O R I G I N A L P A P E R

Validity and Reliability of the Customer-Oriented Behaviour Scale in the Health Tourism Hospitals in Malaysia

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Abstract

Introduction: In the wake of high expectations towards the standard of care in the health tourism hospitals, one of the measures to improve current practices is to transform the healthcare system into customer-oriented management style targetted on nurses' customer-oriented behaviour. It is believed that customer-oriented behaviour will make a difference and betterment in terms of elevating the standard of care and improving patients' overall experience in the hospitals.
Aim: The aim of this paper is to examine the validity and reliability of the customer-oriented behaviour scale in the health tourism hospitals in Malaysia.
Results: The results of the factor analysis revealed that there was a single structure with 11 items of strong loadings extracted from the measures of customer-oriented behaviour. One item was discarded due to cross loading. The reliability coefficient for the measures was above the minimum level of 0.7 and has been found consistent throughout the study.
Research Implications: This study shall guide future customer-oriented research in the healthcare setting by using the validated measures in the findings. It also offers the healthcare managers measures to identify the level of their nurses' customer-oriented behaviour in the health tourism hospitals. Training programs can be designed to further improve thier service behavior.

Keywords: customer-oriented behaviour, validity, reliability, nurses, health tourism hospitals.

Introduction

The concept of health tourism in Malaysia has evolved many years ago. According to the statistics estimated by the World Tourism Organization, the number of people around the world involved in health tourism has increased by 32% between 2005 and 2010. In terms of revenue, it has increased by 42% in 2010 globally. In Malaysia, the country's health tourism has performed according to the World Health Organization's (WHO) standards and the overall performance is remarkable. According to Market Watch (2011), the health tourism sector has experienced continuous growth since the beginning of 1990's. For the past decade, healthcare tourism has become a significant contributor to the Malaysia travel industry. It is also reported in the Market Watch (2011) that Malaysia receives 85-90% of its patients from ASEAN countries such as Indonesia and Singapore and the rest of 10-15% from Japan, Australia, United Kingdom, Middle East and European countries. Referring to the Tenth Malaysia Plan 2011-2015, the Malaysian government is emphasizing on the standard of healthcare in the country. It intends to transform the healthcare system to become better in terms of performance and delivery. The Government is also identifying healthcare as an area with great potential in contributing to the country economy. They are eyeing the middle class in the region and foreign patients as a lucrative market. They are confident that health tourism will be an active sector that contributes at least 10% increment per annum revenue growth for the nation in year 2011-2015 (Tenth Malaysia Plan, 2010).

The Health Tourism Hospitals

In the health tourism sector, health tourists are looking for abroad medical facilities with experienced and well-trained doctors as well as hospitals that offer high standard of care. Standard of care is related to human perception and preference as to how the healthcare services are to be provided. Generally, the health tourism hospitals are facing challenges from a rapidly

changing operating environment. They operate in a highly alert environment with no room for even a slight mistake. Service failure will result customer dissatisfaction and defection. These are unwanted results for any health tourism hospital since attracting new patients tends to be more expensive than keeping the existing patients (Reichheld & Sasser, 1990).

Nowadays, health tourism hospitals are facing increasing expectations in the area of healthcare services. In the past, patients were focusing only on the technical dimension and outcome of the medical treatment but today, patients are viewing healthcare services from different angles and perspectives. They are stressing on the standard of services delivered by the healthcare provider. This is owing to the fact that patients usually face difficulty to evaluate the technical service of the hospitals (Hall, Morgan, Stein & Roter, 2002). In the wake of high expectations towards the standard of care, one of the measures to improve the current practices is to transform the healthcare system into customer-oriented management style targeted on nurses' customer-oriented behaviour (Chien, Chou & Hung, 2008). An excellent nursing care is the central to the fact that a health tourist is interested in offering himself or herself in the care of medical staffs in a foreign country. Given the wide selection of available medical treatment alternatives in many countries, it will be arduous for health tourists to identify hospitals that provide the best healthcare services. Therefore, nurses' customer-oriented behaviour serves as an important role in promoting healthcare services and gaining patient's recommendation to become the preferable treatment centre.

