

# Role of Travel Motivations, Perceived Risks and Travel Constraints on Destination Image and Visit Intention in Medical Tourism

## Theoretical model

\*Mohammad J. Khan,<sup>1</sup> Shankar Chelliah,<sup>1</sup> Mahmud S. Haron,<sup>2</sup> Sahrish Ahmed<sup>3</sup>

### دور دوافع السفر والمخاطر المتصورة وقيود السفر على الصورة المستهدفة ونوايا الزيارة للسياحة الطبية نموذج نظري

محمد جمال خان، شانكر شيليه، محمد صبري هارون، سهريش أحمد

**ABSTRACT:** Travel motivations, perceived risks and travel constraints, along with the attributes and characteristics of medical tourism destinations, are important issues in medical tourism. Although the importance of these factors is already known, a comprehensive theoretical model of the decision-making process of medical tourists has yet to be established, analysing the intricate relationships between the different variables involved. This article examines a large body of literature on both medical and conventional tourism in order to propose a comprehensive theoretical framework of medical tourism decision-making. Many facets of this complex phenomenon require further empirical investigation.

**Keywords:** Medical Tourism; Travel; Trends; Motivation; Risks; Intentions; Theoretical Model.

**المخلص:** تعتبر دوافع السفر والمخاطر المتصورة وقيود السفر مع سمات وخصائص السياحة الطبية من العوامل الهامة المؤثرة في هذه السياحة. وعلى الرغم من أهمية هذه العوامل معروفة بالفعل، فإنه لم يتم حتى الآن عمل نموذج نظري شامل لعملية صنع القرار للسياح الطبيين وذلك لتحليل العلاقات المعقدة بين المتغيرات المختلفة المؤثرة في القرار. يتناول هذا المقال مجموعة كبيرة من المؤلفات في مجال السياحة الطبية والتقليدية على حد سواء من أجل اقتراح إطار نظري شامل لصنع القرار في السياحة الطبية. هناك العديد من جوانب هذه الظاهرة المعقدة والتي تتطلب المزيد من الأبحاث التجريبية.

**الكلمات المفتاحية:** السياحة الطبية; السفر; اتجاهات; التحفيز; المخاطر; النوايا; نموذج نظري.

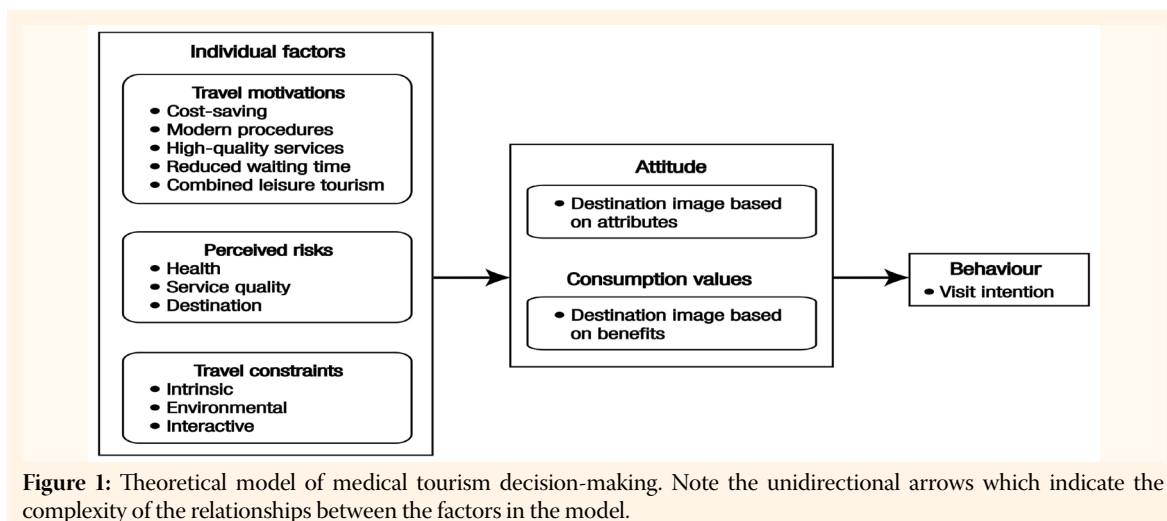
**M**EDICAL TOURISM COMMONLY REFERS TO the act of travelling to a foreign country in order to seek healthcare services.<sup>1</sup> Until recently, the concept of medical tourism was relatively unknown as it was difficult to envisage a connection between the two very different areas of international travel and medical care; however, the rate of medical tourism has sharply accelerated in the last two decades.<sup>2</sup> Modern medical tourism is characterised by an influx of middle-class patients from industrialised countries and affluent patients from less economically developed countries making use of the medical services available at foreign destinations. Although medical tourism is an economically successful business venture for many countries, exact data regarding its market size and revenue remain largely unavailable.<sup>3</sup> According to the medical tourism guidebook *Patients Beyond Borders*, approximately 14 million medical travellers travelled abroad for treatment in 2015; as

