Original Article

Access this article online

Quick Response Code:



Website: www.jehp.net

DOI:

10.4103/jehp.jehp_16_21

¹Department of Management and Educational Planning, Faculty of Psychology and Educational Sciences, Allameh Tabataba'i University, Tehran, Iran, ²Health Management and Economics Research Center, Isfahan University of Medical Sciences. Isfahan, Iran, 3Department of Family Health. Social Determinants of Health Research Center (SDHRC), Ardabil University of Medical Sciences, Ardabil, Iran, ⁴Atherosclerosis Research Center, Baqiyatallah University of Medical Sciences, Tehran, Iran

Address for correspondence:
Zahra Danial, Ph.D
Department of Educational
Administration and
Planining, Allameh
Tabataba'i University,
Tehran, Iran.
E-mail: z.danial88@gmail.
com

Received: 03-01-2021 Accepted: 12-08-2021 Published: 11-06-2022

Designing the competency-based training model of Iranian medical tourism

Abbas Abbaspour¹, Hamid Rahimian¹, Nasrin Shaarbafchizadeh², Amirhossein Maghari^{3,4}, Zahra Danial¹

Abstract:

BACKGROUND: Despite the great comparative advantage of Iran in terms of infrastructure, technology, and human resources as well as the significance of medical tourism in the tourist industry, in practice, the quality of human resources has received less attention. Consequently, this study was conducted to design a model of competency-based training for Iranian medical tourism.

MATERIALS AND METHODS: This study was an exploratory mix, and the Delphi method and semi-structured interviews were used for the qualitative part of this study. In the second part, the analytical method was utilized for the quantitative part of this study.

RESULTS: The results indicated the main components of medical tourism to be public interactions and private interactions and seven subcomponents. Medical Tourism's Competency includes three main components and seven subcomponents.

CONCLUSION: Although some training separated and scattered is present in Iran's medical tourism. However, Iran requires a comprehensive training model of which its design was explained in this paper.

Keywords:

Competency-based training, educational model, human resource, Iran, medical tourism

Introduction

Nowadays, players' and politicians' health have seriously considered medical tourism and attracted foreign patients. Many private part investors wish to expand their capital in this way, of course, the essential situations should be provided. Finding the solutions to enhance the medical tourism industry in Iran can have many benefits on the development of Iran's economic, social, and cultural conditions. One of the most important infrastructures to be considered is human resources training for medical tourism.

In recent years, medical tourism has exponentially grown as a branch of health tourism, which is known as a new form of

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

For reprints contact: WKHLRPMedknow_reprints@wolterskluwer.com

market in the tourism industry.[1] In medical tourism, patients leave their country to receive the effective medical services (with high quality and low price). However, medical tourism is not a new issue, and people are traveling to foreign countries for 1000 years to treat the disease. However, today, this travel has a different pattern compared to the last century. Furthermore, at the present time, patients travel from less developed countries to developing countries for using medical services.[2] Medical tourism had rapid growth by the improved medical standards in developing countries, globalization, and free trade in health care services, [3] and internet development, which created the medical tourism companies as intermediaries between international patients and the hospitals, by easy access to information,

How to cite this article: Abbaspour A, Rahimian H, Shaarbafchizadeh N, Maghari A, Danial Z. Designing the competency-based training model of Iranian medical tourism. J Edu Health Promot 2022;11:149.

as costs by the patient, and the advanced technologies created by new care services. [4]

If employees' knowledge and skills fitted more with scientific advances and new technological, the degree of confidence in success will be higher. Personal growth, motivation, expertise, and avoidance of uniformity and stagnation sometimes are considered as the main factors in the acquisition of knowledge.

If organizations want to develop the human resources, they must create the correct conditions for the knowledge acquisition, new skills, and healthy patterns of behavior improvement through education. In this regard, education is a very important factor in the development of human resources and is also known as a chance for the investment and the mechanism for the distribution resources in strategic planning, and a tool to link the interests of employees and the organization.^[5,6]

Competency-based training ensures the integration of individual capabilities and core organizational competencies. Accordingly, such a framework creates an effective link between the human resources and organizational strategies.^[7]

Notably, it is impossible to provide quality services and develop medical and tourism processes without the participation of all human resources. The first subject that organizations need to get better is that the employees must be professional and moral. Moreover, service providers play an important role in many aspects of medical tourism. In addition, they can suggest international treatment options; optimize tourist travel; or coordinate for return, guidance, and consultation. Of course, first, the providers' abilities must be evaluated, and then, they must receive the necessary training.^[8]

