



# ASSESSING PREPARATION LEVEL OF MEDICAL TOURISM IN ZAHEDAN CITY

Mostafa Mir\*, Abolfazl Tajzadeh-Namin\*\*

**Abstract** *The objective of this study is assessing preparation level of the city of Zahedan in carrying out activities concerned with medical tourism. The objective is demonstrated in the framework of assessing the status quo of medical tourism in Zahedan in four areas of “hospital Facilities/Services”, “Hotels, Food and Beverage”, “Tourism Facilities” and “Governmental Factors”. The research method adopted in the study is descriptive-survey. The population of the research includes managers, medical experts from Zahedan hospitals. To attain the objectives a questionnaire was designed in four main parts of Zahedan medical tourist system based on Likert. The limitation of this paper is the needs to find the hospital and health experts that have view about tourism industry in Zahedan. The main implication of this paper is for Zahedan city to do better for the health tourism management. Also this paper improves the health tourism system model in the developing countries .this paper exam the systematic model for managing medical tourism in Zahedan city as tourism destination. This systematic model explores the main elements of medical tourism destination. The results showed that Zahedan has some shortcomings in carrying out activities concerning medical tourism. The shortcomings include low costs of treatment and accommodation, having no various historical and recreational places, having no experts in treatment, endemic diseases, no serving of a diet appropriate to patients and bad attitudes among people of other towns.*

**Keywords:** *Medical Tourism, Medical Tours, Hospital Experts, Zahedan*

## INTRODUCTION

Tourism industry has increasing importance in modern world. Many developed and developing countries have put the industry of tourism among their economic priorities. These countries have dedicated a great share of the world market to themselves. The importance of tourism is not limited to providing job opportunities and revenues. Since 1950 tourism industry has undergone great changes so that some call it tourism revolution. These changes have led to vast and extensive tourism and in the future will turn into qualitative tourism. Currently tourism is a great and powerful professional activity in the world in a way that it first preceded petroleum in importance, then was level with it and after that got a higher position than petroleum (Masoumi, 1385,9). Tourism has developed considerably during the last 50 years. Today tourism has turned into a world industry and by itself it is a great economic source (Hallmann et al, 2012). Tourism is a complex social and economic event

which needs to be studied at different levels so as to be able to reach the expected development (Risteski et al, 2012). For management in the area of tourism, other than definition, an understanding of all types of tourism and their categories is very important for demands and services required by different tourists are not identical (Kazemi, 2006). Also the IT and internet serves as a new communication and distribution channel for e-travellers and suppliers of travel services and products. This new channel also enables tourism business to improve their competitiveness and performance (Law et al, 2004).

Today the countries have organized expansion of service market for the purpose of increasing their national gross income. They have found tourism the most important market with cash cycles, productive job opportunities and high profit margins. Increasing growth of international trips on the one hand and increasing interest in travel destinations on the other hand have added more suffixes and prefixes to the term of tourism such as religious tourism, sport tourism,

\* Tourism Management Department, Allameh Tabataba'i University, Tehran, Iran. E-mail: tourism.mir@gmail.com

\*\* Tourism Management Department, Allameh Tabataba'i University, Tehran, Iran.

war tourism, leisure tourism, health tourism etc. Medical tourism is considered one of the most important types of tourism. Today medical tourism has dedicated a growing part of market to itself among tourism markets (Connell, 2012). The towns of Sistan o balouchestan and particularly Zahedan can be recommended to tourists as a unique tourist destination owing to their special tourist attractions. Also having a prestigious medical university in different fields, Zahedan can be recommended for medical tourism all over the country. Surgical operations such as eye surgery and general surgeries are among cases which can make Zahedan a famous destination for medical tourism. Thus in this study we try to determine preparation level of medical tourism in Zahedan which plays a key role in successful management of medical tourism with the aid of theoretical and practical researches. At length we will offer some guidelines for improvement of this preparation. In other words we try to examine subjects and attain the objective of assessing preparation level of Zahedan in order to turn it into a medical tourist destination.