such, it was estimated that the medical tourism market was worth USD \$45.5–72 billion.<sup>4</sup> Another source reported that over 19 million trips for the purposes of medical tourism were made in 2005 for a total value of USD \$20 billion, amounting to 2.5% of the total annual tourism volume; this was estimated to increase to 40 million trips per annum and comprise 4% of the total annual tourism volume by 2010.<sup>5</sup>

Economically, medical travel has benefited several southern countries, including India, Cuba, Costa Rica, Mexico, Malaysia, Thailand, and South Africa, where the cost of medical procedures is extremely low compared to those of more northern countries.<sup>6</sup> It is estimated that the annual number of Americans travelling abroad for healthcare services will increase to 23 million by 2017.<sup>7</sup> However, the number of medical tourists moving between southern countries is also extremely high; approximately 500,000 medical tourists travelled to South Africa from other African

<sup>1</sup>International Business Section and Departments of <sup>2</sup>Marketing and <sup>3</sup>Organizational Behaviour, School of Management, Universiti Sains Malaysia, Penang, Malaysia

\*Corresponding Author e-mail: [jamal.phd.usm@gmail.com](mailto:jamal.phd.usm@gmail.com)



countries in 2009 and over half of the medical tourists in Malaysia (670,000) and Singapore (850,000) in 2012 were from Indonesia.<sup>8,9</sup> Thailand also receives a large number of medical travellers from neighbouring countries (2.5 million in 2012).<sup>10</sup> Moreover, approximately 100,000 people from East Africa are estimated to travel to India every year for medical purposes.<sup>11</sup> Among all global medical tourists, 40% travel due to a lack of advanced technology in their own country, 32% travel to seek better quality services and 12% travel for lower-cost treatments.<sup>12</sup>

Although a number of studies exploring different aspects of medical tourism have recently been published, empirical insight into medical tourism is still lacking.<sup>6,9</sup> Much of the available literature is exploratory, anecdotal in nature and highly speculative or comprised of review articles exploring different aspects of medical tourism.<sup>13–16</sup> Some studies have attempted to establish relationships between various factors, such as motivation, service quality, service satisfaction and revisit intention.<sup>10,17,18</sup> Recently, models to explain destination selection by medical tourists have been proposed; however, these models are limited to a specific source or destination and are not comprehensive.<sup>19,20</sup> Fetscherin *et al.* developed a scale to validate the causative factors in destination decision-making, but failed to explain these factors from the traveller's perspective.<sup>6</sup> Other models to explain the decision-making processes of medical travellers do not consider geographical location, country of origin or socioeconomic status.<sup>6,8,14,16,18</sup> These models are mainly based on travel motivations, perceived risks and destination image and characteristics, factors which are then linked to destination selection and visit intention.<sup>21,22</sup> Other researchers have also proposed travel constraints among the factors influencing individual decision-making.<sup>23</sup>

Based on a thorough review of the literature, the current article introduces a comprehensive theoretical framework on medical tourism decision-making, combining causative factors related to the characteristics of both the destination and the tourist [Figure 1]. This proposed framework may help in enhancing understanding of the behaviour of medical tourists and assist destination marketing specialists in formulating specific strategies to attract medical tourists.

## Travel Motivations

Motivation can be defined as an internal psychological force arising from an unsatisfied need, which subsequently pushes individuals to engage in a specific need-fulfilling behaviour or activity.<sup>24</sup> In tourism research, motivation is considered a major force in compelling tourist behaviours.<sup>25</sup> Psychosocial motivations in tourist behaviour can be divided into 'push' and 'pull' factors leading individuals to travel.<sup>22,26</sup> Motivations in medical tourism differ from those in leisure tourism, based on the specific needs of these types of travellers.