Iran, as one of the developing countries, has many relative advantages in terms of the infrastructure, technology, human resources, and cost-effectiveness in the field of medicine. Today, the main factors are known to be in the travel of medical tourists to Iran that are related to the quality of medical services and the low costs of medicine and treatment compared to other countries in the region, as well as the access to medical services and new and advanced equipment, the presence of the specialists and skilled personnel in healthcare in Iran, and cultural and linguistic similarities in most of the countries of region.^[9,10]

Of course, Iran, according to its abilities, still had not reached its true position in achieving standards for attracting medical tourism. Hence, this study aims to explore the components of a competency-based training model for Iranian medical tourism and to extract a conceptual model with an approach affected by the climatic, cultural, social, and economic conditions of the Iranian society by applying the latest scientific advances in the world. Accordingly, this can demonstrate how medical tourism education can be planned based on the individual competencies.

In this study, considering the approach of design competency-based educational model for medical tourism, it seems necessary to notice the principal components and subcomponents of medical tourism and competence. In order to assign the competence components in medical tourism, studies were navigated in the literature and studies related to the medical tourism and document research using the International Database [Table 1].

In addition, the phases were as follows: Determining the purpose, surveying the research literature, selecting the appropriate articles, achieving data from the articles, analyzing the findings of qualitative studies, and presenting the findings. In addition, the Keywords used were the following: medical tourism, health tourism, competence, and customer attraction. The 825 articles were arrived in the study by searching on the databases Elsevier, Scopus, PubMed, ScienceDirect, and Google Scholar from 2007 to 2019.

Then, the 250 articles were left because of the title. Then, the 65 articles were determined by survey the abstract and further relevance. Finally, 46 articles were identified by review rating the experts. In addition, the categories and concepts of competencies were identified in the articles and then coded [Table 2]. According to data analysis, the competencies of medical tourism were divided into three main categories as follows: Organizational, interpersonal, and individual.

The results of the survey of evidence in the scope of medical tourism, as the analysis of the results of interviews with experts, along with the analysis of documents, created an initial list of competencies expected by the managers in the medical tourism field. Then, several filtrations were done at different stages, and the competencies of the medical tourism sector were collected as follows.

Materials and Methods

Study design and setting

This study accomplished the purpose applied and the mixed exploratory method in two parts, qualitative and quantitative, to design a model of competency-based training in Iranian medical tourism at Allameh Tabataba'i University in 2019.

Table 1: Summary of medical tourism history based on the main components

Row	The main component	Sub-component	Expert
1	Medical tourism facilitators	Marketing: environmental factors (economic, international business management, cultural, social, political, technology) Medical tourism rules and regulations: medical tariffs and travel expenses International standards Introducing medical tourism	Carrera P, Lunt N (2010), ^[12] Gyu Ko (2011), ^[13] Gan And Frederick (2011) ^[19] Lee <i>et al.</i> (2012), ^[2] Connell (2013), ^[14] Savasan <i>et al.</i> (2016), ^[15] Cohen <i>et al.</i> (2017), ^[11] Aydin and Karamehmet (2017), ^[17] Wang (2017), ^[18] Tan (2019), ^[16]
2	Hospitals and medical centers	Licenses and standards of medical centers Accreditation and patient safety Inter-sectoral interactions Marketing: Environmental factors Medical tourism rules and regulation	Nasiripour and Salmani (2011), ^[26] Gyu Ko (2011), ^[13] Lee <i>et al.</i> (2012), ^[2] Lunt and Jin (2013), ^[20] Morovati <i>et al.</i> (2013), ^[27] Khodayari <i>et al.</i> (2013), ^[25] Mahmoudifar <i>et al.</i> (2017), ^[21] Ganguli and Ebrahim (2017), ^[22] Savasan <i>et al.</i> (2016), ^[15] Khan <i>et al.</i> (2017), ^[23] Verulava and Jorbenadze (2018), ^[24]
3	Ministry of health	Medical tourism rules and regulations Marketing: Environmental factors, business management Information technology	Carrera and Lunt (2010),[12] Lunt and Jin (2013),[20] Hadizadeh Moghadam <i>et al.</i> (2013)[29], Savasan <i>et al.</i> (2016)[15], Maboodi and Hakimi (2016),[28], Aydin and Karamehmat (2017)[17]
4	Insurance companies	International insurance rules and regulations Medical tourism standards Insurance coverage	Lee <i>et al.</i> (2012), ^[2] Nguyen (2016), ^[30] Mogaka <i>et al.</i> (2017), ^[31] Gan and Frederick (2011) ^[19]
5	Accommodation and cooking centers	Posttreatment care Recognition of medical tourism International standards and accreditation Interact with medical tourism enterprises Diet	Crooks <i>et al.</i> (2011), ^[32] Gyu Ko (2011), ^[13] Lunt and Jin (2013), ^[20] Savasan <i>et al.</i> (2016), ^[15] Aydin and Karamehmet (2017), ^[17] Abadi <i>et al.</i> (2018) ^[5]
6	Shipping fleet	Technical skills Recognition of medical centers Effective communication Introducing medical tourism	Gyu Ko T. (2011), ^[13] Savasan <i>et al.</i> (2016), ^[15] Ganguli and Ebrahim (2017), ^[22] Aydin and Karamehmet (2017) ^[17]

