

BENEFITS AND LIMITATIONS OF MEDICAL TOURISM DEVELOPMENT IN HONG KONG: LOCAL RESIDENTS' PERSPECTIVE

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ABSTRACT

OBJECTIVES

Promoting medical tourism has been discussed by various stakeholders of its destination. High-quality medical products and services is addressed, especially in the Asia Pacific region. This study aims to (1) explore major criteria to establish medical tourism in Hong Kong from the local residents' perspective and (2) examine the benefits and limitations in developing medical tourism in Hong Kong by the local residents' age groups.

DESIGN

Target samples were local residents with different age groups who had experienced receiving medical treatment or service in Hong Kong. The self-administered survey with 38 questions was created to explore the local residents' perceptions on various issues of medical tourism development in Hong Kong. Data was collected in April 2021 with the total response rate of 153 respondents. A descriptive analysis and ANOVA test were applied for objective testing.

RESULTS

To answer the objectives, the important criteria for medical tourism development in Hong Kong were physician expertise, infrastructure of hospitals, and healthcare quality. The least important criteria were the political and economic condition of that destination and language. The ANOVA results have shown significant differences on the benefits and limitations of developing medical tourism by age groups of local residents. Younger respondents perceived a benefit of medical tourism, rather than elderly respondents in terms of gaining more medical experience. Elderly respondents perceived the limitations of medical tourism development compared to younger respondents in the areas with lacking private sector interest and high cost.

CONCLUSION

There are numerous factors for consideration on establishing medical tourism destination in Hong Kong. Local residents perceive an opportunity for Hong Kong as a medical tourism destination. Although some limitations should be closely monitored, local residents would be confident with medical tourism development.

KEYWORDS

medical tourism development, major criteria, benefits, limitations, local residents, age

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INTRODUCTION

Medical tourism is defined as organized travel beyond national borders to enhance and restore the tourists' health. [1] According to Birader and Ozturen (2019), medical tourism includes medical treatments and other services, such as relaxation activities. [2] Hong Kong is renowned as a shopping and food destination and mainland Chinese tourists are the main market. [3, 4] This situation has been maintained for many years [5] and it may no longer be attractive for repeat tourists. Hong Kong can promote its city as a medical destination because of its efficient medical care system. However, long waiting lists and waiting times are major constraints. [6] The medical tourism sector involves various stakeholders (e.g., tourism business providers, hospitals, the government, and community) [7], understanding the stakeholders' viewpoint on medical tourism development in Hong Kong is worth exploring. Thus, this study aims to (1) explore major criteria to establish medical tourism in Hong Kong from the residents' perspective, and (2) examine the benefits and limitations in developing medical tourism in Hong Kong by the residents' age groups.

LITERATURE REVIEW

MAJOR CRITERIA OF MEDICAL TOURISM

According to the proposed supply and demand model of medical tourism, demand factors include distribution channels for receiving sufficient information about medical tourism and cost of medical services. [8] Supply factors may refer to facilities and service offered by the host destination, such as infrastructure and facilities, promotional activities, service quality, medical visas, medical expertise, and language. [1, 7] Previous studies have shown that many Chinese tourists visited Hong Kong for medical treatment. [8] Most medical services focused on check-ups, basic healthcare services, and giving birth. [9]

BENEFITS AND LIMITATIONS OF MEDICAL TOURISM DEVELOPMENT

Several benefits have been explored for medical tourism development. These benefits would increase revenue generation, promote tourism competitiveness, explore job opportunities, improve health infrastructure, and enhance the residents' wellbeing and quality of life. [2, 7, 10, 11, 12] On the other hand, some limitations have been addressed. These limitations are high land costs, medical manpower

shortages, and qualification, high local healthcare services demand, and language barriers. [13, 14, 15]

