




Evaluation of the Readiness of Hospitals in Ahvaz to Attract Health Tourists According to the Joint Commission International (JCI) Accreditation Standards

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Abstract

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Background: Compliance with international standards makes it possible to upgrade hospitals in the field of health tourism. This study evaluated the readiness of hospitals in Ahvaz to attract health tourists using the Joint Commission International (JCI) accreditation standards.

Methods: This descriptive-analytical cross-sectional study was conducted in 2019 in 21 hospitals in Ahvaz. The participants were selected using the census sampling method. The data were collected using a questionnaire that assessed 8 main components of patient-centered standards. The face validity of the instrument was assessed and confirmed by subject-matter experts and its reliability was estimated using Cronbach's alpha with a value of 0.87. The collected data were analyzed using descriptive statistics including mean, standard deviation, and percentage, and also inferential statistics including Mann-Whitney U tests, with SPSS 22 software.

Results: The highest and lowest scores were related to the anesthesia and surgical care standard (83.47%) and the patient safety standard (70.71%), respectively. The mean score of these standards in non-teaching hospitals (80.15%) was higher than that of teaching hospitals (77.71%), but this difference was not significant ($P = 0.205$).

Conclusion: Medical centers can play a greater role in the health market by investing more in high-scoring standards and introducing them as their unique capabilities. In addition, low-scoring standards can be enhanced, if needed, by developing comprehensive staff training programs and modifying some processes.

Keywords: Evaluation of hospitals, Ahvaz, Health tourism, Patient-centered standards, Joint International Commission



Background

Tourism is considered one of the most important and the most lucrative industries in the world at the turn of the third millennium, accounting for a significant portion of foreign exchange earnings of countries. According to the World Trade Organization (WTO), tourism was ranked third in terms of international trade in 2000 and has been recognized as the largest international industry after the oil and automotive industries (1, 2).

Some experts predict that tourism will turn into the most lucrative industry in the world by 2020 (3). Increasing international growth on one hand and increasing interest in tourism destinations, on the other hand, has led to the emergence of more tourism branches such as cultural and educational tourism, religious tourism, urban tourism, rural tourism, sports tourism, and health tourism. Among the various fields of tourism, health tourism and its subdivisions have become more important due to their capabilities and competitive advantages, and have undergone rapid growth compared to different types of tourism (4, 5).

The medical tourism industry in Iran can respond to tourists due to its unique characteristics such as high-quality medical services, low costs of medicine and treatment, access to advanced services and equipment, and the presence of skilled professionals (6). According to forecasts, with the development of health tourism in Iran up to the 2025 horizon, 1 to 2 million health tourists will visit this country annually. According to the statistics of the Ministry of Health, Treatment and Medical Education, about 500-550 thousand health tourists have entered the country in 2018. Besides, the health tourism statistics released by the same ministry show that in the first 9 months of 2019, about 125 thousand health tourists have visited the diagnostic-treatment centers in Iran or have been hospitalized there (7). However, the Iranian medical tourism industry suffers from problems such as the weakness of the health tourism information system, complex legislation, and planning problems faced by policymakers and managers, the presence of brokers as a mediator between patients and medical centers, patients' dissatisfaction, the impossibility of post-treatment

care, lack of insurance laws following international standards and marketing programs, constant change in modern technologies throughout the world, inefficient laws to cope with medical crimes, and the physical conditions of medical centers and hospitals (8, 9).

Studies have shown that rising medical costs in the United States and long lists in the United Kingdom and Canada have led many patients in the United States and Europe to travel to developing Southeast Asian countries for medical services (10). Global statistics show that Arab countries are one of the best options for attracting medical tourists. A population of 245 million persons in 17 Arab countries and the lack of sufficient specialized services have led thousands of Arab patients to travel to other countries for medical services every year. For example, in the United Arab Emirates alone, 6,000 patients are admitted to international hospitals each year, and Iraq is experiencing a low number of healthcare investors within its borders due to security concerns. Therefore, these conditions are conducive to attracting people to use Iranian medical services (11).