Table 2: Some research evidence related to the main competencies and sub-competencies

Concepts	The main component	Articles
Ethical, legal and medical issues, advertising, medical tourism recognition, marketing, competitive market, innovation, and creativity skills, recognition of international service development factors, entrepreneurship to seek opportunities investments, information mechanisms, resource management, customer orientation, problem-solving, understanding medical tourism concepts, information management, decision making, monitoring, social competence, accreditation, strategic thinking, analysis and solving business problems, business skills, change management, leadership, technical competence	Organizational competence	Ferrer and Medhekar (2012), [35] Savasan <i>et al.</i> (2016), [15] Sharma (2017), [37] Wang (2017), [18] Shum <i>et al.</i> (2018), [33] Podmetina <i>et al.</i> (2018), [34] Ayoub (2018), [36]
Linguistic and cultural awareness, adaptability, customer relationship, flexibility, adaptability, support for change and innovation, negotiation, counseling	Interpersonal competence	Gan and Frederick (2011), ^[19] Rahman <i>et al</i> (2017) ^[39] Verulava and Jorbenadze (2018), ^[24] Tham (2018), ^[38]
Psychological skills, self-confidence, and self-efficacy, critical thinking, personal competence, commitment, moral action, diversity of values, tolerance of failure, entrepreneurship, trust, flexibility, risk management, cultural language skills, flexibility	Individual competence	Pijl-Zieber <i>et al.</i> (2014), ^[40] Shariff <i>et al.</i> (2015), ^[41] Wong and Lee (2017), ^[42] Shum <i>et al.</i> (2018) ^[33]

Study participants and sampling

In qualitative section achieved the components of competency medical tourism of two methods library study and the Delphi method. In the quantitative stage was done the descriptive statistics method. Library reviews identified the factors affecting medical competence and tourism and its dimensions and bases on the basic concepts by reviewing the literature and background related to competency and medical tourism.

The components of medical tourism competency were arrayed classification at different levels after consultation with experts in 195 codes.

Data collection tool and technique

In the first step, the research was identified 18 people from experts in medical tourism by Delphi technique with purposeful sampling and snowball, and they were received the questionnaire researcher-made. After collecting return questionnaires (16 questionnaires) were classified answers, were combined and grouped similar comments, were omitted repeated subjected, and were shortened responses as much as possible. In the second step, a structured questionnaire was applied and was asked of the experts to rate each title using the Likert scale or quantify it. In the 3rd step, the questionnaire was reviewed, analyzed, and modified to obtain the best and most appropriate information. Then, the questionnaire was distributed between the members' panel. The components of medical tourism competence identified were categorized and assort after achieving theoretical adequacy (saturation).

Then competency-based training model of medical tourism was designed and proposed in two main components and seven subcomponents of medical tourism and three main components and 51 subcomponents of competency. The validity's qualitative stage was distinctive by methods peer debriefing, data source triangulation, member checking, and the reliability's qualitative stage by the methods re-test reliability (more than 92%) and inter-coder reliability (more than 90%) method.

In the quantitative part, to confirm the validity model was used convergent validity methods included average variance extracted (AVE index), discriminant validity (factor load's questions in each structure or component), and to confirm the reliability of the model, the composite reliability (CR), and the validity content's questioner was determined by experts, and the reliability's quantitative section was confirmed by a small sample of 30 people from the statistical population as a pilot. Friedman test was applied to prioritize competencies and to determine the validity of the questionnaire the structural equation model method. The statistical population that the Ministry of Cultural Heritage, Tourism and Handicrafts, and Ministry of Health introduced included managers of medical tourism companies and agencies and officials of the International Patient Department of hospitals and medical centers. Final questionnaire (189 items) sent to members (163) of the target community. Finally, after follow-up in 3 stages, 86 questionnaires were completed and were returned for analysis. Descriptive statistics had applied to determine the mean, standard deviation, frequency, percentage, tables, and graphs. The final model and the validity structure were certified by the method of confirmatory factor analysis. SPSS software version 21 (SPSS Inc., Chicago, Il., USA) to prepare descriptive tables and SmartPLS software version 2.0.M3 (2005) applied for confirmatory factor analysis in the conceptual model of the research and modeling of its structural equations.

