

Original Research Article

Explaining the Medical Tourism Model Using Thematic Analysis

A Case Study of Tehran University of Medical Sciences Hospitals*

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Abstract | Medical tourism is the travel of patients to other countries to use cheaper and quality medical services than their own country, which is considered a sub-branch of health tourism. The economic and political function of medical tourism is one of its most important consequences for the host society. Also, according to the legal requirements of its implementation, the main research question is “What is the appropriate model for attracting medical tourists to Tehran Medical Sciences Hospitals?”. Therefore, the main goal of the research is to explain the model of attracting medical tourism in medical sciences hospitals in Tehran and to identify its components. In terms of purpose, the research method is applied and developmental. The data was collected from the field using the qualitative method. To design the model, 13 managers and experts of public hospitals under Tehran University of Medical Sciences were selected and a semi-structured interview was conducted, which was analyzed and coded based on theme analysis. After measuring the reliability (retest) and validity (reciprocity of the interviews) of the data, a proposed model was presented. Based on the obtained model, seven themes were identified: “behavioral quality of the treatment staff, professional quality of the treatment staff, treatment costs, quality medical centers, the perceived image of the medical brand, the quality of the treatment process, and the components of the treatment destination. The results showed that, according to the fit indicators, the model has sufficient validity and the identified themes are effective in attracting medical tourists.

Keywords | *Tourist, Medical tourism, Theme analysis.*

Introduction | Every year, a large number of tourists travel to other countries for treatment, and while using medical services, they visit the sightseeing spots of the countries. This method of tourism has now become common in most countries of the world and as one of the dimensions of tourism, it contributes to the sustainable development

and dynamism of the economy (Nikraftar, Hosseini & Moghadam, 2015).

Due to the low cost and high income of this industry, many developing countries focus their attention on this part of the industry and plan for it. Mansouri, Esmail Pour & Saednia (2021) According to the research of Sadre Mommtaz and Agha-Rahimi (2010), there are serious challenges in attracting medical tourists, such as the lack of a written program, the inefficiency of the government in supporting medical tourism, the need to upgrade the medical infrastructure, the lack of control over the treatment costs of hospitals, the lack of inter-departmental

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cooperation at the macro and operational levels, the lack of professional human resources in the treatment sector, the lack of a registration, control, and statistical system for medical tourists, and the lack of a response system for dissatisfied patients. Given the currency nation of medical tourism and the insignificant share of the income of Tehran University of Medical Sciences government hospitals from the medical tourism industry, the research question is: how to attract foreign medical tourists to Tehran University of Medical Sciences Hospitals?

In paragraphs 2– 10 of the general health policy document of the Islamic Republic of Iran, it is mentioned to increase the share of health in the gross domestic product and general budget of the government, and also in paragraph 14 of this document, planning to achieve authority in providing medical services and turning Iran into a medical hub in Southwest Asia and Islam has been discussed. Also, in the “Comprehensive Scientific Plan of the Country” and the approvals of the Supreme Council of the Cultural Revolution, in the “Cultural Engineering Plan of the Country,” planning to attract and expand foreign tourism, especially among Shiites and other Muslims, has been emphasized in the field of medicine. The above objectives have been repeated in Iran’s fifth and sixth development plans. Therefore, the development of medical tourism can be a suitable strategy and a tool to achieve the goals of the upstream laws.

The sale of modern medical services to foreigners and medical tourism since 2006 has attracted the attention of many statesmen, politicians, academics, and the press in both the destination and sending countries of tourism. Medical tourism is an economic activity that has resulted in the exchange of services and represents the connection of at least two sectors: medicine and tourism (Asadi, Basouli & Derakhsh, 2022).

But unfortunately, the share of our country in the medical tourism market is decreasing every day, but the countries that have entered this business without rich medical support and relying on management capabilities have earned credit for themselves and are increasing their share in the market every day (Haghigi Kafash, Ziahi & Jafari, 2008).

Based on what has been presented and to address the weakness of studies in this field and in line with the goal of this research, which is to explain a comprehensive and localized model for public hospitals of Tehran University of Medical Sciences, it is important to conduct this research to increase the share of public hospitals in recruiting Foreign medical tourism in the city of Tehran so that through its results, health managers and policymakers can make more practical and detailed planning regarding this issue so that the goals planned in the upstream documents and operational plans of the hospitals are realized. Therefore, it is necessary. The main research question is “What is the

appropriate model for attracting medical tourists to medical science hospitals in Tehran?”

Research Objectives

The purpose of this research is to explain a comprehensive and localized model for public hospitals of Tehran University of Medical Sciences and to validate the research model obtained from interviews with experts and the components of the model in the field of macro factors and components related to medical centers. and tourist attractions to be identified.

Research Questions

This research seeks to answer the following questions by using the strategy of theme analysis, considering the background and context in Tehran and especially the public hospitals of Tehran University of Medical Sciences.

- What is the appropriate model for attracting medical tourists to medical sciences hospitals in Tehran?
- Is this model valid?

Also, what are the effective dimensions and components in the model?

Theoretical Foundations

Health is one of the fixed rights of all human beings. Around the middle of the last century and at the beginning of the work of the World Health Organization, thinkers of the world emphasized that health is not just the absence of disease. Enjoying complete mental, physical, social, and spiritual well-being was accepted as the definition of health in the past centuries and the consensus of thinkers (Braveman, 2013) with the increasing world population and the rising level of human expectations for having complete social well-being, health and treatment It became to one of the most important issues (Schäfer, 2011) and was developed to respond to this need and expand the globalization of medical tourism.

