



Article

Responding to Tourists' Intentions to Revisit Medical Destinations in the Post-COVID-19 Era through the Promotion of Their Clinical Trust and Well-Being

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Abstract: The cross-border medical-care industry has recently grown exponentially, and medicaltourism development has been an integral part of the marketing strategies of medical institutions. However, having a successful medical-tourism destination that best attracts customers might be difficult to attain, particularly in the context of scarce relevant literature. Participants' intentions to revisit a medical-tourism destination is better guided by the interplay of several factors, particularly clinical trust and well-being. The current study aimed to assess the impact of clinical trust and well-being on patients' intentions to revisit a destination through an online survey on a sample of patients who visited three medical-tourism institutions in Egypt. We investigated also a possible mediation relationship of three institutional variables, including the infrastructure, service quality and the provision of bearable expenses within the hypothesized framework. A structured survey was distributed to medical tourists who visited international medical centers in Cairo city and Red Sea resorts. A partial-least-squares structural-equation-modelling technique was used to validate the used constructs. Results showed that participants' intention to revisit the destination was significantly predicted by the affordable expenses, medical tourism infrastructure, clinical trust and well-being, but not predicted by service quality. Participants' well-being fully mediated the relationship between service quality and the intentions to revisit, whereas clinical trust and well-being partially mediated the relationship between the affordable expenses and psychological intentions. Decision makers in the medical-tourism sector might benefit from enhancing tourists' behavioral intentions via improving patients' well-being and enhancing clinical trust.

Keywords: medical tourism; trust; well-being; expenses; service quality; infrastructure



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1. Introduction

Medical tourism has long attracted the attention of stakeholders of multiple sectors worldwide, such as the media and academia. Tourism aimed at providing care that improves the health of individuals and restores their well-being is known as medical or health tourism [1]. Most of the world's regions have seen a significant growth in medical tourism, and it is now considered one of the most profitable industries [2]. Nowadays, a destination that offers medical tourism can increase tourism revenue or overcome seasonality issues at any stage of development [3].

Increasingly, health and tourism are becoming globalized industries, which account for a significant portion of international and national economic-output. Unlike earlier decades,

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individuals can now receive medical care in any destination worldwide, without facing any barriers. The growth in the medical-tourism market is apparent, in terms of the number of treatment destinations, the range of services offered, and the volume of travelers [4]. Multiple reasons such as high cost, cultural preferences, and unavailability of a particular medical procedure or treatment can support medical tourism, where dental, surgical, cosmetic, and cancer treatment are among the most commonly requested services [5]. However, it is important to note that having access to numerous medical facilities in various countries may make it difficult for medical tourists to locate the best modern hospitals and well-trained physicians that offer consistently high-quality services.

Many factors can contribute to the success of countries in developing the best medical tourism that is attractive to tourists. According to prior studies, there are factors that can affect medical tourism in terms of perceived value and intention to revisit, such as policies and regulations, costs, governmental funding, healthcare and community needs [5,6]. In addition, medical tourism and intention to revisit a certain destination is often affected by how an individual perceives, interprets, imagines, feels and experiences the process of receiving care in the destination [6,7]. Having trust, as well as the benefits gained are also essential factors that can affect the tourists' intention to revisit. In addition, the emergence of COVID-19 has greatly impacted the medical-tourism market, due to the multiple restrictions involved, mostly in terms of traveling. Although there are a lot of studies that examine the factors that impact revisiting intentions among tourists, a research gap still exists regarding understanding the multiple risks that were raised due to COVID-19, and whether these risks are permanent or temporary. Considering the contribution of multiple factors on tourists' revisit intentions, the aim of this paper is to examine the effect of the tourists' service quality, medical-tourism expenses, medical-tourism infrastructure, clinical trust and well-being on tourists' intentions to revisit medical destinations, as well as the interrelationship between these factors.

2. Literature Review

2.1. The Concept of Medical Tourism

The healthcare sector is now one of the main contributors to the share of the country's total gross-domestic-product [8]. Due to globalization, healthcare services are now delivered in highly advanced facilities that are well equipped with the cutting-edge equipment and qualified healthcare staff to meet the rise in patient expectations and demands. In addition, there is a significant increase in the number of patients seeking medical-tourism care, which would support the economy. However, it poses some challenges for healthcare systems. According to Dalen and Alpert, the number of people seeking medica-tourism services worldwide is estimated to be between 14 and 17 million in 2017 [9]. Sarwar [10] emphasized the fact that this is due to multiple reasons, such as the increased demand for high-quality healthcare, the increase in US and European countries' healthcare costs, and the tough visa regulations imposed by some countries, which have promoted medical tourism worldwide. Nowadays, many Asian countries such as India, Hong Kong, Thailand, and Malaysia are competing to provide the best healthcare services and attract tourists [1,11]. In recent years, these countries have been attracting medical tourists due to their natural resources, excellent service, and low prices, according to Kandasamy and Rassiah [12]. According to tourism research and marketing and the European Association for Tourism and Leisure Education, health tourism can be generally classified, depending on the purpose and the individuals involved in the service, into three main types, including medical, preventive, and wellness tourism [13]. However, it is important to note that this classification is not unified, as many other studies and agencies have reported different classifications [14]. When it comes to medical tourism, the concept can refer to the act in which an individual travels to less-developed areas of the world to receive medical care instead of using local services in their own communities, and is the opposite to international medical travel [15]. In Egypt, Ayoub argued that despite the well-developed tourism-infrastructure locally, the availability of qualified health professionals and the prominent geographic location, there are still some challenges that mean the national medical-tourism industry

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still needs to work on the development of specific areas that influence tourists' perspectives and satisfaction to reach similar levels as those of the regional and global competitors [16]. Thus, and to assess the economic sustainability of a destination, tourism authorities have to identify the factors that drive tourists to return.

