

Relation of Access Information with Satisfaction and Loyalty in Medical (Dental) Tourism: Systematic Review

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ABSTRACT

This systematic review aims to assess and understand the relation of access information with satisfaction and loyalty in dental tourism. Materials and methods: This research was conducted with a systematic review method using Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) as a guideline in methodology. PubMed, Science Direct, and Research Gate from 2016 to 2020 were used in this study as electronic search engines. Results: 15 research articles met the inclusion criteria. It was positively identified in methodology that information access has interrelated influences on satisfaction and loyalty in dental tourists. Inadequate and unsupported information access will affect patients' satisfaction regarding their treatment. Conclusion: Information access to dental tourism patients can affect one's satisfaction. Inadequate and unsupported information access will affect patients' satisfaction regarding dental tourism treatment that will be done.

Keywords: access information, dental tourism, patient loyalty, patient satisfaction.

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INTRODUCTION

Tourism is defined as "traveling together (to broaden knowledge, having fun and so on, whereas tourism is anything related to travel for recreation and tourism). Nowadays, tourism is not only related with ecreation and visiting a particular certain regions but many tourists travel the world in order to get better and cheaper care in certain region or country [1]. Medical tourism is a term to describe this phenomenon where people deliberately travel outside their country to get medical treatment. Tourists usually travel abroad to get medical treatment due to avoid queuing or to get more affordable treatment than those in their country [2]. Research on this phenomenon shows that medical tourists travel between the northern and southern hemispheres, but most of the media and academic attention has focused on the flow of patients from the north who access global care in the south that is more affordable than in their home country [3,4].

Normally wealthy people travel from developing countries to developed countries to get medical treatment. However, recently the trend is reversed, many people from developed countries travel to developing countries to get high-quality medical care at lower cost [5]. High rate of growth in medical tourism has been seen currently throughout the world. Based on population ageing, increased living standards, and healthy lifestyle influenced, the demand for medical tourism is predicted to increase. Significant investments in development of health tourism, especially medical tourism, are seen in many European countries. Some European countries develop dental tourism as a major segment in the growth of medical tourism in Europe [6].

Regulation of the Minister of Health of the Republic of Indonesia No. 76 of 2015 concerning Medical Tourism Services states that currently, the number of medical tourists who travel for Medical Tourism tends to increase both from within and outside the country in order to support medical tourism quality in hospitals supported by adequate resources [7]. Medical tourism held for local and foreign tourists in an integrated and complete manner. Following constitution of Republic of Indonesia No.10 of 2009 concerning tourism considering that tourism is an integral part of national development which should be carried out systematically, planned, integrated, also with sustainability and responsibility [8].

Dental Tourism means traveling abroad for affordable, accessible dental care or surgical procedures or procedures that are generally expensive in their own country. High cost of healthcare that increasing rapidly began this trend. Overlong appointment and endless waiting lists in the West also played part in this phenomenon. Although many arguments on dental tourism, scientific research on this subject is still very much needed [9]. The portrayal of the media and industry on medical tourism, including dental tourism, suggests that this term allows patients and providers to choose their care or appointment between variety of industrial locations with each respective environments has different rules or regulations [10,11].

Many studies on dental tourism have been conducted in several countries such as Mexico, Romania, India, Hungary, Iran, Turkey, Thailand, Malaysia, and other countries including Indonesia. Indonesian Ministry of Health has launched Indonesia as one of medical tourism destination since 2012. Physically, Indonesia itself has 19 hospitals internationally accredited by the Joint

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Commission International with total of 891.897 health workers in 2014. Bali as one of the excellent destinations in Indonesia have also tried to prepare international standard hospital [12]

Oral health problems could affect someone's life functionally and also could cause communication problems that affect patient's welfare. Dental and oral health can be maintained by doing regular dental care and examinations to the dentist. This shows the importance dental and oral health education including tooth brushing habits, usage of dental floss and mouthwash, also oral bad habit [13]. Dental service standards are related to qualified and competent dental professionals as proven by licensing and accreditation, dental clinic settings, education quality of dental services, training of assistants, tools and materials, also patient care based on special needs or personal services. Therefore, millions of wealthy patients travel across the world to get more precise and affordable dental services. In addition, the role of online networks and information is important for the selection of providers and objectives in this activity [14]. Access to dental and oral health care refers to the ability of patients to obtain or use dental and oral health care. Dental and oral treatment is different from other health services, not only in terms of care but also in regulated or organized dental treatment. Dental diseases mostly do not require emergency treatment and untreated dental disease does not cause significant health consequences. Most people consume preventive services regularly, but some of them seek dental care outside their local health system and can come with vacation as one package. Thus, the search for alternative medicine can lead to dental health tourism, where this treatment stands out [15]. Patients choose the institution for the most comfortable treatment through several way, which the most common source is internet. Therefore, it is important for dental health care institutions to use websites effectively. Information and communication technology help the development of health tourism. Patients can easily and comfortably obtain information about health care organizations in any areas of the world by using networks that play an important role in health service competitions at international and regional [14]. The purpose of this systematic review is to examine the literature from various sources to identify the relation of access to information on satisfaction and loyalty in dental tourism.

