



Potential Factors Affecting Medical Tourists' Viewpoint About Healthcare Services Quality in Shiraz, Iran

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Abstract

Background and Objectives: Medical tourism (MT) continues to gain ever increasing attraction among patients around the world. The quality of services as perceived by medical tourists has is a key factor in encouraging patients to use MT option for their treatment. The present study aimed to explore which variables could affect the medical tourists' perspective about services quality.

Methods: The medical tourists from the countries of the Persian Gulf border who referred to a selected number of the private hospitals in Shiraz (Southern Iran) were surveyed. The SERVQUAL scale was used as the study instrument. Data were analyzed using univariate and multiple-regression analyses.

Findings: Nationality and type of therapy were found to significantly influence the perceived quality of healthcare by medical tourists.

Conclusions: Detailed information on demographic characteristics and medical needs of medical tourists is essential for the policy-makers to adapt their strategies towards promotion of MT.

Keywords: Medical tourism, SERVQUAL, Health care services, Hospitals

Background and Objectives

Increased global competition in the Tourism Service Business has led to the fact that high quality service has been a key factor to attracting and retaining customer.¹ So, in this regard, this business makes marketers continually try to assess the customers' expectations of service quality in order to keep them satisfied.² Recently, a new form of tourism has grown as medical tourism (MT) and has gained great popularity among the countries.³ Also, in 2005, MT is one of the important world industries, producing over 5 billion dollars income worldwide.⁴

Since the level of service quality is one of the main factors that medical tourists seek for, over the past few years, the study of patient satisfaction of service quality has been increasingly accomplished. So it seems to be inevitable that the healthcare service providers consider

all aspects of MT to gain the patients' maximum satisfaction⁵; also, the importance of the patients' viewpoint in the process of monitoring and improving quality of healthcare services is so stressed.⁶⁻¹¹

To specify the level of service quality in general businesses and even in the healthcare system, the SERVQUAL is a popular model which is built on the basis of customer/patient expectations and perceptions.¹²⁻¹⁵

This popular model measures service quality using a questionnaire which contains 22 pairs Likert scale statements structured around 5 service quality dimensions in its original form. Each statement appears twice, one measuring customer expectations and other one measuring the perceived level of service provided by an organization.^{16,17}

Moreover, the patients' socio-demographic characteristics are strong predictors of the patients' perceptions of healthcare quality and have a positive association with patient satisfaction.^{18,19} In this regard, many studies have tried to evaluate the impact of patients' demographic

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factors on patients' viewpoint about the service quality. In Blanchard and colleagues' study, potential predictors of cancer patient satisfaction were examined. Based on this study, satisfaction as well as perception measures naturally depended on the characteristics of the patient themselves.²⁰ In another study, the differences in satisfactions owing to age, gender, and level of education of patients in need of surgery were evaluated in order to identify the predictors of patient satisfaction.²¹ Alrubaiee and Alkaa'ida examined the significance of socio-demographic variables in determining healthcare quality, patient satisfaction, and patient trust.²² In another study, the difference in demographic profiles of veteran population with high versus low ratings on the SERVQUAL dimensions was checked.²³ In Al-Khalil and Mahmoud's study, the impact of the patients' demographic factors including gender, education, age and income on their perception of service quality was assessed.²⁴ Sitzia and Wood presented a review article arising from an analysis of over 100 papers published in the field of patient satisfaction. In this study, the demographic determinants of satisfaction were examined in relation to the literature on expectations.²⁵ In another research, Naidu evaluated the association between patient satisfaction and socio-demographic variables including age, education, health status, race, marital status, and social class.¹⁹

This study aimed to investigate the influential factors between all demographic factors that might affect medical tourist's viewpoint about service quality measured through SERVQUAL model.

Methods

Data

This research was a cross-sectional study. The participants were the medical tourists from the countries of the Persian Gulf border who referred to the private selected hospitals in Shiraz (including Ordibehesht, Doctor Khodadoust, Pars, Madar and Koudak, Markaziand Dena hospitals). Due to the limited number of patients and lack of cooperation from many of them, we considered all medical tourists that referred to the selected hospitals and were hospitalized over the first 6 months of 2013.