AGE GROUP AND MEDICAL TOURISM DEVELOPMENT

Different age groups tend to have different stances on medical tourism initiatives. Comparing among different age groups, teenagers are positive about medical tourism because it is beneficial to long-term growth of tourism and may generate large returns. [16, 17] Teenagers aged 18 to 26 tend to believe that there is insufficiency, low quality of medical facilities and services, and lack of government policies and laws are limitations. [17] Elderly above 65 years old have a negative stance due to great demand for local healthcare needs. [18] middle-aged and senior (above 65 years old) tourists are concerned about social and political environments and accreditation of specialists, which may influence their personal interest. [19] However, people aged 42-77 think that the language barrier is not a large concern because it can easily be addressed by providing training. [20]

METHODOLOGY

This study used a quantitative method. The target population were Hong Kong residents, and a convenience sampling approach was conducted to recruit the respondents. A self-administered questionnaire with Chinese and English versions was created, including three sections with 38 questions, adopted from Ebrahim and Ganguli, Heung et al., and Kim et al. [1, 8, 11] Section I discussed the major criteria for establishing medical tourism in Hong Kong. The second section mentioned the respondents' perceptions on the benefits and limitations of developing medical tourism in Hong Kong. A five-point Likert-type scale with end-anchors labeled 1 "very unimportant" and 5 "very important" was used for the first and second sections, respectively. The third section mentioned the respondents' demographic information such as age, gender, and education with a closed-ended question format.

The questionnaire was created in Google Forms and the data were collected from 153 respondents through an online survey and were distributed on social media, such as Instagram and Facebook, in April 2021. SPSS version 26 was a software used to analyze data. The descriptive technique was used to show the frequencies and percentages of demographic statistics, the mean and standard deviation of major criteria, and ANOVA for benefits and limitations by age groups of respondents.

RESULTS

Table 1 shows the demographic characteristics. From 153 respondents, 48.4% (n = 74) were male and 51.6% (n = 79) were female. In terms of age, 19.6% (n = 30) were 18 to 29

and 50 to 59 years old and 20.3% (n = 31) were 30 to 39, 40 to 49, and 60 years old or above. In terms of education, 72.5% (n = 111) had graduated in high school or received an associate's degree, and 27.5% (n = 42) had received a bachelor's degree.

TABLE 1: DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

Attributes	N	%
Gender:		
Male	74	48.4
Female	79	51.6
Age:		
18-29	30	19.6
30-39	31	20.3
40-49	31	20.3
50-59	30	19.6
60 or above	31	20.3
Education:		
High school/Associates degree	111	72.5
Bachelor's degree	42	27.5

Table 2 explores the importance of criteria to establish the medical tourism in Hong Kong, among 13 criteria, the most important criteria were physician expertise (mean = 4.36, SD = 0.84), infrastructure of hospitals (mean = 4.35, SD = 0.78), and healthcare quality (mean = 4.30, SD = 0.75). The

least important criteria were political condition of that destination (mean = 3.66, SD = 0.91), economic condition of that destination (mean = 3.70, SD = 0.85), and language (mean = 3.73, SD = 1.00).

TABLE 2: MAJOR CRITERIA TO ESTABLISH MEDICAL TOURISM IN HONG KONG

Criteria	Mean	Standard deviation
Economic condition of that destination	3.70	0.85
Political condition of that destination	3.66	0.91
Government regulations of that destination	3.88	1.07
Language	3.73	1.00
Internet	3.86	0.78
Price	3.78	0.96
Accreditation of doctors	4.21	0.87
Physician expertise	4.36	0.84
Healthcare quality	4.30	0.75
Infrastructure of hospitals	4.35	0.78
Marketing strategies	3.82	0.98
Government support	4.13	0.79
Cooperation among government, medical and tourism industry	4.07	0.83

Furthermore, the ANOVA results on the benefits and limitations of developing medical tourism by age showed significant differences, see Table 3. Among five benefits, only one benefit "gaining more medical experiences" was significant (F -value = 5.65, $p < 0.01$). Residents 18 to 29 years old (mean = 3.90), 30 to 39 years old (mean = 3.90), and 40 to 49 years old (mean = 3.87) were perceived more positive compared with residents ageing 60 years old or above (mean = 3.19). In contrast, no mean difference of other benefits by age was observed.

