

## Investigating the obstacles and difficulties of using the potentials of medical tourism in Shiraz hospitals

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### ABSTRACT

**Introduction:** The tourism industry is one of the greatest professions in the world and the governments have considered it as an important activity to achieve their macroeconomics objectives. One of the branches of this industry is medical tourism. Considering the importance of this issue, this study investigated the obstacles and problems of medical tourism with an adaptive approach between public and private hospitals.

**Method:** This study was cross-sectional, descriptive and analytical. In this study, two tools of checklists and questionnaires in three areas of financial infrastructure, skilled manpower and facilities were used to collect the data. The study population included all senior hospital executives (chairman, manager, matron, the receptionist, clinical supervisor) of 14 private hospitals and six governmental hospitals in Shiraz that admit tourists.

**Results:** A total number of 94 subjects participated in the study, of whom 54 (57%) were female and 38 (43%) were male with a mean age of 47 years and 22.5 years of work experience. The results of the checklist showed that seven private hospitals (50%) and four public hospitals (67%) had lack of infrastructure. There are significant differences in the number of medical tourists' admission between private and public hospitals ( $P=0.001$ ). The results did not show a significant difference between the views of senior executives in private and public hospitals on the effects of these three infrastructures, human resources, financial facilities and equipment on more tourists' attraction ( $P=0.077$  and  $P=0.416$  and  $P=0.355$ ).

**Conclusion:** According to the results, admitting foreign patients more frequently occurs in private hospitals due to the presence of famous physicians. It seems that with proper collaboration of some organizations and establishment of health tourism office in these hospitals, including Cultural Heritage and Handicrafts and Tourism, Shiraz University of Medical Sciences and the Governor, we can solve the problem of Shiraz low entry of foreign medical tourists to the public hospitals, which is followed by foreign exchange, employment, satisfaction and touted by foreign patients in their own countries, as well.

**Keywords:** Database, Medical tourism, Hospitals, Managers, Organization

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### Introduction

The last decade of the twentieth century and the early years of the twenty-first century can be called the era of considering tourism. Based on the definition of World Tourism Organization, tourism includes all activities that tourists spend less than one consecutive year of their life to leisure, business and other purposes in travel (1). One of its types is medical tourism that people have to travel for the treatment of their mental and physical diseases (2). Medical tourism, as a new emerging service in the market of tourism products, is under the attention of many countries in the world today. Of course, this type of tourism due to its high sensitivity and importance of the health of individuals requires some standards. These standards consist of technical and scientific knowledge

and also human and financial infrastructure and medical and treatment supplies. The objectives that are looking for this type of tourists must have these standards as the necessary condition. Having experienced doctors and surgeons, especially in some medical disciplines; educated medical staff; specialty and subspecialty well-equipped hospitals; and natural, historic and touristy attractions, Iran is one of the medical tourism potentials in the Middle East. However, it still cannot enter the markets with higher income levels in the region because of the problems inside and outside the hospital in comparison with competitors (3). One of the key factors of medical tourism is the centers or hospitals that are actually providing health care services in medical tourism.

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Currently, there is no defined and distinct mechanism in the country hospitals to admit and treat the international patients and the process of foreign patients' admission is similar to the Iranian ones.

Obviously, if a hospital intends to be involved in an international level, measures must be taken in hospitals to provide the health services to international patients in the fastest possible time, out of turn, at a favorable level and with the lowest cost.

In addition, some measures on the admission before entering the country as well as facilities to transfer them from the airport, the outside hospital welfare services including hotel accommodation, transfers within the city and recreational and tourism services should be considered in planning (4). Rokni and colleagues (5) studied the patients' willingness for surgery in the city of Shiraz. The results showed that the expertise of the Iranian successful surgeons in different parts of the world, and especially in Arab countries has increased the desire of patients to special surgeries by Iranian physicians. Faramarzi (6) in his study points out how to turn the strengths of this industry into opportunities under the strategic management.