Tools

1. *Questionnaire of Demographic Information*: This questionnaire consisted of 14 questions. Data on age, sex, marital status, education level, place of residence for the patients and their companions, nationality, type of travel to Iran and Shiraz, source of information which the patients achieved from the selected hospital, the type of medical treatment demanded by patients, and length of stay in the city and hospital were collected through the questions

which were completed on admission.

2. *Questionnaire of Service Quality*: This questionnaire is an adaptation of SERVQUAL scale based on a gap model,²⁶ which suggests the gap between customers' expectations and their perceptions of service quality. This scale contained five dimensions including Tangibles, Reliability, Responsiveness, Assurance and Empathy.

In order to check out the validity of the expectation and perception questionnaires, with regard to the study goal and the target population, 2 professional Arabic translators translated the questionnaires into Arabic. Then the Arabic, Persian and English versions of the questionnaires were given to three Arab doctors, who were practicing medicine in Shiraz, to validate the questionnaires.

In the following, after approving validity, a pilot study was done and the reliability of the questionnaires were confirmed using the Cronbach α (90% and 89% for expectations and perceptions respectively).

This questionnaires was filled out by the medical tourists on admission and discharge respectively to evaluate their "expectation" and "perception" about the service delivered. In fact, the outcome variable in this study, is the gap mean score between medical tourist's expectation and perception.

This project was confirmed by Ethical Committee and also, Research Council of Isfahan University of Medical Sciences. The medical tourists' informed consent to participate in the study has been considered as an only inclusion criteria. Both questionnaires were prepared in Arabic for readability and clarity with medical tourists. It should be noted that the hospitals with low or no medical tourists, i.e. all public and some private hospitals in the city (at least <10 patients each month), were excluded.

Statistical Method

The collected data were analyzed using the statistical software (SPSS Version 18.0). ANOVA and independent sample *t* tests were applied for univariate analysis and the linear regression analysis was used to determine the influential demographic variables which affected Arab patients' perspective about hospitals' service quality in Shiraz.

Results

In this study, over 350 questionnaires were distributed and 200 of them extracted for analysis. Other questionnaires were omitted because they were incomplete or some patients filled it once (just as expectation). Medical tourists had mean age of 49.66 (SD=16.04). Over one-half (57.5%) had low literate education and more than three-fourths (77%) were married. The majority of all stayed lower than 7 days in the city (83%) and over half (50.5%)

were from Oman. The most popular treatment was eye surgery (66%).

According to univariate analysis age, nationality and type of therapeutic service were significant. The Pearson correlation between age and gap mean score was obtained 0.27 ($P < 0.001$). All values of overall gap mean scores were negative which mean that the patients' expectation were more than their perception of hospitals' services (Table 1).

In order to determine the most important demographic variables might affect the medical tourists' idea about service quality, we used multiple regression analysis (Table 2). We set the P value at 0.2 to choose including predictors in the multiple regression model based on univariate analysis. A backward elimination process was applied, using a 0.1 significance level for predictor removal. Table 2 showed the last predictors that remained in the model.

Based on the final result, surgery type and nationality are the most important factors affecting medical tourists' viewpoint. For the variable surgery type, eye surgery and for the nationality variable, other nationality consider as reference variables.

Other demographic variables such as gender, bedridden state duration, residence, type of entry to Iran, etc. did not have a significant effect on patients' viewpoints about the services.

Discussion

Our findings indicated that medical tourists' characteristics play an influential role in their perspective of the perceived services delivered by the healthcare centers and make it

more difficult for service providers to ensure patient satisfaction and at the same time establish a competitive advantage for their organization. Therefore, the managers must understand and cope with these challenges if they intend to compete successfully in the complex and dynamic service environment.

Based on the result, some demographic variables showed a positive association with patients' viewpoints about the services provided by selected hospitals; however, these findings are sometime consistent or contradictory with those of the previous studies. The variables investigated in this study included age, education, marital status, nationality, type of therapeutic service received, and length of stay in the city.

