PERSPECTIVES ON QUALITY OF CARE AND SATISFACTION AMONG GERIATRIC PATIENT-TOURIST: CASE STUDY IN KLANG VALLEY, MALAYSIA

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Abstract: Tourism is seen as a fast and booming industry in this age and is being conducted for a variety of purposes. Notably, the world medical tourism market has grown rapidly over the past decade and is expected to grow at an exponential rate, where one of the clear goals of geriatric medicine is to ensure that older people receive better healthcare, specifically, for high-quality patient care. This study identifies the Stimulus Organism Response (SOR) with the injecting of the Donabedian theory that influences the satisfaction of international, domestic, as well as foreign geriatric patient-tourists. Based on the Stimulus Organism Response (SOR) framework and the injecting of the Donabedian theory with the application of the non-probability sampling techniques that was used, an online questionnaire had been distributed among selected hospitals in the Klang Valley. Accordingly, the Smart PLS 3.3.2 was used to analyse the data for this study using the (SEM) approach, and from the online questionnaire that had been distributed, 139 data were used for further analysis. The findings showed that all the hypotheses (H1-H3) were supported. The expectation has positive effects leaning towards the confirmation and geriatric patient satisfaction; the confirmation is a mediator between expectation and the geriatric patient-tourist satisfaction.

Keywords: medical tourism; geriatric patients; SOR; donabedian

I. INTRODUCTION

Medical tourism is a combination of travelling to a distant place and seeking medical treatment and care. In geriatric care, medical tourism is related to the intention to receive medical or general treatment that requires a senior citizen to cross international borders (Correa, Leiva & Bakucz, 2018). The rapidly changing social structure, declining fertility rates and an increase in life expectancy (Bloom, Canning & Fink, 2008) have led to the demand for geriatric services. According to Walker and Mesnard (2011), in 1998, the number of people aged 60 and above had exceeded the number of young people in 15 developed countries. Medical tourism in geriatric care is related to the intention to receive medical or general treatment that requires one to cross international borders (de la Hoz-Correa, Muñoz-Leiva & Bakucz, 2018). The world medical tourism market has grown rapidly over the past decade and is expected to grow at an exponential rate. One of the clear goals of geriatric medicine is to ensure that older people receive better healthcare, specifically for high-quality patient care.

There is a difference between the geriatric department and an elderly care centre. The elderly care centre is a type of community support services for elderly people who need a person and or limited nursing care due to wealth, health or functional disabilities. Being a part of the overall hospitality industry, the medical tourism sector also requires special focus on their patients for future resilience, and to remain
competitive to focus on consumer’s satisfaction. In order to sustain in the medical travel industry, Malaysia must have the competitive advantage by providing the niche and customisation of products and services. Nevertheless, the current statistics show that only 4.2% of healthcare provides (including hospitals) offers such services (Association of Malaysia Private Hospital, 2019). Out of 216 private hospitals in Malaysia, only nine hospitals (4.2%) offer geriatric patient services (local and tourists), indicating that not many are interested in addressing the need, nor do they foresee a need for this future growth market. Tan, Kamarruzaman and Poi (2018) have added that, the available geriatric service is unable to meet even a fraction of the existing nationwide older population needs.

This study identifies the relationship between the expectation of quality of care (S), confirmation (O) and satisfaction of international, domestic and foreign tourists among senior citizens (R) (aged 60 years and above who travel for the purpose of medical treatment).

1.1. Stimulus Organism Response

The Stimulus Organism Response (SOR) is a psychology theory that has initially been proposed by Mehrabian and Russell (1974). This theory is also intuitive and powerful in its explanatory nature in investigating human behaviour. Chang et al (2014) have added that the SOR theory is one of the most suitable frameworks to elucidate on the tourist’s behaviour; psychology varies with the presence with the presence such circumstance and is affected by the situation’s human interaction. Floh and Madlberger (2013) have claimed that with an appealing design to effectively delight their customer with an exciting shopping experience which can be referred to as the flow experience. Therefore, flow works as an organism that is influenced by the stimulus variables in the research that will be done.

The theory posits that the environmental aspects act as the stimuli (S) that affects the individual’s internal state or emotion (O) and subsequently influences human behaviour (R). Considering these findings, the present study aimed to explore the expectation of quality of care (S), confirmation (O) and satisfaction of the geriatric patient-tourist (R) to better understanding behaviour of the geriatric patient-tourists. The same applies to the learning process. When the stimulus is received by an organism maybe it will be rejected or accepted. When it rejects, this means that the stimulus has not effectively influenced the individual. In this study, when the geriatric patient’s tourist has an expectation regarding the medical tourism services, it will be confirmed or unconfirmed with the services. If the geriatric patient’s tourist confirmed, this will influence the satisfaction regarding the services or treatment by the service providers.