Health tourism falls into three parts: medical tourism, wellness tourism, and therapeutic tourism (Vaezi, Chegin & Aslipour, 2017). The growth and development of health and its globalization have caused a new concept called medical tourism (Asadi, Basouli & Derakhsh, 2022). In fact, in recent years, medical tourism has been increasingly used in connection with the globalization of services related to patients (Feodor & Gareth, 2014).

Medical tourism association defines medical tourism as a situation in which people travel from their country to another country to receive medical care and They receive equal or better care from their usual place of life. Also, this association considers a medical tourist as a person who travels due to the possibility of easier payment, better access, or higher standards of care (Noree, 2015).

Unfortunately, there has not been proper advertising to

identify Iran's medical and tourism capabilities abroad, and government media and embassies play an effective role in this field. To strengthen Iran's scientific, political, social, and regional position. Today, in the shadow of the explosive growth of treatment costs, most of the patients in developed countries are study background use the medical services of developing countries (Papoli Yazdi & Saghayy, 2007).

Research Background

In the following, we will examine some studies related to this research.

Nikraftar et al. (2015) in the study titled Identifying effective factors in attracting medical tourists in Iran showed that information searches with a path coefficient (0.62) have a very important effect in choosing Iran as a destination. It has the title of the destination country in medical tourism. Demand driving factors and macro facilitators (with path coefficients of 0.31 and 0.12) respectively are in the next ranks and considering the importance of medical tourism and income generation of this industry for the country, one of the methods of increasing tourist attraction and impact Advertising and decision making of tourists to choose Iran as a destination country.

Hadizadeh Moghadam, Zahedian, Ghanbarzadeh & Fakharmesh (2012) studied the pattern of factors affecting the motivation of medical tourists to enter Iran. The results of the study showed that the cost of treatment, waiting time, variety of treatment, medical equipment, and sociological factors had a significant effect on the motivation of foreign patients to enter Iran, but the quality of services, political and security conditions, ease of travel, and tourist attractions had no significant effect.

Hoz-Correa, Leiva & Bakucz (2018) studied past and future trends in the field of medical tourism. The issues related to ethical considerations, trust, and accreditation, the quality of services related to health and tourists, actions and behaviors of the host have been influential in the choice of the destination country by tourists.

Moghavvami, Ormond, Musa, Mohamed and Thiromoorth (2017) investigated the role of private hospital websites in India, Malaysia, and Thailand in attracting medical tourists, hospital facilities and information, reception and medical services, interactive online services, and activities outside the hospital and technical departments. The results showed that there are clear differences in the quality of the issues raised between the websites of the countries under study, and the need for changes on the part of the management of the websites is fully felt.

Jaapar, Musa, Moghavvami and Saub (2017) investigated the factors affecting the motivation and satisfaction of dental tourism. The results of the study showed that the quality of dental work, access to information from the dental care

center, and cost savings were the main factors affecting dental tourism.

Prajitmutita, Perényi and Prentice (2016) investigated the factors influencing the attitudes and behaviors of medical tourists, and the results showed that the perceived value for medical tourists will have the strongest direct effect on their behavior for choosing their destination hospital, and hospital services have a significant effect on the perceived value of medical tourists and their satisfaction. Das and Mukherjee (2016) by examining the brand value of medical tourism destinations concluded that awareness, perceived value, brand loyalty, and credibility are factors that influence the brand value of tourism destinations.

Zailani, Mohezar, Iranmanesh, Moghavvemi & Musa (2016) in research entitled the satisfaction of Muslim medical tourists in Malaysian hospitals concluded that the satisfaction of Muslim medical tourists in Malaysian hospitals is dependent on the roles and responsibilities of the hospital and doctors, and performing halal acts for Muslims in satisfaction Tourists did not have a significant effect. In their research, Debata, Patnaik, Mahapatra and Sree (2015) measured the relationship between service quality and loyalty dimensions in medical tourists based on accessibility, satisfaction with treatment, respect for medical staff, physical environment, technical quality, transparency in work, facilities, and financial issues. One of the factors influencing the loyalty of medical tourists.

Manaf, Hussin, Kassim, Alavi & Dahari (2015) in research on the effect of the country's outlook on medical tourism concluded that the factors affecting medical tourism in Malaysia include the quality of hospitals and personnel, factors related to the country, combining tourism and health services, costs and insurance, and service availability.

As can be seen, the common areas in academic research related to medical tourism are Analysis of the destination, risks and opportunities in a specific destination or a set of countries, the possibility of reducing costs, the quality and continuity of care, the behavior and experience and common motivations of medical tourists, the decision-making models of potential medical tourists, as well as the consequences and ethical aspects of medical tourism and its effects on the host community (Hoz-Correa et al., 2018) And there is less a comprehensive model that can be used to attract medical tourists. Even though various researchers have studied medical tourism from different aspects, research specifically presents a medical tourism model for Tehran University of Medical Sciences. In this research, the researcher has designed a model that was obtained from interviews with experts.

Research Method

The current research is applied and developmental in terms of purpose, and it is considered field based in terms of data

collection, although documentary and library methods were also used in the literature part of the research, and it is considered broad-based in terms of cross-sectional time and depth. This research is qualitative and descriptive, therefore, to obtain the required data and information, a semi-structured interview was conducted with medical tourism experts working in the hospitals of Tehran University of Medical Sciences. In the current research, the selection of interviewees was purposeful and theoretical instead of being statistically representative. Therefore, the purposeful sampling method was used in this research and 13 interviews were conducted. The reason for choosing the interviewees was to have one of the following conditions to provide useful and comprehensive information for foreign medical tourists according to their experiences. The information of the interviewees is in Table 1. The inclusion criteria were as follows:

1. Having an executive record (have at least 5 years of experience in management or an executive position related to the subject in a hospital).
2. Having educational records: (Having educational qualifications related to the field of medical tourism) and teaching in this field.)

