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## A Systematic Review of the Content of Medical Tourism Websites and Their Evaluative Criteria.

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### ABSTRACT

The paper aims to determining the essential content of medical tourism websites. Present systematic review was conducted to identify and describe the required content of medical tourism websites. Search was carried out from December to the end of February 2016 by keywords 'travel medicine, medical tourism, health travel, medical travel and health tourism, in combination with 'website, webpage, web, web content and web-based. International databases which were searched included EDLINE/PubMed, Scopus, Science Direct, Web of Science, ISI and ProQuest and national databases included Scientific Information Database (SID), MagIran and Barekat. Study exclusion criteria consisted of the lack of at least one of the search keywords in the title or abstract or the lack of access to the full text of the paper. Evaluative eligibility criterion was that papers possessed the necessary indicators of the content of medical tourism websites. Eventually 14 papers included in the study that assessing a total 792 medical tourism websites. The result of this study showed that, three themes are required for medical tourism websites, namely 'General Information', 'Treatment Services Information' and 'Tourism Services Information'. The most important areas of these themes are Communication, Financial Matters, Safety and Security, Post-Consumption Services, and Organizational Credentials. In this study, researchers sought to determine the essential content of the medical tourism websites. The results of this study could be used as a measure of medical tourism website designer and as a tool for evaluating and improving existing website.

**Keywords:** Medical Tourism; Website; Content; Evaluative Criteria; Health Management

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## INTRODUCTION

### Medical Tourism:

The combination of treatment and tourism offers a modern approach to healthcare called health tourism (1), which is an industry providing services in three areas, namely medicine, health and healing(2). Medical tourism is the most developed sector of health tourism that has had a rapid growth across the world and refers to travels made for the purpose of receiving medical care, whether medicinal treatments, general and specialized surgeries or other services (3). According to its 20-Year National Vision, Iran should become one of the main destinations for medical tourism in the region by 2025 (4). The medical tourism market is currently recognized as a profitable and competitive industry across the world (5). Given the low costs and the high profitability of the industry(6), an increased competition has formed between different countries, especially developing Asian countries, for attracting health tourists (7).

### Medical Tourism in Iran:

Iran is also making an effort to partake in this international market for the purpose of further progress and profitability (8); however, despite the great benefits of developing health tourism, the medical tourism industry in Iran does not yet hold a prestigious position due to the inefficiencies in informing about the potential capacities for medical tourism in the country and the lack of infrastructures(9). The Ministry of Health, Treatment and Medical Education is responsible for providing facilities for introducing the existing capacities and supplying and marketing health and medical tourism services within the framework of strategic and commercial policies(10), which is possible through the adoption of new communication strategies (11).

### Medical Tourism Websites:

Websites are a technology that act as the gateway to medical information and thus play a key role in medical tourism(12, 13). Websites that offer information about medical tourism services thus make up a communication strategy with a significant role in the growth of medical tourism across the world (14). Websites act as intermediaries between patients and medical service providers(15); reports show that many companies providing such tourism services have become inactivated due to their failure in communicating information and marketing, which is generally performed through the web (16). Emphasizing the role of websites is therefore essential for the development of this industry (17). The Ministry of Health and Medical Education has enacted certain laws as the conditions and regulations for medical centers and hospitals receiving medical tourists in six paragraphs, and the sixth clause of these laws determines regulations for the websites of medical centers and hospitals offering medical tourism services (10). The content of these websites should respond to the customers' demands for a comprehensive and fast access to information (18).

