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Service Quality and Patients' Satisfaction in Medical Tourism

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Abstract: Medical tourism is a term initially coined to describe the rapidly-growing practice of traveling across international borders to obtain healthcare. Over 50 countries have identified medical tourism as a national industry and Malaysia has been identified as one of the popular medical travel destinations globally and in the region due to its low cost, efficient staff and medical facilities that are on par with western standards. Because of the importance of this business, Malaysia's healthcare service providers and government agencies are required from time-to-time to examine service quality in order to keep it lucrative and increase the number of their customers. Thus, the aim of this study is to investigate the influence of healthcare service quality on medical tourists' satisfaction that come to Malaysia as international patients. The units of analysis of this current study are individuals that attend private healthcare centers in Penang. Overall, the study findings revealed a positive relationship between healthcare service quality and overall patient satisfaction. Therefore, the government and service providers should pay more attention to healthcare service quality to be able to create reliable competitive advantages for developing the medical tourism industry compared to their regional competitors.

Key words: Service quality · Patients' satisfaction · Medical tourism · Healthcare centers

INTRODUCTION

Asian countries have attracted increasing numbers of medical tourists for health treatment in the past few decades. In the early 1970s, countries like Thailand, India and Singapore became popular medical tourism destinations [1]. Based on the growth in medical tourism [2,3], it appears to be inevitable and with any consumer driven trend, that the development of medical tourism would have both positive and negative impacts to a country's economy. Indeed, it is essential for the healthcare service providers to consider all aspects of medical tourism including physicians' professionalism level, certification services and ethical issues, thereby helping to assure maximum patient satisfaction. The main factors medical tourists look for in quality medical treatment is level of service quality and cost consideration. In some cases, healthcare services are advising their patients on where they should travel for treatment, handling all their travel arrangements, teleconferencing with physicians and sending medical records to their home country [4].

Since the Asian economic crisis since 1998, many countries recognized the importance of economic diversification and this has led to Malaysia's increased involvement in developing medical tourism [5]. In 2005, Malaysia drew 230,000 foreigners into the country for health/medical tourism, generating a revenue of about 151 million ringgit with a compound annually growth rate estimated to reach US$40 billion to US$100 billion by 2012 [6]. A large percentage of foreign patient admissions (57%) originated from ASEAN countries. About 65% to 70% of foreign patients' travel to Malaysia were from Indonesia, 5% to 6% from Japan, 5% from Europe and 3% from India. According to Malaysia's healthcare association, Penang is the most favored destination for medical tourism followed by Malacca and Johor Baru, respectively [1]. Although, the growth of medical tourism has made a great contribution to the country's economy, it can be argued that relatively little attention has been paid to the interrelationship between healthcare issues and tourism [7]. How patients view the services which they have received, will ultimately affect their perception of the overall healthcare institution and host country

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where they treated. Consequently, patient satisfaction generally can be seen as customer satisfaction in academic discussion and literature review. The better service that they perceive will create greater opportunity for healthcare service providers and policy makers to establish the country as a popular medical tourism destination and attract other international medical patients. Thus, the objective of this paper is to assess the role of service quality dimensions on patient satisfaction.

Literature Review

Perceived Service Quality: The construct of quality as conceptualized in the service literature and as measured by "SERVQUAL" involves perceived service quality. The SERVQUAL model [8] defined perceived quality as the customer's judgment about an entity's overall excellence or superiority. Another approach [9] stated that quality is whether the customer perception has met his/her expectation or not. This is in strict conformance with the models in the literature on service quality, which describes it as the ability to consistently meet external and internal customers' needs, wants and expectations involving procedural and personal encounters [8-12]. A further review of literature reveals that service quality has been described by various researchers as a form of attitude, related but not equivalent to satisfaction, which is reflected in the gap between expectations of customer and service providers' performance [8, 13].