Ethical consideration

Data's people and different sectors were preserved, according to the importance of confidentiality in the research.

Findings research

Determining the components of medical tourism

The main components of Iran's medical tourism were identified by categorizing the concepts from the summary of the interview with the experts and literature review. By analyzing the interviews, coding and classification of the concepts were identified as two main components, including the followings:

- Public sector interactions with 4 subcomponents of the Ministry of Health, Cultural Heritage and Tourism Organization, and Ministry of Foreign Affairs and Municipality
- 2. Private sector interactions with 3 subcomponents of the Medical Council, Insurance organizations, and facilitators of medical tourism and agencies were identified.

In addition, the Ministry of Health has 3 subcomponents of medical universities, hospitals, and medical centers, and physicians; the Cultural Heritage Organization has 3 subcomponents of hotels and accommodation centers, Restaurants and cooking centers, and shopping malls; and the municipality has two subcomponents of Deputy of Culture and Social and transport fleet.

The significance of the coefficients of the path of medical tourism transactions was examined using convergent validity with the help of AVE > 0.5 index and CR > 0.7 (compound reliability coefficient). The path coefficients are between the components also significant and confirmed. Therefore, its final structure is based on Figure 1.

Identifying the components of medical tourism competence

The components of Iran's medical tourism competency was identified using a semi-constructed interview with experts

Three main competency components included the followings:

- 1. Organizational competencies
- 2. Interpersonal competencies
- 3. Individual competencies.

Concepts had been identified and then classified, and also according to the codes, the most important of these concepts are shown in Tables 3 and 4.

The results of the Friedman test showed that the classified competencies are vary in the public sector interactions of medical tourism [Tables 3 and 4]. As shown in Table 3,

Abbaspour, et al.: Medical tourism's training model

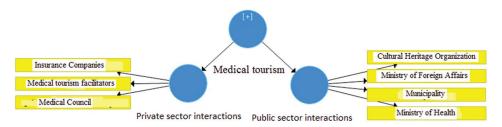


Figure 1: Medical tourism structure

the results obtained from the Friedman test in the public sector, the priority of organizational and interpersonal competencies is more than the individual's competency.

As shown in Table 4, the results obtained from the Friedman test in the public sector, the priority of organizational and interpersonal competencies is more than the individual's competency.

It is notable that, in both sectors, the highest-ranking competency was marketing, the ability to apply medical tourism standards, knowledge of medical tourism, the ability to manage resources, knowledge of the rules and regulations of medical tourism, and public relations.

Review and evaluate the model based on competency

To evaluate the model, first, the scores of 7 subcomponents of medical tourism competence in two sectors medical tourism (public and private) were evaluated, and then, the scores of the main components and their subcomponents were examined.

Medical tourism competence components in public sector's medical tourism

The significant difference between the median acceptable score and the mean obtained from the sample, so it can be concluded that, all the sub-components of education-based competence of medical tourism in the heritage organization, the Ministry of Foreign Affairs, the Municipality, and the Ministry of Health are better than the expected mean.

Medical tourism competence components in private sector's medical tourism

The a significant difference between the median acceptable score and the mean obtained from the sample, so it can be concluded that all the subcomponents of education-based competence of medical tourism in the private sector interactions are better than the expected mean.

Determining the tasks and training each job

Competency-based tasks and training for each job were determined after identifying the components (the primary and secondary) of medical tourism and competency and its sub-components. Then, in the next step, the course plan form can be defined for each training course as follows: Learners, hours, general-purpose, behavioral purpose, learning topics, teaching-learning methods, method learning evaluation, method of evaluating the effectiveness of behavior, equipment, and proposed resources. As a result, the overall goal of each training course was determined based on the competency or competencies expected to be appropriate for each job. Expected behavioral goals were also defined according to the behavioral indicators associated with each job competency. Teaching-learning methods were also proposed according to the educational strategies of medical tourism and their effectiveness in achieving the expected competencies. The evaluation of learning has been proposed according to measuring the effectiveness of educational programs of medical universities.

The final Iranian medical tourism education model was designed in terms of the competency [Figure 2].