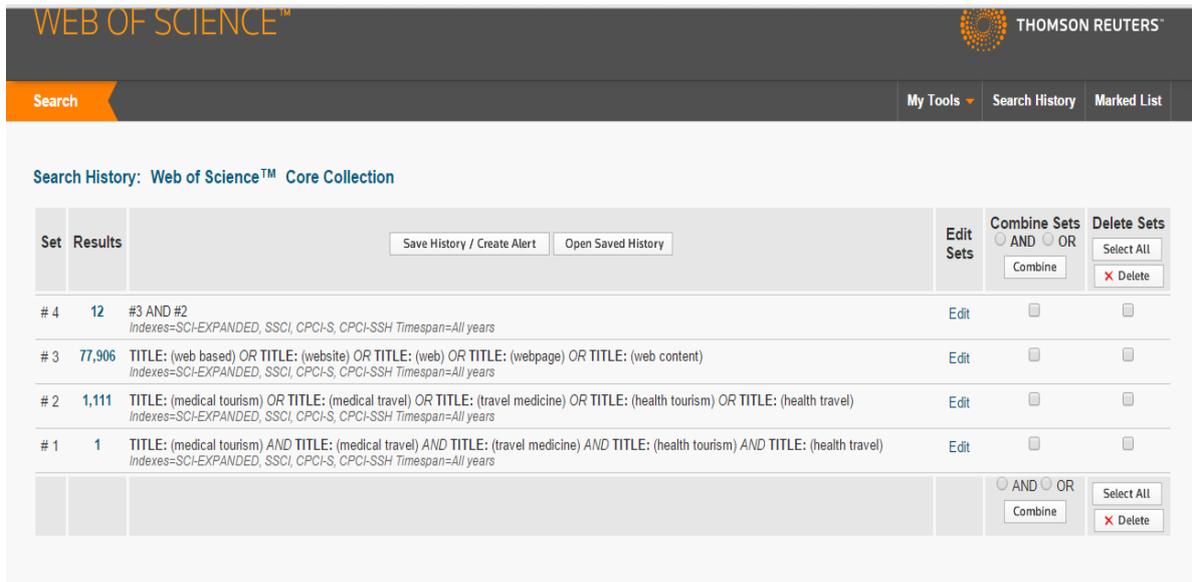
**Purpose:** As determining the essential content of medical tourism websites is necessary. The first step of this should be review of other countries experiences come in to the literatures, so the present systematic review was conducted to identify and describe the required content of medical tourism websites in literatures.

## MATERIALS AND METHODS

### Search strategy and data sources

The title and abstract of research papers were searched for keywords associated with medical tourism, including 'travel medicine, medical tourism, health travel, medical travel and health tourism', in combination with the words 'website, webpage, web, web content and web-based'. The international databases in which the search was carried out included MEDLINE/PubMed, Scopus, Science Direct, Web of Science, ISI and ProQuest. Three national databases were also searched, including Scientific Information Database (SID), MagIran and Barekat Knowledge Network System. The search in the databases was carried out from December to the end of February 2016. To ensure that no papers were missed, Google Scholar was also searched. The Persian translation of the noted keywords was used to search for Persian articles. Other sources were also examined. At the end of the search, the references list of all the papers was reviewed using snowball sampling in order to find new papers. The papers were retrieved and entered into Endnote-17. Duplicate papers found in more than one database were eliminated (Appendix 1).

**Appendix 1: Picture of search strategy in the ISI database:**



Search History: Web of Science™ Core Collection

Set	Results		Edit Sets	Combine Sets AND OR	Delete Sets Select All Delete
# 4	12	#3 AND #2 <i>Indexes=SCI-EXPANDED, SSCI, CPCI-S, CPCI-SSH Timespan=All years</i>	Edit	<input type="checkbox"/>	<input type="checkbox"/>
# 3	77,906	TITLE: (web based) OR TITLE: (website) OR TITLE: (web) OR TITLE: (webpage) OR TITLE: (web content) <i>Indexes=SCI-EXPANDED, SSCI, CPCI-S, CPCI-SSH Timespan=All years</i>	Edit	<input type="checkbox"/>	<input type="checkbox"/>
# 2	1,111	TITLE: (medical tourism) OR TITLE: (medical travel) OR TITLE: (travel medicine) OR TITLE: (health tourism) OR TITLE: (health travel) <i>Indexes=SCI-EXPANDED, SSCI, CPCI-S, CPCI-SSH Timespan=All years</i>	Edit	<input type="checkbox"/>	<input type="checkbox"/>
# 1	1	TITLE: (medical tourism) AND TITLE: (medical travel) AND TITLE: (travel medicine) AND TITLE: (health tourism) AND TITLE: (health travel) <i>Indexes=SCI-EXPANDED, SSCI, CPCI-S, CPCI-SSH Timespan=All years</i>	Edit	<input type="checkbox"/>	<input type="checkbox"/>

**Appendix 2: Picture of search strategy in the PubMed database:**

History

[Download history](#) [Clear history](#)

