


Factors affecting medical tourism: A case study of Azeri tourists in Iran

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Abstract

Background: Health tourism is one of the effective factors in the economic prosperity of the countries, the beautiful nature and hot springs of Ardebil province makes it a good destination for health tourism. The aim of this study was to investigate demographic and socioeconomic characteristics of health tourists in Ardebil.

Methods: To investigate the viewpoint of health tourists coming to Ardebil province from Azerbaijan, a comprehensive Turkish language questionnaire was designed by the researcher and by visiting medical centers in Ardebil, pharmacies and restaurants, the questionnaires were completed.

Results: Out of 200 distributed questionnaires, 193 were completed. The average age of the participants was 26.2 years. They often had less than 1800 USD monthly income. 184 (95.4%) of participants were not covered by the general insurance of Azerbaijan. The cost of treatment and the total travel cost per person for participants was less than 120 USD. About the hospital services, one-third of respondents rated them as “well”. More than 95% of the tourist were from the near border provinces.

Conclusion: The lack of public insurance coverage in Azerbaijan and the higher value of the Azerbaijani Manat compared to Iranian rial attract health tourists to Ardebil, but the quality of services provided needs to be improved. Government planners need to focus more on health tourism issues, especially in Ardebil so as to improve the infrastructures and remove barriers, it is a step towards the prosperity of this lucrative industry.

Keywords: Azerbaijan; Iran; Medical Tourism

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Introduction

Health tourism is a travel aimed to treat diseases or undergo a surgery in a hospital. This is one of the most important goals of medical tourism, and often, together with receiving health services, leisure time activities are also added to the patient's health package. This is for people and groups who are traveling for both medical and therapeutic purposes (1).

The tourism sector has a very wide range; one of the most important subsets is health

tourism. Effective attention to health tourism can lead to an ever-increasing tourism development. Rules and regulations of the establishment of health tourism centers in the country shows that our country has started to work on this field (2).

The global tourism sector's turnover in the coming years of the twenty-first century is anticipated to surpass the industry's turnover, reaching 2 trillion USD over the next few years. It would surely attract illegal agencies towards health tourism (3).

The health tourism market is considered as one of the most motivated and competitive industries in the world and is one new area of advanced tourism. At a macro level, governments are interested in the economic benefits of this industry. An increasing competition has started between different countries, especially developing Asian countries, to attract health tourists. On the other hand, health tourism has also been booming in developing countries; globalization and trade liberalization in the field of health services have been the basis for the rapid growth of this type of tourism. Over the past few years, the number of patients who went outside of their country to use therapeutic services has grown steadily. Patient treatment and provision of therapeutic services in areas with natural and historical attractions have long been considered "medical tourism" or "therapeutic tourism" in many parts of the world, so that some countries such as the United States, England, Germany, Italy and France make significant revenue annually by creating therapeutic facilities adjacent to ancient sites and natural landscapes or historic sites (4). Developing countries in this field of tourism are Hong Kong, Cuba, Hungary, India, Malaysia, Philippines and others. The efforts of developed countries to expand the medical tourism market are made, based on the fact that the re-rotation of the medical tourism trend and the re-emergence of these countries as a suitable destination for medical tourism is far from being expected (5).

Health tourism is recommended by many scholars to developing countries as a very effective way of commercial method because all the specialized forces stay inside the country and it creates indirect employment in other sectors. Developing countries with regional and cultural advantages, suitable infrastructures and natural and human resources can benefit from this growing industry heavily. Currently, due to its low cost and high profitability, many countries that are interested in developing tourism, focus

their attention on this sector of the tourism industry and are planning for it (6).

Iran relies on oil export in order to obtain its foreign exchange earnings. In order to solve the problems caused by the dependence of foreign exchange revenues on exportation of oil, it is necessary to invest in producing and exporting those products and services that could generate foreign exchange earnings. Iran has a strong potential in health tourism and can increase its foreign exchange earnings by investing on this sector (7). Due to its advantages in health tourism, including low cost, high quality health services, competent physicians and many natural attractions, Iran has decided to take advantage of this privilege. According to *The Future Outlook of Iran in the Horizon of the Next Two Decades*, Iran should be in first place in field of health tourism in the region. According to the fourth national development plan, by the end of the plan, 30% of the healthcare and medical needs of the country should be provided through the export of health-related goods and health tourism. The most important outcome of these plans are job creation and quality development in the healthcare and medical sector and economic development especially in the insurance industry and increase in foreign exchange earnings. In fact, the purpose of these efforts is to establish Iran's place in world markets and to introduce Iran as one of the biggest and most advanced health tourism markets in the Middle East region in order to increase earnings and achieve developmental goals (8).

