Status of Health Tourism Information Management System in North West

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ABSTRACT

With the increasing trend of health tourism as part of the country's health service, the existence of an information system is essential. The aim of this study was to investigate the status of health tourism information management system based on related factors in the northwestern provinces of Iran. This descriptive cross-sectional study was conducted using the Science Direct, PubMed, Magiran, IRANDOC, IranMedex, SID, Google Scholar databases, and health tourism websites in 2016. The status of health tourism information management was assessed using a researcher-made checklist. after confirming the validity and reliability of the checklist, the data were collected in person and in the interview with six health tourism officials in the departments of treatment and health of the East Azarbaijan, West Azarbaijan and Ardebil provinces. Data analysis was conducted in a qualitative content analysis method. The common components of the Health tourism Information management System include health tourists, health tourism services, service providers, services location, government requirements and laws that were presented as a info graphic model. Registering and storing information of all patients admitted to hospital, setting up a international patients department, establishing a health village and contracting with private companies has been one of the most important actions of the universities. In terms of the information systems and resources, there are shortcomings in all three provinces. Due to some shortcomings and deficiencies in health tourism information management system, the efforts of health tourism authorities and policy makers are necessary on the category of information resources and its components.

INTRODUCTION

Health tourism is travelling abroad in order to receive medical treatment and improvement of physical and mental health (1). Traditionally, people from less-developed countries traveled to highly developed

countries to obtain medical treatment that was not available in their home country (2) (3). Based on the type of services, health tourism includes medical tourism and wellness tourism. Medical tourism is characterized by therapeutic measures. Wellness tourism provides medical examinations, screening and preventive care services (4). Recently, most medical and medical travels are from developed countries to the third world, due to high costs (5). One of the major challenges in the field of medical tourism as well as wellness tourism is the use of information technology by experts to monitor the flow of patient information across national borders. The continuity of patient care is facilitated by sharing the contents of the

patient health record (6). Providing health tourism information and services, especially the health tourism industry marketing, is done through health tourism web sites. Health tourism websites provide a wide range of information and goals. The first and the most important domain of these websites is the introduction and promotion of consumer services (8). Despite the growth in a number of health tourism website websites, there are currently few empirical evidence of the role, use and impact of these websites on the behavior of health care users (9). In a study entitled "A Comparative Study of the Medical Health Tourism Information System in Selected Countries and the Planet for Iran," Erfannia concluded that the use of integrated information systems can manage the process of medical tourism and all aspects of its service, and he/she also introduced capabilities of health tourists attraction of Iran, including the presence of well-known physicians and specialists with worldwide reputation (10). Health tourism information management, due to having multiple custodians, requires more coordination between and within the system. At the macro level, the Cultural Heritage and Handicrafts and Tourism Organization, the Ministry of Health and Medical Education, the Ministry of Foreign Affairs, the Ministry of Welfare and the Ministry of Interior are organizations which, according to their jurisdiction, are somehow considered as the decision maker (11). An important issue in information management is managing information in an organization that uses modern technology. The Internet revolution and information and communication technology currently have profound implications for the tourism industry. The information and communication technology and Internet has been rapidly disseminated throughout the tourism sector. Similarly, the online travel booking and services was recognized as one of the most successful e-commerce business in 2006 (12).

In the current world that number of competitors and centers for attracting therapeutic tourists is increasing, the way of patient admission in the field of competition is very important. The International Patients' Department (IPD) is one of the accepted methods for admitting, information recording and treating international patients. This department accepts foreign patients and coordinates with the different departments of the hospital to receive the services they need quickly and without difficulty (13). According to the studies conducted in the field of health tourism

and information management of health tourists, countries that offer tourists medical information and medical services joint with recreational services receive many applicants in this section. Therefore, in this research, it has been tried to identify the effective components in health tourism information management in the studied countries and show an appropriate way to improve information management in the health tourism sector of the northwest of the country.