Search	Add to builder	Query	Items found	Time
<a href="#">#5</a>	<a href="#">Add</a>	Search ((((((medical tourism[Title/Abstract]) OR medical travel[Title/Abstract]) OR travel medicine) OR health travel) OR health tourism)) AND (((web[Title/Abstract]) OR website[Title/Abstract]) OR web page[Title/Abstract]) OR web content[Title/Abstract]) OR web based[Title/Abstract]) Filters: English	<a href="#">253</a>	06:24:05
<a href="#">#2</a>	<a href="#">Add</a>	Search (((medical tourism[Title/Abstract]) OR medical travel[Title/Abstract]) OR travel medicine) OR health travel) OR health tourism	<a href="#">21060</a>	06:18:27
<a href="#">#1</a>	<a href="#">Add</a>	Search (((web[Title/Abstract]) OR website[Title/Abstract]) OR web page[Title/Abstract]) OR web content[Title/Abstract]) OR web based[Title/Abstract]	<a href="#">71906</a>	06:12:17

**Inclusion and Exclusion Criteria**

- All the studies written in Persian or English were included in the study regardless of the type of website and service-providing organization they presented (i.e. facilitator or commercial organizations), and with no limitations about the country in which the services were offered.
- The research design had no effect on the papers chosen, and studies of all types, including exploratory, review and qualitative, were included in the study.
- The study exclusion criteria consisted of the lack of at least one of the search keywords in the title or abstract or the lack of access to the full text of the paper.
- Reports, letters and summaries of conferences were also excluded from the study.

**Evaluating the eligibility of the papers:** first of all one of the researchers searched for all the relevant articles. Then two other assessors assessed the titles and abstracts of the papers extracted from Endnote separately and based on the study inclusion and exclusion criteria.

The evaluative criterion for the eligibility of the papers was possessed the necessary indicators of the content of medical tourism websites. Papers that did not meet the primary objectives of this study or that were written in any language other than Persian or English were excluded from the study. If no consensus was

reached about the eligibility of a paper, the two assessors discussed and exchanged views on the paper to reach an agreement. A total of 14 papers ultimately entered this systematic study.

**Sorting of Articles:** International electronic databases including MEDLINE/PubMed, Scopus, Science Direct, Web of Science, ISI and ProQuest yielded 1266 articles, and along with the articles retrieved from other sources, a total of 1307 papers were ultimately examined. The search carried out in regional databases yielded no results. After removing the iterative papers, only 1048 articles remained. After reviewing the article titles and abstracts and matching them with the study inclusion and exclusion criteria, 66 papers were chosen; however, the full text of only 56 papers could be accessed for review.

After assessing the eligibility of the papers, 14 papers were selected to be included in the study that assessing 792 medical tourism websites. The snowball sampling method yielded no new papers. Figure 1 presents the diagram pertaining to the search and the selection of papers.