With its four-season climate, Iran is rich in historical, religious, natural and cultural tourism attractions. modern and well-equipped medical centers, with specialized human resources, an appropriate cultural environment for the Muslim from all over the world, a significant number of Iranians living outside the country who seek treatment in Iran, the high demand of patients in the region for a pleasant, beautiful and unique treatment, are in a

favor of Iran becoming the most important destination for health tourism (9). In the strategic and competitive field, the most important advantage of Iran is to reduce the cost of treatment on a global and regional scale. At present, given the operating conditions and desirable demand, Iran has many advantages to become a leading country in medical tourism in the region, but in a strategic and competitive situation, it needs development and it must also strengthen its supporting industries. To become one of the main centers of health tourism in the region on the horizon of 2021, will not only prevent currency departures, but also will bring significant foreign exchange earnings to Iran (10).

Ardebil province, in addition to having borders with Azerbaijan, the proximity of Azeri Turkish to Turkish being spoken in Ardebil, also has a wonderful nature, mineral warm waters, good weather and healthy food and can be considered in health tourism development programs. Accordingly, effective steps have been taken in recent years in relation to the development of health tourism, including the development of specialized medical and surgical centers, the increase of hospital beds, the creation of suitable and privileged residential centers (11). In order to achieve these goals, the international patient departments unit, special ward, physicians, and international nurses, healthcare packages, service facilitator and etc. are also organized in this province.

Development of the health tourism industry will bring many benefits to the country, the most important is employment and quality development in the healthcare sector and economic development, especially in the insurance industry. In this regard, Ardabil province, as one of the border provinces of the country, is prone to advancement in medical tourism and can become one of the goals of international medical tourism. National Health Insurance in Azerbaijan does not cover all of its citizens at the moment and is being piloted in only 2 provinces but with new legislations passed

Azerbaijan is moving towards covering all of its citizens in future. Considering the neighboring of Ardebil province with the cities of Azerbaijan, this country can be a good source of health tourism in Ardebil province.

Although health tourists from Azerbaijan had been visited Ardebil and seek medical services from years before but our understandings of their socioeconomic and demographic characteristics are very limited. Also, we do not know exactly why they come to Ardebil to seek healthcare services. We don't know how satisfied are they with different aspects of their visit to Ardebil like accommodations, transportation or hospitals services and medical teams' expertise.

In this study we tried to obtain demographic and socioeconomic information about Azeri tourists who visit Ardebil and we asked them about different aspects of their trip to Ardebil, also we tried to establish an understanding of the reasons why they choose Ardebil as a destination for treating their medical problems so we can use this information in future planning.

Methods

This was a descriptive study. The statistical population was the people from Azerbaijan who come to the medical centers of Ardebil. In order to carry out this study, firstly, the tourist attractions of the city of Ardabil were identified. We chose 2 of Ardebil's most equipped hospitals and offices of doctors who were attending in those hospitals. Also, we chose 2 of the biggest restaurants which were located near the doctors' offices, additionally one of the biggest pharmacies located near the offices was chosen. In order to study the viewpoint of health tourists coming to Ardabil province and the challenges of medical centers, a comprehensive Turkish language questionnaire was designed by the researcher which the validity and reliability of the questionnaire was confirmed by 5 faculty members of school of community medicine of Shahid Beheshti medical

University. The questionnaire was first written in Persian then translated to Azeri Turkish and again translated back to Persian. With this forward backward method, we were sure that the content of the questionnaire is exactly same as Persian. then by going to the attractions that we identified before, people from Azerbaijan were interviewed and after providing a complete explanation of the aims of the study, and obtaining oral consent from them to enter to study, they were asked to complete the questionnaire.

In order to exchange Manat values to USD and purchasing power parity we used data from the World Bank database (12).

The tools used in this study is a comprehensive questionnaire which has four parts and has a total of 34 questions. In the first part which had 12 questions, the patient's demographic and socioeconomic information, including gender, age, education level, income level, and origin city, were asked. In the second part, which included 9 questions, tourists were asked about why they have not been treated in their country and why they chose Iran. In addition, we asked them about number of companions and number of the days that they are intended to stay in Ardebil. Also, how many times they have traveled to Ardebil for medical purposes before. In the third part, the caring components provided in Ardabil health centers like medical teams' expertise, nursing care, accommodation, technological equipment and costs in Ardebil hospitals were evaluated. In the fourth part, in the form of six questions, in addition to questions regarding costs of staying and treatment in Ardebil, the information about the treatment process and the specialty of the physician and the medical problem of health tourists were asked. Finally, if they will come to Ardebil again or will they suggest Ardebil to relatives and friends. After collecting the questionnaire, the data were analyzed using SPSS and EXCEL software. Descriptive statistics and t-test and chi-square were used were appropriate.

Results

Descriptive statistics:

In order to analyze the research data, we first described the demographic characteristics of the research participants, which is illustrated in table 1.