In this study, data collection until the stage of theoretical saturation of categories and clearer expression, until the possibility of obtaining newer data is not available (Strauss, & Corbin, 1998) so that from the tenth interview onwards, no new information was obtained and all the data were duplicated, but the researcher continued the interview to the thirteenth person to ensure the validity of the work. The interview protocol was based on the Kvale (1996) model, explained as follows.

Determining the scope of research: The scope was determined and understood as an interview to avoid unrelated data and deviations in the process and results of the research.

Design. At first, words, phrases, questions, and topics that were emphasized in the research were identified. Then, the desired categories for the interview were determined and a draft of the executive plan for the interview was prepared. Questions were asked about the effects of economic conditions, Tehran's tourist attractions, geographical conditions, social/cultural conditions, Tehran's medical facilities, medical knowledge and technologies, advertisements, and medical staff in attracting medical tourists.

Interview situation: During the interview, the researcher provided a safe and friendly environment for the effective exchange of ideas, and the researcher tried to make the environment provided for the interviewees similar.

Implementation: The interviews that were saved using mobile phones were implemented after entering information such as the title of the interview, the date of the interview, and the name of the interviewee.

Analysis: (Kvale, 1996). The data obtained from the interviews were analyzed using the theme analysis approach using the six methods that Clarke and Brune (2006) presented. And the interviews were interpreted.

Step 1 - Getting to know the data, Step 2 - Creating the initial codes: At this stage, 802 initial codes were counted from the interviews. All the codes can be seen in Table No. 2. Step 3- Searching for sub-themes: In this step, the researcher was able to categorize 802 primary codes in the form of 55 sub-themes by considering common concepts. Step 4- Revising the themes: After 55 sub-themes were identified, they were re-reviewed at this stage to change the themes or the codes placed in each theme if necessary. Step 5- Defining and naming the main themes: After passing the above steps, in this step, the researcher re-categorized all 55 sub-themes according to their nature and the concepts they intended to measure. 55 sub-themes were placed in 7 general categories (main theme). Sub-themes with identical and homogeneous concepts were placed in a main theme category. Step 6- Preparing the report: In this step, the final model was compiled, which consisted of 7 main themes and 55 sub-themes.

Confirmability (validity and reliability): Because theme analysis is an iterative process in nature, the validity of the data is confirmed during coding and analysis and emphasized in subsequent and previous interviews and observations (Danaei Fard, Elwani & Azar, 2014). In the current research, due to the process of going back and forth and analyzing the interviews one by one before conducting the next interviews, the self-correction of the data has been the best indicator for determining the validity of the data obtained from the research. The evaluation of the extractive model was confirmed by using two indicators of suitability and applicability, which is one of the methods of evaluating the validity of qualitative research, and also commenting on the empirical bases of the research. In addition to the mentioned

Table 1. Demographics of interviews. Source: Authors.

Teaching/Executive Experience				Work Experience			Age		Degree			Gender			
Management/educational	educational	Management	Above	25-21	20-16	15-10	less than 10	Above 51	50-41	less than 40	PHD	MS/MA	BS	Female	male
3	4	6	2	4	3	3	1	6	4	3	7	5	1	4	9

cases, the participants offered their opinion about the research report, analysis process, and categories, and according to their opinions, the results were revised and modified. To measure reliability in this research, the test-retest reliability method was used, which refers to the consistency of data classification over time. This index can be calculated when the coder has coded a text in two different rounds. To calculate the retest reliability, some interviews were selected as samples from among the conducted interviews, and each of them was coded again in a twenty-day interval. After comparing the specified codes in two-time intervals for each of the interviews, the reliability of the research was calculated through the high level of agreement in the two stages of coding.

Reporting data and results: In the next sections, the research results are presented.

Findings

Based on in-depth and semi-structured interviews conducted with managers and experts of Tehran University of Medical Sciences hospitals, an example of which is mentioned in Tables 3 & 2 related themes and components were identified, which we will examine further.

After identifying the main categories and relating other categories to them, the designed model was refined and the categories were developed and finally, the final model of the research was obtained. The obtained model is shown in Fig. 1. After the finalization of the model, this model was given to 5 hospital managers randomly, and their opinion was asked about the validity of the model based on the codes extracted from the interviews. In fact, they were asked to evaluate the apparent validity of the model and whether the current model reflects the data obtained from the interviews. And can it be a picture of the factors affecting the attraction of medical tourists? According to all of them, the model has the necessary validity and is appropriate. Also, the validity and reliability of the data have been measured as described in the topology section.

Also, Lisrel software was used to check the fit of the model. Table 4 shows the fit indices. Model fit shows how well the model designed by the researcher is supported by real data. As can be seen, all indicators are better than the minimum acceptable value. Therefore, the fitness of the model is confirmed. In other words, by emphasizing the goodness of fit indices, we can emphasize the fit of the developed model on the one hand and the experimental data on the other hand. Therefore, a favorable match between the depicted model and the experimental data has been provided. Table 4 of fit indices.

Discussion

As mentioned in the model, 7 themes were identified, which are explained below.

• The theme of the behavioral quality of the treatment

staff

the behavioral quality of the treatment staff refers to the behavioral characteristics and humane treatment of the treatment staff with patients. In the research of Debata et al. (2015), the respect of the medical staff and their behavioral characteristics were found to be effective in the loyalty of medical tourists. Also, in the research of Zaylani et al. (2016), the role and behavior of the medical staff were effective in the satisfaction of the treatment of foreign Muslim patients.