2.2. Service Quality in Medical Tourism and the Affected Domains

Many prior research papers have been published on tourism and the competitiveness of destinations, but the factors affecting medical-tourism satisfaction and intentions to revisit the destination have not been adequately addressed. During the trip to a destination country to receive medical care, Cham et al. explained that tourists make decisions based on their perceptions, ideas and impressions from the situations that they encounter [6]. In general, revisiting intentions of individuals to any event are linked to the quality of service offered, regardless of the purpose. Sarwar explained that multiple factors, such as quality of service, can contribute to the perception of tourists and their intention to revisit [10]. A review paper by Xu, Wang, and Du aimed to understand the patients' perspectives when it comes to medical tourism, and identified multiple factors that can affect the patient's experience [17]. According to these authors, the quality of healthcare is perceived by patients seeking medical tourism in terms of distinct factors, such as healthcare outcomes, trust in the physician, access to care, and proper patient-communication [17]. Similarly, Thawornwiriyatrakul and Meeprom reported in a study carried out in Thailand that travel motives are controlled by two factors, including service quality and satisfaction [18]. Ayoub also supported these findings, suggesting that the low quality of healthcare services and the lack of specific competencies among healthcare staff were attributed to impeding medical tourism in Egypt [16]. Additionally, service quality may have a role in developing trust with the destination, which is mainly related to the beliefs of patients in the practitioners or the medical center. Chang et al. [19] assessed the role of service quality on patients' trust and satisfaction across seven medical centers in Taiwan. The authors indicated that the perception of service quality positively affected their trust and satisfaction [19]. Zarei et al. [20] showed also that the quality of interaction and process quality were the most significant service-quality measures that impacted patients' trust in eight medical centers in Tehran, Iran.

From another perspective, medical-service quality has been linked to patients' wellbeing. For instance, Tavitiyaman et al. [21] used an online survey to assess the perceptions of senior tourists of medical-tourism destinations and their perceptions of well-being in Hong Kong and other six countries. Results showed that senior residents of Hong Kong had a more favorable view of the medical quality and wellbeing in other countries than in their own. However, there is no difference in their intention to travel for medical treatments between Hong Kong and overseas destinations. Saiprasert et al. [22] aimed to investigate the connections between how people perceive the quality of medical services, their sense of well-being, and their behavioral intentions when they seek medical care in their home country or abroad. The study revealed that people had different views on the quality of medical care regarding domestic and foreign medical-facilities. Factors such as perceived staff and management quality, as well as perceived facility quality, were found to have an effect on how people felt about their overall wellbeing, which in turn impacted their behavior towards these destinations [22]. In the healthcare sector, service quality is not only a strong determinant of satisfaction and loyalty, but also a significant influential factor on patients' physical well-being and even their very lives [23]. Therefore, standard qualitycontrol measures, such as accreditation and licensing have been considered to be unique prerequisites to protect clients and exclude substandard care. Therefore, Zineldin [23] stressed the importance of designing quality management-processes to increase servicequality parameters and ensure customer satisfaction and well-being [23,24]. Therefore, we hypothesized the following:

H1a: Service quality significantly impacts clinical trust in medical facilities.

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H1b: Service quality significantly impacts participants' well-being in medical facilities.

H1c: Service quality significantly impacts participants' intentions to revisit medical/tourism destinations.

H1d: Clinical trust significantly mediates the relationship between service quality and participants' intentions to revisit medical/tourism destinations.

H1e: Well-being significantly mediates the relationship between service quality and participants' intentions to revisit medical-tourism destinations.

2.3. Affordable Medical-Tourism Expenses and the Affected Domains

Meeting the needs of patients at a reasonable cost is becoming an increasingly global challenge [25]. Patients are becoming more aware of the improved medical-services and healthcare advancements available in many countries, giving them a range of options for medical tourism [26]. As a result, hospital administrators must be creative in order to retain patients. Other factors that motivate people to travel for medical care include cost and faster access to health and medical facilities [11,27,28]. Ghasemi et al. [29] revealed that cost-and quality-oriented innovation are both essential for patient satisfaction. Furthermore, the study found that low-cost and high-quality services act as mediators in achieving this goal. The results of the research emphasize the importance of innovation and knowledge management in providing low-cost and high-quality services to ensure patient satisfaction.

Expenses may also play a significant role in affecting patients' intention to visit a given destination. Crooks et al. [30] conducted a study in Canada and found that medical tourists seek information on cost, accommodation and accreditation, and they relied on word-of-mouth to help decide about their decision to visit the destination. Chaulagain and co-authors [31] employed a survey-based quantitative approach to investigate the influence of Cuba's country image, perceived cost and destination image on Americans' intention to visit the country for medical purposes. The results revealed that destination image and perceived cost had a positive and negative impact, respectively, on the intention to visit Cuba for medical purposes. It was found also that the better Cuba's country and destination images were, the lower the perceived costs and higher the perceived quality of medical-tourism services would be [31].

Importantly, the increasing expense of medical care has important implications for an essential element of successful health-care delivery: patient trust in their doctor and continuity of care [32]. If patients are required to pay more for medical services, it could lead to a greater degree of doubt and mistrust in physicians' judgment, thus making health-care delivery less effective. Unsurprisingly, high medical-costs can lead to dissatisfaction and discontentment among patients, but the main concern is whether this lack of trust due to financial burden will have a lasting negative effect on care and following medical instructions, as has been previously shown [33,34]. Some medical-related financial issues are only temporary, and may not have serious or long-term implications for patient care. Nevertheless, some individuals experience continuous high medical-costs and out-of-pocket expenses, usually because of chronic illnesses that require ongoing treatment. Based on these observations, the authors hypothesized that:

H2a: Affordable medical-tourism expenses significantly impact clinical trust in medical facilities.

H2b: Affordable medical-tourism expenses significantly impact participants' well-being in medical facilities.

H2c: Affordable medica-tourism expenses significantly impact participants' intentions to revisit medical-tourism destinations.