In response to this question, the first step is changing the attitudes, particularly in the administrators who do not only rely on oil and gas reserves as sources of country income, because this new emerging industry with low cost will have great profits for the country. Rikafort (7) in his study introduces the affecting factors in the provision of health services as follows: professional doctors, prompt high quality services, modern facilities for medical treatment, insurance coverage for patients, affordable medical treatment, desirable access for patients to local transport, security, additional services such as airport transfers and visas, special facilities for hotel accommodation by the hospital and being near tourist attractions and shopping centers for the patient's relatives. Iran can attract a large number of patients from the borders of the Persian Gulf and some neighbor countries in northern, eastern and western parts ranked the tenth at historic attractions, the fifth rank in ecotourism attractions and handicrafts, proper physical infrastructure (hospitals and research centers), relatively low prices of diagnostic and therapeutic services and accommodations, equipped service provider health centers with modern medical equipment, cultural and linguistic homogeneity and partnership with neighbor countries, the suitable cultural environment for Muslim countries, worldwide fame of Iranian physicians especially in countries of the region, and Iran's new successes in the field of medicine (8).

Shiraz is considered as one of Iran's most important tourist centers and is known for its historical, religious and natural attractions for domestic and foreign tourists. Obviously, to develop the medical tourism industry in addition to hospitals with better facilities, the cooperation of agencies and organizations such as cultural heritage, municipalities, governorates, etc. is needed.

However, despite numerous therapeutic potential accesses to public and private hospitals in Shiraz, the main position

of the industry still remains unknown and inconspicuous. This study examined the obstacles and problems of gaining benefit from the potentials of medical tourism in Shiraz hospitals with the comparative approach in three areas of financial infrastructure, skilled manpower and facilities. It is hoped that the results of this research is useful in reducing the obstacles and problems, helping to standardize these areas, increasing foreign medical tourists to the city, increasing exchange technology and creating jobs in this area.

## Method

This is a cross-sectional and descriptive analytic study. This research is applicable based on its purposes since it is effective in the planning of health authorities and attracting medical tourists. The study population included all senior hospital executives (chairman, manager, matron, receptionist, clinical supervisor and all those involved in medical tourism in public and private hospitals that admit tourists in Shiraz). The participants were all the people involved in medical tourism departments of public and private hospitals in Shiraz. Due to the limitations of the sample, the census method was used. To explain this problem, the researcher with the consultation of the methodologist investigated the normality of the questionnaire with the separation of public and private hospitals, and with respect to the normality of the data, t.test was used. Although all the population participated in the study, as the size of the community was small and it can be considered as the representative of the overall country, t.test was used. 14 private hospitals and six government hospitals in Shiraz were active in the field of medical tourism; in each hospital, the questionnaire was distributed to be completed at least by five people who were involved in medical tourism. The participants were all people involved in medical tourism departments of public and private hospitals in Shiraz. Therefore, the available statistical sample included 70 individuals in private hospitals and 30 individuals in government hospitals; the questionnaires were distributed among a total of 100 people. The study was conducted via census and its statistical sample consisted of the whole society due to lack of the sample. Due to the lack of cooperation by some people in hospitals, finally 94 questionnaires were completed correctly.

To prepare the content of the researcher-made questionnaire, we used the regulation of health conditions of the touristy health centers and the manual of launching the health tourists department of the Health Ministry and also checked the foreign papers. The mentioned questionnaire referred to the attitude of the statistical sample which is directly related with the problems of the field of health tourism in private and public hospitals. It consists of 17 questions and is designed in three main sections based on the 5-point Likert scale ranging from very high (5), high (4), average (3), low (2), and very low (1):

1. The area of financial infrastructure consists of 5 questions.

2. The area of skilled manpower infrastructure consists of 5 questions.
3. The scope of infrastructure facilities and equipment includes seven questions.