• The content of the specialized quality of the treatment staff

the meaning of the specialized quality is: the experience of the treatment staff, conscientiousness, accurate information about the treatment process to the patient, the speed of the treatment staff, sufficient knowledge, up-to-dateness, timely visit to the patient and authentic diagnosis. Prajitmotita et al. (2016) reported that hospital services have a significant effect on the perceived value of medical tourists and their satisfaction. Also, Debata et al. (2015) have also identified the technical expertise of the treatment staff as one of the influential factors. According to the research of Hadizadeh Moghadam et al. (2012) in the field of medical tourism, quality is considered an irreparable factor. This means that if there is no quality, no other factor can fill the gap for the patient and he will reconsider his decision. Therefore, according to most of the interviewees, this factor was the most important.

• The content of treatment costs

Cost plays a key role in the purchase of medical services. Due to the low value of the national currency compared to other countries in the region, in terms of cost, both treatment and tourism have always been attractive to foreign tourists. In Hadizadeh Moghadam et al.'s research (2013), the cost of treatment had a significant effect on the motivation of foreign patients to enter Iran. Moreover, in this research, it is pointed out that the cost factor is considered a compensatory factor so that if other factors can attract the patient's attention and compensate for the high cost of the destination for him, the patient will still have the motivation to travel to that destination. The research results of Debata et al. (2015) and Japar et al. (2017) have confirmed this component.

• The content of the quality of medical centers

in the dimension of the effect of the quality of medical centers on the attraction of medical tourism, factors such as appropriate and sufficient access to medicine and medical services, the appropriate number of medical personnel, the condition of hospital rooms, the quality of the temperature of the hospital environment, the quality of hospital food, the decoration of the hospital, The cleanliness of the halls and corridors, the up-to-dateness of medical equipment, the calmness of the hospital environment and access to the hospital are influential. Japar et al. (2017) stated that the quality of dental work is one of the main factors affecting

Table 2. Primary codes and sub-themes created from the interviews. Source: Authors.

Primary codes and sub-themes created from the interviews			
Question 1: What is your opinion about the effect of economic conditions on the attraction of medical tourists? sample data (interviews conducted)	Primary codes	Repeat code	Extracted sub-themes
Our medical tariffs are lower than many of our competitors, but we have to determine a treatment package for patient services. "Interview 5"	Being cheap	13	Price flexibility Fair price
When the issue of medical tourism became hot, some hospitals set high prices, but countries like Turkey, India, and Singapore used their reasonable prices as a competitive advantage." Interview 12"	Low price	13	Convenience of payment methods Cheap treatment Cheap visa and travel fees Cheap accommodation Low national currency value
In recent years, the value of Rial is much lower than foreign currencies such as the dollar, this competitive advantage should be used to the maximum." Interview 3"	Rial value against foreign currencies	12	
Economic inflation has always existed, but it should be planned in such a way that its effects have the least impact on foreign patients, and prices should be determined annually. "Interview 9"	Economic inflation	11	
Attracting medical tourists during a recession can help the economy and save us from a single-product economy." Interview 13"	Economic downturn	6	
The embargo conditions in the field of some medicines and equipment have created a lot of challenges. "Interview 2"	Sanction conditions	8	
The fall in the value of the national currency has disadvantages, but it is considered an advantage in the medical tourism sector. "Interview 10"	Fall of the national currency	8	
Valuation of services should be done by the Ministry of Health; this can make the prices to be the same at least in all public hospitals." Interview 6"	The Value Of Medical Services Compared To The Price Paid	9	
A trip to Iran is considered a cheap trip. "Interview 1"	Cheap Travel	11	
In Turkey, I have seen that hospitals have contracts with hotels, which made the rate of accommodation in hotels cheaper, but this does not happen in our hospitals. Cheap hotels are considered an option. "Interview 13"	Cheap Hotels	12	
Facilitation to lower the rate of medical visas should be a priority for policymakers. By signing a memorandum of understanding with neighboring countries, this opportunity can be used. "Interview 2"	Cheap Visa Rates	11	
Question 2: What is your opinion about the impact of Tehran's tourist attractions on attracting medical tourists? sample data (interviews conducted)	Primary codes	Repeat code	Extracted sub-themes
Some foreign travelers are religious because most of our neighboring countries are Muslim, we can introduce pilgrimage places like Imam Zadeh Saleh and Dawood to them. "Interview 1"	The existence of old and holy religious places	10	Tourist Attractions Culture Community hospitality
The surroundings of Tehran are full of mountains and forests, which can be attractive for tourists, especially tourists whose country is dry and desert. "Interview 4"	The existence of natural attractions such as mountains, forests, and...	12	
Tehran has a lot of historical spaces that provide an opportunity for travelers who are interested in history to visit these places, now they are inviting influencers in the world to show their historical places to their target markets." Interview 9"	The existence of tourist attractions such as historical places	8	
Tehran has been the capital for many years, which has made it an advanced city, and its historical	Old culture	13	

Rest of Table 2.