H2d: Clinical trust significantly mediates the relationship between affordable medical-tourism expenses and participants' intentions to revisit medica-tourism destinations.

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H2e: Well-being significantly mediates the relationship between affordable medical-tourism expenses and participants' intentions to revisit medica-tourism destinations.

2.4. Medical Tourism Infrastructure and the Affected Domains

It is important to differentiate between health and healthcare, as the former is often mistakenly assumed to be a direct result of the latter. One of the challenges in the healthcare sector is the need to improve physical infrastructure, to ensure good quality of care and patient satisfaction. Indeed, the tourism industry is highly susceptible to internal and external crises, particularly those related to security. The COVID-19 pandemic has had a global impact on tourism, leading to a decline in activities since 2020. Studies have shown that individuals have increased their adherence to cleaning, hygiene, masks and gloves by 85–90%, after the pandemic, and have decreased their participation in crowded places and use of public transportation by 95% [35]. Additionally, as the perception of risk regarding hygiene and safety increases, travel anxiety also increases, and this in turn leads to a decrease in the intention to travel, among tourists [36]. These studies underline the importance of implementing infrastructural hygiene measures, which are particularly relevant in the post-COVID-19 era.

Recently, there has been an increased emphasis on the tangible aspects of medical services in patient-focused healthcare organizations, due to the complexity of managing technical features such as diagnosis or treatment [37]. The tangible elements of a healthcare provider, such as the appearance of the equipment, the dress of the staff, infrastructure and layout, can all have a strong influence on a patient's experience of care. This is in line with Bitner's [38] concept of healthscape. Studies conducted globally have shown that these tangible aspects can either encourage or discourage certain behaviors and emotions in patients [39] and can play an important role in their healing process [40]. In a recent Korean study carried out among Chinese medical tourists [41], it was found that the attributes of medical tourism, such as the quality of medical services, the cost-effectiveness, and the quality of tourism, have a positive impact on the satisfaction of medical tourists. However, accessibility does not have a significant impact on tourists' satisfaction. Additionally, tourists' satisfaction has a positive impact on their intention to return. In fact, hygienic measures and having good infrastructure were essential factors for service quality [41]. In line with these observations, during the 18th and 20th centuries, wealthy patients from developing countries traveled to medical centers in Europe and the US for treatment. However, this trend began to reverse in the late 20th century, and has grown significantly since then [42]. Nowadays, developing countries have to improve their infrastructure in order to attract more medical tourists from developed countries, encourage their trust and support their well-being. The following hypotheses were set considering the above observations:

H3a: *Medical-tourism infrastructure significantly impacts clinical trust in medical facilities.*

H3b: Medical-tourism infrastructure significantly impacts participants' well-being in medical facilities.

H3c: *Medica-tourism infrastructure significantly impacts participants' intentions to revisit medical-tourism destinations.*

H3d: Clinical trust significantly mediates the relationship between medica-tourism infrastructure and participants' intentions to revisit medical-tourism destinations.

H3e: Well-being significantly mediates the relationship between medical-tourism infrastructure and participants' intentions to revisit medical-tourism destinations.

2.5. Tourists' Intention to Revisit a Destination, and Clinical Trust

Tourists' intention to revisit a destination is an important aspect of destination loyalty, and has been widely researched in the literature. Factors that have been found to influence

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tourists' intention to revisit a destination include destination image, satisfaction, perceived value, and perceived risks [43,44]. Additionally, the quality of the tourist experience has been found to have a positive effect on tourists' intention to revisit a destination [45,46]. In recent years, medical tourism has emerged as an important aspect of tourism, and has been gaining popularity among tourists. Medical tourism refers to the practice of traveling to another country to receive medical treatment. The quality of medical services, cost-effectiveness, and quality of tourism have been found to have a positive effect on medical tourists' satisfaction [47,48]. Additionally, medical tourists' satisfaction has been found to have a positive effect on their intention to revisit a destination [48]. Clinical trust is an important aspect of medical tourism, as it refers to the trust that patients have in the medical professionals and facilities that they receive treatment from. Clinical trust has been found to have a positive effect on medical tourists' satisfaction and on their intention to revisit a destination [48]. Furthermore, clinical trust has been found to be influenced by factors such as the quality of medical services, the qualifications and expertise of medical professionals, and the accreditation of medical facilities [48].

According to Abubakar, Ilkan, Al-Tal, higher levels of trust is attributed to an increase in the intention to revisit destinations, with a higher impact noted among men, compared to women [49]. In another study by Han and Hyun [14], trust in the staff and the clinics was a significant determinant of tourist's intentions to return to a country to receive medical treatment. According to Poon and Koay [50], tourism and trust intersect at several points. In a similar way to quality, Lunt, Smith and Exworthy explained that trust can come in the form of trusting the healthcare organizations, or the healthcare providers, and for some, trusting the quality of information provided [51]. Health-care providers should have specific skills such as cultural familiarity and overseas experience, as well as proper competence in their area of expertise, in order to make the tourists develop a relationship of trust with them. In addition, Rahman et al. reported perceived trust to mediate the association between destination-brand association and revisit intentions among travelers [52]. Clinical trust might also mediate the relationship between institutional image and loyalty in medical tourism. It is important to note also that the two factors, service quality and trust, are also correlated. According to Sohrabi et al., higher levels of service quality are associated with higher trust among tourists, and vice versa [53].

H4: Clinical trust significantly impacts participants' intentions to revisit medical-tourism destinations.

