of medical tourism industry in East Azerbaijan province of Iran.

### 5.1. Marketing

One marketing strategy is the establishment of agents of companies for medical tourism in cities of neighboring countries and populated cities of target markets (for instance, Azarbijan and etc).

Tabriz is famous for its specialized services such as open-heart surgery, infertility and joint surgery in the country, these services should be introduced and advertised as the treatment brand of the province across borders.

Websites in English and other languages like Turkish could be launched to introduce hospitals, physicians, medical capabilities, tourist attractions of Tabriz by medical tourism companies.

### 5.2. Internationalism

Iran, in order to get rid of sanctions and tensions, needs to interact with the world through active, win/win diplomacy. Undoubtedly,

interactions with the world, especially developed countries, has had a direct and irrefutable impact on the success of all aspects of medical tourism. Therefore, the country's macro policy should promote interactions with other countries, worldwide.

Although Iran is one of the safest countries in the Middle East, due to insecurity in neighboring countries such as Iraq and Turkey and the possibility of terrorist groups entering the country with or as a foreign patient, special security and intelligence mechanisms should be considered.

Identification of foreign patients with contagious diseases through early clinical trials, and ongoing surveillance must also be considered.

### 5.3. Cultural issues

Although cultural changes need long-term planning, one of the programs in the field of culture is through educational programs. Local and national media presentations can support appropriate interactions with tourists.

### 5.4. Policy

Gradual change of the government's role from supplier of tourist services to policy-making and monitoring.

The Government should set new policies in line with documents. For example, Article 44 of the Iranian constitution titled "assigning activities to the private sectors or privatization" is an example of these documents according to which policy-makers and managers should establish and facilitate the necessary conditions for participation of the private sector in medical tourism.

In addition, designing and developing solutions of mutual acceptance of supplementary insurance of target market countries can be a suitable solution in the field of international insurance.

### 5.5. Management

A roadmap for medical tourism in the province could be developed in collaboration with stakeholder organizations and the main custodian and other organizations could be encouraged to play roles in setting the organization's policies.

The use of professional managers in the health and tourism sector is another possibility so that managers may be selected by merit.

The regulatory role of relevant agencies, including law enforcement, department of Tourism and Deputy of treatment can be further strengthened.

Medical and non-medical services in medical tourism of the province should be assigned to private sector. While, the government takes the responsibility of monitoring and policymaking.

### 5.6. Hospitals

Treatment centers (Hospitals) should acquire high level standards for health care to secure international certification including endorsement of the JCI.

Further, health care costs and tourism should be clear, transparent and competitive. In other words, patients should be made aware of costs of services and be able to compare costs with services in other countries.

Also, all medical expenses should be updated and visible on the websites of health centers.

In addition, private hospitals should have the potential to provide medical services to international patients.

### 5.7. Infrastructure

Alterations in the organizational structure of Cultural Heritage, Handicrafts and Tourism Organization to promote it to the level of a



ministry as in some countries could bring about significant and efficient accomplishments.

Moreover, constructing hotels nearby hospitals to encourage internal or external investors is another possibility.

Further, training and empowering the police to manage tourism in addition to enabling them to hold information on tourists (tourism police) is a requirement.

Also, any individual (medical personnel, drivers, etc.) dealing with international patients should be familiar with foreign languages.

In addition, money exchange facilities should be available in local banks in Tabriz for medical tourists in order to bypass the role of speculators that are active in the field.

### 5.8. Transfer and brokering

Eradicating brokerage and finding a solution to the problems of transfer are considered to be some necessary measures that should be taken in this area. Further, organizing and supporting medical tourism agencies in the transfer of patients from targeted countries to Tabriz can be considered as one of the ways to reduce the role of brokers in the transfer of patients. Finally, in the case of developing evidence-based policy, detailed rules and constant monitoring by medical tourism stakeholder organizations of East Azerbaijan province could overcome the barriers to development in the future.

### 5.9. Study limitations

Permission for audio recording was granted in all of the interviews except for one. The permission was not granted in one of the interviews for security reasons.

Arranging and scheduling the interviews with some of the stakeholders was difficult in this study due to managerial duties. The limited time allocated to the interviews may have contributed to some interviewees being unable to fully reflect their views on the subject. It is possible that some of these key informants were unable to talk in depth about the subject because they may have been pre-occupied with their jobs.

### 5.10. Conclusion

This study confirms that there are barriers to the development of medical tourism in East Azerbaijan province. The results show that marketing, international issues, culture, transfer, brokerage, management, and policy problem are the main barriers to the development of medical tourism in the province. Nevertheless, it is likely that other issues like advances in medicine in the countries of origin or other neighboring countries like Turkey have played role in such a substantial decrease, which were not addressed in this study. It seems that East Azerbaijan province should provide necessary context for the participation and investment of private sector in the field of medical tourism. It also should design and implement long and short-term strategies in proportion to the problems raised. Several strategies, such as the development of maps of the medical tourism industry, participation of the private sector, global interactivity to reduce sanctions and tensions, organizing and supporting agencies for medical tourism, the development of evidence-based policies, and continuous monitoring by stakeholder organizations, have been suggested to remove the existing barriers.

### Conflicts of interest

The authors declare there is no conflict of interests.

### Author contributions

Momeni KH, Jannati A, imani A, Khodayari-Zarnaq R: Study

conception and design.

Momeni KH, Khodayari-Zarnaq R, Arab M: Acquisition of data.

Momeni KH, Jannati A, imani A, Khodayari-Zarnaq R: Analysis and interpretation of data.

Momeni KH, Jannati A, imani A, Khodayari-Zarnaq R: Drafting of manuscript.

Momeni KH, Jannati A, imani A, Khodayari-Zarnaq R: Critical revision.

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