## LITERATURE REVIEW

Tourism is defined and categorized based on different factors. However one of these categories is called medical tourism. Various definitions of medical tourism have been offered. In one of these definitions, medical tourism is applied to a type of travel which is done to other countries and for reception of services such as treatment, dental services and surgical operations. In another definition offered in 2005 in global analysis report of medical tourism, medical tourism is applied to any form of travel from living place to another destination in order to receive surgical services and the like. This journey must at least include one night of accommodation outside the living place (Sadrmomtaz and Agharahimi, 2010). Also medical tourism is applied to journeys to receive health care service in other countries as tourists. Nowadays medical tourism is among the most important factors concerning tourism industry that has high economic advantages and is applied to international journeys which an individual makes to receive medical services and surgical operations in order to use medical services which are less costly than his own country (Correra and Bridges, 2008).

It must be noted that one type of medical tourism is the one in which doctors, nurses and job holders in the department of treatment work voluntarily for developing countries (Edelheit, 2008). However we mean it is a type of trip that the individual takes for the purpose of health care and treatment. In spite of long waiting on the part of patients, heavy medical expenses and also obstacles to travel to other countries, patients are still inclined to travel to other countries to get themselves treated and use medical services. There are various reasons in support of medical tourism.

First providing health care brings about procurement of financial income. This in turn enhances regional health care system of a country (Rerciveil et al, 2006). Since mid-1990 some factors reinforced this industry of which the following is mentioned:

1. Expansion of firms with medical tourism services (for example in Canada there are at least 15 medical tourism companies (Gorcia, 2006, Korcok, 1997). Thus in spite of long waiting lists, more people travel to other countries for medical treatment (Priest, 2007).
2. Cost reasons (for example American patients can receive medical services at 1/4 cost even in some cases 1/10 of local cost abroad. besides 40 million Americans do not have treatment insurance (Awodzl and Pando, 2005).
3. Escalating rate of demands for receiving treatment is related to growth of old population and expenses in developed countries. For example many Japanese companies send their employees to Thailand for checkups every year. Also in Canada delay in intermediary surgical operations is a serious issue and lack of access to family doctors makes treatment arduous. Thus such patients take trips to countries like Thailand and India (Turner, 2007).
4. Some patients prefer to keep their treatment especially plastic surgery, beauty and sterility secret. That is the reason why they go abroad (Ildoromi and Sefidi, 2011).

Among the most important surgeries in the world, the most attention is given to thigh and knee surgery, cardiac surgery and dental services and different types of plastic surgeries. Other types of treatment can also be put under the category of services offered in this tourism. Thus through travelling a health tourist can use treatment services of other countries in order to gain his well-being. Currently more than 50 countries are known to use medical tourism as a national industry for gaining profits (Gahlinger, 2008). There is no exact information as to the number of patients receiving health services at medical tourist destinations. The main problem in determining the number of medical tourists is related to exact definition of these tourists. In fact the reported figures include treatment of foreigners staying in target country, traders and tourists needing health services during accommodation. Also the number of those using Ayurveda and health services such as yoga, massage etc. may be added to this list. In spite of these shortcomings, it is evident that a considerable number of patients participate in the process of medical tourism (Delgoshae et al, 2012).

To gain a better understanding of the status of medical tourist market, Caballero and Muomba (2007) have shown essential and selective information concerning this type of tourist market. They argued about what we need to pay attention to different factors besides medical status and current

potentials of hospitals in order to reach medical tourism. These factors including: Consumer benefits, branding, social issues, operators, legal framework, communication channel, infrastructure, product and target market.

To gain success in the area of medical tourism we must pay attention to other factors besides the ones mentioned above. Since the concept of "destination" is a basic concept in organization, medical tourism needs to be studied in an organized framework. In tourism the concept of destination can be applied to a country, region, city or state which is in pursuit of enhancing its unique attractions and also improving its image so as to be competitive among other purposes of tourism (Hallmann et al, 2012).