MATERIALS AND METHODS

This study is a descriptive cross-sectional study that was carried out in two stages. In the first stage, the study of literature on the subject of research in Iran and the countries of India, Turkey, Singapore, Malaysia and Thailand was carried out, and then the status of health tourism information was surveyed in the northwest of Iran. The articles that were obtained using English and Persian keywords using databases in 1395 were the target community.The search strategy for this purpose was using English-language databases of ScienceDirect, PubMed, Google Scholar, and various scientific journals and published articles in this area, specially tourism websites of different countries. Also Persian databases of Magiran, IranDoc, IranMedex, SID was used. The search was done using the English keywords: health tourism, wellness tourism, medical tourism,services, Information Management, Data element, Information Management System, travel, International Patients and keywords in Persian: Information Management, Health Tourism, Information Management System, Information Systems, Standards, Component, Minimum Data by the functions OR, AND, NOT to take place regardless of the time interval.

East Azarbaijan, West Azarbaijan and Ardebil provinces were researcher's selected provinces. The proximity of these provinces to some neighboring countries, including Azerbaijan, Armenia, Iraq, Turkey, as well as the facility of inter-provincial availability, were identified as suitable research options. The population studied in this study, the status of information of the health tourists at the level of vice-chancellor in health and treatment affairs of universities of medical sciences in West Azarbaijan, East Azarbaijan and Ardebil provinces were investigated. Sampling was not performed due to a lack of the members and no statistical data were provided in this study. The status of health

tourism information management in three northwest provinces of Iran was determined using a checklist and interview. The researcher-made checklist was completed and after verifying the validity and reliability, gathering the data was done in person and interviewing with 6 health tourism officials at the health and treatment departments of the mentioned provinces. The checklist for the health department and the vice-chancellor in treatment affairs in the three provinces included 17 and 24 questions, respectively. The questions related to the health department interviews were divided into three sections: 1- Information recording, maintenance and report, 2- Information control and evaluation, 3- Measures and requirements. The questions related to the treatment department were divided into four sections: 1- Before the patient's admission; 2- The process of admission and recording patient information; 3- During the care and treatment process; 4- After the patient's discharge.

RESULTS

Based on the results of the survey of tourism information management in the studied countries, five main components were identified. Common components in the studied countries for the management of health tourism information include health tourists, service providers, health tourism services, location of the services, requirements and regulations in the country. Figure 1 shows an overview of the essential components of the health tourism information management.

The findings of the study of general variables in the vice-chancellor in treatment affairs of the provinces of West Azarbaijan, East Azarbaijan and Ardebil are shown in Table 1. The findings of the study of general variables in the vice-chancellor in health affairs of the provinces of West Azarbaijan, East Azarbaijan and Ardabil are shown in Table 2.
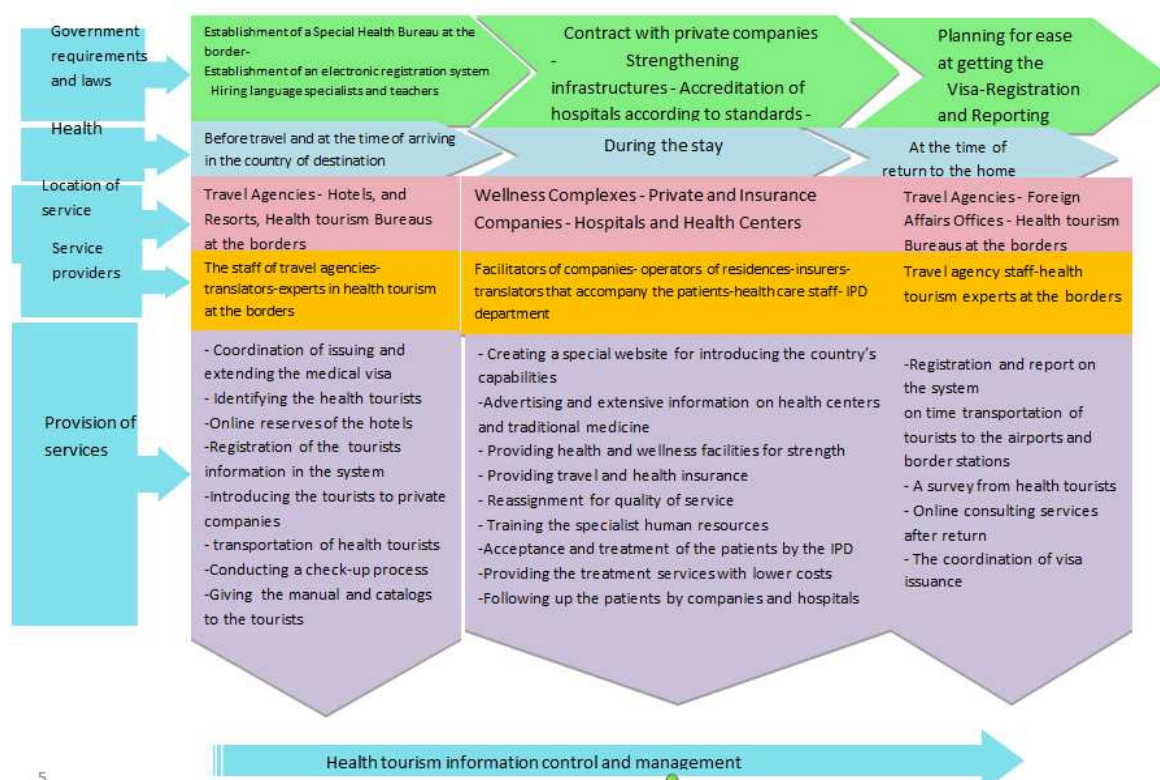