According to the proposed model [14], service providers must be concerned with four characteristics of services which are:

- **Intangibility:** Intangible services are performances and experiences rather than objects and intangibility means that the buyers normally cannot see, feel, smell, hear or taste a service before they conclude an exchange agreement with a seller.

- **Perishability:** Because of service's perishability, service providers neither can 'keep' nor 'store' the service because it has to be consumed or encountered on the spot.

- **Inseparability:** The inseparability aspect of services means customers can never separate the service provider from the service itself.

- **Heterogeneity:** This variability of service performance occurs at various levels.
  - "The quality of service performance varies from one service organization to another;
  - The quality of service performance varies from one service performer to another; and
  - The quality of service performance varies for the same performer on different occasions" [14].

These characteristics lead to a differentiation in consumer perceptions and behaviors and make it more difficult for service providers to ensure customer satisfaction and at the same time establish a competitive advantage for their organization. Therefore, services managers must understand and cope with these challenges if they intend to compete successfully in the complex and dynamic service environment [15], [16]. Furthermore, these surveys have shown that higher patient satisfaction shows higher service quality in healthcare centers [17-19].

Three general components for satisfaction are described below: i) Satisfaction is a response, which can be emotional or cognitive; ii) The response pertains to a particular focus, such as product, expectation and consumption experience; iii) The response occurs at particular time, for example after consumption, after purchase or after accumulated experience [20]. Moreover, the literature of social psychology has recognized two important facts, or dimension for customer's attitudes toward perceived services: the emotional or affective aspect, the cognitive or behavioral aspect [21]. Satisfaction is similar to attitude and both the cognitive and affective models [22] may be the alternative for describing satisfaction. Between patient satisfaction and healthcare quality of services [26]. These finding proved that a patient's overview and perspective of perceived service in healthcare centers plays a great role in the improvement level of service quality. Accordingly, it showed that in clinical care environments, some surveys were conducted to gain the actual needs and determinants of patients' satisfaction. Between the 1960's and 1970's, patients' satisfaction was considered an influential factor, which affected the clinical outcome as well as leading to a legitimate right for patients to achieve the best quality in hospitals and clinics [27-28]. Therefore, the concept of patient satisfaction was introduced as a critical factor in the measurement of service quality [27].

In addition to this, the patient's experience and perception of quality of perceived service in healthcare centers has become a valid and trusted tool for managers and policy makers to assess their organization's quality of service based on their customers' feedback [29].

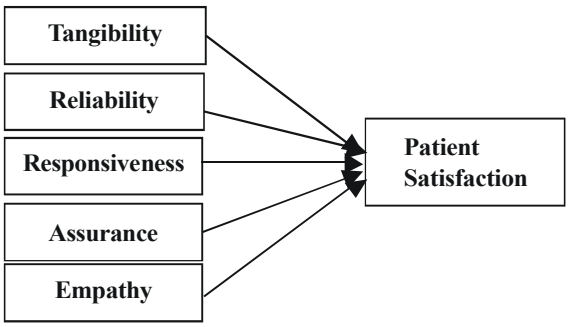

Fig. 1: Research Model

Research Model and Hypotheses: Based on the research model shown below, five hypotheses were developed and tested in this study which is displayed in Figure 1.

Service Quality Dimensions

Tangibility: This factor refers to the" physical facilities, equipment and appearance of personnel" [8]. This issue has been noted as one of the most important factors in service industry when dealing with quality of services. Moreover, the quality of delivered services is primary associated with service variety and features [30]. By applying these statements the first hypothesis developed is:

- **H1:** There is significant relationship between tangibility and patient satisfaction.

Reliability: This factor refers to "the ability to perform the service dependably and accurately "[8]. Customer satisfaction will be high when service providers are able to show their integrity; customers have confidence in the service provider's feature performance because the level of past performance has been consistently satisfactory [31]. Also it has been concluded that reputation can be used as an effective means of predicting the outcomes of the service provider and can be considered the most reliable indicator of the ability of a service provider to satisfy a customer's desires. As such, a second hypothesis is developed:

- **H2:** There is significant relationship between reliability and patient satisfaction.