Primary codes and sub-themes created from the interviews			
events are regularly recorded due to its importance." Interview 6"			
Basically, tourism is dependent on attractions, and ancient attractions are among them, and this may also happen in medical tourism, even on the next trips, they may come back to visit historical and ancient places because of the good treatment experience. "Interview 1".	Ancient attractions	6	
The culture of Iranian people is hospitality and they like to communicate with foreign travelers. "Interview 3"	Warm treatment of medical staff and people	9	
Due to cultural similarities with neighboring countries, medical tourists feel comfortable here. "Interview 7"	A feeling of comfort in Iran	8	
Question 3: What is your opinion about the effect of Tehran's geographical conditions on attracting medical tourists? sample data (interviews conducted)	Primary codes	Repeat code	Extracted sub-themes
Due to its four seasons, Tehran can welcome foreign patients throughout the year. "Interview 1"	Tehran's weather has four seasons	9	Climate Easy traffic
The mild weather, especially in the north of Tehran, is one of the attractions for travelers." Interview 5"	The moderate climate of Tehran	9	
Because of the infrastructure that Tehran has compared to other cities in Iran, it has better accessibility for patients in the Middle East." Interview 9"	Easy access throughout the city	12	
Imam Khomeini International Airport is one of the few airports in the country where foreign travelers can enter Iran "Interview 3"	The existence of airports and airlines in Tehran	8	
Question 4: What is your opinion about the impact of Tehran's social/cultural conditions on attracting medical tourists? sample data (interviews conducted)	Primary codes	Repeat code	Extracted sub-themes
Why don't we travel to a country that is at war because security is important to us, maybe even more important than health." Interview 2"	High security	9	security Meeting with family members Ease of obtaining a visa
Alhamdulillah, Iran's military power in the region is unmatched, and the result of this power is that there is less war and the passenger travels more safely." Interview 2"	Military authority in the region	10	
The cultural age of Tehran is high because it has been a city for many years." Interview 8"	Cultural history	12	
Traveling to Tehran makes it easier for both foreign and Iranian travelers because of more facilities and more comfort in their trip" Interview 6"	Comfort in traveling to Tehran	11	
If we make a program that reduces bureaucracy for patients who are in a hurry and for whom treatment time is important, it can be very effective" Interview 5"	Less bureaucracy to travel to Tehran	9	
If it is easy to get a visa, it is a competitive advantage. Our visa rate is lower than many places in the world. Even we can reduce or even zero the visa fee for medical tourism." Interview 2"	Cheap visa rates	9	
Some people live in Iran, whose origin is not Iranian, even if they are married here and have families, their relatives in their country of origin can bring them to Tehran for treatment." Interview 7"	Existence of relatives and family	12	
Question 5: What is your opinion about the effect of medical facilities in Tehran on attracting medical tourists? sample data (interviews conducted)	Primary codes	Repeat code	Extracted sub-themes

Rest of Table 2.

Primary codes and sub-themes created from the interviews			
We have plenty of medicines, we are even self-sufficient in some medicines and we export, "interview 8"	The abundance of up-to-date and important drugs for the treatment of Tehran	13	Appropriate and sufficient access to medicine and medical services
Hospitals like Imam are very equipped and up-to-date in terms of equipment" Interview 5"	The existence of well-equipped hospitals in Tehran	13	Appropriate number of personnel The condition of the hospital rooms
We have first-class universities in Tehran where capable medical personnel is being trained, so our hospitals should be able to attract and retain these people." Interview 3"	Use of competent staff in the treatment staff	13	The quality of the temperature of the hospital environment Hospital food quality Hospital decoration
A number of hospitals that have been established or are being established are up to international standards, this issue should be institutionalized as a policy for granting permission to establish hospitals in the Ministry of Health "Interview 1"	Establishment of hospitals at world standard level	13	Cleaning status Up-to-date equipment The peace of the hospital environment
For wealthy patients from the Persian Gulf region, comfort facilities for the patient and his companion are very important, they expect to get the best comfort facilities from the hospital."Interview 4"	Convenience and comfort facilities	13	Hospital access to urban centers
Hoteling in hospitals is very important because the companion of a foreign patient is usually a person who is always by his side, that is why hoteling is very important for the companion of the patient, who is also with the patient and can rest." Interview 7"	Establishment of a hospital hotel in Tehran	10	
The facilities must be available and the quality must be such that the patient who is paying in dollars feels satisfied" Interview 4"	High-quality hospital accommodation facilities for companions	12	
Corridors, toilets, and rooms should be clean and a standard should be considered, for example, how many times a day should this space be washed or dusted "Interview 8"	The commitment of hospitals to daily and hourly cleaning	11	
A patient who does not feel well needs to be calmed down, and the role of nurses and supervisors is very important, but managers should also separate the environment of foreign patients from Iranian patients as much as possible" Interview 12"	Trying to create a calm environment for the patient	10	
We can make a contract with hotels where the patient's companion can stay and even consider transportation service for them, or we should develop metro lines" Interview 13"	The existence of transportation channels for commuting to the hospital	11	
An official should be appointed to check the appearance of the international patient wards, who will take charge of equipping and maintaining these wards. Interview 2.	Checking the condition of the patient's room in terms of amenities and comfort	12	
Cooling and heating systems should be provided according to the patient's condition" Interview 10"	The existence of suitable cooling and heating systems	11	
The patient and his companion should have a menu, for example, Omanis care a lot about their nutrition. We should consider the taste of the patient when cooking our food.	The possibility of choosing food for the patient and his companion	8	
Question 6: What is your opinion about the effect of Tehran's knowledge and medical technologies on attracting medical tourists? sample data (interviews conducted)	Primary codes	Repeat code	Extracted sub-themes
The young workforce may not be very good for working in the international patient department	Great experience of the treatment staff	13	Being experienced

Rest of Table 2.