Since health tourism hospitals were operating in a highly competitive market with rising expectations from the patients, responding to patient needs is obviously a crucial leverage point to the hospitals (Reychav & Weisberg, 2007). By exhibiting customer-oriented behaviour and putting the patients' interest on top of their daily job responsibilities; it will be an essential strategy for the nurses to perform excellent healthcare services in order to retain the patients (Cronin & Taylor, 1992). Patients will be more likely to return to the same hospital and spread constructive views that assist the hospital in getting new patients (Zeithaml & Bitner, 2000). If the country health tourism would to attain a distinguished position by extending its customer base, health tourism hospitals should make significant leaps in their level of healthcare services. In this context, customer-oriented behaviour will certainly make a difference and betterment in terms of elevating standard of care and improving patients' overall experience in the hospitals.

The Customer-Oriented Behaviour Scale

Customer-oriented behaviour is operationally defined as the extent to which nurses understand the patient's needs, desires and assist them to solve their problems. It is a one dimensional construct originally presented by Saxe and Weitz (1982) in the marketing concept with a focus on customer need satisfaction at the individual level. Hartline, Maxham and McKee (2000) stated that employees who possess customer-oriented behaviour will build relationship with their customers and lead the organization towards better performance. In this study, it is conceptualized that a caregiver's customer-oriented behaviour is explained in terms of the caregiver's ability to fulfil patient needs at the patients' best interest. For example, nurses who exhibited customer-oriented behaviour will always assist patients to achieve their goals. They provide useful information to the patients and offer healthcare services that are best suited to their needs. They tend to find out what kind of healthcare services would be most helpful to the patients.

In this study, the researcher has adapted the customer-oriented behaviour measures originally created by Saxe and Weitz's (1982). The measures contain 12 positively phrased customer orientation items (see Table 1). The researcher chose these measures because they had been validated by Saxe and Weitz (1982) and used by Cross, Brashear, Rigdon and Bellenger (2007) in their study. In addition, Chien et al. (2008) had also utilized these measures in their research with a tested reliability (α) of 0.90. However, despite the strong reliability and validity of the measures, the researcher finds that it is necessary to re-examine the validity and reliability of the measures when the research is conducted in different research settings and different cultural perspectives. This is to reasonably ensure that the instrument is measuring the concept the researcher intends to measure.

Methodology

Respondents of this study were consisted of 343 nurses in the health tourism hospitals in Malaysia. There were 295 female and 48 male respondents. They were ranging from 18 – 55 years old. Administered on-site method was used in this study for data collection. Respondents were asked to indicate their level of agreement on customer-oriented behaviour by assigning point on a Likert scale from 1 (strongly disagree) to 5 (strongly agree). Ratings should be assigned based on the respondent's experience in the hospitals.

Results and Discussions

Pilot Test

According to Malhotra and Peterson (2006), data collected from a small sample of 15 to 30 subjects of the study served as a guide for the larger study. Hence, the survey instrument was pilot tested on a small sample of respondents at one of the selected health tourism hospitals. A total of 35 questionnaires have been distributed to the nurses to collect data as well as their comments and understandings of the questionnaires. The items were then tested for internal reliability based on the data collected from the pilot survey. The result of the pilot test shows an excellent reliability coefficient of 0.849 for the instrument. The value of the coefficient was above the minimum acceptable level of 0.7 as suggested by Nunnally (1978), Robinson, Shaver and Wrightsman (1991) and DeVellis (2003). Therefore, the items require no modification and ready to be administered in the survey to the remaining sample. In table 1 the items for Customer-Oriented Behaviour (Adapted from Saxe & Weitz, 1982) are presented.

Validity Test

For validity test, factor analysis was conducted on the 12-item scale of customer-oriented behaviour. Table 2 shows the results of the factor analysis after it has been tested by using SPSS Statistics. The results indicate that the value of Kaiser-Meyer-Olkin for Measuring of Sampling Adequacy (KMO/MSA) (i.e. 0.921) has exceeded the minimum value of 0.6 for a superb factor analysis (Hutcheson & Sofroniou, 1999). The Bartlett's test of sphericity was statistically significant at $p<0.001$ which further supported the factorability of the correlation matrix. The Varimax Rotated Principal Component Analysis revealed the presence of a single structure with 11 items of strong loadings that are labelled as customer-oriented behaviour. One item of the construct was discarded due to cross loading. Based on the factor analysis results, the extracted single structure has an Eigenvalue of 5.483 and able to explain a total of 49.844% of the variance. Only factors with loading value of 0.35 or greater were retained.