Responsiveness: Responsiveness means "willingness of service provider to help customers and provide prompt services" [8]. They suggested that efforts to increase speed of processing information and customers are likely to have an important and positive effect on customer satisfaction. Therefore, the third hypothesis is proposed:

- **H3:** There is significant relationship between responsiveness and patient satisfaction.

Assurance: This factor refers to "employees' knowledge, courtesy and ability to convey trust and confidence" [8]. Further literature shows that assurance has a positive influence on customer satisfaction [32, 6 and 8]. The findings of several studies also support that assurance is an antecedent factor of customers' satisfaction [33]. They maintained when patients of hospitals received a high level of assurance, they were likely to experience a higher level of satisfaction. Consequently, the forth hypothesis is suggested:

- **H4:** There is significant relationship between assurance and customer satisfaction.

Empathy: This factor refers to the "level of caring and individual attention provided to customers" [28]. Many researchers have suggested that an empathy or customer relationship with service providers is an influential factor on customer satisfaction [34, 35 and 36]. Accordingly, the fifth hypothesis is developed:

- **H5:** There is significant relationship between empathy and patient satisfaction.

Methodology: The present study attempts to analyze the relationship between the independent variables and the dependent variable by applying a reliability analysis, correlation analysis, regression analysis, mean analysis and hypothesis testing. The paper is based on a survey questionnaire adopted from previous studies. The samples were randomly selected among international patients undertaking medical treatment in Penang healthcare centers. As a rule of thumb [37], sample sizes between 30 and 500 are used depending on how appropriate and effective the type of sampling design used and research questions implemented. As the research is on customer satisfaction, a sample size of 200 from private healthcare center is deemed adequate. The service quality measurement was adopted [38] and 5 point Likert scales were used as a measurement for the respondents with scoring of 1 (Strongly Disagree) to 5 (Strongly Agree), while the customer satisfaction instrument was borrowed [39 and 13] with similar point Likert scale.

Pilot Test: In order to test and to eliminate confusing or biased items in the initial stage of the survey, a pilot test was conducted on thirty two respondents as the test sample. The respondents were chosen from international patients who were in a convalescence period of their stay in Penang private hospitals. The feedback from the pretest was used to help researchers get a better perspective of the hospitals, their services and the related questions from the questionnaires. Based on the result from the pilot test, four questions were omitted from the questionnaires which respondents could not respond. Also, twelve questions about service quality dimensions were made simpler by researchers to help respondents understand better.

RESULTS

The final data used for statistical analysis is 200. The data was processed by using Statistical package for Social science (SPSS Version 16.0). The average age of the respondents ranged from 41 years and above (34.8%), followed by 36 - 40 year old (27%), whereas, respondents aged between 26 to 30 years old made up the smallest group at only 8.8 percent. The majority, out of the 200 respondents who completed the questionnaire, was male (51.5%), while females contributed 47.5 percent to the total number of respondents. In terms of income, majority of respondents (46%) earned between 15000US$ – 30000US$ annually.

Reliability, Mean and Standard Deviations of the variables

The internal consistency reliability is measured by applying Cronbach's alpha test to assess the multi-item constructs. Table 1 indicates the reliability, mean and standard deviation of the main variables used. The Cronbach's alpha for each variable was above 0.80, which showed a strong reliability was achieved for all the measures. In terms of mean, most were above the mid-point of three but a closer examination reveals variations as the standard deviation values were all above 0.60.

Independent variable, service quality stands at 23 percent (R^2 =. 23) of variance of the overall patient satisfaction, as shown in Table 2. "SERVQUAL" model is significant (F= 12.33, $p<0.001$). The hypothesis testing showed that higher reliability (β =0.22, $p<0.001$), responsiveness (β=0.153, $p<0.001$), assurance (β =0.15, $p<0.05$) and empathy (β = 0.26, $p<0.01$) were significant factors in achieving higher patient satisfaction. In other words, the higher the patient's perception of reliability, assurance and empathy, the superior the service quality of healthcare centers. As a result, hypotheses H2, H3, H4 and H5 were supported. On the other hand, tangibility (β = 0.10, $p>0.05$) was not a significant factor in the overall satisfaction. For this reason, hypothesis H1 was rejected.

