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Evaluation of the Quality of Services Delivered in Qazvin's Hospitals to Attract Medical Tourists: Joint Commission International Approach

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ABSTRACT

Medical tourism can be considered as a travel to promote mental, physical, and spiritual health of individuals, families, and groups. The present study was aimed at evaluating the level of preparation of the selected hospitals in Qazvin to attract medical tourists based on the standards of Joint Commission International (JCI). The present study was a descriptive cross-sectional research carried out in 7 hospitals of Qazvin. The data collection instrument was the translated version of Joint Commission International Standards Checklist which includes 13 standards. The patient- and organization-oriented sections include 7 and 6 standards, respectively. The checklist was based on a 5-point Likert scale. Descriptive statistics techniques were employed to analyze the collected data. Among the 7 patient-oriented standards, the highest and lowest preparation scores were respectively related to Anesthesia and Surgical Care (77.5%) and Patient and Family Education (52.5%). Among the 6 organization-oriented standards, the highest and the lowest preparation scores were respectively related to management of information and communication (75.8%) and Facility Management and Safety (50%). According to the results of the present study, it seems that the hospitals under investigation had a relative preparation in attracting medical tourists. One of the most significant weakness of hospitals was lack of a systematic educational program for the personnel and patients and their families; therefore, it is recommended that necessary measures be taken in this regard.

Key words: Medical Tourism, Quality Evaluation, Patient-oriented Standards, Organization-oriented Standards, Qazvin's Hospitals.

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1. INTRODUCTION

Medical tourism is rapidly emerging as the symbol of the world trade of health care (1). It has recently attracted numerous advocates and stakeholders not only because of its economic capacities but also due to the varying range of providing healthcare services (2). Health tourism has been proposed as an opportunity and has developed rapidly, and currently it has been industrialized in which people travel long distances in

order to obtain medical, dentistry, and surgical care during their vacation (3). In recent decades, medical tourism has had a remarkable effect on economic development, job creation, and prevention of currency outflow (4). There are various reasons for medical tourism and why people do it: Some do not have access to health care in their country, some other cannot wait for medical services in their national system, some medicines are not available in all countries, and some prefer treatment in foreign countries

(5). Low quality of medical services in the country of origin is one of the major reasons for traveling to other countries in order to receive healthcare services (6). Studies indicated that individuals travel to receive four types of healthcare services: excellent health care, economical health care, quality health care, and necessary health care (7). That the delivered services are provided by prestigious medical centers gives a good feeling to the international patients (8). Palvia believed that the four factors of costs, accreditation, quality of care, and medical education impact the selection of the international medical center by the patient (9). In some studies, accreditation has been proposed as the assurance factor for the quality of healthcare services (10). Hospital accreditation indicates the intersection and presence of top international standards with their requirements in health care industry (11). Superior providers of services have referred to medical tourism which includes a list of hospitals. The interesting point is that all of these superior medical facilities are accredited with reference to the website of Joint Commission International by this organization. Joint Commission International is the international subsection of the US Joint Commission on Accreditation of Healthcare (JCAHO). This entity was established in response to the global tendency toward accreditation and improvement of quality (12, 13). According to the available statistics, JCI has accredited over 150 health facilities all over the world, and these processes of supervision and confirmation are continuing (14). Iran has numerous strengths including expert physicians, up-to-date technology, and natural medical regions to attract health tourists; however, it is faced with weaknesses and challenges, too (15). In this regard, while taking advantages of its capacities, our country is still faced with fundamental challenges. One of the most important of these challenges is the rate of compatibility of the country's superior facilities with international standards. In other words, essential factors involved in medical tourism are cost, quality, availability of services, and appropriate time (16). In Iran, there are about 940 active hospitals (17). The issue of quality can be

taken into consideration as one of the essential factors, which necessitates focusing on the domain of international standards. The present study aimed to evaluate the capacity level of Qazvin's selected hospitals in attracting medical tourists based on the standards issued by Joint Commission International.

2. MATERIALS AND METHODS

The present study was a descriptive cross-sectional research that was carried out in 2014. Inclusion criteria were hospitals that first had general properties that the Ministry of Health have stipulated to be necessary for a hospital to be called a tourism center, and second, they provide services desired by medical tourism market (18). Study environment included university-affiliated hospitals of Rajaee, Avicenna, Qods, and Kosar, private hospitals of Pasteur and Mehregan, and the charity hospital of Rahimian. The data collection instrument was the translated version of Joint Commission International Standards Checklist (2007 edition). This checklist includes 13 standards approved by Joint Commission International. The instrument consists of 2 part. The first part includes questions on general characteristics of the hospitals; And the second part is the Joint Commission International Standards Checklist which in turn has organization-oriented and patient-oriented sections and 13 standards. The patient-oriented section includes 7 standards and the organization-oriented covers 6 standards, which were scored using a 5-point Likert-style scale. The researcher visited the hospitals and completed the checklists depending on the standards through observation and interview. Descriptive statistics techniques were employed to analyze the collected data.