Primary codes and sub-themes created from the interviews			
because they don't have work experience. We usually put our experienced people in these departments. Interview 2.			Information about the treatment process Speed
There should be systematic training in hospitals so that the medical staff can update their knowledge" Interview 11"	Up-to-date knowledge of the treatment staff	13	Enough knowledge A timely visit to the patient Correct diagnosis
In medical science, we are not behind the world, even some of our treatment methods are very new and up-to-date" Interview 7	Using new and up-to-date treatment methods	13	Up-to-date medical services Understanding the treatment process
Diagnosis and treatment are very important, that's why we shouldn't leave foreign patients in the hands of assistants, professors should personally examine the patient and even follow up on his treatment, but in our teaching hospitals only residents are used." Interview 4"	Timely diagnosis and treatment of the patient	11	The speed of the treatment process The existence of innovative treatment methods Up-to-date treatment processes Monitoring the treatment process
The discussion of sanctions has caused the medical facilities not to be updated, even when there is a need to repair a foreign device, we face a challenge. In some hospitals, equipment, which is worth billions, is unused and stored in the warehouse. "Interview 9"	New and updated treatment facilities	12	
The role of a trained nurse assistant is very important with nurses for adequate and timely care and to have 24-hour support" Interview 3"	Adequate and timely patient care	11	
We are facing a challenge to import new medical devices due to the embargo" Interview 1"	The existence of new medical devices	12	
Creating a calm and safe environment is one of the duties of hospitals to speed up the treatment process" Interview 8"	Providing a calm and safe environment for the patient	12	
Why only modern medicine? We can also use our traditional treatments like leech therapy in hospitals. Believe me, it can be a brand for us." Interview 6"	Innovation and creativity of the treatment staff in treatment ways	9	
The patient does not have time to waste, either in terms of his treatment or his expenses, the medical tourist considers all these when he decides to specify the hospital or the place of his trip. "Interview 11"	Very high speed of diagnosis and treatment compared to the global rate	10	
Correct diagnosis is very important, that's why I emphasize that residents should not interfere in the discussion" of foreign patients" Interview 4"	The doctor's ability to correctly diagnose	11	
The space where the patient is hospitalized is also important in terms of isolation and the equipment that should be installed in their rooms" Interview 10	How to care for the patient	10	
Intimate communication with the doctor and being available 24 hours, a day are among the requirements of the international patient department. Interview 2.	The doctor's communication with the patient about how to treat and care	12	
The facilities and equipment of the hospital must be complete so that we can have a detailed and comprehensive examination of the patient's condition from moment to moment" Interview 2"	Attention to the patient's condition	7	
Question 7: What is your opinion about the effect of advertisements on attracting medical tourists? sample data (interviews conducted)			
Follow-up of patients can have a great effect on patient satisfaction, and it can also do good advertising for us in his country." Interview 1"	Primary codes	Repeat code	Extracted sub-themes
Medical science in Iran has a long history" Interview 5"	Good advertising that old patients do for the hospital	7	Positive word-of-mouth advertising Positive previous experience
	Very old medical science	9	The history of medical services Global faces of medicine

Rest of Table 2.

Primary codes and sub-themes created from the interviews			
We have good doctors in the world, but we have problems in nursing and special care staff" Interview 3"	The presence of famous doctors in the world	11	Global Medical Credit hospital security Having skilled and specialized doctors
Advertising laws in the field of medicine should be reviewed, for example, one of the first steps Korea took was to amend its medical advertising laws. "Interview 7"	The reputation of Iran's treatment and medical science in neighboring countries	8	
Our medical science was once the first word in the world, we must regain this position "Interview 2"	The world's view of the high status of medical science in Iran	7	
We have outstanding people in the field of medicine, we should use this reputation" Interview 9"	The existence of university professors and lasting figures in the medical field	11	
How much did we use prominent personalities like Abu Ali Sina for a good name and sound? "Interview 1"	Famous Iranian celebrities like Abu Ali Sina	12	
Question 8: What is your opinion about the effect of medical staff on attracting medical tourists? sample data (interviews conducted)	Primary codes	Repeat code	Extracted sub-themes
In medical tourism, we have a chain to ensure the patient's satisfaction, the friendly communication of the hospital staff, from the guard to the doctor, is in this chain" Interview 4"	Establishing friendly communication with the patient	13	appearance condition Sympathy to be up to date Conscientiousness
Now, with a small search on the Internet, patients can see and compare all the information of the hospitals. We must provide information about the treatment process from the beginning to the end in a transparent manner." Interview 8"	Information about the treatment process	12	Being polite Being available being patient Friendly approach responsiveness
Why in some diseases where medical equipment doesn't play much of a role, such as natural births, people choose private hospitals despite the high cost, is because of the friendly treatment of the medical staff, especially the nurses. This issue is also very important among foreign patients. "Interview 10"	The nurses' warm approach	12	Respecting the patient's privacy Patient care status
In addition to the cleanliness of the rooms, the appearance of the treatment staff, especially the nurses, who are in direct contact with the patient, is important." Interview 5	Nurses' appearance	13	
Maybe something as simple as nurses smiling at patients makes them feel good" Interview 6"	Smiling nurses to the patient	11	
Some foreign patients may not have a caregiver, these patients need 24-hour care" Interview 3"	24-hour care of the patient	13	
The dignity of human beings must be preserved. In some government hospitals, due to the high volume of patients, patients are sometimes disrespected and this creates an unpleasant feeling for them." Interview 6"	Respect for the patient	13	
If the treatment staff does not worry about income, if there is justice in the payment, they will not misbehave with the patient at work and deal with the patient patiently." Interview 8"	Responsiveness with patience	12	
Nurses are used to tolerating difficult situations, but with IPD patients, their tolerance should be doubled because finally, in this space, the patient is alone and does not have enough knowledge of the situation and is not familiar with our language." Interview 2	High endurance of the treatment staff in difficult conditions	12	
If the patient knows that he will receive enough attention, his trust in the whole hospital and the treatment process will increase" Interview 1	Sufficient attention to the patient	9	

Rest of Table 2.

