

Factors Influencing Medical Tourism in Malaysia: A Systematic Literature Review

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Abstract: *Medical tourism has had its place in history for decades. The trend of patients seeking medical treatment outside their home country continues as the cost of medical care escalates in many countries. This systematic literature review sought to determine the factors that influence medical tourism, specifically in Malaysia. Researchers also wanted to determine if cost is a leading factor influencing medical tourism. A search was performed by following the Preferred Reporting Items for Systematic Review and Meta-Analyses (PRISMA) guidelines for academic databases including CINAHL, PubMed (including MEDLINE), and the Web of Science. At the end of all review processes, data from 11 articles were studied and grouped using pre-determined screening criteria. Four common themes occurred as factors influencing medical tourism in Malaysia including: (1) impact on the quality of care; (2) attractiveness; (3) cost of healthcare services; and (4) marketing. The findings of this study reveal that all four thematic factors influence medical tourism in Malaysia. While cost of healthcare services is likely the most influential factor, quality of care is also significant. This systematic literature review spurs dialogue for the necessity of further research on the topic of medical tourism in Malaysia and other countries.*

Keywords— medical tourism, Malaysian medical tourism, Malaysia healthcare, quality of care, cost effective medical care

INTRODUCTION

Traveling abroad to attain medical care is known as medical tourism. Medical tourism spread as a phenomenon in the past, especially in the 1980s. Countries that offered less cost prohibitive healthcare procedures became of interest to patients, especially for those from Europe and the United States (U.S.) (Mutalib, Ming, Yee, Wong, & Soh, 2016). Medical tourism has been a successful market for many countries because of its rapid growth and interest. The Malaysian Health Care Travel Council (MHTC) reported that medical tourism has been on the incline in Malaysia since 2011 and has more than doubled since then. In 2019, it is estimated that 1.22 million travelers sought healthcare services in Malaysia, a country that is seemingly on a well-defined path to be an emerging leader of medical tourism (Hirschmann, 2021). This literature review sought to determine what factors influence medical tourism in Malaysia and if cost is a leading factor. Four themes emerged as the leading factors for medical tourism in Malaysia including: quality of care, attractiveness, cost of healthcare services, and marketing.

METHODS

Assessment of individuals utilizing medical services in Malaysia was assessed with the following question: what factors influence medical tourism in Malaysia, and is cost of healthcare services a significant factor? Google Scholar was used to determine how many articles were available that could be useful in answering the research questions. Studies were analyzed from 2010 to 2022 and the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines were consulted to frame this research effort

(Moher, Liberati, Tetzlaff, & Altman, 2009). After selecting the topic, the literature review search was conducted using CINAHL, PubMed (including MEDLINE), and Web of Science. PubMed and MEDLINE were grouped together since PubMed yields results from MEDLINE. The following keywords were used throughout the search in varying configurations: medical tourism, Malaysian medical tourism, Malaysia healthcare, quality of care, and cost of healthcare services. From the three academic websites, 27 articles were initially found within these topic areas.

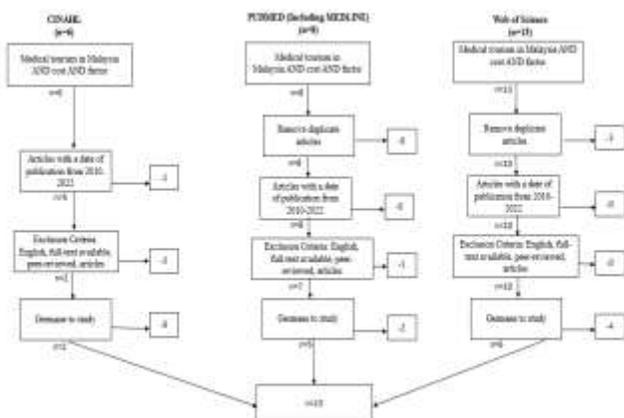
Although loosely applying PRISMA guidelines helped reduce the limitations presented in this study, this literature review was subject to several limitations. First and foremost, time was limited to conduct the research. Also, the interpretation of information may have varied between researchers, although every attempt was made to avoid this through the rater review. Furthermore, information seemingly germane to the study was not plentiful and the use of other keywords, languages, and dates might have yielded more articles to review.