In this study, the questionnaire and checklist were used as the field methods. The checklist includes four major parts of the conditions. To prepare the content of the mentioned checklist, we considered the standards of hospitals and health centers that do tourist admission, regulations and instructions of the Ministry of Health and the manual of establishment of the Department of International Health Tourist admissions Department of the Ministry of Health which is a translation of the book of Development of Disease Center for International patients Medical Center had 4 options, the characteristics of skilled manpower 4 options, information about financial issues 4 options, and the index of hospital facilities 26 options.

It should also be noted that in the last section of the questionnaire, a question was designed and the participants were asked to state their suggestions and criticisms that were not included in the previous questions and had relative importance for them, here. In the checklist, we can see the options "yes" and "no" in front of each index; if there is a standard, the option "yes" and in the absence of that standard, the option "no" were selected. The checklist was completed by the researcher. In the statistical analysis, score 1 was given to "yes" and 0 to "no". Finally, after entering the data to the SPSS software, the data were expressed as the frequency and percentage.

To prepare the content of the questions of the researcher-made questionnaire, we used the regulations for the conditions of health care systems that admit tourists, the manual of establishment of the Department of International Health Tourist admissions Department of the Ministry of Health and also reviewed the foreign papers. The questionnaire is directly formed by the problems of the field of medical tourism in private and public hospitals and includes 17 questions in three main sections with 5-point Likert scale so high (5), high (4), average (3) low (2), very low (1), respectively.

In order to determine the reliability of the questionnaire, we used the Cronbach's alpha, and the acceptable amount was 0.817 ( $p < 0.001$ ). The validity of the questionnaire

was confirmed by some experts, and the data obtained from completed questionnaires were analyzed in the form of inferential statistics through SPSS14 software and using T-test and Chi-square test.

#### Ethical considerations

All of the processes took place anonymously; all participants took part in the study voluntarily and their names were not disclosed.

#### Results

A total of 94 subjects participated in the study, of whom 54 (57%) were female and 38 (43%) were male with a mean age of 47 years and the work experience of 22.5 years (Table 1).

The results of the checklist for identifying the weaknesses and strengths of public and private hospitals in these 4 sections, and also comparing the private hospitals together and with public hospitals could be used (Table 2).

In general, seven private hospitals that admit tourists (50%) and four public hospitals that admit tourists (67%) lacked the required admission standards of foreign tourists (Table 3).

Moreover, using the chi-square test, the proportion of patients' admission in public and private hospitals was compared and the results showed a significant difference between the number of admitted foreign patients in private and public hospitals ( $P = 0.001$ ). Also, the admission of foreign patients in private hospitals was more than the public ones, but there was no significant relationship between lack of standardization of professional manpower, financial and facilities infrastructure, with the number of medical tourists who were hospitalized in private and state hospitals (Table 4).

Based on the results of studying the opinions of senior managers of public and private hospitals on the effectiveness of different areas (human resources, financial, facilities and equipment), there was no significant difference by attracting medical tourists ( $P = 0.077$  and  $P = 0.416$  and  $P = 0.355$ ). Finally, the managers of both types of hospitals had similar comments on the mentioned three variables' impact on attracting foreign medical tourists (see Table 5).

**Table 1. Frequency distribution of participants according to organizational position**

Position title	No.	Percent
The head of the hospital	10	11%
Hospital manager	17	18%
Matron	18	20%
Clinical supervisor	22	24%
Receptionist	19	21%
Deputy Matron	2	2%
Medical tourism expert	2	2%
Other	2	2%
Unknown	2	-

**Table 2.** The total results of descriptive and quantitative findings of the checklist

Row	Area	Title	Has		Doesn't have	
			No.	Percentage	No.	Percentage
1	Human resources	Information of professional manpower	0	0%	13	63.5%
2	Financial	Information of financial issues	0	0%	17	85%
3	Facilities and equipment	Information concerning the equipment and facilities	19	95%	0	0%
4	Facilities and equipment	Information concerning the equipment and facilities	0	0%	15	73.5%
5	Facilities and equipment	Information concerning the equipment and facilities	18%	90%	0	0%
6	Facilities and equipment	Information concerning the equipment and facilities	10	50%	10	50%
7	Facilities and equipment	Information concerning the equipment and facilities	0	0%	19	95%