Table 1: Description of the demographic information of respondents

Variables		Frequency (%)
Sex	Female	102(52.8)
	Male	89(46.1)
Age	Up to 20 years	61(31.1)
	21 to 40 years old	54(27.2)
	41 to 60 years old	49(25.0)
	61 years and older	29(15.0)
Level of Education	Under graduated	46(23.8)
	primary School	36(18.7)
	Secondary school	26(13.5)
	High school	28(14.8)
	Associate Degree	15(7.8)
Habitation	Baccalaureate and higher	42(21.8)
	City	123(63.7)
Marital status	Village	64(33.2)
	Single	95(49.2)
Income	Married	72(37.3)
	Widowed	20(10.4)
	divorced	4(2.1)
	Up to 300\$	58(30.1)
source of income	300\$ to 600\$	72(37.3)
	600\$ to 1800\$	54(28)
	More than 1800\$	9(4.7)
	Agricultural jobs	57(29.5)
	Government jobs	66(34.2)
Insurance coverage	Self-employed	35(18.1)
	Service jobs	34(17.6)
Traveling type	Yes	9(4.6)
	No	184(95.4)
Participating province	Alone	44(22.8)
	With company	147(76.2)
Participating province	ASTARA	50(25.9)
	BAKI	1(0.5)
	BEYLAQAN	30(15.5)
	BILASUAR	29(15.1)
	FUZULI	28(14.5)
	IMISLI	10(5.2)
	LERIK	15(7.8)
YARDIMLI	30(15.5)	

The results of the second part of the questionnaire

About the reason that participants were not treated in their own country, 72 (37.3%) chose high cost of treatment in the country of origin, 49 (25.4%), lack of medical facilities in the country of origin, 68

(35.2%) Incompetency of the medical staff in the country of origin, and the four respondents marked the others, but did not mention the cause.

In studying the reason why they chose Iran for treatment, most of the respondents chose having friends or relatives in Iran 47 (24.4%), low cost of treatment in Iran 61 (31.6%), And the availability of sufficient medical facilities in Iran 56 (29%). Other options was The high reputation of the medical staff in Iran in 14 (7.3%) of cases, the fast or short process for medical examinations or surgery in 2 (1%) of the cases, treatment and business 9 (7.4%) of cases, and treatment and traveling was mentioned in 4 (2.1%) of cases.

In reviewing whether it was the first travel to Iran, 53 (27.5%) of the respondents were visiting Iran for the first time and 133 (68.9%) were not first timers, and 7 (3.6%) did not answer the question. The average number of visits was 1.8 times with a standard deviation of 0.79 times.

Also 37 (19.2%) of the respondents were in Ardebil for the first time and 31 (16.1%) were visiting Ardebil for the second time and 16 (8.3%) were in their 3rd visit. Only 1 respondent had visited Ardebil 4 times and 108 (56%) did not answer the question.

But in response to how they traveled to Iran, 187 (96.9%) chose land border and only 5 (2.6%) of respondents used air borders. As regards whether they intend to stay more than two days in Iran, 105 (54.4%) responded positive and 79 (40.9%)

responded negative, and 3 did not answer this question. Among those who wanted to stay longer than two days in Iran, 62 (32.1%) were staying in the hotel, 41 (21.2%) were staying in relatives' home, and 18 (9.3%) were admitted in the hospital and were intending to stay in hospital. And 72 (37.3%) chose other.

About the participants' responses to the question of whether they are visiting other cities in Iran, 154 (79.8%) responded negative, 25 (13.0%) responded positive, and 14 did not respond.

Among the respondents, the distribution of selected cities is shown in table 2:

Table 2: Frequency of selected cities to be visited other than Ardebil

Visit to other cities in Iran	Frequency (%)
Astara	6(3.1)
Esfahan	2(1)
Shiraz	2(1)
Tabriz	8(4.1)
Tehran	6(3.1)
Other and unanswered	169(87.6)
Total	193(100)

The results of the third part of the questionnaire

In this section, the components of care provided in Ardabil hospitals were evaluated in 6 questions. And the results showed that 158 people did not respond to this question and among the others who responded, the results are shown in table 3.

Table 3: results regarding to components of care provided in Ardebil's hospitals

Grade	Patient stay quality	Technology quality	Doctor's experience	Nursing quality	Overall hospital quality	Cost of treatment compared to azerbaijan
Excellent	4.7	4.1	5.2	2.6	6.7	2.1
Good	10.9	9.8	9.3	12.4	7.8	6.7
Average	2.6	4.1	6.2	6.2	2.1	2.6
Bad	0	0	1	5	5	6.7

The results of the fourth part of the questionnaire

In this section, questions were asked about the treatment process and the overall opinion of the patients. In response to the question about how you became familiar with the doctor you are referred to 4 people did not answer this question; 98 (59.8%) were suggested by relatives, 50 (25.9%) through Internet advertisement, 7 people (3.6%) had referred without previous acquaintance and 34 (17.6%) had searched for a doctor in Ardebil (table 4).