Medical tourists from northern countries often travel for a variety of reasons, including cost-saving purposes or because of the prohibitive expense of healthcare services in their own country; access to procedures banned in their home country; cultural or family reasons; in order to combine a minor medical procedure with leisure travel; and the long waiting lists for procedures in countries with publicly-funded healthcare systems, such as the UK and Canada.<sup>2,16</sup> Crooks *et al.* categorised the travel motivations of tourists from northern countries as either procedure-related, travel-related or cost-related.<sup>27</sup>

In contrast, the travel motivations of medical tourists from southern countries differ. Medical

tourists from Southeast Asia often travel abroad because of their mistrust in the quality of local medical services or the level of staff professionalism.<sup>28</sup> On the other hand, medical tourists from the Middle East reportedly travel abroad due to family pressure and the misconception that services at home are inadequate.<sup>29</sup> In most Gulf Cooperation Council countries, health services are entirely government-funded and free to nationals; for this reason, patients may not value the services available.<sup>30</sup> Rokni *et al.* found that Iranian patients were highly motivated to travel to a particular destination because of their emotional attachment to the doctors, hospitals or the destination.<sup>31</sup> A decision to undergo treatment abroad can reflect broader social values and experiences; for instance, it is a common view in the Yemeni community that individuals have a responsibility to ensure the health of their family members, even if doing so is very expensive.<sup>32</sup> Travellers from Africa often visit other countries for medical purposes because of the unavailability of modern procedures and diagnostic services, a mistrust of local service providers and the poor state of public healthcare systems.<sup>8</sup> Individuals from various East African countries travel to India because they cannot afford the high medical fees at home.<sup>11</sup> Overall, most tourists from southern countries travel principally to obtain medical care, with a very minor leisure component to their trip.<sup>3</sup>

## Perceived Risks

The perceived probability that an action may expose an individual to danger can influence travel decisions if the perceived danger is deemed to be beyond an acceptable level.<sup>33</sup> In tourist decision-making, perceived risks hold the greatest influence in terms of destination selection.<sup>34</sup> Medical services are considered to be credence goods as their quality cannot be accurately ascertained, even after usage; as such, the associated risk of utilising medical services is high.<sup>35</sup> Furthermore, patients may be vulnerable to other risks when using medical services outside of their own country, including health, service quality, destination, travel and pre- and postoperative risks.<sup>36</sup> While staying at their travel destination, medical travellers may contract an infection before or after the medical procedure, develop thrombosis during long-haul flights which might slow down wound healing or be affected by the unavailability of blood transfusion components during the recuperation process.<sup>37</sup> Specifically, taking long-haul flights while in poor health can result in both physical and psychological pain; for many patients, existing conditions

may worsen if they undertake journeys with multiple stopovers.<sup>32</sup>

The likelihood of compensation in the case of complications has also been researched.<sup>38</sup> Most healthcare service providers willing to provide services to medical tourists are private and, as such, there are no enforced guidelines or control mechanisms in place to monitor treatment practices.<sup>38</sup> This can lead to a situation whereby unnecessary treatments are prescribed for reasons of monetary gain rather than medical necessity. Undergoing a procedure that is illegal in their home country can also expose medical travellers to unknown risks.<sup>2</sup> More importantly, making medical tourism decisions primarily as a result of cost-related motivations can be risky and may lead to negative outcomes. Some patients have been known to suffer from psychological and emotional distress while recovering from a procedure in a foreign destination.<sup>39</sup> Medical tourists from southern countries are usually considered more vulnerable to certain risks, given their often insufficient knowledge, limited resources and the potential prejudices they may face, as well as their vulnerability to various crimes, such as robbery or physical and sexual assault.<sup>40</sup>

Another risk of medical tourism is an increase in patient-physician mistrust. After treatment, medical tourists often return to their home country with new and potentially hazardous prescriptions without effective guidelines or monitoring of use. Alternatively, they may return just as their disease becomes more advanced and/or incurable, at which point fewer treatment options are available.<sup>39,40</sup> As such, patients subsequently compare the late-stage treatment received in their home country to the early-stage treatment received at the foreign destination and form negative perceptions of their local healthcare services.<sup>41,42</sup>