Primary codes and sub-themes created from the interviews		
One of the essentials of working with a foreign patient is to know the patient's language or at least English to be able to create that feeling of empathy in the patient" Interview 7"	Create a sense of empathy with the patient	11
Doctors and nurses are aware of the physical ailments of the patient, but they must know that the patient is also in a difficult mental condition. One of the reasons for this condition may be being in a country other than the mother's country." Interview 8"	Paying attention to discomfort and special conditions	10
Collection of codes and themes		802
		55

Table 3. Three sub-themes and main themes made from the interviews. Source: Authors.

No	Sub-themes	Main themes
1	Appearance, empathy, politeness Being available, patient, friendly, responsive, and respecting the patient's privacy	Behavioral quality of treatment staff
2	Being experienced, duty-oriented, informing about the treatment process, speed of operation, sufficient knowledge, being up-to-date, visiting the patient on time, correct diagnosis	The specialized quality of the treatment staff
3	Price flexibility, price fairness, convenient payment methods, cheap treatment, cheap visa and travel costs, and cheap accommodation.	Treatment costs
4	Appropriate and sufficient access to medicine and medical services, the appropriate number of personnel, the condition of hospital rooms, the quality of the temperature of the hospital environment, the quality of hospital food, the decoration of the hospital, the state of cleanliness, the up-to-dateness of the equipment, the comfort of the hospital environment, the access of the hospital to the city centers.	Quality of medical centers
5	The age of medical services, the up-to-dateness of medical services, hospital security, the global reputation of Iranian medicine, the presence of skilled and specialized doctors, the international faces of medicine in Iran, positive word-of-mouth advertising, previous positive experience.	The perceived image of Iranian medical brand
6	Understanding the treatment process, the speed of the treatment process, the existence of innovative treatment methods, the status of patient care, up-to-date treatment processes, monitoring the treatment process	The quality of the treatment process
7	Iran's security, low national currency value, community hospitality, tourist attractions, weather conditions, meeting with family members, easy transportation, Ease of obtaining a visa	Components of the treatment destination

dental tourism. Also, Debata et al. (2015) accessibility, physical environment, technical quality, transparency in work, and facilities were factors influencing the loyalty of medical tourists, and Hadizadeh Moghadam et al. (2012) The results of the study showed that medical equipment had a significant effect on the motivation of foreign patients to enter.

The theme of the perceived image of the medical brand: the variable of the perceived image of the medical brand refers to factors such as the age of Iran's medical services, the up-to-dateness of medical services, the security of the hospital, the global reputation of the medicine, the presence of skilled and expert doctors, the international faces of medicine in Tehran. positive word of mouth and previous positive experiences. In research using the Alten et al. model in 2015, Nik Behadet et al. concluded that personal experiences and individual

attitudes have a positive and significant effect on choosing a destination country. Therefore, one of the methods that influence tourists' decision-making for choosing a destination is an advertising and informing. by increasing advertising and diversifying advertising tools, more information can be provided to tourists and the demand for health tourism can be increased. The results of Das and Mukherjee's study (2016) showed that awareness and perceived value are factors influencing the brand value of tourism.

The content of the quality of the treatment process: The quality of the treatment process means factors such as knowledge of the treatment process, the speed of the treatment process, the existence of innovative treatment methods, the state of care of patients, up-to-date treatment processes and monitoring of the treatment process. Hoz-Correa et al. (2018) considered the quality of medical services

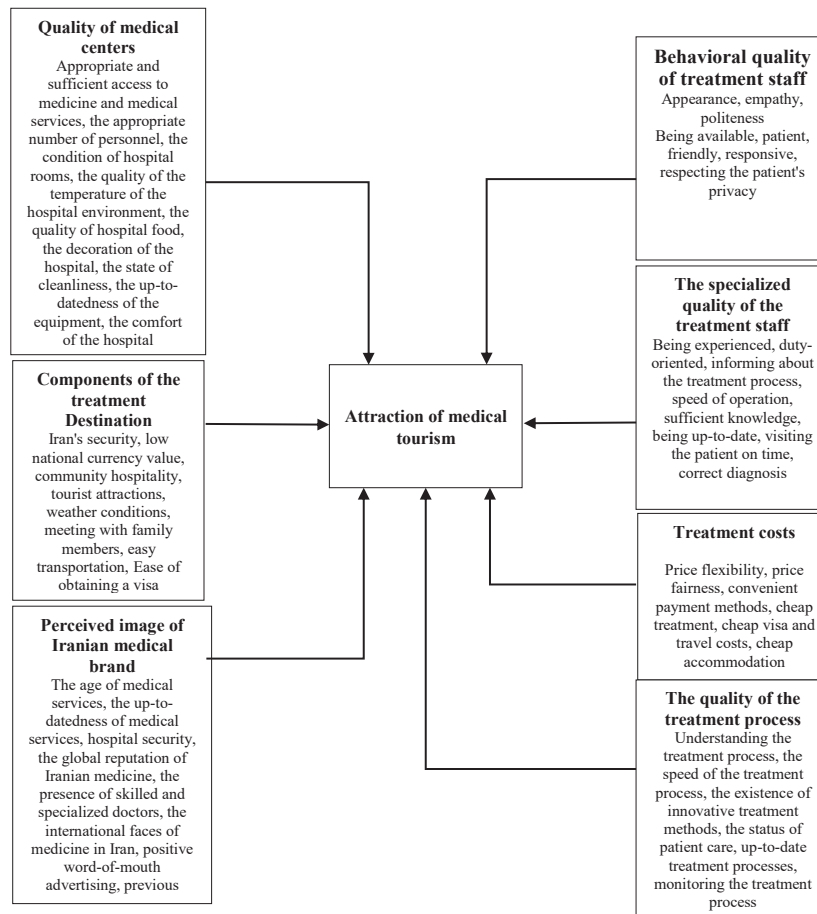


Fig. 1. Research model. Source: Authors.