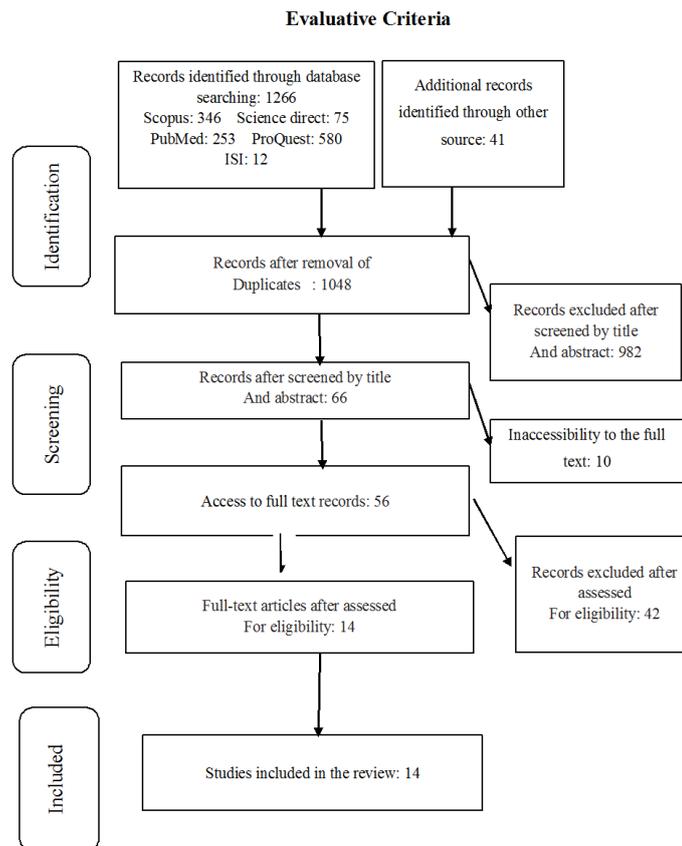


Figure 1: Flow diagram of the literature search and study selection References

## RESULTS

**Characteristics of Retained articles:** The oldest paper was published in 2009 and the most recent in 2015. All (100%) of the papers reviewed were written in English. In terms of the research design, out of the total of 14 papers, 11 (79%) were exploratory, one (7%) was a review study, another one (7%) was an exploratory review study and another one (7%) was qualitative. In terms of the country in which the research was conducted, five were conducted in Canada (2, 3, 8, 9, 13), six in the US (4, 5, 6, 11, 12), two in Croatia (1, 10) and one in South Korea (14). Eight (56%) papers had evaluated only the content of the websites; six (42%) had examined the other aspects of the tourism websites in addition to evaluating their content, out of which one (7%) had investigated communication tools, another one (7%) the website images, two others (14%) the messages exchanged on the websites and another one (7%) ethical aspects; eleven papers (1-2, 4-8, 11-13) had examined medical tourism facilitator organizations’ websites, one (3) had examined only commercial medical tourism organizations’ websites and two (3, 5) had examined commercial facilitator organizations’ websites.

Two review papers (5, 14) had examined the pattern or structure of medical tourism websites' content and performance. A total of 14% of the papers had investigated the content of medical tourism websites according to valid checklists designed for this purpose. As shown in Table 1, the minimum number of websites evaluated belonged to the study by Wertz and Berry, which had reviewed three websites (12), and the maximum number evaluated belonged to the study by Wagle, which had reviewed 208 websites (1). The medical tourism websites had three theme: (1) General information, (2) Treatment and services information, and (3) Tourism services information on.

**Table 1: Characteristics of Retained articles**

Number of References	Year	Target population	Country	Type of website	Study design	Sample size of websites checked	Unit of Analysis	Section reviewed
1	2009	Medical tourism website (1)	Croatia	Facilitator	Review and exploration	3	Checklist	Website content (Ethical aspects)
2	2010	Medical tourism website (2)	Canada	Facilitator	Exploration	171	Checklist	Website content
3	2010	Medical tourism website (3)	Canada	Commercial and facilitator	Review	- Review Articles	New model	Key features of the Website content and design
4	2011	Medical tourism website (4)	USA	Facilitator	Qualitative Ethnography	27	Checklist	Features of website structure
5	2011	Medical tourism website (5)	USA	Facilitator	Exploration	66	Checklist	Website content and images
6	2011	Medical tourism website (6)	USA	Facilitator	Exploration	66	Checklist	Website content
7	2011	Medical tourism website (7)	USA	Facilitator	Exploration	57	Checklist	Website content
8	2011	Medical tourism website (8)	Canada	Facilitator	Exploration	25	Checklist	Website content and marketing
9	2011	Medical tourism website (9)	Canada	Commercial and cosmetic	Exploration	50	1-Health on the Net (HON) guidelines, 2- British Association of Plastic, Reconstructive and Aesthetic Surgeons (BAPRAS).	Website content
10	2013	Medical tourism website (10)	Croatia	Commercial and facilitator	Exploration	14	Checklist	Content and performance of website
11	2013	Medical tourism website (11)	USA	Facilitator	Exploration	163	Checklist	Website content
12	2013	medical tourism website (12)	USA	Facilitator	Exploration	208	Checklist	Website content
13	2014	medical tourism website (13)	Canada	Facilitator	Exploration	91	Checklist	Website content
14	2015	Medical tourism website (14)	Korea	Facilitator	Review	Review - Articles	New model of	Content and interact with communication tools

As shown in Table 2, the ‘General Information’ theme emphasized mostly the ‘Hospitals Accreditation’ (2, 6, 7, 9, 11, 13, 14) and the ‘Descriptions Provided by Previous Patients’ (1, 2, 4, 7, 11, 12, 14). As shown in Table 3, the ‘Treatment and Services Information’ area emphasized mostly the ‘Introduction of Services’ (1, 3-4, 6-10), the ‘Health Risks’ (1-3, 6, 9-11, 13) and the ‘List of Physicians’ (1, 3-4, 6-7, 11-13). As shown in Table 4, the ‘Tourism Services Information’ theme emphasized mostly the introduction of the destination and its culture (1, 7-8, 10-11).