2.6. Tourists' Intention to Revisit a Destination, and Well-Being

When it comes to the association between well-being, patient outcome, and tourists' experience with intention to revisit, Lin found that psychological well-being in the destination country was associated with higher intention for tourists to revisit [54–56]. Lunt et al. suggested that medical tourists should receive trustworthy assurances regarding the quality of their care and safety while in the destination country, and more focus must be directed toward patients' outcomes to maintain their well-being and to guarantee their satisfaction, both of which affect their revisit intentions [51]. Hwang, Lee and Kang [57] explained that it is rare for medical tourists to learn about the services or products offered by medical tourism, and many have misconceptions and fears about a wide variety of situations, such as travel risks and language barriers. In addition, the process of finding healthcare providers that have the required knowledge and identifying the relevant medical information is very challenging for medical tourists. Hwang, Lee and Kang added that when the tourists achieve their desired medical goals and outcome, this will make them return to the same destination in the future [57]. Eventually, focusing on improving factors such as the tourists' experience and well-being will endorse medical tourism by attracting possible future tourists. Similarly, Sarwar reported that patient outcomes can contribute to the perception tourists have and their intention to revisit [10].

The patient-experience factor is also very critical when it comes to working on the behaviors of patients and their intentions to revisit. Research has shown that experience has a significant impact on tourists' cognitive, affective, conative, and behavioral reactions

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towards a destination and its attributes [45,47]. This is why it is important to examine the experiential reactions of tourists, including medical tourists. For example, experience has been found to influence tourists' sense of well-being, satisfaction, and loyalty towards a destination, in the areas of memory, arousal, word-of-mouth, and future travel intentions, service fairness and consumption-related emotions, and recommendation of a destination [58,59]. Many studies have also attempted to measure the tourism experience by identifying its key dimensions in various consumption contexts. For example, Otto and Ritchie [46] identified six dimensions of service experience in tourism, such as hedonic, interactive, novelty, comfort, safety, and stimulation, and validated them in three service-consumption contexts: airlines, hotels, and tours and attractions. Everything that patients encountered at the clinic, from the moment they decided to attend, is considered part of their patient experience [60]. A recent study by Lee stressed the need for strategic approaches toward the customer experience to improve quality of medical care, since customer satisfaction may be subjective [61].

H5: Well-being significantly impacts participants' intentions to revisit medical-tourism destinations.

Overall, based on the above review, there may be a significant interplay between clinical trust and well-being that would eventually impact medical tourists' intention to revisit a given destination. Both the trust and well-being might also act as intermediate variables that transmit the effect of distinct antecedent variables, including the role of healthcare costs, infrastructure and the perceived acceptability of expenses on the outcome variable (participants' intentions). Constructing a mediation analysis is an effective way to elucidate the underlying effects that connect the antecedent and consequences variables [62]. In the current study, we assessed the impact of potential mediators (clinical trust and patients' well-being) in two general paradigms: full mediation and partial mediation. Full mediation indicates a lack of the direct effect between two variables, while an indirect effect would be significant only if the mediator exists. In partial mediation, the direct effect of an antecedent variable is significant, along with a significant indirect effect in the presence of a mediator [62]. As a consequence, we demonstrate below a visual summary of the developed hypotheses in the current study (Figure 1):

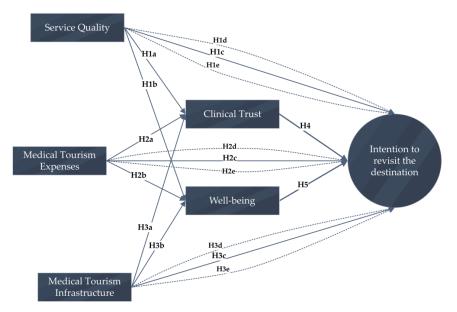


Figure 1. The hypothesized relationships in the current study.

3. Materials and Methods

3.1. Sampling and Data Collection

The sampling method used for this research was convenience sampling. Convenience sampling refers to non-probability sampling, which involves participants selection from

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those who are readily available or accessible. This method was chosen because it allowed quick access to participants who were already familiar with medical-tourism centers. The first step in conducting this survey was to create a questionnaire that would assess tourists' attitudes towards medical tourism in Egypt before and after the pandemic. Questions focused on their level of trust in Egyptian healthcare services, their willingness to travel for medical purposes, and any concerns they may have about safety protocols at medical facilities. Questions also sought to understand factors influencing their decisions when considering a medical trip abroad.

This survey was then distributed to eligible participants, through a tourism marketing agency. The agency specifically targeted experienced tourists in medical tourism, asking them to fill out the survey and to nominate another tourist with similar experience to do the same [63]. Afterward, once the questionnaire was created, it was distributed online via social media platforms or email campaigns. This ensured that a wide range of tourists was reached and that responses were collected from domestic and international travelers. To further increase response rates, incentives such as discounts or vouchers were offered for those who completed the survey. It is noteworthy that the city of Cairo and the Red Sea resorts were chosen as the primary destinations for distributing the survey, as they are renowned for their top international medical centers.

Moreover, these two locations are among Egypt's most popular destinations for medical tourism. Thus, this approach will yield valuable data regarding the experiences of medical tourists in Egypt. We followed Warner's [64] recommendation in the second stage, to eliminate the response bias: the agency informed the targeted sample of the survey outline and the research scope, to avoid biased responses. In the third stage, the agency distributed the survey online to reach the targeted sample more flexibly. We followed the Dolnicar et al. [65] restriction while distributing our survey, clarifying that both online-only and mail-only surveys provided data sets with nonresponse bias for the self-selection of tourist respondents.

3.2. Construct Measures

As medical tourism continues to grow, it is essential to understand the motivations and experiences of those who pursue this option. The developed questionnaire items were based on previously validated domains in earlier studies [66–68], and aimed to gain insight into the motivations and experiences of medical tourists. The survey consisted of 27 items and seven domains, including demographic and care-related characteristics (four items), service quality (six items) [67], medical-tourism expenses (six items) [66], medical-tourism infrastructure (three items) [67], clinical trust (one item) [68], well-being in medical tourism (two items) [67] and the intention to revisit the destination [66] (five items, Table S1).