Despite great advances in modern technology, producing safe food and keeping it safe remains a worldwide public health problem with illness caused by the consumption of contaminated food described as the most widespread health problem in the contemporary world. Available data indicate that:

- most causes of such illness are of biological origin;
- the majority of these are caused by micro-organisms;
- that mishandling of food at some stage along the food chain is often responsible; and
- food businesses within the hospitality industry are implicated in a disproportionate number of outbreaks,

The implementation and management of safe food handling procedures is, therefore, of crucial importance to both industry and consumers (Taylor, 2008), especially in Health Tourism.

## RESEARCH HYPOTHESES

1. The status of Zahedan in terms of facilities and medical services is appropriate for the use of health tourists.
2. Zahedan's tourism in terms of accommodation, food and drink is appropriate for the use of health tourists.
3. The status of Zahedan in terms of services and facilities of tourism and infrastructure is appropriate for the use of tourists.
4. Regional factors affecting Zahedan's tourism are in good condition.

## THE RESEARCH MODEL

The model utilized in this study has an organized framework which is known as medical tourism system and is mentioned in Gyuko's(2011) studies. In his model (figure 1) he has divided medical tourism into 2 parts. The first part includes destination of medical tourism to which a tourist travels to receive medical services. The second part includes the starting point of a tourist which is his living place. The relationship

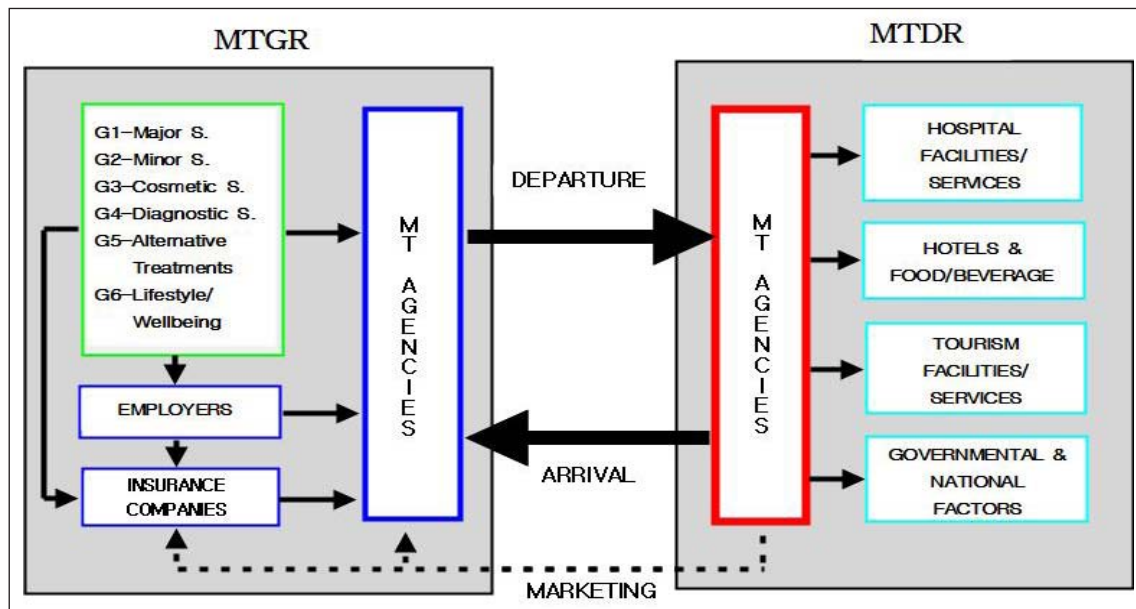
between the two destinations is formed through coming and going of medical tourists. In this relationship marketing plays a key role. In this system a tourist or the person travelling for medical services has the main role for if this type of tourist did not exist, other parts would lose their meaning. In this model in the tourist's starting point (living place) there are 6 types of patients as follows: patients with heavy surgeries, patients with minor surgeries, plastic surgery, diagnostic surgery, substitution behaviors and patients having special lifestyles. Other than patients, there are also other sections in this area: employees in treatment section, insurance companies, and travel agencies conducting health tours and arranging trips. In the other section of the model which is a tourist -inviting region or a medical tourist destination there are 4 main parts besides travel agencies: hospital services and facilities, and regional and state factors. In this study only destination is examined and the model and its parts are examined in Zahedan. Since travel agencies in Zahedan have a weak role in the organization of patients' trips, they are eliminated.

