Medical Tourists' Perception of Service Quality in Children's Medical Center of Tehran, Iran

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Abstract

Background: Medical tourism is one of the most influential factors in industrial growth and development. To increase medical tourism, it is crucial to promote the quality of medical care and facilities to the level of international standards. This study aimed at identifying service quality as perceived by medical tourists admitted to the children's Medical center of Tehran.

Methods: All patients admitted to the children's Medical center between years 2014 and 2015, in all hospital wards, were included. For data collection, a 24-item questionnaire and the Likert scale for scoring were used. The reliability of the questionnaire was assessed with Cronbach's Alpha coefficient, which was 0.87. The data was presented as descriptive measures.

Results: The findings revealed that therapeutic care and facilities were rated as "good", by 56.67% and 65% of the patients, respectively. The clarity of medical costs was rated as "very poor" by 50% of the patients. Furthermore, payment system was clearly causing problems for a large percentage of patients (48.33%), mainly due to the weak currency exchange capability.

Conclusions: The findings of this study suggest that the center has satisfactory medical services and therapeutic care, however, it fails to provide a good payment service and enough currency exchange counters for the patients, which need proper planning and monitoring.

Keywords: Hospital Managements, Medical Tourism, Patient Satisfaction, Pediatrics

1. Background

Improvement of medical standards in developing countries has led to growth of medical tourism. Constant evaluation of medical centers with medical tourism services is one of the fundamental measures for improving medical tourism attraction (1).

Having a good understanding of hospital capabilities in Iran is one of the main guidelines for development of medical tourism, which is a new concept in developing countries (2). Recent studies in Tehran hospitals showed that poor international credit is one of the main factors resulting in failure of medical tourist attraction (1). However, Yazd, another province of Iran, had a better status in terms of medical services, as determined by analysis of medical tourists' satisfaction level (3).

The present study aimed at evaluating the quality of services delivered to medical tourists in children's Medical center of Tehran and proposing practical solutions for enhancing medical tourism in Iran.

2. Methods

This was a descriptive study, carried out between years 2014 and 2015 in the children's Medical center, an academic hospital of Tehran University of Medical Sciences (TUMS), Tehran, Iran. The hospital offers all major pediatric subspecialties and has a capacity of 400 beds.

This study registered all consecutive medical tourism patients and their companions, referred to the center for receiving medical treatment. The questionnaire was personally presented to the patients by the researchers. Informed consents were obtained after explaining the study objectives for each patient. The study was according to the regulations of the ethical committee of the Orthopedic department of Tehran University of medical Sciences (Code: 921016). A total of 60 medical tourists participated in this study. The average age of the parents of the patients was 31 years (due to the young age of the patients, their parents filled the questionnaire).

A modified 24-item questionnaire was used, which was originally designed by Nasiripour and Salmani (2). The

questionnaire was designed in 3 parts, including medical care, nursing care, and hoteling. A 5-point Likert scale was used, and each question had 5 possible answers as follows: excellent = 5, good = 4, moderate = 3, poor = 2, and very poor = 1. Unanswered questions received a score of 0 (Table 1). Distribution and description of the patients' answers in the aforementioned domains is summarized in Table 2. The SPSS version 21 software was used for statistical analysis. The results were expressed as frequency, mean, and standard deviation (SD).

3. Results

Sixty medical tourists participated in this study, of which 41 were from Iraq (Samarra, Al-Kazimayn, and Karbala), 10 from Azerbaijan Republic, 4 from Tajikistan, 2 from Afghanistan, 2 from Syria, and 1 from Romania. All patients referred to this center for receiving medical treatments (details in Table 3). The frequency, percentage, average score, and standard deviation of patients' answers are presented in Table 1. Distribution and description of the patients' answers in the aforementioned domains is summarized in Table 2.

4. Discussion

The findings revealed that therapeutic care and facilities were rated as "good", by 56.67% and 65% of the patients, respectively. The clarity of medical costs was rated as "very poor" by 50% of the patients. Furthermore, the payment system was clearly causing problems for a large percentage of patients (48.33%), mainly due to the weak currency exchange capability. In the current study, based on medical tourists' perceptions, therapeutic facilities, equipment, and well-experienced nurses were among the most important items, which could be used for enhancement of medical tourists at any center with medical tourism services. To the best of our knowledge, there was no study in Iran investigating the medical tourism in pediatric hospitals. Similar studies have also emphasized on the need for more investments to decrease deficiencies and improve the strengths of medical tourism (4). Absence of translators, lack of currency exchange facilities for payments, lack of financial clarity, loosing follow-up after return of the patients to their home country, and inadequate advertising among neighboring countries, need to be considered and reformed. In a similar study, application of medical equipment, according to the international standards and declaration of costs were 2 of the most important factors in development of medical tourism (2). The results of the present study are in accordance with similar reports from

other cities of Iran. In a study from the Yazd province, phasic TOPSIS (the technique for order preference by similarity to an ideal solution) was used to prioritize the influential factors. Important factors that were discouraging for medical tourists were lack of amenities for patients and their companions, and lack of necessary training on polite behavior with patients by hospital personnel (5). In the assessment of medical tourism in Tehran province from medical tourists perspective and providers of medical services in 2010, Delgoshai et al. concluded that performance of Tehran hospitals was suitable in terms of diversity and expenditures of medical services and facilities, yet, the efforts to attract medical tourists at the international level were poor and insufficient (1).