3. RESULTS AND DISCUSSION

In the present study, 7 hospitals of Qazvin were studied regarding the level of their compatibility with JCI international standard in attracting medical tourists. The hospitals' background characteristics are presented in Table 1.

Table 1. The hospitals' background characteristics

Hospital	Number of Active Bed	Grade of internal accreditation 2013	Grade of internal accreditation 2012	Affiliation of Hospital	Kind of Hospital
Rajaee	180	A typical class	A typical class	Public	Trauma & Surgery
Qods	144	A typical class	A typical class	Public	children
Avicenna	262	A typical class	A typical class	Public	General
Kosar	142	A typical class	A typical class	Public	Maternity & Women
Mehregan	128	A typical class	A typical class	Private	General
Pasteur	91	A typical class	A typical class	Private	General
Rahimian	76	A typical class	A typical class	Charity	General

The results presented in Table 2 indicate that out of the 7 patient-oriented standards, the highest preparation score belonged to anesthesia and surgical care (77.5%) and the lowest preparation score was related to Patient and Family

Education (52.5%). In general, patient-oriented standards had the highest level of adherence in Rahimian hospital (85.4%) and the lowest level in Kosar (53%) and Qods (54.2%).

Table 2. The mean of total scores of patient-oriented standards in the hospitals under investigation

Standards	Number of Item	Mean		Rahimian		Pasteur		Mehregan		Kosar		Avicenna		Qods		Rajaei	
		%	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No
Access to Care and Continuity of Care	21	76.5	64.3	86.9	73	98.7	83	89.2	75	51	43	59.5	50	82	69	70.2	59
Patient and Family Rights	30	71	85.4	85.8	103	76.6	92	74	89	58.3	70	75.8	91	43.3	52	84	101
Assessment of Patients	42	63.9	107.4	96.4	162	64.8	109	58.9	99	54	91	64	108	23.8	40	85.7	144
Anesthesia and Surgical Care	14	77.5	43.4	91	51	85.7	48	87.5	49	60	34	91	51	75	42	71.4	40
Medication Management and Use	21	67.6	56.8	81	68	79.7	67	71.4	60	47.6	40	58	49	59	50	77	65
Care of Patients	23	70	64.7	70	65	79	73	77	71	53	49	69.5	64	83.6	77	62	57
Patient and Family Education	7	52.5	14.7	64	18	75	21	71.4	20	28.5	8	64	18	46.4	13	21.4	6
Total	158	69	436.7	85.4	540	78	493	73.2	463	53	533	68.1	431	54.2	343	74.6	472

The results presented in Table 3 show that out of the organization-oriented standards, the highest score was related to Management of Communication and Information with 75.8% preparation and the lowest score belonged to Facility Management and Safety with 50% preparation. In

general, organization-oriented standards of Rahimian Hospital had the highest rate of adherence (87.1%) and Avicenna Hospital had the lowest rate of adherence (47.2%).

Table 3. The mean total scores of organization-oriented standards in the selected hospitals

Standards	Number of Item	Mean		Rahimian		Pasteur		Mehregan		Kosar		Avicenna		Qods		Rajaei	
		%	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No
Quality Improvement and Patient Safety	38	66	100.4	85.5	130	78	119	74.3	113	41.4	63	40	61	63.8	97	78.2	119
Prevention and Control of Infections	23	73.5	67.7	95.6	88	68.4	63	76	70	67	62	72.8	67	55.4	51	80.4	74
Governance, Leadership, and Direction	26	70.5	73.4	96	100	90.3	94	86.5	90	70	73	28.8	30	39.4	41	83.6	87
Facility Management and Safety	27	50	54	85	92	64.8	70	52.7	57	43.5	47	37.9	41	25	27	41.6	45
Staff Qualifications and Education	23	60.9	56.1	71.7	66	67	62	83.6	77	93.4	86	40	37	67	62	80.4	74
Management of Communication and Information	28	75.8	84.9	88	99	100	112	83	93	63	71	67.8	76	64	72	55	62
Total		66.07	436.1	87.1	575	78.7	520	75.7	500	60.9	404	47.2	312	53	350	69.8	461

As indicated in Table 4, in general, the level of adherence to patient-oriented standards in the selected hospitals (69%) was higher than the rate of adherence to organization-oriented standards (66.07%). Moreover, in general, Rahimian Hospital with adherence level of

86.30% had the highest level of preparation and Qods Hospital with adherence rate of 53.64% had the lowest level of preparation. The total level of adherence to JCI standards in the selected hospitals was 67.55%.