Hospital services and facilities show the capacity of the destination to offer medical services and things like medical expenses at destination, accessibility to expert doctors, necessary hospital equipment and the like. Accommodation part includes hotels and their facilities for the use of patients. The main factor in this part is existence of types of food suitable for patients and facilities like bathroom and elevators in hotels of medical tourism destinations. Target tourism services and facilities are infrastructures of destination. Cases like historical and cultural attractions, recreational facilities and good image of destination are included. Regional factors include features of a medical tourist destination and cases like the rate of hospitality by native people, observing the rights of guests and cultural differences between guest and host (Guyko, 2011). Also The Hotel and lodging industry has been competing on guest satisfaction and such competition has become more intense in recent decades (Oh & Jeong, 2010).

## RESEARCH METHODOLOGY

The current research is "applied research" and data gathering is based on "survey" method. The population of the research constitutes hospital experts and treatment section of medical university of Zahedan. Experts are chosen from hospitals of Khatam al anbia, Ali ibnAbitaleb, Baharan hospital, ophthalmology of Alzahra and Boali hospital. These experts are acquainted with subjects of health tourism. Regarding clarity of research subject in Zahedan and limitations of the expected population to comment on the subject, the snowball method was employed in sampling. A number of 110 questionnaires were issued to eligible people and 102 ones were received and became the criterion for conclusion. In order to gather research literature field studies were

Figure 1. Medical Tourism System Model



Source: GyuKo, Medical Tourism System Model, International Journal of Tourism Sciences, Volume 11, 2011

employed through issue of questionnaires and to measure research hypotheses the Likert scale test was utilized. In the questionnaire options from 1 to 6 are related to measuring variable of hospital services and facilities, options from 7 to 12 are related to the variable of accommodation, food and drink, options from 13 to 18 are related to the variable of civil and tourism services and facilities and options from 19 to 24 are related to the variable of regional factors. To measure validity, a questionnaire with the method of content validity and corroboration of experts was used. To measure reliability, a number of 35 questionnaires in the form of a primary sample were issued. The coefficient of Cronbach's Alpha equals 0.80 which indicates reliability of the questionnaire.

## ANALYSIS

The researcher has employed descriptive and deductive statistics to analyze data. Descriptive statistics include the frequency of Likert scale options, median, mean, standard deviation of research variables. In deductive statistics the researcher has employed the Friedman test to examine importance of the research variables.

### Descriptive Analysis of Factors of Research Variables

The results obtained from descriptive analysis of research data which includes frequency of dedicated codes to Likert scale of each question, median and mean for each variable is as follows:

## RESULT

### Variable of "Medical Facilities and Services"

Regarding the values shown in table no.1, participants had the most agreement in survey with questions 1, 3 and 4, the medians of which are 3.96, 5.17 and 4.20 respectively. The most disagreement was with questions 2,5 and 6, the medians of which are 3.30, 3.47 and 2.61 respectively. It is worth noting that closeness of mean and median of data shows normal distribution of data.

### The Variable of "Hotels, Food and Beverage"

Regarding the values shown in table no.2, the participants had the most agreement in survey with questions 2,3,4 and 5, the medians of which are 4.01, 4.42, 4.04 and 3.80 respectively. The most disagreement was with questions 1 and 6, the medians of which are 3.55 and 3.14 respectively. It is worth noting that closeness of mean and median of data shows normal distribution of data.