The factor loading values for this scale were in the range of 0.639 to 0.748.

Reliability Test

Reliability of an instrument is referring to the suitability and consistency where the instrument measures the concept without bias and error free (Sekaran & Bougie, 2010). It also ensures consistent measurement of various items in the instrument across time. Cronbach's Alpha is used as the reliability coefficient to show how well the items in the instrument are positively correlated to each other. It computes the average inter-correlations among the items that measuring the concept. According to Sekaran and Bougie (2010), if Cronbach's Alpha is closer to 1, the reliability of the measures is higher. Cronbach's Alpha of 0.6 is considered poor, 0.7 is acceptable and 0.8 is categorized as good (Sekaran & Bougie, 2010). Nunnally (1978), Robinson, Shaver and Wrightsman, (1991) and DeVellis (2003) suggested that the generally agreed upon lower limit for Cronbach's Alpha is 0.7. Therefore, the cut-off point for measuring reliability in the present study will be 0.7. The reliability test result revealed a reliability coefficient (Cronbach's Alpha) of 0.898. Since the value of Cronbach's Alpha was above 0.7, all the items were deemed reliable.

Practical Implications

In terms of practical implications, the present study offers the healthcare managers measures to identify their nurses' customer-oriented behaviour. By knowing the level of nurses' customer-oriented behaviour, managers can formulate training programs to further improve their service behaviour which in turn will keep the hospital's customer-oriented performance remunerative and bring more patients to the hospitals.

Table 1: Items for Customer-Oriented Behaviour (Adapted from Saxe & Weitz, 1982)

Items	Description
1	I try to help patients by fulfilling their needs.
2	I try to achieve my goals by satisfying patients.
3	Good nursing personnel should have the patient's best interest in mind.
4	I try to get patients to discuss their needs with me.
5	I try to influence a patient with information rather than by pressure.
6	I offer the nursing care that is best suited to the patient's needs.
7	I try to find out what kind of nursing care would be most helpful to the patients.
8	I answer patient's question about nursing care as correctly as I can.
9	I use the appropriate nursing care to solve patient's problem.
10	I am willing to disagree with a patient in order to help him/ her make a better decision.
11	I try to give patients an accurate explanation of what a nursing care will do for them.
12	I try to figure out what a patient's needs are.

Table 2: Factor Analysis and Reliability Test for the Customer-Oriented Behaviour Scale

Items	Description	Factor Loading
1	I try to help patients by fulfilling their needs.	0.720
2	I try to achieve my goals by satisfying patients.	0.718
3	Good nursing personnel should have the patient's best interest in mind.	0.744
4	I try to get patients to discuss their needs with me.	0.701
5	I try to influence a patient with information rather than by pressure.	0.650
6	I offer the nursing care that is best suited to the patient's needs.	0.748
7	I try to find out what kind of nursing care would be most helpful to the patients.	0.725
8	I answer patient's question about nursing care as correctly as I can.	0.705
9	I use the appropriate nursing care to solve patient's problem.	0.639
10	I try to give patients an accurate explanation of what a nursing care will do for them.	0.680
11	I try to figure out what a patient's needs are.	0.728
	KMO/MSA	0.921
	Bartlett's Test of Sphericity (Sig.)	0.000
	Eigenvalue	5.483
	Percentage of Common Variance	49.844
	Cumulative Percentage (%)	49.844
	Reliability Coefficient (Cronbach's Alpha)	0.898

Conclusion

The present study has successfully examined the validity and reliability of the customer-oriented behaviour scale in the healthcare context. It has provided a new avenue to researchers to apply customer orientation concept in their future research. It is strongly believed that customer-oriented behaviour is able to boost the health tourists' confidence in selecting Malaysia as their preferable medical treatment destination.

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