1.2. Expectation

Westbrook and Reilly (1983) have defined expectation as an early consumption belief about the complete performance of the product or service. Handa and Gulati (2014) state that customer service is determined by the customer’s expectation, and the expectation is measured by the quality of care that is given by the hospitals that provide the medical tourism service. Prajitmutita et al. (2016) have stated that, service quality in the healthcare sector includes the technical and functional quality aspects which reflect structure (the appearance of physical facilities and medical equipment), expertise (staff performance on functioning the tasks) and outcome (the success of final treatment). Donabedian (2005) has stated that there are three components for assessing the quality of care, i.e. structure, process and outcome. Bowling et al. (2012) have referred to the patient’s health services as related to the different types of expectation and are measured by healthcare structure, process and health outcome. Also, Bowling et al. (2012) have added that there is no well tested multidimensional questionnaire to measure the different expectations. Thus, this study is injecting the quality of care as a measurement to the customer’s expectation.

Kim (2010) has stated that, the consumers’ expectation positively influences their confirmation and this confirmation positively affects their satisfaction; Ashfaq et al. (2019) has claimed that the expectation has a positive relationship with satisfaction.

**H1: Expectation is positively related to confirmation**

**H2: Expectation is positively related to satisfaction**
1.3. Confirmation

Chin, Cho and Chiu (2020) have explained that confirmation relates to the way of perceived performance correlation between the product or services expectation and the actual performance of the performance. From the perspective of tourism, if the value of the products or services is high, the tourist will appreciate the services or products more and his or her confirmation will be positive (Cole & Chancellor, 2009). In this study expectation confirmation refers to the consistency of the customer’s expectation based on the structure, process and outcome of the healthcare. Hsu and Lin (2014) have postulated that confirmation has been positively related to satisfaction. Likewise, Sarkar and Khare (2018) have stated that confirmation will have a positive impact on the satisfaction.

**H3: The positively related between expectation and the geriatric patient’s satisfaction will be stronger when there is confirmation.**

1.4. Satisfaction

In the healthcare space, the patient’s satisfaction is always a vital factor and has recently gained momentum. The patient’s satisfaction is broadly used to evaluate the healthcare service quality and as a subjective evaluation of the healthcare services it is received against the patient’s expectation. Satisfaction is not a pre-determined concept but is simply and practically related to the extent to which an objective is achieved (Health Board Executive (HeBE), 2003). Howthorne et al. (2014) have stated that in the last three decades, the roles of doctors have changed, care has become patient-centred and medical services have been changed based on the patient’s attitude towards the medical services. The satisfaction of the patient is therefore a proxy, but a very powerful measure for assessing the progress of doctors and hospitals. In addition, third-party payers (insurance) have recognised that a patient’s satisfaction is an important tool for the success of their organisation and are regularly monitoring the patient’s satisfaction levels among their customers.

The patient’s satisfaction is an essential indicator of the quality of healthcare as it provides information on the performance of the providers in fulfilling the needs of clients, and it is a primary determinant of the behavioural intent of the patient (Xesfingi & Vozikis, 2016). Nowadays, in the global economy, companies measure the patient’s satisfaction to maintain and sustain business (Woldeyohanes et al., 2015). In addition, according to Ng et al. (2019) the satisfaction of patient could lead to a more appropriate use of healthcare system, reducing the rate of turnover and more significantly improving user’s healthcare.

This study identifies the relationship between the expectation of quality of care (S), confirmation (O) and satisfaction of international, domestic and foreign tourists among senior citizens (R) (aged 60 years and above who travel for the purpose of medical treatment).
II. METHODS

The unit of analysis is individual. The respondents of this study were senior-citizen tourists (aged 60 years and above) who had travelled for medical purposes—comprising international, domestic and foreign tourists. The current global Covid-19 pandemic situation rules out the possibility of a face-to-face survey, thus, the adoption of an online survey method has been the best option. Just as in any survey, and depending on the nature of the research, online survey (Google form) has followed the same fate in obtaining a low respondent rate (Fan & Yan, 2010). Notably, this study has applied a non-probability sampling since a list of geriatric patient travellers is unavailable. The data were collected at a single duration and this study employed a cross-sectional survey; for the type of investigation, the study employed a correlation study to determine the satisfaction of the geriatric patient.