LITERATURE REVIEW

Information Access

Access is an opportunity or chance to obtain or use certain resources. According to the Indonesian Dictionary (KBBI), access is an entry point, canal, achievement file or data. While information is an explanation, statement, notice, reports or news, the whole meaning that supports the mandate. According to the Ministry of Communication and Information, information access is some way that is given to a person or public to obtain information using any sources such as telecommunications and through channels or media. access to information actually play part as a bridge that connects the source of information needed by each individual so it can be fulfilled [16].

Access to dental and oral health care refers to the ability of patients to obtain or use dental and oral health care. Dental and oral treatment is different from other health services, not only in terms of care but also in regulated or organized dental treatment. Dental diseases mostly do not require emergency treatment and untreated dental disease does not cause significant health consequences. Most people consume preventive services regularly, but some of them seek dental care outside their local health system and can come with vacation as one package. Thus, the search for alternative medicine can lead to dental health tourism, where this treatment stands out [15].

Foreign tourists get information about dental tourism through various platforms such as websites, advertisements, newspapers, magazines or other special agents which called dental shopping where an individual chooses one from any dentists and then he contacts his travel agent or who managing his visa, passport, travel plans, hotel accommodation and other logistical support. Dental treatment for the patient then carried out by the chosen dentist, then the travel agent manages the patient's demand. Simply said, patients contact the dental clinic directly both via the internet and telephone to register for treatment [17].

International patients can access information advertised online such as dental care facilities, professional workforce, types of care, technology offered, treatment costs and reviews from other patients [18]. Patient testimony helps tourists make comparisons relating to many aspects of dental care such as cost savings, customer satisfaction and quality care, all of which are often available online. Patients will be able to analyze these aspects themselves, and ultimately assist them in deciding which dental service provider is suitable for their wants and needs [13].

Medical tourists are unfamiliar with the health system and choices available when they abroad, so this makes them more dependent on the internet to find out information that helps them in making decisions, and therefore, the availability of reliable information is important [5]. Obtained information from the internet can be in a form of visual information (brochures, videos, images) from dental care service provider websites and excellent reviews from previous patients [19].

Turner proved that promotion from one another has an important role in influencing patients to decide which dental services they will choose and internet is an important source that can connect customers (in this case dental tourism) to information on dental care providers abroad [13]. Based on study conducted in Malaysia. Medical tourists generally trust friends and relatives about information that can be obtained online, travel agents, and doctors [20].

The internet is highly valued for providing a very important source of health information and health services, which has played an important role in the development of the medical tourism industry [21,22]. Patients in the United States, for example, use the internet not only to collect general health information but also to find out the specific types of medical services available in hospitals in their own country and abroad [23]. Thus, the Medical Tourism Association found that 49% of surveyed American medical tourists learned

about medical tourism via the internet and 73% searched specific information online about overseas health services before going abroad. Such usage increases the active participation of users, consumers, information better than ever before, in caring of themselves and their family's healthiness [24].

Alternative foreign languages increase the website quality and make it more informative for health-patient travelers. If the website is well designed and user friendly, users will spend more time on the website than other websites. Given this fact, the most important result obtained from this study is that website's design with foreign languages are better in technical characteristics than others. Global reality requires all health care organizations in Turkey to develop their own websites to take part in the international marketing of dental services through websites that are well designed and easily accessed [14].

Patient Satisfaction

According to Kotler and Keller, satisfaction is a feeling of pleasure or disappointment that comes from the difference between his impression of the performance (or results) of a product and its expectations. Lovelock and Wright state that, satisfaction is an emotional state, their postpurchase reaction, can be anger, dissatisfaction, aggravation, neutrality, joy and pleasure. Satisfaction is affected by the comparison of services as with service expectation, and as a customer's short-term emotional reaction to certain service performance [25,26].