**Table 2: Content of Medical Tourism Websites about the General Information Theme**

Area	Contents	Number of References	
Website information	Organization logo	4, 6, 11	
	Brand Organization	6, 11	
	Main page image	4, 5	
	Sitemap	4, 6	
	Time of data recording	9	
	Source of Contents	9	
	Useful links	4, 7, 10	
	Information of site designer	7	
	Date of the Last Updated	7	
	Main Message of website	14, 8	
General information Organization	Organization profile	4, 10	
	Mission and vision	4, 6, 10	
	History of Organization	4, 6, 10	
	Information about owners and partners	4, 8, 9, 10, 11	
	News	4, 10	
	Awards or achievements	4, 10	
	Employment opportunities	4, 10	
Contact information	Postal address	3, 4, 7, 10	
	Phone number	3, 4, 7, 8, 10	
	International Phone Number	4, 7, 8	
	Contact number and email address of Officials	4, 8, 9, 10	
	The authors Website Information	9	
	Information Request Form	7	
	E-mail address	3, 4, 7, 8, 9, 10, 13	
Communication	language selection	12	
	Translation services	7	
	Patient interactions through social media	Patient testimonial	1, 2, 4, 7, 11, 12, 14
		Online Forum	13, 10
	Facebook, twitter, Youtube, chatroom, podcast	13, 14, 10	
Organizational Credentials	logo of accreditation organization	4, 6, 8, 14	
	Hospitals’ accreditation	2, 6, 7, 9, 11, 13, 14	
	Physicians’ accreditation	2, 6, 7, 9, 13, 14	
	link to accreditation organization	4, 6	
Customer Relationship	Advertising and marketing	3, 4, 8, 9, 10	
	Image of patient before treatment	5, 11	
	Image after treatment	11	
	Patients’ Rights	6, 9, 13	

	Privacy and confidentiality of information.	7 ,9
	Nutritional Information Services	10
	Child welfare services	10
	Frequently Asked Questions	4 ,6 ,9 ,12
	Hospital Newsletter	10
	Future plans	10
	Site Satisfaction Questionnaire	10
	Satisfaction questionnaire of quality of service	3 ,6 ,10 ,14
	Elected employee selection	10
	Register on website	4 ,12

**Table 3: Content of Medical Tourism Websites about the Treatment Services Information Theme**

Area	Contents	Number of References	
Treatment services	Introduction of service	1 ,3 ,4 ,6 ,7 ,8 ,9 ,10	
	Photos Services	3 ,10 ,11 ,13	
	Length of stay	6	
	Transfer of medical records	7	
Post-Consumption Services	Follow-up services	7,6,2	
Safety and Security	Risks and treatment complications	1 ,3 ,6 ,9 ,10 ,13	
	Health risks	1 ,2 ,3 ,6 ,9 ,10 ,11 ,13	
Financial Matters	Cost comparison list	2 ,4 ,6 ,7 ,10 ,11 ,12	
	Payment Services	Select International Insurance	4 ,6
		Paid / pre-paid cash	4 ,6
	Booking Services	Financing	4 ,6
		Online Booking	3 ,10
Medical and wellness Services information	list of services	10	
	Photos services	10	
	Price list of services	10	
Hospital selection	Hospitals List	7 ,3	
	Information about hospitals	1 ,3 ,7 ,12	
	Address, telephone number and email of hospitals	10	
	Hospitals locations Map	7	
	Introducing the latest technologies	6 ,13	
	Pictures latest technologies	11 ,13	
Physicians information	list of Physicians	1 ,3 ,4 ,6 ,7 ,11 ,12 ,13	
	Choice of doctor from the list	6,3 ,7 ,10 ,12	
	Make appointment	6 ,7 ,10 ,3	
	Waiting list	6 ,10 ,13	
	Physicians Photos	5 ,11	

**Table 4: Content of Medical Tourism Websites about Tourism Services Information Theme**

Area	Contents	Number of References	
Tourism services	Airline travel companies	6 ,7	
	Ground transportation companies	6 ,8 ,10	
	Welfare and accommodation services information	Hotel Location Map	6 ,7 ,10 ,13
		Hotel Description	6 ,10 ,13
		Facilities and Service Description	6 ,10 ,13
		Facilities of Hotel room	6 ,10 ,13
		Hotel and Room Photos	6 ,10 ,13
		Residency requirements	6 ,10 ,13
	Support services	7	
	Destination and its culture	1 ,7 ,8 ,10 ,11	
	Tour of tourist attractions	7 ,8 ,12	
	Pictures of tourist attraction	2 ,12	