Moreover, among 14 limitations, mean differences of residents' perception of "lack of private sector interest" by age were observed (F -value = 6.82, $p < 0.01$). Residents 60 years old or above (mean = 3.77) were perceived more positive compared with residents 18 to 29 years old (mean = 3.00) and 30 to 39 years old (mean = 2.90). Residents at

50 to 59 years old (mean = 3.63) were perceived more positive compared with residents 30 to 39 years old (mean = 2.90). Mean differences of perception of "high cost" by age (F -value = 5.88, $p < 0.01$). Residents 60 years old or above (mean = 3.39) and 50 to 59 years old (mean = 3.30) were perceived more positive compared with residents 18 to 29 years old (mean = 2.37). Other limitations were also significant by the younger respondents perceived high limitations compared to the elderly respondents. These limitations were "lack of government support" (F -value = 5.19, $p < 0.01$), "shortage of nurses" (F -value = 4.49, $p < 0.01$), "lack of supportive facilities" (F -value = 3.54, $p < 0.01$), "great demand of healthcare needs for local" (F -value = 2.86, $p < 0.05$), and "lack scarcity for new hospital development" (F -value = 2.86, $p < 0.05$). The remaining six limitations were not significant ($p > 0.05$).

TABLE 3: ANOVA TESTS ON BENEFITS AND LIMITATIONS OF PERCEIVED DEVELOPING MEDICAL TOURISM BY AGE

Attributes	Mean by age					F-ratio	ANOVA Sig. value	Comparison
	18-29 (A)	30-39 (B)	40-49 (C)	50-59 (D)	60 or above (E)			
Benefits								
Enhance competitiveness of Hong Kong tourism	4.13	3.90	3.84	4.00	3.84	1.20	0.31	-
Large economic return	4.20	3.90	3.90	4.07	3.90	1.14	0.33	-
Provide more job opportunities	4.30	3.87	4.03	4.03	4.06	1.57	0.18	-
Beneficial to other industries	4.30	3.87	4.03	4.17	4.13	1.64	0.16	-
Gain more medical experiences	3.90	3.90	3.87	3.67	3.19	5.65	0.00*	A>E, B>E, C>E
Limitations								
Advertising restrictions of medical services	3.70	3.06	3.19	3.50	3.32	1.95	0.10	-
Restriction of certain treatments and surgeries	3.30	3.45	3.32	3.67	3.58	0.83	0.50	-
Lack of new policies	4.07	3.48	3.77	3.47	3.81	2.10	0.08	-
Language and communication barrier	2.23	2.58	2.65	2.70	2.48	1.05	0.37	-
Lack of an iconic type of organization that patient can easily recognize	3.03	3.13	3.13	2.97	2.77	0.47	0.75	-

Lack of private sector interest	3.00	2.90	3.26	3.63	3.77	6.82	0.00**	E>A, E>B, D>B
High cost	2.37	2.81	2.97	3.30	3.39	5.88	0.00**	D>A, E>A
Limited number of specialists	4.03	4.29	3.94	4.13	3.81	1.71	0.15	-
Shortage of nurses	3.93	4.42	3.81	4.20	3.68	4.49	0.00**	B>E
Lack of government support	4.37	4.26	3.87	3.83	3.61	5.19	0.00**	A>E, B>E
Great demand of healthcare needs for local	3.97	4.48	4.03	4.00	3.87	2.86	0.02*	B>E
Land scarcity for new hospital development	3.93	4.45	3.97	4.07	3.84	2.86	0.02*	B>E
Lack of supportive facilities	3.80	4.39	3.77	4.00	3.71	3.54	0.00**	B>E
Unsuitable physical environment during the medical recovery	3.77	3.90	3.74	4.00	3.61	0.86	0.48	-