Table 4: Frequency of knowing the doctors based on sex

Way to know doctor	Women	Men
	Number (%)	Number (%)
Acquaintances and relatives	48(24.6)	49(25.2)
Internet advertisement	28(14.5)	22(11.39)
No previous acquaintance	5(2.75)	2(1)
Searched in Ardebil	17(8.8)	17(8.8)
Other and unanswered	106(49.53)	101(53.61)
Total	193(100)	193(100)

As regards the answer to the question of the medical problem that they were seeking treatment for, the frequency of these problems is illustrated in table 5.

The results showed that the average cost of treatment was 99.93\$ with standard deviation of 151.57\$ and the average cost of travel to Iran was 119.19\$ with a standard deviation of 173.15\$.

The average total cost is shown in the table 6. There was also a significant

Table 5: Frequency distribution of the medical problem that they were referring

Medical problem	Frequency (%)
Cardiac problem	49(25.4)
Respiratory problem	25(13)
Digestive problem	19(9.8)
Beauty	10(5.2)
Surgery	11(5.7)
Dental problems	44(22.8)
Children's problems	22(11.4)
Other	13(6.7)
Total	193(100)

difference between the average cost of the group staying more than 2 days in Iran and the group staying less than 2 days, the results of which are summarized in table 6. In response to the last two questions of the questionnaire, most of the participants 149 people, (77.2%) would suggest Ardebil to relatives and friends for health tourism and 158 (81.9%) will come back to Ardebil for treatment if they had a medical problem.

Discussion

The results show that biggest group of people seeking medical services in Ardebil were young people aged less than 20 years old. And most of them are under graduated which can be because of high number of under 7 years old patients who has not started school yet.

Most of the respondents were coming from families with low income and only near 5 percent of the families were earning more than 1800USD per month. This shows that Ardebil is a good destination for low-income families who cannot treat their patient in Azerbaijan due to high cost and

Table 6: Average travel expenses by total number of days of stay (USD)

Length of stay	Dollar in (mean) 2016	Dollar PPP (mean)	SD	Mean	Quantity
Over 2 days	187.04	61.72	325.86	280.57	105
Less than 2 days	62.31	20.56	93.67	93.47	78
unanswered	135.55	47.20	214.55	203.33	10
Total	132.43	43.70	283.59	198,65	193

no insurance coverage. But rising the value of Azerbaijan Manat comparing to Iranian rial makes Ardebil a better destination for patients of this social bracket.

Most of the patients were not traveling alone and had company. This is very important to know because promotion of health care facilities can help the entire economy for instance hoteling or transportation, and by investing in these parts we can make a lot revenue only from companions who accompany patients in Ardebil province. Also, about 97% of the respondents entered Iran by land border which indicates need of investing in land transportation and infrastructures for better services to tourists.

Almost all of the patients were residents of border provinces of Azerbaijan. This shows that either our advertisements for attracting medical tourists is poor or the tourists with lower income show interest in seeking health services in Ardebil.

Regarding the reason that attract the respondents to Ardebil, the high cost of treatment in Azerbaijan and low expertise of medical staff in Azerbaijan was 2 most selected answers, indicating that Ardebil and in overall Iran is a very suitable destination for health tourists.

Care components in Ardebil hospitals was evaluated by about one third of the respondents and in some cases like nursing quality or cost of treatment in hospitals it was evaluated poor in some case. This shows that we need to work on our healthcare packages for tourists in order to make it some more reachable for the group of people with low incomes.

Dentists and cardiologists were 2 most referred doctors between the patients.

The fact that most of the respondents would suggest Ardebil to friends and relatives for medical purposes shows that Ardebil has a great potential to become a center of medical tourism in north of Iran region because of similarity of language, infrastructures and medical team expertise.

Study Limitations

In this study, by designing a comprehensive questionnaire, we tried to reach different dimensions of health tourism, including the quality of services provided, costs, demographic and socioeconomic characteristics of health tourists, etc. However, the number of questions caused a lot of participants' boredom. Because the number of admitted patients was limited, limited number of respondents answered the questions about the assessment of the quality of hospital services.

Ardebil city is an ideal destination for the arrival of health tourists of Azerbaijan. Therefore, further studies are needed to address the barriers and weaknesses in the medical processes and attractions of the city and its amenities, so as to identify and eliminate these barriers to improve this industry. Future studies can investigate the reliability of the questionnaire designed in this study to study the different dimensions of health tourism in the province.

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