Table 1: Reliability, Mean and Standard Deviation of the instruments

Variable	No of Item	Cronbach's Alpha	Mean	Std. Deviation
Tangibility	5	0.96	3.59	0.63
Reliability	5	0.91	3.67	0.60
Responsiveness	3	0.95	3.50	0.67
Assurance	4	0.80	3.38	0.69
Empathy	3	0.87	3.53	0.66
Overall satisfaction	3	0.86	3.94	0.66

Table 2: Result of Regression Analysis for Service Quality

Variable	Standardized Coefficients β	t	Sig.	F	F Change	R^2	Adjusted R^2
Constant		8.486	0.000	12.33***	12.33	0.23	0.22
Tangibility	0.107	1.502	0.135				
Reliability	0.229	3.255	0.001				
Responsiveness	0.153	2.749	0.000				
Assurance	0.156	2.320	0.021				
Empathy	0.261	3.670	0.000				

*Note: ***p<0.001*

DISCUSSION

Service quality has been shown to have a positive influence on customer satisfaction with the delivery of services [8]. At the same time, findings from this study showed that there was no signification correlation between tangibility and patients' satisfaction. These findings surprisingly contradict previous research's outcomes [8,32]. Possible reasons for reaching these results may come from the patients' beliefs and expectations of certain medical environments; in a hospital setting, patients may expect to receive better medical treatment/service rather than the aesthetics [40]. Furthermore, tangibles are least important determinants for measuring service quality in hospitals as they do not have a great role in forming and delivering the service but are instead related more to service performance [41]. In other words, patients put little importance to tangible items unless they feel an absence of those items in hospitals.

The results from the multiple regression analysis showed that there is a significant relationship between reliability and patient satisfaction. This result is consistent with previous studies [8 and 32]. Issues in this factor refer to patient's concern about providing accurate performance and delivery of services by healthcare centers without mistakes. In other words, it reflects the positive interrelationship between service supplier and customer.

The findings in this present study also illustrate that there is a significant relationship between responsiveness and patient satisfaction. It shows how suitable or adequate responsiveness from the hospital in respect to providing sufficient information to their patients leads to their satisfaction. For this reason, healthcare staff should increase their awareness about the needs and wants of their patients and be more supportive of patient's concerns by communicating thoroughly in order to fulfill their patient's provision [42].

The findings in this present paper also indicate that there is a positive and significant relationship between assurance and patient satisfaction and demonstrate that a patients' attitude and perceptions of the skillfulness of doctors and nurses can effect how the medical staff are able to the fulfill the patient's psychological needs and enhance their level of satisfaction [8, 43].

The last dimension of "SERVQUAL" model in this paper suggests that there is a positive relationship between medical staff empathy and patient satisfaction as discussed in the literature review. It has been proven by an earlier study [8] that there is a significant link between these two variables and that the greater the perceived empathy, the higher the patient satisfaction. Previous surveys suggested that empathy is the individual attention that service providers give to its customers [44 and , 20]. For this reason, the reality of staff in hospitals usually being too busy to give specific and individual attention to every patient should be addressed.

CONCLUSION

As Malaysia is positioning itself as the hub of medical tourism in Southeast Asia, more efforts are required to develop and promote the industry and issues impacting industry growth such as service quality and patients' satisfaction, will be addressed in a concerted manner. In addition to this public-private sector collaboration to formulate strategic plans and coordinate promotional activities for Malaysian healthcare providers and related stakeholders. While the industry is private sector-driven, the government must continue to assume an active role to facilitate its growth. Growth in the healthcare travel industry can contribute to the growth of the country and raise Malaysia's international profile as a country that provides quality healthcare services.

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