Due to its proximity to Arab countries and having a common culture and language with most of them, potential medical facilities and having 21 active hospitals, and hosting many foreign and domestic tourists, Ahvaz is one of the busiest cities hosting a large number of medical tourists. Thus, the city needs more invests in its tourism industry and reinforcement of its health sector infrastructure to make huge profits in this lucrative market. By evaluating the ability of hospitals to comply with the Joint Commission International (JCI) accreditation standards and as a result their strengths and weaknesses, it is possible to take steps to promote hospitals in the field of health tourism and gain a competitive advantage in this field. Moreover, the development of this industry will improve the quality of medical services offered in hospitals and other medical centers, leading to job creation in the country's health sector in line with international standards. Such measures can ultimately lead to more earnings and foreign currency revenues for the country, leading to the economic, social, cultural, and political prosperity of the country.

Compared to other studies, one of the innovations of the present study is the evaluation of 21 hospitals from different organizations. The findings of this study can contribute to identifying and improving prioritized areas, improving capabilities in the health tourism industry, and ultimately attracting more medical tourists. Accordingly, the present study aimed to evaluate the readiness of hospitals in Ahvaz in attracting health tourists using the standard approach proposed by the Joint Commission International (JCI).

Methods

This was a descriptive-analytical and cross-sectional study conducted in 2019 in Ahvaz hospitals. The research sample included all 21 hospitals in Ahvaz, including private hospitals and hospitals affiliated with universities, the Imam Khomeini Relief Committee, the Veterans Foundation, the Iranian Police Force, the Social Security Organization, Islamic Republic of Iran Army, National Iranian Oil Company, and Islamic Revolutionary Guard Corps (IRGC).

The instrument used to collect the data was a questionnaire that was developed based on the Joint Commission International (JCI) accreditation standards for hospitals (12). The questionnaire contained two sections. The first section included questions about the type of hospital, the degree of evaluation of the hospital as a whole and its department(s) to attract medical tourists, and the intensive care units (ICUs), and the general characteristics of the hospital. The second section assessed 8 main components of international patient-centered standards, including patient safety goals, access to care and continuity of care, patient and family rights, patient evaluation, patient care, anesthesia and surgical care, drug prescription, drug use management, and family and patient education standards. It should be noted that each of these components includes several sub-components. The data were collected through observations and interviews with patients and staff of the relevant units. The degree of compliance with each standard was measured using five scales (always observed, often observed, somewhat observed, rarely observed, and not observed at all). Each standard was scored on a scale of 0 to 4. The standards measured in the questionnaire and its

measurement scales were approved by the Joint Commission International (JCI). Its face validity was confirmed by subject-matter experts. To assess the reliability of the questionnaire, it was administered in three hospitals, and the Cronbach's coefficient was estimated as 0.87, indicating the acceptable internal consistency of the questionnaire.

The total score for the whole questionnaire in this study varied from 0 to 632 which was calculated and reported as a percentage. The data were summarized using descriptive statistics including percentage, mean, and standard deviation. Mann-Whitney U test was used to analyze the data in SPSS software (version 22). This study was conducted in compliance with ethical considerations such as obtaining the necessary permits from legal and required authorities, stating the objectives of the study for the respondents, respecting the etiquette and the respondents' rights, observing hospital rules and regulations when collecting data, having honesty and fidelity in using sources and information, and publishing the results of the study without any distortion or manipulation in the data. The protocol for this study was approved under the code of ethics IR.QUMS.REC.1397.225 by Qazvin University of Medical Sciences in 2019.

Results

Of the 21 hospitals in the research sample, 8 hospitals were teaching hospitals, 4 were private hospitals, 3 were affiliated with Social Security Organization, and the other 6 hospitals were affiliated with charity organizations, the Veterans Foundation, the Iranian Police Force, the Iranian Army, National Iranian Oil Company, and Islamic Revolutionary Guard Corps (IRGC). The average bed occupancy rate was 56.76% in other hospitals and the corresponding value was up to 77.83% in teaching hospitals. Moreover, the average hospital stay was 1.62 days in private hospitals and about 11.63 days in teaching hospitals. The average bed rotation ratio varied from 52.13 times in other hospitals to 65.19 times in the hospitals affiliated with the Social Security Organization. Furthermore, the average bed rotation interval varied from 1.66 days in private hospitals to 3.32 days in other hospitals. Table 1 shows the demographic characteristics of the hospitals in Ahvaz in 2019.