3.3. Statistical Analysis

Statistical analysis was carried out using RStudio (R version 4.1.1). For sample-size calculation, we employed the inverse-square-root method recommended by Kock and Hadaya [69], which assumes that the ratio of the given path-coefficient would be higher than the critical error of a test statistic. In this study, we assumed that the minimum value of the path coefficient was 1.15. At a significance level of 5%, the calculated sample size was 275. Nonetheless, we planned to collect 300 questionnaires from medical tourists in Egypt's medical destinations, as mentioned in the data-collection section, with the mentioned procedures to account for potential non-response rates and missing primary-outcomes. Ultimately, 300 questionnaires were collected, with a response rate of 95%, resulting in 287 completed surveys for use in this study.

For the analysis, we used frequencies and percentages to express categorical variables. A multiple-response analysis was used to analyze the type of medical care as a variable with multiple selections. In the current study, a partial-least-squares structural-equation-modelling (PLS-SEM) approach was used as a variance-based method, in order to assess the hypothesized framework. The PLS-SEM method is suitable for constructing latent

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variables, particularly composites, and for assessing the relationship between them [62,70]. It is also suited for models that involve a mediation analysis [62]. We also conducted a Sobel test [71] to assess the mediation effects, based on basic regression analyses, and their possible contradictories with the obtained results from the PLS-SEM technique [72]. In the PLS-SEM model, we adopted a 1000-bootstrap technique to assess the statistical significance in a non-parametric environment. Model validity was generally explored using the convergent-validity methodology, including composite reliability (CR), factor loadings, Cronbach's alpha ($C\alpha$), the exact reliability coefficient (RhoA) and average variance extracted (AVE) [73,74]. Furthermore, we evaluated the discriminant validity by assessing the heterotrait–monotrait ratio (HTMT) and comparing the between-domain correlations and AVE square roots. Results of the structural model were expressed as beta coefficients and 95% confidence intervals (95% CIs). A p value of 0.05 indicated statistical significance.

4. Results

4.1. Characteristics of Respondents

Data from 287 respondents were analyzed in the current study. Approximately half of the participants were males (50.9%). Fewer than half of the participants were aged 41 to 50 years (44.9%) and had an income of USD 3001 to 6000 per month (Table 1). The most common type of healthcare provided to the respondents included a general health check (23.0%), rehabilitation (19.5%) and dermatological care (17.8%, Figure 2).

Table 1. Demograph	nic characteristics	of the respondents.
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Parameter	Category	N (%)
Gender	Male	146 (50.9%)
	Female	141 (49.1%)
Age (years)	18 to 30	44 (15.3%)
	31 to 40	72 (25.1%)
	41 to 50	129 (44.9%)
	51 to 60	20 (7.0%)
	≥61	22 (7.7%)
Income (USD)	1000 to 3000	36 (12.5%)
	>3000 to 6000	138 (48.1%)
	>6000 to 9000	46 (16.0%)
	>9000	67 (23.3%)

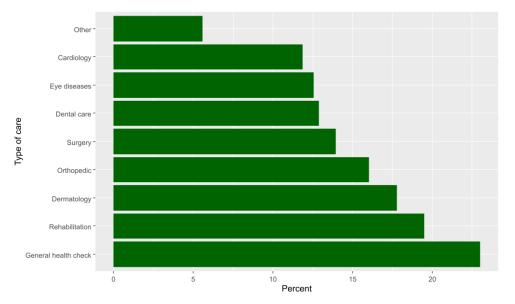


Figure 2. Percentages of types of healthcare services provided to the participants.

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4.2. Results of the Convergent Validity and Construct Reliability

To confirm the loadings of indicators to their constructs, an exploratory factor analysis was carried out using a promax rotation, and revealed a six-factor solution. However, we excluded six items from the model because they were not significantly loaded to their domains, including two items from the service-quality domain, three items from the expenses' domain and one item from the intention-to-revisit-the-destination domain (Table S1). Consequently, a PLS-SEM analysis with bootstrapping was implemented. The bootstrap mean-factor-loadings of items were all above 0.50, and the RhoA values exceeded 0.70 (Figure 3). Additionally, internal-consistency indicators were above 0.70 (with Cronbach's alpha ranging between 0.799 and 0.909), indicating good-to-excellent reliability. Finally, the AVE values were all above the 0.5 threshold (Table 2) [75].

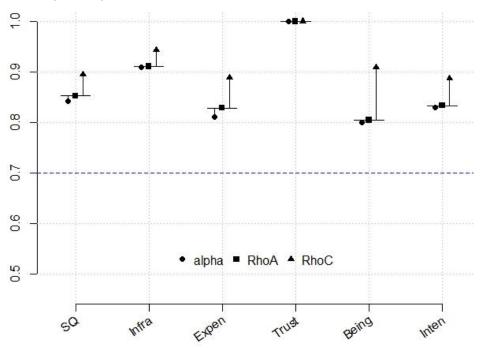


Figure 3. Results of the internal-consistency reliabilities (Cronbach's alpha, rhoC, and rhoA) for different constructs. SQ: service quality: Infra: medical-tourism infrastructure; Expen: medical-tourism expenses; Trust: clinical trust; Being: well-being in medical tourism; Inten: Intention to revisit.

Table 2. Results of the convergent validity and construct reliability.

Parameter	BM-FL	VIF	Alpha	AVE	rhoA
Service quality			0.842	0.681	0.849
SQ_01	0.727	1.468			
SQ_02	0.854	2.139			
SQ_03	0.833	2.172			
SQ_04	0.875	2.301			
Medical-Tourism Infrastructure			0.909	0.846	0.911
Infra_01	0.915	2.868			
Infra_02	0.921	3.203			
Infra_03	0.922	3.020			
Well-being in medical tourism			0.799	0.832	0.805
Being_01	0.921	1.795			
Being_02	0.904	1.795			
Medical-Tourism Expenses			0.811	0.726	0.833
Expen_01	0.868	1.958			
Expen_03	0.786	1.552			
Expen_06	0.895	2.069			

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Table 2. Cont.