Discussion

Research findings showed that determining the components of medical tourism competencies could be mentioned to increase the opportunities for job creation, increase foreign currency foreign exchange income, and help in the ability to communicate between medical tourism sectors, [19] improving living standards, developing infrastructure, and a quality education system.[37] The association and participation of the components can lead to the development of medical tourism, such as the interaction between private sections and medical organizations. [38] In the future of tourism, it is necessary to pay attention to the infrastructures such as creating the cultural competencies.^[39] Competence in tourism is a topic that many models include the followings: 1-Hoteling leadership model including business leadership: Effective planning and organization, analysis and solution of business problems, business information, excellence, diversity Values, the Effective Communication, Conflict Management, Leading Effective Teams, Coaching, Supporting Change and Innovation, Service Quality[33] Entrepreneurship, Leadership, Teamwork, Problem Solving, Virtual Cooperation, Internal and External Cooperation, Trust,

Abbaspour, et al.: Medical tourism's training model

Table 3: Results of the qualification obtained from the questionnaire in the public sector interactions

Mean	Title	Rank
	Restaurants and cooking centers	
21.44	Ability to apply medical tourism standards	1
5.54	Knowledge of health preliminary principles	2
5.53	Recognition of medical tourism	3
5.17	The quality of service	4
4.72	Knowledge of the rules and regulations of medical tourism	5
4.68	Public relations	6
4.65	Respect for people	7
4.60	Organizational commitment	8
4.45	Good morals	9
	Shopping center	
14.78	Knowledge of health preliminary principles	1
11.40	Public relations	2
10.05	Marketing	3
5.50	Recognition of medical tourism	4
5.29	Customer orientation	5
4.95	Branding	6
	Municipal social and cultural deputy	
10.35	Recognition of medical tourism	1
5.15	Ability to apply medical tourism standards	2
5.15	Knowledge of the rules and regulations of medical tourism	3
5.11	Public relations	4
4.98	Decision making and problem solving	5
	Physicians	
30.44	Ability to apply medical tourism standards	1
12.31	Ability to manage resources	2
12.26	Public relations	3
12.10	Knowledge of the rules and regulations of medical tourism	4
6.38	Marketing	5
6.22	•	6
	Recognition of medical tourism	7
6.19	The quality of service	
6.15	Team work	8
6.15	Ethice	9
6.07	Proper perspective	10
6.07	Information and technology management	11
5.99	Improve processes	12
	Ministry of foreign affairs	
18.08	Knowledge of the rules and regulations of medical tourism	1
12.02	Recognition of medical tourism	2
6.11	Public relations	3
6.02	Improving process	4
6.00	Decision making and problem solving	5
5.84	Proper perspective	6
	Hotel and resort	
5.92	Ability to apply medical tourism standards	1
5.90	Knowledge of health preliminary principles	2
5.85	Knowledge of the rules and regulations of medical tourism	3
5.55	Recognition of medical tourism	4
5.48	Marketing	5
5.31	Ability to manage resources	6
5.27	Public relations	7
5.24	Analytical thinking	8
5.21	Criticism ¹	9
V.L I	Officially	9

Contd...

Table 3: Contd...

Mean	Title	Rank
5.15	Risk ability	11
4.83	Work processes	12
4.81	Self confidence	13
4.81	Decision making and problem solving	14
	Shipping fleet	
22.47	Knowledge of the rules and regulations of medical tourism	1
17.15	Public relations	2
5.88	Ability to apply medical tourism standards	3
5.77	Knowledge of health preliminary principles	4
5.74	Individual competence	5
5.64	Culture	6
5.55	Ethics principles	7
5.42	Respect for people	8
	Hospital and medical centers	
36.01	Ability to apply medical tourism standards	1
24.17	Knowledge of the rules and regulations of medical tourism	2
24.15	Public relations	3
12.08	Marketing	4
11.55	Ability to manage resources	5
6.38	Recognition of medical tourism	6
6.37	Proper perspective	7
6.30	Branding	8
6.30	Decision making and problem solving	9
6.15	Improve processes	10
5.81	Information and technology management	11
5.36	Team work	12
	University of medical sciences	
45.79	Marketing	1
34.67	Ability to manage resources	2
29.34	Recognition of medical tourism	3
22.45	Ability to apply medical tourism standards	4
17.22	Knowledge of the rules and regulations of medical tourism	5
11.59	public relations	6
5.51	Recognition of culture	7

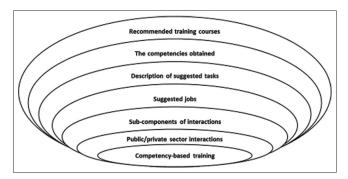


Figure 2: The final model of competency-based education for Iranian Medical

Communication Skills, Networking, Business Mindset, Project Management, Adaptability and Flexibility Ray, Management of Inter-Organizational Cooperation Processes, Ability of Working in an Interdisciplinary Environment, Ability of Working in Mutual Internal Teams, Strategic Thinking, Creativity, New Media