This study employed the snowball sampling technique in compliance with the current global Covid-19 pandemic situation. Data were gathered through an online survey, and the researcher had used the initial respondent (a hospital officer) to help identify other respondents in the target population. The link of the questionnaire has been distributed by a hospital officer to the targeted respondents. Subsequently, only 139 respondents could be used for further analysis. Thus, the response rate is 77.2%. The Smart PLS 3.3.2 was used to analyse the data for this study, applying the Structural Equation Modelling (SEM) approach.

Before continuing with the measurement model (Hair et al., 2017; Ngah et al., 2019) had suggested testing the normality using the multivariate skewness and kurtosis using the resources at https://webpower.psychstat.org/models/kurtosis/. The result showed that the data that had been collected were not multivariate normal, the Mardia’s multivariate skewness (β=21.393, p=<0.01) and Mardia’s multivariate kurtosis (β=79.593, p=<0.01). As the data are not normal, it is appropriate to apply the Smart PLS software in this study which is a non-parametric analysis software, hence, the study has used the structural equation modelling with the Smart PLS version 3.3.2 (Ringle, Wende & Becker, 2015) to test the hypothesis development. Accordingly, power analysis, which is the minimum number of samples depending on model complexity should be based on the sample size (Hair et al., 2017). The minimum sample size is 77, based on Green’s (1991) table with 3 predictors form the medium effect size study system, as indicated by Gefen, Rigdon and Straub (2011). The sample size is considered to be sufficient for the study, because the number of respondents is 139.

III. RESULT AND DISCUSSION

3.1. Measurement Model

According to Anderson and Gerbing (1988) there are two steps in running an analysis. First the calculation model has be confirmed and then the structural model, which is the testing of the theories, starts. The evaluation of the constructs validity by evaluating loading, AVE and composite reliability (CR) is shown in table 4.1 below. The loading threshold value is 0.5, AVE is 0.5 and ultimately, CR is 0.7, according to Hair et al (2017). All the values listed in the table below are higher than the minimum value requirement described in the literature. Thus, the measurement model not an issues in this study.

<table>
<thead>
<tr>
<th>First order construct</th>
<th>Items</th>
<th>Loadings</th>
<th>AVE</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structure</td>
<td>STR1</td>
<td>0.774</td>
<td>0.563</td>
<td>0.899</td>
</tr>
<tr>
<td></td>
<td>STR2</td>
<td>0.794</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>STR3</td>
<td>0.839</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>STR4</td>
<td>0.819</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>STR5</td>
<td>0.610</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>STR6</td>
<td>0.703</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
STR7 0.683

**Process**

PRO1 0.811 0.532 0.899
PRO2 0.845
PRO3 0.736
PRO4 0.523
PRO6 0.716
PRO7 0.816
PRO8 0.654
PRO9 0.678

**Outcome**

OUT2 0.888 0.752 0.854
OUT3 0.846

**Confirm**

CON1 0.849 0.687 0.898
CON2 0.884
CON3 0.895
CON4 0.896

**Geriatric Patient Satisfaction**

GPS1 0.883 0.801 0.960
GPS2 0.912
GPS3 0.848
GPS4 0.901
GPS5 0.906
GPS7 0.920

Note: PRO5, OUT1, and GPS6, were deleted due to the low loadings.

Because of the potential common method variance, Harman’s single factors test was conducted to determine the extent of bias. According to Podsakoff et al. (2003), the common method bias is problematic if a single factor carries most of the explained variance. In this study, the unrotated factor analysis indicates that the first factor carries 40.41% of the total 69.05%, therefore this result shows that the common method bias is not a serious problem in this study.

### 3.2. Measurement Model for Second Order

As this study has one construct which is second order, namely expectation, we have also assessed the validity and reliability of the second order construct; as shown in the table the second order measurement is also valid and reliable.

**Table 2 Measurement Model for Second Order**

<table>
<thead>
<tr>
<th>Construct</th>
<th>Indicator</th>
<th>Loadings</th>
<th>AVE</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expectation</td>
<td>STR</td>
<td>0.895</td>
<td>0.562</td>
<td>0.870</td>
</tr>
<tr>
<td></td>
<td>PRO</td>
<td>0.922</td>
<td>0.607</td>
<td>0.899</td>
</tr>
<tr>
<td></td>
<td>OUT</td>
<td>0.858</td>
<td>0.752</td>
<td>0.858</td>
</tr>
</tbody>
</table>
3.3. Discriminat Validity

After confirming the construct validity, the next step is to confirm the discriminant validity using the HTMT criterion as have been suggested by Henseler, Ringle and Sarstedt (2015) and updated by Franke and Sarstedt (2019). According to Gholami et al. (2013) the discriminant validity is the extent to which a construct is truly distinct from other constructs and the measures of how much an indicator represents only a single construct. If the HTMT value is greater than 0.9 (Henseler, Ringle & Starstedt, 2015), it indicates a serious issue in discriminant validity. Table 5.1.2 shows that the discriminant validity has been established as all values for HTMT representing the structure, process, outcome, and perceived performance, confirm that the geriatric patient’s satisfaction is lower than the most conservative value that has been set by Henseler, Ringle and Starstedt (2015).