to be effective in their research, but Hadizadeh Moghadam et al. Service quality has no significant effect on the motivation of medical tourists

The content of the components of the treatment destination: In fact, the set of codes that led to the formation of this variable all referred to the components of the medical tourism destination. Factors such as security, low value of the national currency, community hospitality, tourist attractions, weather conditions, meeting with family members, easy transportation, culture, and the ease of obtaining a visa were identified, and also from the initial codes of this component, it is possible to The warm treatment of the people and the staff towards the patient and the creation of a sense of empathy with the patient by the medical staff, the customs of the people, the cultural antiquity were also mentioned. Also, in the research conducted by Bassoli et al., indicators such as creating a common language between the patients and the medical staff, the level of acquainting medical tourists with Iranian culture and tradition, respecting the cultural beliefs of medical tourists, using doctors familiar with the culture of different nations, and personalizing services are very important. Manaf et al. (2015) considered one of the factors affecting medical tourism in Malaysia to be the factors related to the destination country. However, Hadizadeh

Moghadam et al. (2012) stated that tourist attractions did not have a significant effect on the motivation of medical tourists to enter

Conclusion

The present study is focused on medical tourism as one of the subcategories of health tourism. Limiting the field of study helps to better study the different aspects of this phenomenon, better identify the concerns and issues of the stakeholders of this field, and improve the presented model. As mentioned, the current research aims to provide a model for attracting medical tourists to the hospitals of medical sciences universities in Tehran, which can partially solve the existing research gap. Also, considering that the strategy of this research was theme analysis, it is considered a kind of innovation and use of a different method. Also, the studies carried out in a broad statistical population are similar to the whole country, or they are mainly conducted in hospitals or private sector centers, but this research focuses on the public hospitals of Tehran, especially the hospitals under the Tehran University of Medical Sciences, can provide more practical results. Based on the obtained model, 7 themes "behavioral quality of treatment staff, specialized quality of treatment staff, treatment costs, quality of treatment centers, the perceived

Table 4. Of fit indices. Source: Authors.

Fitness index	Index percentage	Scope of acceptance
χ^2/df	2.8=1682÷4788/49	1-5
(RMSEA)	0/07	05/0>
Root Mean Square Residual (RMR)	0/05	05/0>
Normed Fit Index (NFI)	0.94	9/0<
Non-Normed Fit Index (NNFI)	0.96	9/0<
Comparative Fit Index(CFI)	0.97	9/0<
Goodness of fit index (GFI)	0.96	9/0<
Adjusted Goodness of Fit Index (AGFI)	0.93	9/0<
Incremental Fit Index (IFI)	0.97	1-0

image of Iranian medical brand, quality of treatment process and components of treatment destination” were identified. Therefore, to increase the behavioral quality of the employees, holding training courses on how to communicate with the patient and other related training courses for the treatment staff, will make them deal with the patients in a scientific and principled way, and also increase the specialized quality of the treatment staff. It is necessary to attract and retain specialists, but in the budget laws of recent years, an income ceiling has been specified, which causes the lack of motivation for the presence and cooperation of specialist doctors in government departments, and also causes the migration of a lot of specialized staff in the treatment sector, especially doctors and staff. has provided nursing, therefore, a mechanism to solve this problem seems necessary. Due to the sensitivity of the services provided in terms of human health, it is suggested to hospital managers have special teams to treat foreign patients consisting of more experienced and specialized people. and be familiar with the patient’s language and avoid employing less experienced personnel in this department. Considering that the cost of treatment was identified as one of the themes if the treatment tariffs of the hospitals are clearly defined in the form of treatment packages and to the sub-units It should be announced that while clarifying the prices, this competitive advantage can be used according to the exchange rate in the country.

To increase the quality of medical centers, it is suggested to policymakers in the field of tourism to consider the departments related to international patients in the establishment or development of medical centers and to consider special ceremonial services for them as well as to strengthen hoteling in hospitals by encouraging investors to establish medical settlements near hospitals in Tehran. Developing amenities can play an important role in attracting medicine and create a competitive advantage for Tehran, and in addition to direct investment in this sector, measures can be taken to increase the interaction of hospitals with hotels or tourism companies to provide accommodation services to medical tourists.

Considering that word-of-mouth advertising of patients was one of the themes of the perceived image of the medical brand, by placing facilities such as tourist taxis, the treatment journey of the patients can be turned into a touristic trip and at the same time getting to know the culture and historical and commercial monuments of the Tehran city to be effective ambassadors to present their experiences in the country of origin. Also, by creating strong websites in hospitals, we can present transparent information and make patients aware of the conditions of the city of Tehran and the conditions of the hospital, it is possible to take a virtual tour on these sites.

One of the risks of patients visiting other countries is the post-treatment period, by following up the post-treatment processes and appointing an expert in the field of treatment for each patient, medical tourists can be assured that they will be treated after visiting their own country.

Considering the importance of the time factor in creating a competitive advantage, it is suggested that through the necessary coordination with the Ministry of Foreign Affairs, measures should be taken to reduce the visa issuance time and increase the ease of this for medical tourists.

According to the interviewees, one of the most important issues of medical tourism is the broker-centered and the spread of underground and unofficial activities in this industry. To control the broker-centered and underground activities, the provision of medical tourism services must be done under strict supervision and only through authorized units. Strengthening the regulatory mechanisms, facilitating and stabilizing the permits to enter the industry, and documenting the process and the possibility of step-by-step tracking of the patient can also be effective. In this way, in addition to improving monitoring, it is possible to collect the required information, optimal planning and follow up on patients’ rights.

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