**Literature review:**

- Penney and et al In Study number 2 that is under the title " Risk Communication and Informed Consent in the Medical Tourism Industry: A thematic content analysis of Canadian broker websites", were reviewed the brokers' roles in follow up care, costs, and the speed of deliver care. the result of this study expressed prices that Canadian medical tourism brokers website currently lack a common standard of care and accreditation, and are widely lacking in providing sufficient risk communication for medical tourists. This has Consequences for the informed consent and consequent safety of Canadian medical tourists(19).
- Mason and Wright Study number 6 that is under the title "Framing Medical Tourism: An Examination of Appeal, Risk, Convalescence, Accreditation, and Interactivity in Medical Tourism Web Sites" The results of analyzed the content of medical tourism web sites indicated that medical tourism websites Greatly enhance the benefits of medical procedures while not proposed the risks of medical tourism clearly and relatively little information regarding the credibility of these services appears. Moreover, moreover this study indicated that the presentation of benefits, risks, credibility, and interactive on website from region to region and in types of facilitator were different(20)
- Cormany and Baloglu in Study number 7 that is under the title "Medical Travel Facilitator Websites: An Exploratory Study of Web Page Contents and Services Offered to the Prospective Medical Tourist" analyses of services offered on medical tourism facilitators websites to the medical traveler through the application of correspondence discovered indicated differences in both website content and in services offered Based on the continent which operated of medical tourism facilitator is in that(18).
- Gan and Frederick Study number 11 that is under the title "Medical Tourism: Consumers Concerns Over Risk and Social Challenges" analyzed the motivations of make decision by Americans to Looking for medical care outside the United States Based on three factors: risk-related, vacation-related, and social-related related. the result of study indicated that the middle-income earners and recipients of Medicare, the federal health insurance program for the elderly, are more motivated by risk-related factors to travel for care, but the middle-aged and older, and the married are more motivated by social-related factors to travel for care. Medical tourism has the potential to ease the strain on the healthcare systems of developed countries(21).

## DISCUSSION

Limitations: Papers written in languages other than Persian and English were not assessed, since the researchers were not familiar with any other languages; to overcome this limitation, efforts were made to evaluate and select the papers more carefully. The study's point of strength was its extraction of valid articles from six databases.

The capacities of websites make them act as the gateway to information and they therefore play a key role in the spread of medical tourism; determining the content of medical tourism websites is thus essential. The present systematic review study was conducted to identify and describe the essential content of medical tourism websites. The systematic search for articles led to the review of 14 papers assessing 792 medical tourism websites.

### Priority Area 1: Communication

The 'tourism services information theme' discussed translation services(7) and language selection (12) on the 'Communication' area .Translation services are crucial for informing and attracting medical tourists, especially on the websites of Asian medical tourism organizations, as the native language is widely different in these countries(18). Wagle identifies the offering of translation services and a language selection option as integral in medical tourism websites for facilitating the users' access to the websites' content(22). According to Magnini et al., language barriers have always been a big problem in the attraction of medical tourists (23). Translation services are the most important service offered because providing medical tourism services requires a careful description and understanding of the patients' health conditions. Magnini et al. argue that all medical tourism services should be provided in different languages, including website services and the advertisement of hospitals affiliated to the Medical Tourism Organization(24). Language barriers impede communication between medical tourists and healthcare professionals and can limit the patients' awareness about the risks associated with choosing these services and thus lead to uninformed decisions (19). The results obtained by Magnrini et al. are consistent with the findings of the present study. Nevertheless, other studies have not explicitly acknowledged the need for these services. Given that prospective medical tourists visiting these websites may be from different countries and speak different languages, a language selection option and the offering of translation services are absolutely necessary and should be incorporated into all websites. The researchers recommend that a separate study be conducted on the different translation services that can be offered, especially electronic translation, because, in health tourism, the patient travels from his place of residence to another place for receiving treatment and therefore needs translation services.