Table 3 Discriminant Validity Table (HTMT)

<table>
<thead>
<tr>
<th></th>
<th>CON</th>
<th>GPS</th>
<th>OUT</th>
<th>PRO</th>
<th>STR</th>
</tr>
</thead>
<tbody>
<tr>
<td>CON</td>
<td>0.721</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GPS</td>
<td>0.667</td>
<td>0.74</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OUT</td>
<td>0.618</td>
<td>0.578</td>
<td>0.801</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PRO</td>
<td>0.559</td>
<td>0.632</td>
<td>0.73</td>
<td>0.794</td>
<td></td>
</tr>
</tbody>
</table>

3.4. Structural Model

To assess the structural model in Table 5.2, based on the suggestion by Hair et al. (2019) we reported the path coefficient, the standard error, t-value and p-value for the structural model using a 5000-sample resample bootstrapping procedure by Ramayah et al. (2018). Also, the structural model has been based on the criticism who have stated that p-values are not a good criterion for testing the significance of the hypothesis, and instead have suggested the use of a combination of criteria such as p-values, confident interval and effects size. Table 1 shows the summary of the criterion we have used to test the hypotheses that have been developed. The result reveals that expectation confirms the satisfaction of the geriatric patient-tourists: the relationship between expectation and confirmation (β = 0.612, t = 9.848 : LL = 0.561, UL 0.782, p < 0.01), confirmation and geriatric patient’s satisfaction (β = 0.675, t = 6.401: LL = 0.409, UL 0.736, p < 0.01), and lastly the mediating effects of confirmation between expectation and geriatric patient’s satisfaction (β = 0.413, t = 4.157: , p < 0.01). The results of the data analyses show that all the hypotheses (H1-H3) are supported. The expectation has a positive relationship with the confirmation and geriatric patient’s satisfaction; the confirmation is the mediator between the expectation and the geriatric patient’s satisfaction.

Table 4 Direct Effects

<table>
<thead>
<tr>
<th></th>
<th>Beta</th>
<th>SE</th>
<th>T</th>
<th>P Values</th>
<th>LL</th>
<th>UL</th>
<th>F2</th>
<th>R2</th>
<th>VIF</th>
<th>DECISION</th>
</tr>
</thead>
<tbody>
<tr>
<td>CON -&gt; GPS</td>
<td>0.675</td>
<td>0.068</td>
<td>9.848</td>
<td>0.001</td>
<td>0.561</td>
<td>0.782</td>
<td>0.835</td>
<td>0.455</td>
<td>1.000</td>
<td>Supported</td>
</tr>
<tr>
<td>EXP -&gt; CON</td>
<td>0.612</td>
<td>0.096</td>
<td>6.401</td>
<td>0.001</td>
<td>0.409</td>
<td>0.736</td>
<td>0.599</td>
<td>0.374</td>
<td>1.000</td>
<td>Supported</td>
</tr>
</tbody>
</table>

Table 5 Indirect effect

<table>
<thead>
<tr>
<th></th>
<th>Beta</th>
<th>SE</th>
<th>T Value</th>
<th>P Values</th>
<th>DECISION</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXP -&gt; CON -&gt; GPS</td>
<td>0.413</td>
<td>0.099</td>
<td>4.157</td>
<td>0.001</td>
<td>Supported</td>
</tr>
</tbody>
</table>

IV. CONCLUSION

By recognising and analysing these findings, medical tourism services providers will be better equipped to build, implement and improvise their business plan to cater to a large number of geriatric...
patient-tourists who are arriving annually since Malaysia has become one of the most known medical tourism developing countries in Asia which one of the main contributors to the economic growth of the region. The current research focuses only on the geriatric patient’s satisfaction, as such future research should explore the companion’s roles- he or she who accompanies the patients through the services that are given by the service provider, since the companion is also a part of the hospital’s clients. Notably, the companions of the patients are also the people who influence the level of satisfaction regarding the care that is provided by the healthcare provider as well as the overall care services, as they are always with the patients. All the data have been collected from only 3 hospitals in Kuala Lumpur and Selangor. Thus, the results obtained could be generalised to be the tourists within these areas. As the world is facing the Covid-19 pandemic, this study could not be generalised to represent the entire tourists’ arrivals in Malaysia.

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