*p < 0.05, **p < 0.01

DISCUSSION AND CONCLUSION

This study aims to assess the major criteria of medical tourism development in Hong Kong and explore the benefits and limitations of medical tourism development by different age groups of local residents. The major criteria to establish medical tourism in Hong Kong are physical expertise, infrastructure, and healthcare quality. These findings were consistent with several studies. [1, 11] Medical expertise would enhance the local residents' confidence and determine their perception on medical service providers. Hospital infrastructure involves the location of land and supported facilities, which may influence the local residents' perception. As healthcare quality is concerned, local residents searched for an international certification scheme to prove the qualification of medical staff and services. For instance, accredited medical items of the Joint Commission International (JCI) Scheme shows reliability and safety and enhance the branding of hospitals. Many tourists would explore this professional accreditation before making the decision of availing medical treatment and services.

This study compares the different age groups of local residents on benefits and limitations of medical tourism development in Hong Kong. Local residents perceived more limitations than benefits for developing medical

tourism in Hong Kong. Moreover, different age groups of local residents have different concerns of medical tourism development, which are based on their personal interest. For the benefits of medical tourism development, younger residents perceived more benefits on availing more medical experiences compared to elderly residents. Younger residents perceived that those different medical services can be provided to customers [21], which can improve professional skills and knowledge of medical staff and nurses.

For the limitations of medical tourism development, elderly residents have a stronger feeling about the lack of private sector interest and high costs, compared to the younger residents. Even if Hong Kong prefers catering to a wide-range market, it needs a large amount of capital for the construction of new hospitals and supporting facilities and recruitment of medical staff and training. High costs can be a concern, which is inconsistent with the study of Nilashi et al., in which it should be common problem among countries. [13] The younger residents stated the strong limitations compared to the elderly residents in terms of lack of government support, shortage of nurses, lack of support facilities, great demand of healthcare needs for local, and land scarcity for new hospital development. Younger residents may consider these issues as the long-term effect. Younger residents may not be in demand of medical

treatment and service at this stage, but in the future, they will be the target group as the medical treatment and service recipients. Insufficient medical resources of nurses, facilities, and new hospitals continue to exist and would influence the future medical tourism development in Hong Kong.

Regarding medical tourism development, various implications are proposed to promote the benefits and minimize the constraints of medical tourism development in Hong Kong. The Hong Kong government can act as a leader in medical development. For example, the government can enact a policy that may lessen the burden of healthcare staff shortage and enhance the medical quality in both public and private medical sectors. According to the Report of Strategic Review on Healthcare Manpower Planning and Professional Development of 2017, Hong Kong will be short of 1,600 nurses by 2030 at the current hiring rate. [22] The government could provide funding on adding more intakes of medical and

healthcare service programs to increase the medical staff and nurses. Further funding should be provided for the research and development of new medical and health service studies. For supporting facilities, the government could conduct more land allocation for medical uses. Incentives can be created to attract medical investments by providing attractive lease conditions, such as lowering land premiums. Fulfillment of the local residents' needs of medical treatment and service is essential. Maintaining a high quality of medical staff, treatments, and services could increase the impression of local residents.

Promoting Hong Kong as a medical tourism destination would require support from different stakeholders in various areas, such as the expansion of land used and hospitals and medical staff numbers with professional qualification. These issues will take time and must fulfill the needs of local residents. Once these medical services are fulfilled, local residents would be willing to explore and welcome international tourists to gain the same experiences of medical services in Hong Kong.

LIMITATIONS AND FUTURE RESEARCH

The limitations of this study were small sample sizes with 153 Hong Kong residents within the researchers' social connection and the limited period of data collection (i.e., two weeks in April 2021). These procedures limited the generalization of the findings. The increase in sample size and different periods of data collection would provide a

comprehensive understanding of the local residents' perspective on medical tourism development and improve the result generalization. Only the group of local residents was tested in this study. The extension of other stakeholders, such as medical staff and government officials in the Health Department and Hong Kong Tourism Board, would show the new insight of this study.

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