Literacy, Cultural Awareness, Ability of Working with Different Professional Societies, Ability to Share Introducing knowledge and ideas within an organization, the ability to share external knowledge and ideas, risk management, and failure tolerance are discussed.[34] Considering the importance of competence, medical tourism has noticed it. Furthermore, nursing is one of the most important jobs in medical tourism. Therefore, the linguistic and cultural competencies of nurses have been proposed as a necessity in the work. [40] Other competencies in medical tourism include the ethical, legal, and medical competencies. In advertising policies and new markets in medical tourism, marketing is considered as one of the subjects that should be focused on. [24] Similar to any other industry, the medical tourism industry has several strengths such as the developed tourism infrastructure; the abundance of health care professionals and geographical location; and weaknesses such as the lack of a medical tourism proper program, poor marketing, and poor health care. In addition, the lack of access to Table 4: Results of the qualification obtained from the questionnaire in private sector interactions

4110	accinemance in private ecotor interactions					
Mean	Title	Rank				
Medical council						
69.58	Ability to manage resources	1				
39.85	Marketing	2				
34.22	Ability to apply medical tourism standards	3				
23.59	Knowledge of the rules and regulations of medical tourism	4				
11.41	Public relations	5				
6.10	Information and technology management	6				
5.67	Improving processes	7				
5.65	Educational management	8				
5.65	Financial management	9				
5.57	Team work	10				
5.52	Decision making and problem solving	11				
	Insurance companies					
22.52	Knowledge of the rules and regulations of medical tourism	1				
11.19	Marketing	2				
11.09	Public relations	3				
5.74	Ability to manage resources	4				
5.62	Principles of negotiation and good manners	5				
	Medical tourism companies and agencies					
52.56	Ability to manage resources	1				
41.48	Marketing	2				
40.49	Knowledge of the rules and regulations of medical tourism	3				
35.80	Public relations	4				
28.91	Ability to apply medical tourism standards	5				
6.16	Recognition of medical tourism	6				
6.01	Organize and coordinate	7				
6.01	Decision making and problem solving	8				
6.00	Branding	9				
5.93	Improving processes	10				
5.80	Ethics	11				
5.78	The quality of service	12				
5.66	Respect for people	13				
5.63	Team work	14				
5.62	Information and technology management	15				

training programs for increasing the capacity of service providers, must be prepared in various ways, including holding training courses. [23-36] Subjects in the healthcare business and medical tourism business include some issues such as marketing, business recognition, medical tourism services, medical tourism processes, branding, communications, customer recognition, social media, and target market recognition. Target market segmentation is a cost-effective strategy. [16,43] The expectations, satisfaction, and behavior of medical tourists must also be considered. Medical tourism service providers must pay attention to the customer's understanding and their expectations while acquiring the skills to use new technologies.^[18] Moreover, the main drivers of medical tourism education are known to be the Internet, target market language, and religious and behavioral issues. All the medical tourism activists must work in various ways, such as using the skilled and trained staff, advertising to attract medical tourists, and exchanging information and feedback to develop marketing strategies. [2] Of course, education types because of the variety of jobs are different, such as nursing education, which is about senior nurses training on personal growth and young nurses' vocational development training.[44] Therefore, the neglect of medical tourism activists in education has been identified as a barrier against the growth of medical tourism. [45] Factors affecting the attraction of medical tourists are the development of educational programs on marketing, medical tourism management, [46] and understanding of medical tourists.[47] In general, the subjects who must be considered in medical tourism educational programs are certification services;[48] knowledge of medical tourism, the international rules, and regulations of medical tourism; explaining the role and responsibility of universities and educational institutions, and increasing public awareness on medical tourism.[15]

Limitation and recommendation

Research limitations

- The length of the questionnaire and the time-consuming process of completing it
- Travel to different provinces and schedule appointments to interview provincial experts
- Many people who have worked in medical tourism were not familiar with the key concepts of medical tourism.

Research recommendation

- Validation of Iran's competency-based medical tourism model
- Study of the components of medical tourism on other aspects such as job creation, revenue generation, cultural exchanges, and experiences of medical tourists
- Design the business model for medical tourism in Iran
- Design the cultural model for medical tourism in Iran
- Design the social model for medical tourism in Iran.

Conclusion

Competency-based training emphasizes the development of skills in all basic aspects and new teaching methods. In addition, in competency-based training, the goals of the curriculum are flexibility, more evaluation, supervised by the instructor, and greater involvement of the instructor and trainee in discovering abilities-not just knowledge. Competence is like an umbrella that affects employee performance directly or indirectly. However, most of the educational programs in the organizations are just theory without

considering the skill needs of medical tourism activists. In designing a model-based training model for medical tourism, according to having a comprehensiveness and attention to all the components of medical tourism, it has been tried to design the programs based on the real needs of medical tourism activists. Training based on the competence of medical tourism activists should be able to create the necessary competencies, skills, and knowledge in the fields of education, research, specialized medical tourism services among the activists. As a result, by designing and implementing a competency-based education model for Iranian medical tourism, it is expected that, better and more specialized quality and specialized services will be provided in medical tourism based on the needs of medical activists and tourists.