Figure 1 - An overview of the essential components of health tourism information management in selected countries

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Table 1: Comparison of the status of health tourism information in the northwest of Iran

Area	Province / Components of each area	East Azarbaijan			Western Azarbaijan			Ardabil		
		Yes	No	Somewhat	Yes	No	Somewhat	Yes	No	Somewhat
Facilitating measures	Establishment of the IPD			✓	✓				✓	
	IPD website	✓			✓			✓		
	Establishment of the health village			✓			✓	✓		
	Health tourism offices	✓			✓					✓
	Electronic system for tourists		✓			✓			✓	
	Medical insurance coverage		✓			✓			✓	
	Advertising and informing			✓			✓			✓
Expanding the service domain	The presence of a translator accompanying the patient		✓				✓		✓	
	A committee to monitor the services	✓			✓			✓		
	Online Medical Consulting Services		✓				✓		✓	
	Coordination of hospitals and related private companies			✓			✓			✓
	Satisfaction assessment of health tourists			✓			✓			✓
Information Resources	Estimated cost for international patients before admission	✓			✓			✓		
	Registration of International Patients Information	✓			✓			✓		
	Special instructions for Registration of international patients information			✓			✓			✓
	Special form for registering the information		✓			✓			✓	
	Archives of International Patients Records		✓			✓			✓	
	Ability of Recovering the International Patients Records	✓			✓			✓		
	Ability of Reporting of patient information	✓			✓			✓		
	Surveys of hospitals and clinics	✓			✓			✓		
	Surveys of offices of the physicians		✓			✓			✓	

Hospitals with IPD in West Azarbaijan province were more than the other two provinces, and in general, private hospitals had better status in terms of establishing IPD than government hospitals. The findings indicate that in terms of the services and information resources of the three provinces, the situation was approximately the same. There were not any special instructions on the way of registering and storing the tourist's health information and the health tourist's specific electronic system in order to record, report and storing the health care information separately, and the records and records of external patients were kept by the internal staff at a common place.

There was an evidence of contracting with health tourism offices in terms of some actions for facilities in East Azarbaijan and West Azerbaijan. Measures have been taken in the province of Ardabil to establish a "health village". The plan to build a health village in the provinces of West Azerbaijan and East Azarbaijan will soon be operational. The statistics of health tourists are exclusive to the statistics of hospitals and clinics, and any statistics of health tourists in physicians' offices is not provided, and surveys also show that health tourists are not covered by the health insurance.