Table 4. The mean of total scores of JCI international standards in the hospitals under investigation

Hospital	Total		Organization-oriented		patient-oriented	
	%	No	%	No	%	No
rajaee	72.21	933	69.8	461	74.6	472
Qods	53.64	693	53	350	54.2	343
Avicenna	57.51	743	47.2	312	68.1	431
Kosar	57.04	737	60.9	402	53	335
Mehregan	74.54	963	75.7	500	73.2	463
Pasteur	78.41	1013	78.7	520	78	493
Rahimian	86.30	1115	87.1	575	85.4	540
Total	67.55	872.8	66.07	436.1	69	436.7

The results of the present study showed that the adherence rate of the standard “Access to Care and Continuity of Care” in the selected hospitals was 64.3%. This standard includes 4 subsections; the subsection of “access to medicine” was maximum with a rate of 78% and the subsection of “transportation and transfer of patient” with 37.9% was the minimum rate. Studies have indicated that continuation of patient treatment is one of the priorities that medical tourists pay attention to (19, 20). The patient’s confidence that after he has been released and returned to his country, the process of his treatment will be followed up and the hospital will take responsibility if any problem arises should be guaranteed through JCI standards. This issue indicates the necessity of existence of after-sale services (21). The adherence rate of the standard “Patient and Family Rights” in the hospitals was about 71%, and it had two subsections of “patient and family rights” and “informed consent” with 73.2 and 68 percent, respectively. In Khodayari (2010), this standard, with 55%, obtained the lowest percentage among all other JCI standards (18). Numerous studies have emphasized that patient and his companions should be aware of and participate in care and medical programs and be familiar with different consequences of treatment (22-24). The total mean of adherence to standard “Assessment of Patients” in the hospitals was 63.9%. Standards of laboratory services obtained the highest rate of adherence (67%) while standards of radiology services gained the lowest rate (62.3%). Employing qualified doctors and skilled and experienced clinical personnel and adhering to clinical standards have a remarkable effect in obtaining appropriate adherence of this standard. The findings of this standard was lower than those of the study conducted by Khodayari (18). Standard “anesthesia and surgical care” with a mean score of 77.5% was one of the best conditions among all JCI standards. This issue indicates that the procedures of anesthesia and surgical care are conducted well in the hospitals. Anesthesia and surgical techniques are among important issues that are highlighted in some studies as

prerequisites of providing tourism services (25, 26). The mean of standard “Medication Management and Use” in the 7 hospitals was 67.6% which is relatively appropriate. This standard has three subsectors. The lowest rate was related to “the management of medicine distribution” with a score of 60% and the highest rate belonged to “the method of using the medicine” with a score of 80%. This finding is not in line with those of the study carried out by Khodayari (2010) (18). The cases related to the management of prescription, distribution, instructions and procedures of using medicines are among important issues that in some studies have been focused on as prerequisites of tourism services by hospitals (25, 26). The mean of adherence to standard “Care of Patients” was 70%. This standard has four subcategories. The subcategory of “integrated care of patients” with a mean of 79% was the maximum and “Pain management and patient dying” with a mean of 65.6% was the minimum. This difference can be attributed to the fact that the country’s hospitals do not have an appropriate mechanism for management of pain and dealing with patient dying conditions. These findings are close to those of the study carried out by Khodayari (2010) (18). Possessing a comprehensive care program is one of the essential requirements for receiving JCI certificate (25, 26). The mean score of standard “Patient and Family Education” for the hospitals was about 52.5%. In this regard, private hospitals were better than university-affiliated hospitals. This standard has two subsection of “the process of the patient education” and “educational method and content” in which public hospitals had a poor performance. These findings are lower than those of the study conducted by Khodayari (2010) (18). Medical tourists who refer to the hospitals of developing countries in order to receive services have preferences during education according to their local culture, which should be taken into account (27). The mean of the standard “Quality Improvement and Patient Safety” for the hospitals was 66%. This rate for Rahimian hospital; however, was 85.5% which was over the total mean. This standard consists of 4