Acknowledgment

We would like to thank all organizations that kindly cooperated with us to do this study, including the health tourism department of the Medical Council of the Islamic Republic of Iran, the Iranian Health Tourism Association, the Strategic Health Tourism Council, and the department of health tourism of the Ministry of Health.

Ethical code

This article is taken from the doctoral dissertation in the field of educational management entitled designing the Competency-Based Training Model of Iranian Medical Tourism in 2019/10/10 at Allameh Tabataba'i University.

Financial support and sponsorship

Conflicts of interest

There are no conflicts of interest.

References

- Rerkrujipimol J, Assenov I. Marketing strategies for promoting medical tourism in Thailand. J Tour Hosp Culinary Arts 2011;3:95-105.
- Lee M, Han H, Lockyer T. Medical tourism Attracting Japanese tourists for medical tourism experience. J Travel Tour Mark 2012;29:69-86.
- Smith R, Álvarez MM, Chanda R. Medical tourism: A review of the literature and analysis of a role for bi-lateral trade. Health policy. 2011 Dec 1;103(2-3):276-82.
- Smith M, Puczkó L. Health and Wellness Tourism. New York. USA: Routledge; 2008.
- Abadi F, Sahebi I, Arab A, Alavi A, Karachi H. Application of best-worst method in evaluation of medical tourism development strategy. Decis Sci Lett 2018;7:77-86.
- Alfandi AM. Training impact on the performance of employees: A case of Jordanian travel and tourism institutions. Int Bus Manage 2016;10:377-84.
- Le C, Wolfe RE, Steinberg A. The past and the promise: Today's competency education movement. In: Students at the Center: Competency Education Research Series. Massachusetts Jobs For

- the Future: 2014.
- Reed CM Reed Christie M. Medical tourism. Medical Clinics of North America 2008;92(6):1433-46.
- Gholami M, Keshtvarz Hesam Abadi AM, Miladi S, Gholami M. A systematic review of the factors affecting the growth of medical tourism in Iran. Int J Travel Med Glob Health 2020;8:1-12.
- Jabbari A, Gholami M, Kavosi Z, Chamanpara P, Gholami M. Potential factors affecting medical tourists' viewpoint about healthcare services quality in Shiraz, Iran. Int J Hosp Res 2017;6:85-9.
- Cohen MM, Elliott F, Oates L, Schembri A, Mantri N. Do wellness tourists get well? An observational study of multiple dimensions of health and well-being after a week-long retreat. The Journal of Alternative and Complementary Medicine. 2017 Feb 1;23(2):140-8.
- Carrera P, Lunt N. A European perspective on medical tourism: The need for a knowledge base. International Journal of Health Services. 2010 Jul;40(3):469-84.
- 13. Gyu Ko T. Medical tourism system model. Int J Tour Sci 2011;11:17-51.
- 14. Connell J. Contemporary medical tourism: Conceptualisation, culture and commodification. Tour Manage 2013;34:1-13.
- Savasan A, Uzunboylu H, Tuncel E. Training in medical tourism, a necessity or a perspective? A needs analysis of stakeholders on training issues in medical tourism. Int J Educ Sci 2016;15:225-33.
- 16. Tan J. Adaptive Health Management Information Systems. Burlington, Massachusetts: Jones & Bartlett Learning; 2019.
- 17. Aydin G, Karamehmet B. Factors affecting health tourism and international health-care facility choice. Int J Pharm Healthc Mark 2017, Vol. 11 No. 1, pp. 16-36.
- 18. Wang YH. Expectation, service quality, satisfaction, and behavioral intention-evidence from Taiwan's medical tourism industry. Adv Manage Appl Econ 2017;7:1.
- Gan LL, Frederick JR. Medical tourism facilitators: Patterns of service differentiation. J Vacation Mark 2011;17:165-83.
- Lunt N, Jin KN. Developments in medical tourism. China Health Rev 2013;4:12-9.
- 21. Mahmoudifar Y, Tabibi SJ, Nasiripour AA, Riahi L. Factors affecting development of medical tourism industry in West Azerbaijan Province of Iran. Int J Health Stud 2017;2(4): 25-31.
- Ganguli S, Ebrahim AH. A qualitative analysis of Singapore's medical tourism competitiveness. Tour Manage Perspect 2017;21:74-84.
- Khan MJ, Chelliah S, Haron MS, Ahmed S. Role of travel motivations, perceived risks and travel constraints on destination image and visit intention in medical tourism: Theoretical model. Sultan Qaboos University Medical Journal. 2017 Feb; 17(1):7-11.
- Verulava T, Jorbenadze R. Medical tourism in Georgia: Current barriers and recommendations. Malays J Public Health Med 2018;18:81-7.
- Khodayari ZR, Tourani S, Qaderi A, Salehi M, Jafari H. Readiness of teaching hospitals in attracting medical tourists based on joint commission international standards. J Qazvin Univ Med Sci 2013;17:49-54.
- Nasiripour AA, Salmani L. The role of Tehran's hospitals capability in development of medical tourism. Hospital 2011;9:57-68.
- Morovati AN, Forotan MR, Abolghasemi M. Infrastructure Marketing Mix Methods for the Development of Medical Tourism Marketing. Paper Presented at the First National Marketing Conference: Opportunities and Challenges, Mashhad; 2013.
- Maboodi MT, Hakimi H. Determinant factors on medical tourism (Case study: Iran). J Tour Plann Dev 2016;15:80-106.
- Hadizadeh Moghadam AZ, Ghanbarzadeh R, Fakharmanesh S. Pattern of effective factors on the motivation of medical tourists to enter Iran. J Bus Manage Perspect 2013;12:59-79.
- Nguyen T. Medical Tourism: Studying the Impact of Motivational Factors, Destination Image on Perceived Quality and Overall