**Table 3.** Comparison of lack of standards in 3 domains between public and private hospitals

Variable	Private hospital (n=14)	Public hospital (n=6)
Lack of the skilled manpower infrastructure	9	4
Lack of financial infrastructure	12	5
Lack of facilities infrastructure	5	2

**Table 4.** The results of standards in the areas of public and private hospitals

Area	Type of Hospitals (Public/Private)	Doesn't have	
		No.	Percentage
Human resources	Private Hospitals	36	64.3 %
	Public Hospitals	15	62.5%
Financial	Private Hospitals	50	89.3%
	Public Hospitals	18	75%
Facilities and equipment	Private Hospitals	123	56%
	Public Hospitals	48	42%

**Table 5.** Determination of the difference among the views of senior executives of private and public hospitals regarding the effectiveness of human resources, financial facilities and equipment infrastructure, using t test for independent groups

Variable	Type of hospital	No.	Mean	SD	t	Sig.
Financial infrastructure	public	30	20.46	2.7	-1.791	0.077
	private	64	19.21	3.3		
Manpower infrastructure	public	30	23.30	2	-0.818	0.416
	private	64	22.90	2.2		
Facilities and equipment infrastructure	public	30	31.70	2.7	-0.929	0.355
	private	64	31.06	3.2		

## Discussion

This research was conducted on the barriers and problems in medical tourism in three areas of human, financial, equipment and facilities. The results showed that more than half of the hospitals lacked the skilled manpower, financial items and equipment standards to admit medical tourists. Also, more than half of the hospital slacked the professional standards such as appropriate web sites. There is no medical tourism office at any of them to record the history and information of foreign patients, even in that hospital and the process was done manually. That's why there is no reliable information on the status of medical tourism in private and public hospitals in Shiraz University of Medical Sciences and Cultural Heritage Organization on the number, gender, nationality, type of treatment, the cost paid by the patient and the physician's name.

An important finding of this study was determining and announcing the treatment tariffs in hospital website in attracting medical tourists. It seems that this factor has a major influence on attracting patients, while almost all of

the hospitals lacked this standard. According to the researcher's observations and interviews, the real cost of treatment of foreign patients between doctor and middleman in the Persian Gulf countries is a completely confidential and it is also not clear and in this context there is no transparency. The results of this study section are in the same line with Nasiripour's study (9). Another important finding of this study was the effect of the reputation of doctors, surgeons and hospital specialists on attracting more medical tourists. The results show the huge impact of this issue on attracting the patients. The results of the study of Rokniand colleagues (5) are in line with these results.

Furthermore, the results showed that the presence of physicians and nurses in hospitals who were fluent in a foreign language was highly effective in attracting more foreign tourists, while this standard does not exist in more than half of the hospitals, and now, all their duties are done unscientifically and non-professionally by the translator or middle man and almost there is no particular verbal communication between the patient and staff.

In most cases, the physician is fluent in English that some Arab patients have problem in understanding and hospitals have taken no measures to achieve this. Rokni and colleagues (5), Gholami (10) and Azadi (11) have pointed out this issue in their study.

Other results of this study showed that reducing the waiting time for foreign tourists and out of turn medical services is so influential to attract more tourists which seems to be well implemented, especially in private hospitals; to the extent that the patient immediately upon arrival to Shiraz will be hospitalized and his treatment will be started. KahnamousiAghdam and colleagues (12), Bass and Zachary (13), JootiCastieira (14), Rikafort (7), Hersimran and Sean (15) achieved the same results.

Other results regarding establishing the effectiveness of health tourism office in Shiraz University of Medical Sciences in Persian Gulf countries for advertisement and attraction, preventing unauthorized benefits, and sending patients to Iran were studied by senior administrators of hospitals. The results showed that this attempt was effective in attracting more medical tourists. Kazemi (16), Ildromi and colleagues (17), and Gholami (10) also found similar results.