### The variable of "Tourism Facilities and Services"

Regarding the values shown in table no.3, the participants had the most agreement in survey with the questions 3, 4, 5 and 6, the medians of which are 3.95, 3.98, 4.88 and 3.92 respectively. The most disagreement was with the questions 1 and 2, the medians of which are 2.74 and 2.25 respectively.

**Table 1. Descriptive Statistics of the Variable of Research Model**

Variable	Item	No							Mean	Median	St. Deviation
		0	6	5	4	3	2	1			
Hospital Facilities and Services	Medical expenses in Zahedan are low.	5	17	24	16	22	15	3	3.96	4	1.44
	There is export medical personnel in hospitals.	4	10	14	14	31	16	13	3.30	3	1.50
	Threat of endemic diseases in Zahedan.	9	39	38	11	3	0	0	5.17	5	0.91
	After discharge, asking about patients' health is done.	9	26	20	14	19	8	6	4.20	4	1.56
	Medical equipment like wheelchair and the like is a lot in Zahedan.	10	10	13	20	24	18	7	3.47	3	1.43
	To facilities treatment, contracts have been signed with different insurances.	14	2	6	8	24	36	12	2.61	2	1.17
Hotels, Food and Beverage	Accommodation expenses are low in Zahedan.	21	9	12	17	24	15	4	3.55	3	1.37
	Hotels staff in zahedan are professional.	46	8	12	15	15	0	0	4.01	4	1.22
	Zahedan hotels serve suitable type of food and beverage for patients.	43	13	19	13	9	4	1	4.42	5	1.27
	The costs of food and drink are low in Zahedan.	19	15	18	15	27	7	1	4.04	4	1.31
	There are services like internet in Zahedan hotels.	39	9	11	14	18	10	1	3.80	4	1.34
	Facilities like elevator and bathroom.	27	8	8	5	28	18	8	3.14	3	1.45
Tourism Facilities	Access to Zahedan through air and land is easy.	8	1	10	6	35	31	11	2.74	3	1.15
	Mentality of people in other towns towards Zahedan is good.	10	1	1	16	14	30	30	2.25	2	1.18
	General transportation services in Zahedan are appropriate.	7	8	29	21	27	8	2	3.95	4	1.21
	The weather in Zahedan is favorable most of the time.	5	21	21	14	23	13	5	3.98	4	1.53
	There are a lot of cultural and recreational attractions in zahedan.	5	39	27	16	12	2	1	4.88	5	1.18
	There are services like sport facilities in Zahedan.	11	14	25	12	24	12	4	3.92	4	1.44
Governmental Factors	Rights of guests are observed in Zahedan.	15	3	3	6	25	27	23	2.4023	2	1.24
	The rate of hospitality among people of Zahedan in high.	11	28	31	16	6	8	2	4.64	5	1.33
	There is cultural interchange between natives and people of other towns.	28	10	18	23	4	11	8	3.8378	4	1.55
	The rate of crime is high in Zahedan.	8	28	18	16	19	8	5	4.2553	4	1.53
	Different jobs in Zahedan have their own syndicates.	32	1	5	9	23	24	8	2.7429	3	1.13
	ATM services are easily done.	3	3	4	5	42	30	15	2.6162	3	1.12

1=Completely disagree 2=Disagree 3=Moderately disagree 4=Moderately agree 5=Agree 6=Completely agree

It is worth noting that the closeness of mean and median of data shows normal distribution of data.

### The variable of “Governmental Factors”

Regarding the values shown in table no.4, the participants had the most agreement in survey with the questions 2, 3 and 4, the medians of which are 4.64, 3.83, and 4.25 respectively. The most disagreement was with the questions 1, 5 and 6, the medians of which are 2.40, 2.74 and 2.61 respectively. It is worth noting that the closeness of mean and median of data shows normal distribution of data.