Parameter	BM-FL	VIF	Alpha	AVE	rhoA
Intention to revisit			0.830	0.663	0.832
Inten_02	0.782	1.639			
Inten_03	0.802	1.692			
Inten_04	0.821	1.844			
Inten_05	0.849	1.970			
Clinical trust			1	1	1
Trust_01	1	1			

Alpha: Cronbach's alpha; BM-FL: bootstrap mean-factor-loading; AVE: average variance extracted.

4.3. Results of the Discriminant Validity

In the current study, the discriminant validity was assessed by comparing the square roots of AVE with the bivariate correlation coefficients between domains. Results showed that the correlation coefficients were consistently lower than the square roots of AVE (Table 3). The validity was also corroborated by the fact that the model heterotrait–monotrait ratio (HTMT) did not exceed 0.80 (Table 4) [76].

Table 3. Outcomes of the discriminant validity.

	SQ	Infra	Expen	Trust	Being	Inten
SQ	0.825					
Infra	0.532	0.920				
Expen	0.622	0.716	0.852			
Trust	0.428	0.516	0.658	1.000		
Being	0.549	0.571	0.702	0.610	0.912	
Inten	0.476	0.543	0.637	0.517	0.620	0.814

Bold values indicate the square roots of average variance extracted, and the remaining values indicate the bivariate correlations between constructs. SQ: service quality: Infra: medical-tourism infrastructure; Expen: medical-tourism expenses; Trust: clinical trust; Being: well-being in medical tourism; Inten: Intention to revisit.

Table 4. Outcomes of the model heterotrait–monotrait ratio.

	SQ	Infra	Expen	Trust	Being
Infra	0.606				
Expen	0.744	0.841			
Trust	0.464	0.54	0.726		
Being	0.667	0.667	0.859	0.681	
Inten	0.566	0.624	0.771	0.567	0.757

SQ: service quality: Infra: medical tourism infrastructure; Expen: medical tourism expenses; Trust: clinical trust; Being: well-being in medical tourism; Inten: Intention to revisit.

4.4. Structural Model

Multicollinearity assessment of the model showed that the degree of inflation for variances of correlation coefficients did not exceed 5.0, indicating the absence of multicollinearity [77] (Table 2). Results of the structural model showed that higher levels of well-being in medical tourism were significantly predicted by higher service-quality (Beta = 0.17, 95% CI, 0.04 to 0.30, p = 0.007) and offering affordable expenses (Beta = 0.52, 95% CI, 0.36 to 0.67, p < 0.0001). The perceived clinical-trust was also associated with providing affordable expenses (Beta = 0.58, 95% CI, 0.44 to 0.70, p < 0.0001). Notably, clinical trust and well-being were antecedent predictors of participants' intention to revisit the destination (Beta = 0.22, 95% CI, 0.11 to 0.34, p < 0.0001 for clinical trust and Beta = 0.49, 95% CI, 0.38 to 0.59, p < 0.0001 for well-being, respectively, Figure 4).

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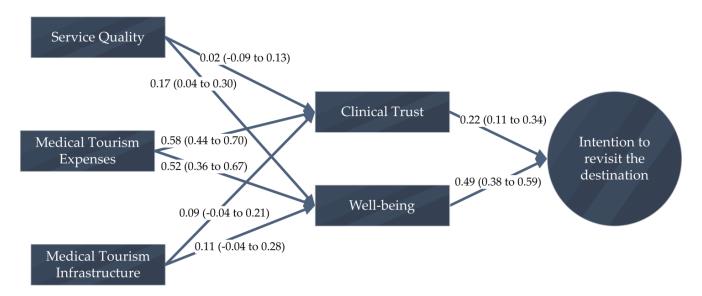


Figure 4. Results of the structural model. Numerical values are expressed as beta coefficients (95% confidence intervals).

Results of the mediation analysis showed that the direct relationship between service quality and behavioral intentions was not statistically significant; however, the relationship was significant through participants' well-being (Beta = 0.08, 95% CI, 0.02 to 0.15, p = 0.008), indicating a full mediation. Additionally, participants' intentions were significantly predicted by the affordable medical-tourism expenses (Beta = 0.12, 95% CI, 0.02 to 0.24, p = 0.038), and the mediation path was statistically significant through clinical trust (Beta = 0.08, 95% CI, 0.02 to 0.15, p = 0.008) and well-being (Beta = 0.08, 95% CI, 0.02 to 0.15, p = 0.008). This indicates that both clinical trust and well-being have partially mediated the relationship between bearable expenses and participants' intentions to revisit the destination. Concerning the impact of medical-tourism infrastructure, results revealed that participants' intentions were associated with medical-tourism infrastructure (Beta = 0.26, 95% CI, 0.10 to 0.41, p = 0.001) with no significant mediating roles of clinical trust and well-being (Table 5). Considering the outcomes of the mediation analysis based on the Sobel test, we showed that both trust and well-being were significant mediators of the relationships between participants' intentions and service quality (p < 0.001 and p = 0.001 for trust and well-being, respectively), bearable expenses (p < 0.001 for both mediators) and infrastructure (p < 0.001 for both mediators, Table 5).