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Table2: Health tourist's information management in the stations of northwestern border of the country

Border Stations / Components	East Azarbaijan			Western Azerbaijan			Ardabil		
	Yes	No	Somewhat	Yes	No	Somewhat	Yes	No	Somewhat
Disease control of health tourists	✔			✔			✔		
Screening of contagious diseases of health tourists	✔			✔			✔		
Registration of health status of tourists			✔			✔			✔
An electronic system for storing information of the health tourists		✔			✔			✔	
A system for reporting information of the health tourists		✔			✔			✔	
Recovery of tourist saved information health	✔			✔			✔		
Committee on supervision of the tourist's health	✔			✔			✔		
Training of health care station staff			✔			✔			✔
Supervision of personnel at the border station			✔			✔			✔
Detailed statistics of the health tourists		✔			✔			✔	

Investigating the components in three provinces of northwest of the country shows that there are no separate and distinct offices for health tourists in the border stations of all three provinces. Registration, maintenance, control and surveillance of information generally include all tourists. Statistics of the tourist is reported generally, and there is no detailed statistics on health tourists. Tourists suspected to contagious diseases are sent to the nearest clinic and in terms of diagnosis of diseases subject to international regulations, the vice chancellor in health affairs of the province will be notified.

DISCUSSION

The main components that have been considered in tourism information management in the studied countries include origin, destination, service providers, services, standards and requirements of the country. At the beginning of each issue, the origin and the destination must be known. Where do tourists come from and where they are going. In order to fast development in health tourism and to strengthen the process of patient's movement from the moment of entering the country to the of exile from country, it is necessary to invest and plan on the main components of health tourism, and expand the services providers, strengthen the infrastructures (Human resources, information resources, service packages, health care infrastructure, accommodation and recreation, etc.) and develop the communication paths in different parts of the country. These are the requirements that different organizations of the country should pay attention to. It is also necessary to the type of service required before and after travel and the human resources providing the service gets specified.

Medical and non-medical information and services of tourists must be managed through the different stages of the care process including before reaching the destination, before and after the operation, during the care, billing, transferring of medical records (14). Recognition the information of cultural attractions, the distance and time of travel to the destination, ease of entry into the country (visa / passport) are competitive characteristics of the countries (15). Health tourists need organized information to obtain information to make their travel decisions, so that information management and guidance can be used to manage health tourism information during the trip. Such organized information was not available in the provinces of West Azerbaijan, East Azarbaijan and Ardebil.

Infrastructure, financial and human resources constraints, inadequate telecommunication, lack of healthcare infrastructure, as well as low standards of health care provision are some of the difficulties health tourism development. The infrastructure problem is one of the most important discussions in these three provinces. Given that receiving health care services in another country is determined by the specific requirements and of the destination country, therefore the management of information of the health tourists needs to recognize the information needs of the establishment of the necessary infrastructure at the destination. Since the way of acceptance of the patients in the field of health tourism competition is very important, the

Department of International Patients (IPD) is one of the accepted strategies in the world for the acceptance, recording the information of the patients and treatment of international patients (13). Planning in the private sector and the creation of an International Patient Unit (IPD) will have a better outcome in all of them and will lead to quick acceptance and improvement of the patient's movement in the hospital and better quality of service delivered to international patients. Provinces in the northwest of the country have begun efforts to establish the International Patients department (IPD), but hospitals with IPD have some problems. It is necessary that the hospitals with the IPD have guidelines on how to record, store and report information, establish a separate system for health tourists and describe the responsibilities of all those involved in health tourism and etc.

The existence of health care offices in the countries of origin and the activities of the brokers are important factors in the development of health tourism (17) (18). Other actions in the northwest of the country are licensing for the establishment of private offices for coordinating the movement and effective guidance of the health tourists to prevent the activities of intermediaries with the aim of profiting that cause dissatisfaction and lack of proper provision of services to the tourists. All hospitals, travel agencies, physicians and managers in health tourism should go through specialized health tourism training courses.

CONCLUSION

Nowadays, in the northwest of the country, applying the plan for health tourism information management system has not been very effective. The lack of global standards and the lack of an efficient, integrated, and coordinated system for all stages of the health information management of tourists; and finally, the lack of effective decision-making and comprehensive planning due to the lack of accurate and organized information in this section, the necessity of planning for the health information system of tourists is raised.
The design of a health tourism information management system, the designation of trusted organizations, the division of labor, and the assignment of the duties of each organization in the information management process will improve the quality of the various stages of the health tourism information management system.

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