The univariate finding showed that older patients consistently tended to report lower levels of overall gap than younger ones; this result is consistent with those of some previous studies.^{11,21,27,28} In addition, marital status traditionally has been included in this kind of study, but the results showed married and single patients have no difference about gap mean score, which is inconsistency with the results of other studies.^{21,27}

About education, our study revealed that medical tourists with low literacy levels had lower gap than high literacy levels this which is consistent with the result of Hall and Dornan study.¹⁸ In the following, the results from the multiple regression analysis showed that there is a significant relationship between surgery type and nationality with MT viewpoint.

With regard to nationality of medical tourists, the lowest overall gap between expectation and perception was

Table 1. Univariate Analysis of Demographic Variables

Demographic Variable	No. (%)	Gap Mean Score	P Value
Education ^a	Low literate	115 (57.5)	-0.32
	High school diploma	85 (42.5)	-0.46
Length of stay in the city ^a	≤7 days	166 (83)	-0.36
	>7 days	34 (17)	-0.48
Marital status ^b	Married	154 (77)	-0.39
	Single	20 (10)	-0.42
	Divorced	12 (6)	-0.4
	Widowed	14 (7)	-0.14
Nationality ^b	Omani	101 (50.5)	-0.21
	Kuwaiti	34 (17)	-0.6
	Iraqi	25 (12.5)	-0.44
	Other nationalities	40 (20)	-0.6
Type of therapeutic service ^b	Eye surgery	132 (66)	-0.22
	Plastic surgery	28 (14)	-0.48
	General surgery	29 (14.5)	-0.85
	Fertility and infertility surgery	11 (5.5)	-0.8

^a Independent t test.

^b ANOVA.

Table 2. Multiple Regression for Selected Variables Predicting Total Gap Mean Score After Backward Elimination

Model	Coefficients ^a					
	Unstandardized Coefficients		Standardized Coefficients		<i>t</i>	<i>P</i>
	B	Standard Error	Beta			
(Constant)	-0.168	0.037			-4.510	0.000
Plastic surgery	-0.160	0.089	-0.126		-1.790	0.075
General surgery	-0.547	0.082	-0.437		-6.663	0.000
Step 4 Fertility surgery	-0.457	0.127	-0.237		-3.614	0.000
Kuwaiti	-0.185	0.088	-0.158		-2.114	0.036
Iraqi	-0.187	0.082	-0.141		-2.284	0.023
Other nationality	-0.172	0.078	-0.156		-2.209	0.028

^aDependent Variable: total gap mean.

related to Omani patients. As to the type of therapeutic service, the lowest level of gap mean score was related to the patients who had undergone eye surgery. In Rokni and colleagues' study, a high number of referring patients were from Oman and for eye treatment which may indicate the previously referred Omani patients' were satisfied about the hospitals' services.²⁹

Conclusions

Exploring factors that contribute to a customer's perspectives of the perceived service quality provided by health-care centers is useful to service managers in designing service systems and policies that would improve their operation performance and enhance patient retention.

Medical tourists' viewpoints about the services will ultimately affect their satisfaction of the overall healthcare institution and host country where they were treated. So due to the international competition in medical tourists' attraction, understanding the demographic characteristics of individuals enables the authorities to make decisions and change their strategies in offering services in order to develop MT industry and enhance their satisfaction, thereby raising medical tourists' attraction and trust.

In summary, this study demonstrated how demographic variables could affect the medical tourists' perspective about service quality especially patient' nationality and type of therapy received. So more ads about the hospitals' quality of services in countries that have more patients coming to our country like Oman can be efficient. Also we can develop technology and facilities in the field of popular treatment like eye surgery in our country.

There were 2 important limitations in the present study. Although gathering the large dataset of medical tourists' expectation and perceptions about service provided at 2 different times in addition to their demographic information was a time-consuming and exhausting process, it led to the lack of cooperation from some patients in filling out the questionnaires. Moreover, due to lack of familiarity of the

health centers' authorities with the subject, the researcher faced some problems to legalize and authorize the performance of the study.

Further studies are recommended to be conducted on the role of demographic factors in service quality evaluation in domestic patients who refer to private and public hospitals in Shiraz and then compare the results with that of the present study. Also, creating a safe and effective competitive space among the hospitals that provide services to medical tourists may be useful to enhance their quality of service.

Authors' Contributions

The authors made equal contributions to the present study.

Competing Interests

The authors declare no competing interest.

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