### Social Media

The 'tourism services information theme' on the 'Communication' area also discussed social media. Actually one of the main issue in providing health tourism services was the possibility of communication between the patients. As shown in several studies, this issue emphasized the establishment of communication between the patients by using social networks (10, 13-14). Social media are a group of Internet-based applications that enable the exchange of user-generated content (11). Social networking services such as Facebook and Twitter have been widely used to access further information on the medical institutions or hospitals offering services in the chosen medical tourism destination (25). Since they are used extensively to convey the customers' comments, social networks are considered important tools for medical tourism organizations that significantly affect purchase intentions in other customers (26). Connecting to social networks and using the videos and pictures uploaded on them have helped promote the positive aspects of medical tourism (27). Uploading videos in which previous patients describe their experiences of the services they have received is one of the tactics used by most medical tourism organizations on their website (20). The content of these videos, which reflect the experiences of previous patients, has an important role in understanding the effects of information resources on the decisions of medical tourists. The content of these videos are classified under ten main themes: (1) the availability of specialist physicians and surgeons and other healthcare professionals, (2) the introduction of specialist physicians and surgeons who have performed a particular surgery, (3) the impact of surgery on tourism activities, (4) explicit references to the quality of care, (5) suggestions for selecting these services, (6) introducing the facilitator company the patient has used, (7) noting the level of security for reducing concerns, (8) the high-quality services and friendship offered by the support staff, (9) savings in healthcare costs and (10) hygiene and sanitation and the services provided (28).

Podcasts were found to be the most popular medium used on medical tourism websites; emails and YouTube videos were next in rank; however, Twitter and Facebook were less popular, as these channels are extreme social media that allow the users to share their experiences and disseminate information in a democratic fashion. As medical tourism is a relatively new concept and the free dissemination of negative experiences can be detrimental to the organizations offering such services, they tend to use the media that express only the positive aspects of the services and demonstrate their high quality (27). Factors affecting the validity of social networks consist of three components, namely consensus, vivacity and professionalism (25, 26). Consensus is the degree of agreement about a performance, product and service between more than two people and is considered a standard for judging reliability. When a subject, product or service is used by more people and more comments are published about it, it becomes a subject of greater consensus and thus becomes more reliable. Vivacity refers to those characteristics of the relayed information that promote imagination. Vivacious information have a greater effect on customers' perceptions than non-vivacious information. Professionalism is defined as the provision of accurate and helpful information(26). Focusing on the factors that facilitate communication (in the form of podcasts, etc.) between the patients appears essential to all medical tourism websites.

### **Priority Area 2: Financial Matters**

The 'treatment services information theme' was emphasized the importance of having a Cost comparison list on medical tourism websites (2, 4, 6-7, 10-12) in Financial Matters area. Having a table that compares the costs of healthcare in the country of origin and the country of destination is regarded as one of the main factors in attracting customers through medical tourism websites and comprises a good strategy for attracting healthcare consumers (22). Some medical tourism facilitator websites inform the reader about the exact price of receiving each of the offered treatments, while some provide an estimated mean cost and some do not mention the price of the treatments at all. In some countries, such as Germany and Turkey, promoting prices for medical care is illegal (29). Low costs are one of the most attractive factors for customers and messages and content on reduced costs are the most prominent part of any medical tourism website (30). These results are consistent with the findings of the present study. Even though costs may be a major factor affecting medical tourists' choice of destination, Eysenbach et al. (31) note that the quality of services remains the most important factor nonetheless. The quality of care depends on various factors, such as positive outcomes for surgical services, physicians' credits, hospitals' accreditation (such as accreditation by the International Joint Commission) and the use of advanced technologies and medical equipment (32). Affordable pricing, quality care and patient-centered services are some of the factors affecting medical tourism(21). The lack of waiting time and the opportunity to travel and benefit from tourism services are another factor affecting medical tourists' decisions (33). These results are inconsistent with the findings of the present study.