## Travel Constraints

Travel constraints are defined as factors which inhibit either initial or further travel, constrain an individual's ability to maintain or increase the frequency of travel and/or negatively affect their quality of travel.<sup>43</sup> Hung *et al.* argued that the existence of travel constraints does not necessarily result in a lack of travelling; their findings indicated that most individuals adopted negotiation measures to counter travel constraints.<sup>43</sup> Indirect evidence shows that medical tourists face different types of constraints; however, there is a lack of empirical research exploring the travel constraints of medical tourists.

The travel constraints of individuals with chronic illnesses or disabilities have been categorised as intrinsic (e.g. lack of knowledge, health-related problems, social ineffectiveness and physical or psychological dependency), environmental (e.g. attitudinal, architectural, ecological or transportation-related problems) and interactive (e.g. skill/challenge incongruities and communication/language barriers).<sup>44</sup> Short-term illnesses can also restrict the movement of individuals and alter their mental and psychological abilities.<sup>45</sup> Medical tourists travelling to other countries with the sole aim of acquiring medical services may also face constraints similar to those of individuals with disabilities; a few anecdotal examples in the medical tourism literature support this claim.<sup>44</sup> One study of Yemeni medical travellers found that many individuals did not possess appropriate knowledge and simply followed advice from their relatives and friends who had travelled earlier.<sup>32</sup>

Existing ailments may also restrict certain patients from travelling, for instance in cases of cardiac, respiratory or orthopaedic conditions. Additionally, current literature on this topic indicates that travellers from southern countries face further constraints in the form of air connectivity, visa processing, local transportation and language barriers.<sup>42,46</sup> Some medical tourists may also be concerned about the opinions of their friends and family if they choose to use medical services in less economically developed countries.<sup>2,47</sup>

## Perceived Destination Image

Destination image reflects the sum total of an individual's ideas, beliefs, and impressions of a travel destination.<sup>48</sup> According to Echtner *et al.*, destination image consists of two components: attribute-based and holistic.<sup>49</sup> Destination image covers attributes common to all destinations, as well as the unique attributes of a specific destination. In a tourism consumer behaviour model, three components of destination image formation are incorporated: awareness formed after acquiring information about a destination, attitudes formed as a result of beliefs and feelings regarding a destination and expectations formed based on the benefits associated with a destination.<sup>50</sup> Gallarza *et al.* mentioned that destination image is a mental representation of the attributes and benefits on the part of the traveller.<sup>51</sup> Two major factors, attributes and benefits, then combine to form the overall destination image.

### ATTRIBUTES

The attributes of a destination are of the utmost importance in influencing the destination image.<sup>52</sup>

The evaluation of a destination is multidimensional and both general as well as specific attributes are important in its promotion.<sup>53</sup> Tasci *et al.* argued that the image of a destination can be conceptualised in terms of cognitive components based on the attributes of that destination.<sup>54</sup> Measurements of a cognitive image vary according to the destination; however, descriptiveness, direct observability and measurability of a cognitive image have been established as the best tools to assess the uniqueness of a destination.<sup>55</sup>

Medical tourism destination images are formed from the various tangible characteristics—both medical and non-medical—of a destination. Tangible attributes can include the price, quality of medical services, type of services offered, accreditation of the institutions or hospitals, credentials of the doctors or healthcare providers, supportive services, quality of the infrastructure, the socioeconomic environment and determinants of personal safety and security.<sup>2,56,57</sup> As such, some destinations are recognised for their cheap and high-quality services (e.g. India) whereas others are known for combining medical procedures with leisure, such as Thailand and the Caribbean; some destinations, such as Singapore, offer expensive but highly sophisticated services.<sup>58,59</sup>

Destination image formation can also be affected by word-of-mouth. Most travellers, especially from southern countries, select medical tourism destinations and doctors based on personal recommendations from their friends and relatives.<sup>60</sup> Yu *et al.* have reported that medical tourists emphasise cost-saving, sociocultural factors, medical facilities and professional and leisure tourism opportunities when selecting a destination.<sup>61</sup> Musa *et al.* found that excellent medical and support services were important pull factors in destination selection.<sup>28</sup> Other studies have indicated that religious beliefs and emotional attachments can also influence the destination choices of medical tourists, especially among those from southern countries.<sup>28,29</sup>