### Similarity Test of Independent Research Variables

In order to examine rating of research variables of the research Friedman test was employed. Table no.5 shows median of rating for each variable. The higher the values in the median of ratings, the more important they are. In this study the variable of tourist facilities with rating median of 3.03 receives the most importance and the variable of regional factors with rating median of 1.69 receives the least importance. Regarding the variables shown in table no.5 ( $\text{sig}=0.00$ ,  $X^2 = 123.432$ )  $\text{sig} < 5$  and this indicates that importance of research variables is not similar from the viewpoint of participants in survey.

Variable	Mean Rank
“Hospital Facilities and Services”	2.70
“Hotels, Food and Beverage”	2.58
“Tourism Facilities”	3.03
“Governmental Factors”	1.69

N	102
X <sup>2</sup>	59.856
df	3
P-value	0.000

## RESEARCH FINDINGS

This paper obtains results of the survey from experts of medical department of Zahedan’s hospitals. Research findings for 4 independent variables are as follows:

### The Variable of Medical Services and Facilities

According to descriptive data it is concluded that: Zahedan has a good status in terms of medical expenses and caring

about patients after discharge. There are endemic diseases in Zahedan and medical centers are weak owing to lack of medical experts, medical facilities and contract with different insurances.

### The Variable of Accommodation, Food and Drink

According to descriptive data it is concluded that: hotels in Zahedan are appropriate owing to expert personnel, suitable types of food for patients, low costs of food and drink, access to internet for medical tourists. However in terms of accommodation expenses and existence of facilities like elevator and bathrooms in hotels and procurement of appropriate types of food for patients, it has some weaknesses.

### The Variable of Tourist Facilities and Services

According to descriptive data it is concluded that: in the area of tourist facilities and services, appropriateness of general transportation services, favorable weather most of the time, existence of recreational facilities, rich culture and sports facilities, Zahedan has great potentials. However it does not have a good status in terms of air and land accessibility and mentality of people in other towns.

### The Variable of Regional Factors

According to descriptive data it is concluded that: people in Zahedan are hospitable and there is cultural interchange between natives and people of other towns. The high value in the median of question 4 indicates high rate of crime in Zahedan from the viewpoint of participants in the survey. Zahedan has some weaknesses in terms of observing the rights of guests, existence of jobs with special syndicates and ATM services.

## CONCLUSION

Sadr momtaz and Agharahimi (2010) in their study show coordination between the parts involved in tourism and creation of incentives to invest in medical tourism. This coordination is accessible through a systematic and organized approach. The model under study in this research includes all parts of medical tourism both in starting point and destination and it offers some guidelines with respect to the role of each one.

Delgoshae et al (2012) have classified challenges and opportunities for Iran’s medical tourism in four factors of strategic and competitive status, terms of demand, dependent industries, patrons and operating terms. Organizing medical tourism with systematic approach and expanding it causes

enhancement of competition in tourist destination among other destinations and the first step is correct management for expansion of medical tourism.

Regarding the results of research analysis and previous studies it is concluded that the town of Zahedan has the necessary potentials to conduct activities in the area of medical tourism. Low costs of treatment turn Zahedan into a proper place for medical tourism in the country and east. Also Zahedan needs to absorb experts and expansion of hospital equipment must be considered by organizers. Controlling endemic diseases must also be taken into account. Regarding low expenses of accommodation in Zahedan, hotels and accommodation centers in Zahedan have the opportunity to attract medical tourists. If they pay more attention to matters like serving appropriate types of food for patients, they will have better opportunities. Existence of historical and recreational attractions in Zahedan is a major factor in trips taken by medical tourists. Also mentality of people and citizens in other towns needs to be improved through organizing and conducting marketing activities. Hospitality of the people in Zahedan must be taken into account. To control crime rate in Zahedan correct management by responsible organizations is essential.