Exclusion Criteria

An initial single-researcher review was conducted after gathering and arranging the 27 articles that were initially identified from CINAHL, PubMed (including MEDLINE), and Web of Science. There were duplicate articles found and eliminated. Then, filters were applied to dismiss articles outside the publication timespan from 2010 to 2022. Articles were further excluded if they 1) were not written in English, 2) were not from a peer-reviewed source, and (3) if full-text

was not easily available. After applying all of the exclusion criteria, 19 articles remained. Additionally, articles that did not discuss cost of healthcare services were excluded as not being germane to the study since cost was a key part of the research questions. As Figure 1 demonstrates, at this initial point of review, 13 articles were selected for the study after all above exclusion criteria were applied.

Figure 1: Literature Review Process



RESULTS

The initial research sought to determine the factors that influence medical tourism in Malaysia and identified if cost has been a leading factor. As Figure 1 indicates, this literature review used three academic research databases including PubMed (including MEDLINE) which yielded eight articles; CINAHL had six articles; and the Web of Science which produced 13 articles related to the topic. Researchers reviewed PRISMA guidelines for systematic literature reviews to help frame their review in identifying relevant academic articles during the search, selection, and analysis processes (Moher et al, 2009). Based on the information gathered from 27 articles discovered, 13 articles were selected for additional analysis related to the research questions.

The next step in the research process was to compose the rater's review of the 13 selected articles. The raters analyzed each article and found that two of the articles previously allowed through the single-reviewer process did not actually answer the related research questions pertaining to factors associated with medical tourism in Malaysia and if cost is a leading factor. Therefore, those two articles were removed from the study. Although articles from outside the exclusion date range were used to build the background of the factors identified, key findings of thematic factors relevant to the research questions were found from the analysis of the 11 remaining articles approved by the researcher/raters to be included in the study. The most frequent themes, or factors, that emerged from reviewing the articles that were allowed in this literature review were the 1) quality of care; 2)

attractiveness; 3) cost of healthcare services; 4) and marketing. Table 1 shows the frequency of occurrences in which these factors were represented in each of the 11 articles.

Table 1: Frequency of Occurrences in Literature

Benefits	Occurrences	Instances of Attributes (n)	Percentage (%)
Quality of Care	1, 3, 4, 5, 6, 7, 8, 13	n= 8	62%
Attractiveness	3, 4, 5, 7, 10, 14	n= 6	46%
Cost of Healthcare Services	1, 3, 4, 6, 7, 8, 9, 10, 13	n= 9	69%
Marketing	1, 4, 6, 13	n= 4	31%

From the research it was discovered that:

- 62% of the articles provided detailed evidence that the quality of care impacted medical tourism (1, 3, 4, 5, 6, 7, 8, 12)
- 46% of the analyzed articles addressed attractiveness as a reason for medical tourism (3, 4, 5, 7, 10, 13)
- 69% of the articles identified cost of healthcare services as a reason for medical tourism (1, 3, 4, 6, 7, 8, 9, 10, 12)
- 31% of the articles found marketing was a factor associated with medical tourism (1, 4, 6, 12).

DISCUSSION

The review aimed to determine the factors that influence medical tourism in Malaysia and if cost was a leading factor. Four themes, or key factors, were identified from the literature review process previously mentioned.

Quality of Care

Quality care is an integral part of the rapidly growing consumer health industry. Businesses may find it difficult to survive when they do not provide quality services (Sewar, 2013). Due to the importance of quality of care in medical tourism, both public and private hospitals have been encouraged to improve their healthcare quality by the Malaysian government in past years (Manaf, 2005; Frost & Sullivan, 2010). The articles that were included in this literature review indicate the quality of healthcare services is a factor associated with medical tourism in Malaysia. As Table 1 demonstrates, the influence of the quality of care was represented by 62% of the articles (1, 3, 4, 5, 6, 7, 8, and 12) which shows that it is an influential factor of medical tourism in Malaysia.

Attractiveness

Medical tourists' choice of where they seek medical care could also be based on country attractiveness as argued by some researchers (Connell, 2006; Turner, 2007; Woodman, 2007). In addition, some patients may also be interested in finding new and exotic overseas destinations to enhance their tourism experience. It appears as if the medical tourism industry and the government of Malaysia has been working diligently to align their initiatives and be competitive within the region. Medical tourists are attracted to Malaysian private hospitals because they appear to be export-driven (Saleh, Hussain, Saud, & Isa, 2015).