Table 1. The demographic characteristics of the hospitals

Hospitals	Standards			
	Average bed occupancy (%)	Average hospital stay (day)	Average bed rotation (frequency)	Average bed rotation interval (day)
Teaching hospitals (n = 8)	77.83%	11.63	60.82	2.16
Private hospitals (n = 4)	57.88%	1.62	59.07	1.66
Social Security Organization hospitals (n = 3)	67.24%	2.42	65.19	1.57
Other hospitals (n = 6)	56.76%	8.11	52.13	3.32

In terms of international standards for patient safety, patient assessment, and patient care goals, private hospitals obtained the highest rank, while the hospitals affiliated with the Social Security Organization had the lowest rank. Following standards of care access and continuity, patient and family rights, and drug prescription and administration management, the private hospitals had the highest, and teaching hospitals had the lowest efficiency. Moreover, concerning anesthesia and surgical care standards, the hospitals run by the Social Security Organization had the highest and the private hospitals had the lowest efficiency.

However, the hospitals run by the Social Security Organization had the highest, and other hospitals had the lowest ranks in terms of patient and family education standards. Generally, the private hospitals had the best performance, and the teaching hospitals had the worst performance in their compliance with the mentioned standards. Moreover, concerning patient-centered standards, the highest and lowest scores were related to anesthesia and surgical care standards (83.47) and the international patient safety goals (IPSG) standards (70.71), respectively. Table 2 shows compliance with the patient-centered standards in the studied hospitals.

Table 2. Compliance with the patient-centered standards in the studied hospitals

Hospitals	Standards							
	International patient safety goals (IPSG)	Care access and continuity	Patient and family rights	Patient evaluation	Patient care	Anesthesia and surgical care	Drug prescription and administration management	Patient and family education
Teaching hospitals	67.5	74.99	75.16	81.16	83.41	84.56	74.30	80.62
Private hospitals	87.5	84.37	83.22	84.37	86.77	79.68	85.76	82.50
Social Security Organization hospitals	65.83	75.63	82.01	76.31	78.2	85.93	84.25	86.66
Other hospitals	66.25	77.7	87.06	78.39	81.24	83.33	79.85	87.33
Total	70.71	77.46	87.50	80.28	82.68	83.47	79.49	81.19

As can be seen in Table 3, the mean score of patient-centered standards in the non-teaching hospitals was higher than that of the teaching hospitals. However, there was no significant

difference between the two groups of hospitals as indicated by the results of the Mann-Whitney U test (Table 3).

Table 3. Compliance with patient-centered standards in academic and non-academic hospitals

Variable	Hospitals	Number	Mean	Average rank	Sig.
Patient-centered standards	Teaching	8	77.71	8.81	0.205
	Non-teaching	13	80.15	12.35	

Discussion

Accreditation is an external evaluation model that guides the hospital towards the establishment of a comprehensive and systematic management system and promotes patient-centered culture by

providing effective standards. Thus, accreditation is an effective method that guarantees the implementation of the established standards. However, it should be noted that the implementation of these standards requires adequate capacity building in all aspects.

The findings of the present study indicated that private hospitals had the highest level of compliance (87.5%) with the international patient safety goals (IPSG), while the hospitals affiliated with the Social Security Organization had the lowest level of compliance (65.83%). Mousavi et al. studied the implementation of safety regulations in the radiology departments of hospitals affiliated with Tehran University of Medical Sciences and showed that the radiology departments were generally safe in the studied hospitals (80%), but relatively safe in terms of patient safety and fire control. The authors highlighted the compliance with fire control protocols for improving safety (13). Another factor that can play an effective role in promoting the level of patient safety in healthcare and medical centers is the existence of a patient safety culture in these centers. Thus, hospital officials are required to take effective measures to promote patient safety in hospitals.

The findings of the study also indicated that private hospitals had the highest level of compliance with care access and continuity standards (84.37%), while teaching hospitals showed the lowest level of compliance with care access and continuity standards (74.99%). Studies have shown that the continuation of patient care and treatment is of high priority for medical tourists (14). Khodayari et al. stated that the care access and continuity standards in Hazrat Rasoul (PBUH), Shahid Rajaei, Shahid Motahari, and Hasheminejad hospitals in Tehran were 57%, 63%, 62%, and 74%, respectively (15). By comparison, Khodayari et al. (15) reported the lowest and highest level of compliance with care access and continuity standards in public hospitals, while the present study reported the highest compliance in private hospitals and the lowest compliance with these standards in teaching hospitals. This difference can be attributed to hospital hoteling services and possibly insurance tariffs. To upgrade this standard, knowledgeable and capable managers' ideas and guidelines can be used to increase the hospital's hoteling services.