subsections among which the standard “clinical monitoring” with mean adherence rate of 62% was at a very low level; however, the rest of the subsections were at the same level. This finding is in agreement with those reported by Khodayari (2010) (18). Quality and patient safety are among the most important issues that are focused on in most studies of medical tourism (28) and are considered as essential factors in development of medical tourism along with cost, access to services, and appropriate time (16). The mean score of adherence to standard “Prevention and Control of Infections” in the hospitals under investigation was 73.5%. This figure was 96.6% for Rahimian Hospital. Two subsections of this standard, “infection prevention and control program”, and “infection prevention and control monitoring” did not have a significant difference in terms of their mean level. This finding is in line with the ones reported by Khodayari (2010) (18). The mean of standard “Governance, Leadership, and Direction” was 70.5% for the hospitals under investigation. This standard has three subsections including “board of directors and chief executive officer”, “clinical governance”, and “moral leadership”. The mean scores for the two subsections of “board of directors and chief executive officer” and “moral leadership” were respectively 69.7% and 61.9%, which had no remarkable difference with the mean of clinical governance (about 75.8%). With regard to the first case, since none of the hospitals in the present study were managed by a board of managers, this standard was not well adhered to, which is not considered as a big defect for the hospitals. Regarding the second standard, unlike the first standard, issues related to clinical governance are more institutionalized and more organized compared to the other two standards. Finally, regarding the standard “moral leadership”, lack of a certain framework in the country’s hospitals is the main reason for its low adherence rate. The mean of the standard “Facility Management and Safety” was 50% for four of the hospitals. Moreover, the hospitals were not significantly different in this regard. The highest rate of adherence to this standard was 85% which belonged to Rahimian hospital, and the lowest was related to Qods Hospital with a mean of about 25%. Out of five subsections of this standard, “medical facilities management”, “disasters management”, and “training the personnel about facilities management” were at a lower rate compared to the other two subsections of “facilities management” and “risk management”. This findings are not in agreement with those of the study conducted by Khodayari (2010) (18). The rate of standard “Staff Qualifications and Education” for the hospitals was obtained to be 60.9%. This figure was 93.4% for Kosar Hospital and approximately 40% for Avicenna Hospital. Out of the three subsections of this standard, “needs assessment and employment”, “education”, and “evaluation”, the level of adherence to “evaluation” with 70.6% was lower than the other two subsections. Weakness in holding retraining courses can be referred as the main cause factor affecting this indices. Holding these

courses has no certain framework in the country’s hospitals and is more personal. Another issue is related to the appropriateness of the educational degrees and skills among nonclinical employees with their organizational posts, which leads to a decrease in the rate of adherence to this standard. The mean score of standard “Management of Communication and Information” was about 75.8%. This standard has three subsections of “informing and communication network”, “Information management, patient records”, and “Collect, analyze and use information” with scores of 73.5, 78, and 68.7 percent, respectively. This differences indicate that the hospitals have not taken serious measures regarding the third subsection “Collect, analyze and use information.” and in fact, organization and organizational unit do not accept the responsibility for this issue. In their study, Afshani et al. stated that one of the weaknesses in the country’s medical tourism is the lack of an appropriate and professional informing system and especially the gaps available in electronic public information in the country’s hospitals, which has led to the lack of tendency and information among foreign and domestic medical tourists about potential capacities of international health services.

4. CONCLUSION

In general and according to the results of the present study, it seems that the hospitals under investigation have a relative preparation and capacity to attract medical tourists. This capacity; however, is appropriate in some standards while insufficient in others. Regarding the standards “Quality Improvement and Patient Safety” (66%), “Staff Qualifications and Education” (60.9%) belonging to organization -oriented standards and “Assessment of Patients” (63.9%), and “Medication Management and Use” (67.6%) from patient-oriented standards, the situation was average, and in this regard, the hospitals need programs to improve these aspects. With regard to the standards of “Facility Management and Safety” (50%) from organization-oriented standards and “Patient and Family Education” (52.5%) from patient-oriented standards were poor, which should be taken into serious account through structural and fundamental measures. One of the most important weaknesses of the hospitals was the lack of a systematic educational program for the personnel, patients, and the patients’ family; therefore, it is suggested that necessary measures be adopted in this regard.

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AUTHORS CONTRIBUTION

All the authors had a role in designing the study. The first author had a role in conducting the data analysis and interpretation of data. All the authors contributed to the data acquisition and writing the preliminary draft of the manuscript.

CONFLICT OF INTEREST

The authors declared no potential conflicts of interests with respect to the authorship and/or publication of this paper.

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