### **Priority Area 3: Safety and Security**

The area of 'safety and security' was emphasized in the provision of all the necessary information about potential treatment complications (1, 3, 6, 9-10, 13) and health risks (1-3, 6, 9-11, 13) on the 'treatment services information theme'. The risks associated with medical tourism are classified into three categories: The risks associated with travel, intraoperative risks and post-surgery or post-treatment risks encountered by the patients after their return to their country(34). Given that websites are considered the first source of information for patients (35), they should inform them about the potential risks of seeking this type of medical care; however, the results of studies reveal the unwillingness of medical tourism organizations to disseminate information on their website about the potential risks of their services. The results of one study show that medical tourism facilitator websites often tend to project only the benefits of their treatment services and understate the risks associated with these services; this study also showed that medical tourism websites have performed poorly on giving a detailed report of the therapeutic processes and the postoperative care available and on legal matters, which has then led to several ethical and legal concerns (27). The findings of another study about the risks and benefits of the medical tourism services promoted on websites also indicate the tendency to relay the benefits of the services rather than their risks. Even in cases where the website links to secondary pages that discuss the risks and complications of the treatments, relatively little information can be obtained from the pages(20). This distorted information undermines the patient's ability to make an informed decision and make the right choices(28). The absence of proper information on treatment outcomes reduces informed choices by the patients and results in inappropriate decisions(36); patients need to have access to

true and accurate information about any potential risks in order to make the right decisions. Negative outcomes and the risks associated with receiving the services are often announced in the Frequently Asked Questions section of websites, and only 17.6% of the surveyed websites had announced the negative outcomes of their services in a separate section named “complications of services” and the website was mostly used for promotional purposes and the organization authorities preferred introducing only a wide range of treatment options rather than informing about the potential risks of the treatments and helping the patients make informed decisions (19).

#### **Priority Area 4: Post-Consumption Services**

The ‘Post-Consumption Services area’ was emphasized in the theme of ‘treatment services information’ (2, 6-7). The lack of information flow between the foreign medical team and the local healthcare team within the country has a negative effect on the continuity of care for the patient and leads to an inadequate post-treatment care (34, 37). Patients who receive services from medical tourism organizations receive their health services from two different healthcare systems that are often not connected, and it is therefore not clear which system is responsible for organizing follow-up services, post-surgery rehabilitation and other medical services. The follow-up services announced on medical tourism facilitator websites often involved phone calls made between the patient and the physician abroad, sending a report to the patient’s main physician, organizing rehabilitation services, making calls via telemedicine devices and answering the patients’ questions. In some websites, however, the patients had to pay additional fees for these services. Some of the websites had even explicitly expressed that their organization was not responsible for follow-up services after the treatments (19). Another study reported that only 4.9% of medical tourism websites have a section on follow-up care on their homepage and 18.2% have links to follow-up care on their other pages (20); nonetheless, follow-up services are essential to the effectiveness of care.

#### **Priority Area 5: Organizational Credentials**

The area of ‘organizational Credentials’ emphasized in the securing and presenting of hospitals’ accreditation (2, 6-7, 9, 11, 13-14) and physicians’ accreditation (2, 6-7, 9, 13-14). The formal accreditation of the medical service-providing centers by the medical tourism organization was a major concern of patients when choosing a treatment center (20). International accreditation organizations grant credits to these centers based on their academic certificates, areas of expertise, medical knowledge and facilities. The International Joint Commission is one of the organizations that grants the gold standard for the international competence of an organization (26). Other information such as the work history and specialty of the physician and organization also give credit to the medical center and help attract patients. A good reputation is also a powerful tool for encouraging customers, as they judge the quality of a website’s content based on its popularity. A well-known website is more easily accepted by customers than a less-known one (25). The logo of the global Medical Tourism Association and other valid accreditation organizations are also necessary. Although only two organizations were genuinely valid, the logo of the global Medical Tourism Association was present on all the surveyed websites. Being accredited by the Medical Tourism Association has a significant effect on the patients’ informed decision and consent, as patients take the logo to indicate the standard performance of the organization (19).

### **CONCLUSION**

At least minimum of three themes are required for medical tourism websites, namely ‘General Information on the Website’, ‘Treatment Services Information’ and ‘Tourism Service Information’. The content of the ‘General Information’ theme emphasizes on ‘Translation services’, ‘Language selection’ and ‘Social media’ in ‘Communication’ area and also ‘Organizational credentials’ in this theme emphasizes on the ‘logo of accreditation organization’, ‘Hospitals’ accreditation’ and ‘Physicians’ accreditation. The ‘Treatment Services Information’ emphasizes the ‘Complications of Treatments’ and the ‘Risks of Medical’ in ‘Safety and Security’ area and ‘Follow-up services’ on ‘Post-Consumption Services’ area. Also area of ‘Financial Matters’ in this theme emphasizes on ‘Cost comparison list’. Further studies are recommended to be conducted to analyze the content of medical tourism websites based on the suggested checklist.

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