From this literature review, 46% of the articles reviewed (3, 4, 5, 7, 10, and 14) indicate the attractiveness of Malaysia has impacted medical tourism there. Researchers indicate a country's capability of their government, the inventiveness of the healthcare facilities, the availability of qualified workers, the natural resources, and the natural attractions (such as beaches and rainforests) have spurred the interest of millions of patients to travel abroad for medical procedures (Sewar, Manaf, & Omar, 2012). For Malaysia, it appears the government has been invested in increasing the number of medical tourists and visitors from abroad for many years. In the past, medical tourists could obtain a Malaysian visa quickly which may have added to the attractiveness (Fedorov Tata, Raveslooy, Dhakal, Kanosue & Roncarati, 2009). In addition to extensive medical facilities, Malaysia has several attractions and places of popular interest for medical tourists to visit while there (Guiry, Scott & Vequist, 2013). Furthermore, Malaysia has been previously perceived to have many healthcare providers available for medical tourists, especially those in the private sector (Turner, 2007).

Cost of Healthcare Services

There are several reasons for the increased demand for quality healthcare. However, the primary factor that seems to be consistent is the rising costs of healthcare services, especially in many European countries and the U.S. This has seemingly forced many patients from these countries to seek medical treatment abroad where the costs might be less momentous. Less developed countries often have lower labor costs and wages which is why they can offer lower healthcare costs that attract patients from developed countries. Therefore, it seems the cost of healthcare services may be the main factor that drives U.S. patients to seek medical services in other countries. Malaysia may be viewed by some as one of the most likely places for medical tourism due to its reduced pricing of quality health care services (Serwar, 2012).

As this literature review reveals, the primary factor for medical tourism is likely the cost of healthcare services since 69% of the articles in this study (1, 3, 4, 6, 7, 8, 9, 10, and 13) clearly indicate cost of healthcare services impacts medical tourism. Procedures such as a heart bypass and hip replacement have been reported in the past to be examples of

healthcare services which are substantially lower in price in Malaysia when compared to the US and many other developed countries. That reduced price may be the primary motivating factor for many medical tourists (Serwar, 2012).

Marketing

The fourth factor influencing medical tourism in Malaysia is marketing. This literature review indicates 31% of the articles reviewed (1, 4, 6, and 13) state marketing strategies have impacted the increased rate of medical tourism in Malaysia. Researchers have found that the Malaysian government has promoted medical tourism since approximately 1998 (Fedorov, Tata, Raveslooy, Dhakal & Kanosue, 2009). It is thought that many U.S. patients may be attracted by increased media coverage about patient satisfaction with their treatment outside the U.S in past years (Schroth & Khawaja, 2007). This is key since research shows that patients travel abroad to specific hospitals, doctors, and destinations due to issues such as professionalism, as relayed through word of mouth marketing by those who have positive testimonials about their healthcare experiences, including family members, friends, and the internet (Rokni, Pourahmad, Moteiey, Rezaeiy & Heidarzadeh, 2013). Historically, the ease of accessing information has made it much easier to find details about medical procedures in other countries due to tremendous development of the internet. Likewise, medical institutions and travel agencies have based their marketing and promotional campaigns on the internet, which has boosted foreign patient confidence since they can obtain information more easily and rapidly (Lagace, 2007).

Conclusion

Medical tourism has attracted many people worldwide influenced by different factors. This study aimed to determine what those influential factors were and if cost was a leading factor for medical tourism in Malaysia. This literature review revealed the following factors to be the most germane to medical tourism including, quality of care, attractiveness, cost, and marketing. Cost of health services was the most common theme and the high cost of medical expenses in some countries was found to be the primary need for medical tourism. Following closely behind the cost of health services was the quality of care. This factor was also relevant in the articles selected for this study. Researchers should continue research on the other factors as well. For example, could leisure tourism render the concept of medical tourism inapplicable.

Future research on the topic of medical tourism is needed for Malaysia and other countries. A review of leisure tourism and its impact, if any, on the medical tourism market would be an additional review worthy of conducting. Although, many of the factors identified in this literature review that were discussed need defined in detail in the future. For example, how is quality of care calculated in varying

countries and are there variances in the healthcare services offered, meaning is a hip replacement performed the same way using the same materials and processes for the purpose of indepth cost analysis.

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