Table 5. Outcomes of the mediation analysis.	le 5. Outcomes of the med	diation analysis.	
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Relationship	Hypothesis	Beta (95% CI)	p *	p [¥]
$SQ \rightarrow Inten$	H1c	0.06 (-0.04 to 0.18)	0.132	NA
$SQ \rightarrow Inten (through trust)$	H1d	0.00 (-0.02 to 0.03)	0.384	< 0.001
$SQ \rightarrow$ Inten (through well-being)	H1e	0.08 (0.02 to 0.15)	0.008	0.001
$Expen \to Inten$	H2c	0.12 (0.02 to 0.24)	0.038	NA
Expen \rightarrow Inten (through trust)	H2d	0.13 (0.06 to 0.21)	0.001	< 0.001
Expen \rightarrow Inten (through well-being)	H2e	0.25 (0.16 to 0.36)	< 0.0001	< 0.001
Infra-Inten	Н3с	0.26 (0.10 to 0.41)	0.001	NA
Infra \rightarrow Inten (through trust)	H3d	0.02 (-0.01 to 0.06)	0.116	< 0.001
Infra \rightarrow Inten (through well-being)	НЗе	0.05 (-0.02 to 0.14)	0.089	< 0.001

SQ: service quality: Infra: medical-tourism infrastructure; Expen: medical-tourism expenses; Trust: clinical trust; Being: well-being in medical tourism; Inten: Intention to revisit. * p-values are based on the results of the PLS-SEM mediation analysis with bootstrapping. ¥ p-values are based on Sobel test.

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5. Discussion and Limitations

Understanding the tourists' intentions to revisit is associated with specific factors, including the tourist's experience, clinical trust, well-being, healthcare infrastructure and associated expenses. Considering the variety of different aspects that are involved in medical tourism, the decision-making process is considered highly complex, when compared to other decisions [78]. These factors involve both physical and mental activities encountered by the medical tourists, which shape their experience and intention to revisit [79]. Service quality is known to be associated with satisfaction, and thus affects revisit intentions. Unexpectedly, the results of the mediation analysis in this study showed no statistically significant association between service quality and behavioral intentions to revisit. This finding contradicted the findings reported by multiple prior studies [8,16–18]. A significant positive association was reported between intention to revisit and the quality of medical services provided in the destination country [80]. Similarly, the quality of medical care and service also influences the intent to return to a destination country to receive care, according to Han and Hyun [14]. In addition, another study in Korea by Lee and Kim reported that quality of medical services was positively correlated with the UAE's tourists' satisfaction, as well as their intention revisit Korea to receive medical care [8]. A possible reason for our finding could be the fact that medical services involve multiple processes and activities that are not related only to the patient, but also to the organization, treatment procedures, and outcomes. The exploratory-factor analysis conducted by Lee and Yun [8] supported this point and explained that healthcare-service quality is a broad term that encompasses product, environment, delivery, and social quality, which all affect the revisit intentions among tourists. In addition, Endeshaw [81] argued that scholars have not reached a consensus regarding the definition, indicators, and factors of healthcare quality; thus, various results can be obtained, depending on the healthcare model and measures used for service quality [81].

In their study on the healthcare marketplace and medical tourism, Horowitz, Rosensweig and Jonesargued [15] noted that there is a tendency for medical-tourism advertisements to place their attention extensively on treatment outcomes, while neglecting the quality and safety aspects, which can sometimes create a gap between expectations and the actual patient-outcomes [15]. In addition, the exploratory-factor analysis conducted by Lee and Yun [8] supported this point, and explained that healthcare-service quality is a broad term that encompasses product, environment, delivery, and social quality, which all affect the revisit intentions among tourists. Moreover, Xu, Wang, and Du [17] emphasized the fact that patients who undergo medical tourism have higher expectations of the quality of healthcare services that they will receive, which means that their evaluation of the quality of service differed compared to other patients [17]. In addition, Xu, Wang, and Du added that the evaluation of quality is often directed toward the healthcare staff rather than the medical care and procedures given [17]. Although we reported a direct association of clinical trust with the intention to revisit, the Xu, Wang and Du review [17] noted that trust is not directly associated with the intention to revisit; however, it affects satisfaction, which in turns affects their revisit intentions [17]. In another study by Aljumah, Nuseir, and Islam, intention to revisit was measured in terms of patient loyalty, which was found to be associated with factors such as trust, service quality, and satisfaction [82]. The intercorrelation association reported among the factors that impact the intention to revisit could be another reason that explains the differences in findings.

On the other hand, patient behavioral-intentions can be positively influenced through pricing, according to Lai et al. [83] Medical tourism is known to have relatively high expenses, due to the costs associated with traveling, length of stay, and treatment [84]. In the current study, participants' intentions were found to be predicted by medical-tourism expenses, clinical trust, and well-being factors. As for the expenses factor, our findings reported a significant positive association between providing bearable expenses and revisit intentions, a finding that is consistent with the findings of the majority of prior studies that measured the association with costs [4,6,10]. Furthermore, clinical trust and well-being

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appear to have partially mediated the relation between bearable expenses and revisit intentions. Individuals who have a high level of trust in the medical facilities and providers in a foreign country are more likely to have positive intentions to revisit for medical treatment. This is because they believe that the quality of care will be high and that their health needs will be adequately met. On the other hand, individuals with lower levels of trust may be more hesitant about revisiting, even if the expenses are bearable, due to concerns about the quality of care. Trust can be built through a variety of means, including transparency in medical practices, effective communication with patients, and positive patient-outcomes. Thus, it is important for medical-tourism providers to focus on building and maintaining trust with patients, in order to promote positive revisit-intentions.

Patient well-being explains the physical and mental well-being of patients from the care received, which is affected by the quality-of-service quality given to the patient. In the current study, participants' intentions were predicted by well-being in medical tourism. This is due to the fact that patients with improved wellness are more likely to be satisfied with their experience. On the other hand, individuals who report low levels of wellbeing may be less likely to have positive intentions to revisit, even if the expenses are bearable. This could be due to factors such as dissatisfaction with the quality of care, or negative experiences during their previous visit. Therefore, it is important for medicaltourism providers to focus on promoting well-being among patients through measures such as providing comprehensive care and addressing any issues that may arise during the treatment process. It is important to mention also that patients' well-being and satisfaction can be directly influenced by trust between patients and professionals [85]. It follows that trust is directly related to revisiting intention, namely, choosing the same professional and organization to achieve well-being [86]. Another study by Sohrabi et al. [53] supports this fact, as the authors indicate an association between service quality and trust, as well as between both trust and service quality, with the intention to revisit to receive medical care.