Satisfaction is defined as the customer's response to the mismatch between the previous level of importance and the actual performance he feels later [27]. Patient / customer satisfaction is the essence of patient / customer-oriented marketing. Satisfying and quality service will form loyalty and satisfaction on patient or customer that closely related to "word of mouth", then satisfying service will also make new customers [28].

Many studies have seen satisfaction as an important indicator of patient experience. Study defines patient satisfaction as the recipient of health care reactions to salient aspects of the context, process, and outcome of his service experience. Satisfaction is a complex evaluative process based on fulfilling expectations. The concept of satisfaction has developed over the past few decades. It is generally accepted among researchers that individual satisfaction is an assessment of the overall consumption experience. In the context of health care, assessment of patient satisfaction is very important to reflect quality care. Patient satisfaction with dental care has been widely studied [14].

There are several methods that are often used to measure patient satisfaction with dental care services. Among the methods are several items that make up the subscale score or dimension score, the overall score by counting all items of fundamental satisfaction and the measurement of a single item to indicate general or overall satisfaction. A study reviewed 46 studies that explored patient perceptions of various attributes of practice since 1980. They found that the term overall satisfaction was widely used in the dental literature to describe the number of patient perceptions [29,30].

The concept of satisfaction includes two approaches, patient satisfaction is seen as an attitude that results in a confirmed or disconfirmed confirmation of expectations (outcome perspective) or attitudes resulting from the level of patient expectations needed for service experience (process perspective). The quality of health services can be classified into three categories, which are structure, process, outcome. 1) Structure, shows the attributes of the arrangements in which health services are carried out. 2) Process, showing what is actually done in giving and receiving health services. 3) Outcome, showing the effect of service on the patient's health status and population [31].

Patient Loyalty

Loyalty is defined as "a firm commitment to repurchase or repatronize products or services that are consistently liked in the future [32]. Usually they will be loyal and recommend products and services to others by word of mouth. They are involved in the behavior, to help get a positive reputation among competitors [33].

Loyalty is the focal point of the tourist experience, enabling marketers to aim to achieve optimal performance throughout the experience. In general, satisfied tourists are considered loyal, and loyalty is seen as the main consequence of satisfaction. Tourist loyalty tends to have a good attitude and intention. Therefore, it is very important for health care workers to pay attention to the effects that increase tourist satisfaction and loyalty [34].

In health care settings, a lot of evidence also shows the impact of this, when patients have a high perception of service quality, will produce high loyalty and benefit, which in turn strengthens their relationship. In the health sector, patient satisfaction was also found to positively affect patient loyalty. The success of the hospital or the provision of any service depends solely on treatment for patient loyalty [35].

METHOD

This research was conducted with a systematic review method using Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) as a guide in the review methodology. According to Liberati et al, PRISMA is a series of evidence-based items that aim to help reviewers improve reporting systematic reviews and meta-analyses. The main of PRISMA contains a list and a four-phase flow chart that outlines all aspects of carrying out a systematic review [36].

This study also used PICO (population, intervention, comparison and outcome). PICO is a framework that can be used to assist in compiling comprehensive and adapted guidelines and can be reviewed in a systematic review. According to Shamseer et al, the PICO framework alerts implicitly that PRISMA is designed against experimental work reviews or randomized controlled trials and may need modification if the authors focus on non-intervention research. Reviewers will also identify relevant literature, extract information from selected studies, assess risk of bias, and process data to get answers to questions raised [37,38]. In this study, PICO can be seen at each stage carried out in the research

method, which done starting from the determination of keywords to the stages in the Prism Flow Chart.

In determining keywords, you can identify the main topics in the article, not just the words that appear in the article. Thus it is important to determine keywords and understanding keywords in that field and then review the actual keywords used in all relevant articles. This helps in refining keywords. It is therefore better to know the range of keywords specified for the topic in order to be able to retrieve relevant articles. Tips that can help in identifying keywords are using selected words from research statements or research questions, identify similar and related words for example, synonyms, broader or narrower terms, identify terms and keywords from online sources [39].