- Satisfaction Using SEM Analysis. Pomona: California State Polytechnic University; 2016.
- 31. Mogaka J, Mashamba-Thompson T, Tsoka-Gwegweni J, Mupara L. Effects of medical tourism on health systems in Africa. Afr J Hosp Tour Leisure 2017;6:1-25.
- 32. Crooks VA, Turner L, Snyder J, Johnston R, Kingsbury P. Promoting medical tourism to India: Messages, images, and the marketing of international patient travel. Social Science and Medicine. 2011 Mar 1;72(5):726-32.
- 33. Shum C, Gatling A, Shoemaker S. A model of hospitality leadership competency for frontline and director-level managers: Which competencies matter more? Int J Hosp Manage 2018;74:57-66.
- Podmetina D, Soderquist KE, Petraite M, Teplov R. Developing a competency model for open innovation. Manage Decis 2018;56(6): 1306-35.
- Ferrer M, Medhekar A. The factors impacting on the management of global medical tourism service supply chain. GSTF J Bus Rev (GBR) 2012;2(2): 206-211.
- Ayoub M. Medical tourism in Egypt: Opportunities and challenges. American University in Cairo. Dept. of Public Policy and Administration (Thesis); 2018;1-83.
- Sharma V. Patient satisfaction and brand loyalty in health-care organizations in India. J Asia Bus Stud 2017;11(1); 73-87.
- Tham A. Sand, surgery and stakeholders: A multi-stakeholder involvement model of domestic medical tourism for Australia's Sunshine Coast. Tour Manage Perspect 2018;25:29-40.
- Rahman MK, Zailani S, Musa G. What travel motivational factors influence Muslim tourists towards MMITD? J Islam Mark

- 2017;8(1); 48-73.
- Pijl-Zieber EM, Barton S, Konkin J, Awosoga O, Caine V. Competence and competency-based nursing education: Finding our way through the issues. Nurse Educ Today 2014;34:676-8.
- 41. Shariff NM, Abidin AZ, Kayat K, Zainol NA. Developing index competency for the Malaysian tourism and hospitality graduates. Adv Sci Lett 2015;21:2251-5.
- Wong SC, Lee PC. Competencies of training professionals in the Hong Kong hotel industry. J Hum Resour Hosp Tour 2017;16:384-400.
- Shukla UN, Kulshreshtha SK. United Arab emirates as a global medical tourism destination: An explorative study. In: Global Developments in Healthcare and Medical Tourism, India; IGI Global; 2020. p. 277-90.
- 44. Tsang L, Sham S, Winnie S, Shuk C, Tang S. Self-perceived competency-based training needs of registered nurses: A cross-sectional exploratory study. Int Arch Nurs Health Care 2017:3:062
- 45. Kesar O, Rimac K. Medical tourism development in Croatia. Zagreb Int Rev Econ Bus 2011;14:107-34.
- Chang IC, Chou PC, Yeh RK, Tseng HT. Factors influencing Chinese tourists' intentions to use the Taiwan Medical Travel App. Telematics Inform 2016;33:401-9.
- 47. Han H. The healthcare hotel: Distinctive attributes for international medical travelers. Tour Manage 2013;36:257-68.
- Leahy A. L. Medical tourism: The impact of travel to foreign countries for healthcare. The surgeon: Journal of the Royal Colleges of Surgeons of Edinburgh and Ireland. 2008;1;6(5):260-1.