Now, Shiraz has the capacity of accepting up to 4 million tourists per year with 131 motels and 34 hotels(8), the international airport of "Martyr Dastgheib" which is the most equipped airport after Imam Khomeini airport; after the completion of the airport expansion project, it will increase to 10 million passengers per year (17).

Being close to Persian Gulf states, as well as having Shiraz University of Medical Sciences with faculty members some of whom have achieved international fame and working in public and private sector, and also having skilled and committed surgeons, specialists and dentists and the private sector with performing all medical services such as eye surgery, cardiology, cosmetics, cosmetic dentistry and dental implants, infertility treatment in modern hospitals with the most advanced medical specialty and subspecialty can be one of the main centers of medical tourism, as well as health in the country, while investigating medical tourism survey data showed that the number of medical foreign tourists in Shiraz was not more than 5,000 people during the year.

### Limitations

Lack of accurate and reliable statistics about the existence of tourist medical centers in Shiraz, especially the admitted tourists from neighbor Arab countries in private and public hospitals of Shiraz in Shiraz University of Medical Sciences was one of the limitations of this study. Another problem was lack of accurate and reliable records of the presence of medical tourists in Cultural Heritage and Tourism organization. What's more, lack of cooperation by some doctors and officials involved in the services for foreign medical tourists in questionnaires and statistics should be considered in the future studies.

### Conclusions

This study was conducted to investigate the problems of medical tourism in hospitals of Shiraz. The participants in this study believed that the majority of foreign patients (preferably Arab patients) almost have no awareness and choice about the accommodation, hospitals, even in some cases about their doctor and the actual cost of treatment; all the coordination is done by informal liaison and interpreter, which has a significant impact on reducing medical tourist referrals. Therefore, locating health tourism offices in private and public hospitals of Shiraz that admit tourists is recommended to provide the needed infrastructure, facilities and standards based on IPD (International Patient Department). The main conclusion derived from this study was that admission of medical tourists in private hospitals in Shiraz was more than the public hospitals, despite the similar management and lack of standards in tourist hospitals in both types. On the other hand, except the cases that have a long duration of treatment (for example dental problems), the patients come back to their countries at least 24 or at most 72 hours after discharge from the hospital, so the post-treatment follow-ups have been canceled on their own, and perhaps due to the lack of proper care after surgery and treatment, the treatment remains unsuccessful, causing the patients' discontent.

It has been concluded that these problems are divided into two parts of inside and outside the organization. The problems within organizations or the hospitals were analyzed; these are lack of skilled manpower fluent in English and Arabic, lack of transparency about the patients' fees, lack of medical tourism office for admission, recording the data and profile of medical tourists who were admitted and lack of access to doctors and after treatment care. However, the external factors were the role of institutions and organizations related to medical tourism. Also, creating a database to record the data and statistics of medical tourists of Shiraz (such as nationality, gender, age, type of illness, hotel accommodation, treatment, cost, type of medical practice, doctor) in all public and private hospitals that admit tourists is recommended for follow-up of the disease in the future. Moreover, a tourism sector (including tourism, shopping, accommodation, transportation and food) does not exist for the fast return of patients to their home countries, and its goal which is creating exchange and job has not been realized. According to the findings of this study, it seems that setting up up-to-date websites and the existence of medical tourism offices in each hospital in order to access the up-to-date and accurate information systems, and introducing their capabilities for future planning in medical tourism industry are necessary. On the other hand, the compassionate and correct multi-agency cooperation and management, especially the Cultural Heritage and Handicrafts and Tourism Organization, Shiraz University of Medical Sciences and the Governors can solve the problem of low referral of foreign medical

tourists to Shiraz to some extent which leads to increased foreign exchange, employment, patients' satisfaction and advertisement by the foreign patients in his country.

### Conflict of Interest

None declared.

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