### BENEFITS

Destination image formation is not necessarily solely influenced by tangible destination attributes; researchers have noted that the benefits associated with a destination can sometimes drive tourists to destinations with negative attributes.<sup>62</sup> In one study, individuals reported liking one country and disliking another even though the two countries were very similar.<sup>63</sup> Moutinho argued that the physical attributes of a destination work only as stimuli consistent with certain pre-existing associations, thereby leading to a destination image which is subjective rather than objective.<sup>50</sup>

According to Lefkoff-Hagius *et al.*, products have symbolic aspects which determine the degree to which ownership or consumption of the product enhances the image of the consumer.<sup>64</sup> The theory of consumption value focuses on the consumption values of product and services and explains why consumers either choose or do not choose to buy/consume a particular product or service. This theory has previously been tested in areas such as the dining industry, eco-friendly products and visit intentions and choices of tourism destinations.<sup>65</sup> Tapachai *et al.* found that the consumption value theory was fit to measure the beneficial image of a destination.<sup>66</sup> The conditional value dimension of the consumption value theory denotes a specific situation which leads individuals to buy a product or service. In medical tourism, patients travel outside of their home country due to their medical condition.

A heart bypass surgery that costs around USD \$100,000 in the USA can be performed to the same level of quality for around USD \$10,000–20,000 at five-star hospitals in various destinations worldwide;<sup>2</sup> this demonstrates the functional consumption value (i.e. the perceived value for money) of destinations. Kangas also noted epistemic value (i.e. curiosity, novelty and knowledge-seeking behaviours) in the medical tourism decision-making process, as medical tourism can also provide opportunities for patients to explore new regions.<sup>32</sup>

## Relationships between Model Factors

The theory of planned behaviour (TPB) is a theoretical model designed to elucidate the relationships between consumers' beliefs, attitudes, intentions and behaviours. Various studies exploring visit and revisit intentions and the consumption behaviours of tourists based on travel motivations, risks, constraints and destination image have used the TPB hypothesis to support their models.<sup>67,68</sup> Motivation has been found to have a direct and positive relationship with behavioural intention, indicating that the motivations of medical tourists positively influence their visit intentions.<sup>69–72</sup> Researchers have also found a strong negative relationship between the perceived risks of travelling and visit/revisit intentions.<sup>73–75</sup> Disinterest has also been reported to have a significant negative impact on revisit intentions.<sup>76</sup> Hung *et al.* argued that higher travel constraints reduces the likelihood of a person travelling.<sup>43</sup> Lee *et al.* found that travel constraints and learned helplessness significantly negatively influenced the travel intentions of people with disabilities.<sup>77</sup>

As the sociopsychological motivations of tourists strongly influence the cognitive and affective evaluation of a destination, medical tourists' motivations are assumed to have a positive influence on destination image.<sup>25,78</sup> Chew *et al.* identified a significant relationship between perceived risks and destination image.<sup>55</sup> Bearing in mind that perceived risks directly influence visit intention, this construct can also be argued to negatively influence destination image; however, further studies are needed to fully explore this relationship. While the role of travel constraints on destination image requires further research, an initial study by Chen *et al.* found a significant negative relationship between travel constraints and destination image in early decision-making.<sup>23</sup> Destination image has also been noted to have a strong direct relationship with tourist behaviour.<sup>79–82</sup>

## Conclusion

Different factors play important roles in medical tourism. Motivations encouraging patients to travel to a foreign country for treatment vary based on different needs, while perceived risks can influence medical tourists to avoid certain destinations or decide not to travel altogether. Travel constraints may also influence the decision-making of medical tourists and are dependent on factors such as nationality, expense, destination and the presence of existing health conditions. Moreover, the attributes and image of a particular destination can also influence the visit and revisit intentions of medical tourists. This article provides a comprehensive theoretical model of medical tourism decision-making in an attempt to provide a frame of reference for future studies in this field. However, the relationships in this model are relatively complex and many aspects of this complex phenomenon require further empirical research.

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