In the recent years, many studies on medical tourism in developing countries have been carried out on the adult population. However, patient rights, nursing care, and education were reported to be insufficient (6). Also, it was suggested that multiple marketing plans are needed to improve the quantity of medical tourism and related businesses (7).

In a similar study, investing on equipment, updating hospitals, and increasing personnel skills was mentioned as effective factors in medical tourist attraction (5). In another study on the role of Tehran hospitals in development of medical tourism, high-tech medical equipment were the strength of the system and lack of transparency in medical costs was the problem (2). In a research on the evaluation of tourism potential of plastic surgery in Isfahan, Jabbari et al. stated the ability of specialists as a central component for Isfahan hospitals (8). The factors improving medical tourism included comprehensive attention to the development programs for improvement of basic infrastructures, interdisciplinary coordination, and good marketing (8). In the study of Johnston et al., the main problem of medical tourism for family physicians was the concerns around providing adequate follow-up after the patient returned to his/her country and related legal liabilities (9).

The limitations of this study included small sample size, lack of an Arabic-speaking interpreter (the majority of tourists were speaking Arabic), and the possibility of response bias due to concerns about the impact of the responses on the treatment process. Thus, multi-center studies with greater sample sizes are suggested to offer a comprehensive and strategic plan for medical tourism in the long term, which results in more financial income and a better medical tourist ranking in the region.

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Table 1. The 24-Item Questionnaire

No.	Variables	Excellent, %	Good, %	Moderate, %	Poor, %	Very Poor, %	Mean	SD
1	Order and discipline in performing the tasks related to hospital admission	25	45	11.7	1.7	16.7	3.3	1.3
2	Status of accommodation facilities near the hospital for the patient companions	1.7	21.7	13.3	40	23.3	2.5	1.2
3	English proficiency of nursing team	0	5	6.7	35	53.3	1.7	0.8
4	Payment mechanism of medical costs	1.7	5	5	51.7	36.7	1.7	0.7
5	The possibility of consultation with the doctors via website	0	1.7	6.7	26.7	65	1.4	0.6
6	Status of pursuing the treatment of patients after returning to their home countries	1.7	1.7	3.3	28.3	65	1.6	1.05
7	Maintaining cleanliness of hospital rooms	18.3	63.3	11.7	3.3	3.3	3.6	1.1
8	Status of access to nursing personnel when needed	16.7	73.3	6.7	3.3	0	3.9	0.9
9	Status of recreational facilities for patient companions	3.3	50	18.3	11.7	16.7	3.2	1.1
10	Knowledge and awareness of nursing personnel	13.3	68.3	8.3	10	0	3.7	0.9
11	Status of medical facilities	23.3	58.3	10	6.7	1.7	3.8	0.8
12	Behavior of nursing personnel with patients	5	61.7	30	0	3.3	3.7	0.7
13	Quality of medical treatment for the patient	17.7	58.3	21.7	3.3	0	3.7	0.8
14	Nurses' respect to privacy of patients	1.7	1.7	18.3	76.7	1.7	3.7	0.6
15	Status of access to doctors when needed by the patients	5	55	21.7	1.7	16.7	3.3	1.1
16	Nurses' information about the disease and behavior with the patients	0	40.7	42.4	8.5	8.5	3.2	0.9
17	Clarity status of costs and prices for patients	0	13.3	5	25	56.7	1.9	1.1
18	Relevance of doctors' specialties to their scope of activities	6.8	55.9	25.4	5.1	6.8	3.3	1.1
19	Impact of presence of translator (interpreter)	88.3	3.3	0	5	3.3	4.3	1.3
20	Possibility of doing financial transactions via electronic banking system for patients	1.7	3.3	8.3	31.7	55	2.8	1.07
21	Media coverage of medical tourism	1.7	3.3	8.3	26.7	60	1.6	0.9
22	Status of notification system of the hospital for medical tourists	0	11.7	6.7	30	51.7	1.8	1.04
23	Status of electronic communications or telecommunications for patients	1.7	23.3	35	21.7	18.3	2.7	1.1
24	Status of access to urban public transportation for patients	3.4	71.2	13.6	1.7	10.2	3.3	1.08

Table 2. Mean and Standard Deviation of Patients'Perception of Three Main Domains of the Questionnaire (Medical Care, Nursing Care, and Hoteling)

Variables	Mean $\pm$ SD	Minimum	Maximum	Number of questions
Medical care	66.25 $\pm$ 17.11	2	100	3
Nursing care	56.66 $\pm$ 13.8	6.25	81.45	5
Hoteling	44.65 $\pm$ 15.44	0	70.83	7

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Table 3. Patients' Characteristics

Variables	Number of cases	Percentage
Age, y		
15 - 25	14	23.3
25 - 35	25	41.6
35 - 45	10	16.6
45 - 55	8	13.3
55 - 65	2	3.3
Nationality		
Iraq	41	68.6
Tadzhikistan	4	6.6
Azerbaijan (Baku)	10	16.6
Romania	1	1.6
Afghanistan	2	3.3
Syria	2	3.3
Gender		
Female	26	43.3
Male	34	56.7

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