The data in the present study showed that private hospitals had the highest level of compliance with family and patient rights (83.22%) and teaching hospitals showed the

lowest level of compliance with care access and continuity standards (75.16%). Many hospitals providing medical tourism services tend to use indicators such as measuring patient satisfaction to improve their performance and use patient rights and patient satisfaction as one of their advantages to compete in the medical tourism market (16). Furthermore, an assessment of patient evaluation standards indicated that the highest level of compliance with patient evaluation standards (84.37%) was found in private hospitals, and the lowest level was reported in hospitals managed by the Social Security Organization (76.31). Masoudi Asl et al. found that the compliance with patient evaluation standards in selected hospitals in Tehran was in good agreement with Joint Commission International (JCI) standards (16). It seems that the use of qualified and experienced physicians and clinical staff and full observance of clinical standards in this field have a significant impact on the optimal implementation of patient evaluation standards.

Concerning the patient care standard, it was found that private hospitals had the highest level of compliance with this standard (86.77%) while hospitals affiliated with the Social Security Organization showed the lowest level of compliance with the patient care standard (78.2%). Patient care standards are one of the basic principles for obtaining the Joint Commission International (JCI) certification (17). This indicates the importance of the quality of care and its impact on the creation or prevention of complications. Thus, nurses are required to improve the quality of care by performing various activities and roles in providing health services and taking effective steps to promote the nursing profession and its appreciation by the community.

The findings of the present study indicated that hospitals managed by the Social Security Organization had the highest compliance with anesthesia and surgical care standards (85.93%), while private hospitals had the lowest compliance (79.68%) with these standards. Supporting the needs of patients before surgery with a holistic care approach through patient participation in care planning makes their adaptation to the surgical procedures easier and increases their satisfaction (18).

Observance of anesthesia standards according to a standard checklist is essential before, during, and at the end of the anesthesia process of patients, and if there is a problem, a logical solution should be provided (19).

An analysis of the degree of compliance with drug prescription and administration management standards showed that private hospitals had the highest compliance (85.76%) and teaching hospitals had the lowest compliance (74.30%) with these standards. Accordingly, safavi et al. showed that the implementation of medication orders is one of the most important vital aspects of nursing care. Prevention of medication errors requires knowledge, decision-making, and proper practice (19). It is believed that taking measures such as holding training workshops on safe medication and reducing the workload and working hours of nurses can reduce the frequency of medication errors committed by them.

The results of the study concerning the patient and family education standard showed that Al-Zahra hospitals of the Social Security Organization had the highest compliance (86.66%) and other hospitals had the lowest compliance (78.33%). In their comparative study, Ahmadi et al. examined the compliance of hospital standards of the Ministry of Health with the Joint Commission International (JCI) accreditation standards and found a 70% mismatch between these standards, indicating that patient and family education had almost no place in hospital standards enacted by the Ministry of Health (20). This finding was partly inconsistent with the results of the present study. In another study, Najafi et al. examined the effect of self-care education on the quality of life of patients with myocardial infarction and concluded that patient education increases the quality of life of patients, highlighting the importance of patient education (21). It seems that education to patients and their families plays an important role in reducing complications and problems caused by the disease. Moreover, effective and timely education to patients plays an important role in reducing patient re-visits or additional costs imposed on the country's health system.

In general, the highest and lowest scores were related to the anesthesia and surgical care

standard (83.47%) and the patient safety standard (70.71%) in the present study. However, Ghaseminejhad et al. showed that the highest score was assigned to international patient safety standards and the lowest score was related to patient and family education standards (12).

The data in the present study also indicated that the average score of patient-centered standards in non-teaching hospitals was higher than that of teaching hospitals. Similarly, Keshavarz et al. found that private hospitals have more acceptable standards than public hospitals (22).

One of the limitations of this study was the diversity in the type of hospitals studied, which made it difficult to compare the scores assigned to hospitals in each standard. Moreover, a large number of hospital officials and staff were unfamiliar with international hospital accreditation and quality standards.

Conclusion

Following the results of this study, medical centers can increase their role in the health market by investing more in higher-scoring standards and introducing them as their unique capabilities in providing services. In addition, low-scoring standards can be improved by developing comprehensive programs, training staff, and modifying certain processes. Furthermore, there is a need for more planning and implementation of plans to strengthen the Joint Commission International (JCI) accreditation standards in Ahvaz. If these hospitals seek to attract medical tourists, especially foreign tourists, medical universities need to focus on the establishment of standards and the use of professional consultants.

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Conflict of interest

The authors declared no conflict of interest.

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