## REFERENCES

- Awodzl, W., Pando D. (2005), "Medical Tourism: Globalization and the Marketing of Medical Services", *Consortium Journal of Hospitality and Tourism*, 11(1), 17-23.
- Caballero-Danell, S., & Mugomba, C. (2007). Medical tourism and its entrepreneurial opportunities: A conceptual framework for entry into the industry (Unpublished master's thesis)", University of Gothenburg, Gothenburg, Sweden.
- Carrera, P., & Bridges, J. (2008). Health and medical tourism: what they mean and imply for health care systems", *Wachstumsmotor Gesundheit: Die Zukunft unseres Gesundheitswesens. New York: Hanser Verlag*, 11-15.
- Carrera, P., & Bridges, J. (2008), "Health and medical tourism: what they mean and imply for health care systems". *Wachstumsmotor Gesundheit: Die Zukunft unseres Gesundheitswesens. New York: Hanser Verlag*, 15.
- Connell, J. (2012). Contemporary medical tourism: Conceptualization, culture and commodification, *Tourism Management*, 34(1), 1-13.
- Delgoshae, B., Jabbari, A., Farzin, M., Sherebafchizade, N., & Tabibi, S. J. (2012). Current status of medical tourism: case study of Iran. *Quarterly of Payesh*, 2(1), 171-179.
- Edelheit, J. S. (2008). Defining medical tourism or not, *Medical Tourism Magazine*, 5(1), 9-10.
- Gahlinger, P. (2008). *The medical tourism travel guide: Your complete reference to top-quality, low-cost dental, Cosmetic. Medical Care & Surgery Overseas*. Sunrise River Press.
- Garcia, A. G., & Besinga, C. A. (2006). Challenges and opportunities in the Philippine medical tourism industry. *The SVG Review*, 41-55.
- Hallmann, K., Müller, S., Feiler, S., Breuer, C., & Roth, R. (2012). Suppliers' perception of destination competitiveness in a winter sport resort. *Tourism Review*, 67(2), 13-21.
- Ildoromi, A., & Sefidi, M. (2010). Investigation of attitude of hospital workers in Ghazvin about medical tourism. Festival of tourism and stable development, Islamic Azad university of Hamedan.
- Ildoromi, A., & Sefidi, M. (2011). Hospital Experts for Medical Tourism. Ghazvin. Tourism and sustainable development conference. Islamic university of Hamedan.
- Johnston, C. (1996). US ad uses lure of prompt treatment to entice Canadians needing joint replacement. *CMAJ: Canadian Medical Association Journal*, 154(7), 1071-1071.
- Kazemi, M. (2006). Management of Tourism, Samt, Tehran.
- Ko, T. (2011). Medical tourism system model. *International Journal of Tourism Sciences*, 11(1), 17-51.
- Korcok, M. (1997). Excess demand meets excess supply as referral companies link Canadian patients, US hospitals. *Canadian medical association journal*, 157(6), 767-770.
- Law, R., Leung, K., & Wong, R. (2004). The impact of the internet on travel agencies. *International Journal of Contemporary Hospitality Management*, 16(2), 100-107.
- Masoumi, M. (2006). *The nature of tourism*, PeykeKosar, Tehran.
- Oh, H., & Jeong, M. (2010). Evaluating stability of the performance-satisfaction relationship across selected lodging market segments. *International Journal of Contemporary Hospitality Management*, 22(7), 953-974.
- Priest, L. (2007). Long wait forces cancer patient to buy operation in land he fled. *The Globe and Mail*.
- Risteskia, M., Kocevskia, J., & Arnaudov, K. (2012). Spatial Planning and Sustainable Tourism as Basis for Developing Competitive Tourist Destinations. *Procedia-Social and Behavioral Sciences*, 44, 375-386.
- Sadrmomtaz, N., & Agharahimi, Z. (2010). Medical tourism in Iran; guidelines for development. *Management of Health Information*, 7, 516-524.
- Taylor, E. (2008). HACCP for the hospitality industry: history in the making. *International Journal of Contemporary Hospitality Management*, 20(5), 480-493.
- Turner, L. (2007). Medical tourism Family medicine and international health-related travel. *Canadian Family Physician*, 53(10), 1639-1641.