When it comes to the healthcare infrastructure, the participants' intentions in this study were associated with medical-tourism infrastructure, but with no significant mediating roles of clinical trust and well-being. This finding was consistent with the finding by Kim et al [87], who reported medical-service-encounter satisfaction rates to be directly influenced by the facility and environment impressions. According to Debata et al. [88], healthcare-infrastructure facilities are critical enablers for medical tourism, and the governments in countries must work on improving hygiene standards, waste management, and other sanitation practices, in order to attract more tourists. In another study, by Sadr Momtaz and Agharahimi [89], and based on the perceptions of managers, public developing a public-infrastructure strategy was ranked as the most important factor in developing medical-tourism in any country, followed by developing a human-resource and information-systems strategy. As a result, physical infrastructure has to be improved to support patient satisfaction in medical tourism and intention to revisit.

Continually attracting existing tourists to return to the same destination is claimed to be more effective for economic growth than attracting new ones [6]. Cham et al. emphasized that patients' needs must be acknowledged by hospitals, and 'customer-oriented' strategies should be put into practice [6]. As a result of these initiatives, the patients' sense of trust, their experience, and their perception is likely to be positively impacted. Horowitz, Rosensweig and Jones argued that all parties working in the health sector must gain a fundamental understanding of the economic, social, political, and medical factors at work, in order to understand the dynamics driving and shaping medical tourism [15]. In addition, countries such as Egypt must focus more on marketing services, due to the essential role they play in attracting tourists to a medical destination [51]. A strength of the current study is that it explores the effects of five factors on the intention to revisit, as well as the correlations between them in Egypt, which is very important, considering the country's current position when it comes to medical tourism and the potential improvements that can be recommended from such studies. As for the limitations, there is a possibility of social-desirability bias, caused by the use of self-report questionnaires. We recommend

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incorporating more study domains into the questionnaire designs, to have an in-depth exploration of the associations among these factors and the tourists' intention to revisit Egypt for medical purposes. We also recommend more studies that explore the association between the effect of factors such as word of mouth and social media on improving medical tourism in Egypt.

6. Conclusions and Future Implications

To conclude, the medical-tourism market is an essential and promising way for governments to increase attraction and profits. In the past few years, the cross-border medical-care industry has grown rapidly, and has become increasingly global. There is currently an immense business opportunity for the tourism sector in any country, regardless of its level of development. However, well-targeted tourism marketing relies heavily on an understanding of tourists' behaviors, and intentions to revisit a specific destination. This comes from the fact that a satisfied tourist is more likely to return to the same destination to receive care. In addition, medical tourism involves a wide variety of different aspects, which makes the decision-making process highly complex when compared to other possibilities.

As with other studies, the current study found an association between the tourist's experience, clinical trust, well-being, healthcare infrastructure, and associated expenses, with the intention of the tourist to revisit Egypt as a medical-tourist destination. Unlike prior studies, the results of the mediation analysis in this study showed no statistically significant association between service quality and behavioral intentions to revisit. Due to the broad categories that explain the service-quality variable, different studies might have utilized different measures and tools, which can explain the variation in the results reported. In addition, a correlation exists, as some variables mediate the association and are linked with other variables, which argues the need for in-depth studies to understand these associations separately. The novelty of our structural model, which incorporated multiple important factors in medical tourism, makes the current findings unique, and this requires further investigations. Our model included service-quality measures as well as cost-related parameters and basic infrastructure domains; these were uniquely investigated, and linked with the potential mediating effects of trust and well-being. For managers and decision-makers in all countries, the results of this study are especially important for achieving a proper recovery of medical tourism following the outbreak of COVID-19, by developing post-disaster tourism-recovery plans, since they will provide a better understanding of the factors affecting the tourists' intentions, which will ultimately result in an improvement in medical tourism. In addition, the results will help countries to improve crisis management to ensure the least possible damage and, accordingly, the least impact on medical tourism. Therefore, researchers should also consider other factors influencing tourists' decisions when revisiting medical destinations in the post-COVID-19 era. These factors include economic considerations such as the cost of services offered at these locations, insurance coverage for treatments received abroad, and access to reliable healthcare-providers. Researchers should also consider cultural factors such as language barriers or cultural differences between countries which may affect tourist decisions when visiting a particular destination for medical purposes. By understanding how clinical trust and well-being can be adopted by medical destinations and other factors that may influence tourist decisions when revisiting these locations, researchers will be able to provide valuable insights into how these locations can recover from this crisis and regain the trust of tourists.

The finding that cost is a significant predictor of the intention to revisit a medical-tourism destination has practical implications for destination marketers and medical-tourism providers. One implication is that they should make sure to provide cost-effective medical services to attract repeat medical-tourists. They could also focus on promoting the cost-saving benefits of their destination or medical facilities to potential medical-tourists. Additionally, they should continue to monitor and make adjustments to the cost of their services, to remain competitive in the market. They could also consider offering package deals or discounts for repeat medical-tourists, to encourage them to return. Furthermore, destination marketing organizations and providers should not only focus on providing

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quality medical services but also on other aspects of tourism, such as accommodation and transportation, to create a well-rounded, cost-effective and satisfying experience for the medical tourists. Another implication is that they should focus on developing and improving the medical-tourism infrastructure in their destination. This could include building new medical facilities, upgrading existing ones, and investing in new technology and equipment. Additionally, they should make sure that the medical infrastructure is easily accessible to tourists, and that it meets international standards of quality and safety. Finally, they should focus on promoting the medical infrastructure and services of their destination to potential medical tourists through various marketing channels such as digital marketing, print media and through medical-tourism fairs and exhibitions.

Supplementary Materials: The following are available online at https://www.mdpi.com/article/10 .3390/su15032399/s1, Table S1: The developed questionnaire in the current study.

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