Data resource

Determination of keywords using the Medical Subject Headings (MeSH) Browser, after checking the keywords using the Medical Subject Headings (MeSH) Browser, five keywords were applied to the database, namely:

1. "Access Information"
2. "Dental tourism"
3. "Loyalty patient"
4. "Patient satisfaction"

The database used to apply the search strategy is PubMed, Science Direct and Research Gate which was published from early 1981 to the latest data in 2020, the selection of the three databases because of the ease of accessing various desired articles can be quickly obtained, and more commonly used in health-based journal search [36,40,41].

Research Criteria

A. Inclusion criteria.

1. Articles in English.
2. Articles that have full text.
3. Articles that implied directly with service quality, culture equality, satisfaction and loyalty in dental tourism
4. Articles in the past 5 years

B. Exclusion Criteria.

1. Articles that cannot be accessed for free.
2. Articles from magazines.
3. Articles from conference.
4. Poster.
5. Data.
6. Technical report
7. Chapters on books

Data collection

Data collection in this review used ones that obtained from published articles that are sought in the article database which are reviewed later in accordance with the research criteria established by the researcher.

Procedure

1. Literature searching is conducted on an online database that has a large repository for academic studies. In addition, a reference list of articles included in the inclusion criteria was also carried out to find out if there were other relevant studies relevant to this research.

2. Determination of keywords is done in the literature search, there are 5 keywords entered into the database, which are

Access information, dental tourism, patient loyalty, and patient satisfaction.

3. Elimination of duplicated literature, duplication according to KBBI is a copy or repetition, so that if there are duplicated articles found in different databases, then the duplicated one must be eliminated.

4. The overall article that has been obtained from the three databases, will further be identified by looking at the title, abstract and keywords.

5. Read the complete or partial articles that have not been eliminated to determine whether the article meets the predetermined research criteria. Articles that do not comply with the exclusion criteria will be excluded, and articles that comply with the inclusion criteria will be taken for further review.

6. Data collection is done manually by making a data extraction

form that contains: 1) Article identity (first name of the author and country; 2) article title; 3) year of publication; 4) journal names; 5) research design; 6) samples; 7) results.

7. Obtained articles, further reviews will be carried out on each article.

RESULTS

Literature searching was performed on all three databases online, namely PubMed, Science Direct and Research Gate by using fkeywords access information, dental tourism, patient loyalty, and patient satisfaction.

which resulted in 763 articles in the initial search. Literature search is summarized in the PRISMA flow diagram (Figure 1).

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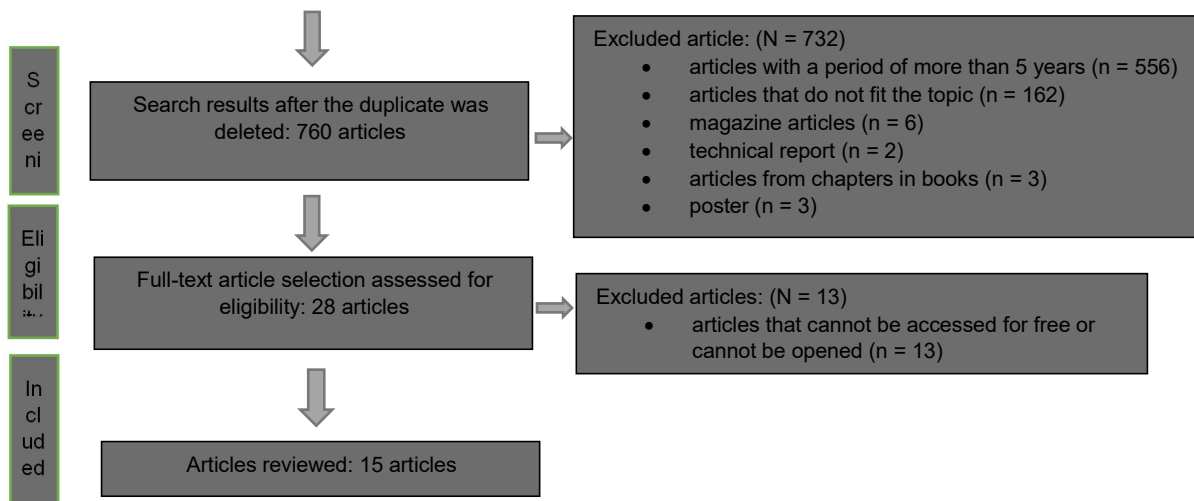


Figure 1. PRISMA flow diagram.

There were 763 articles found as initial samples, articles that have been found before will be further identified to ensure completeness of the article. Identification of the article is done, at the time of identification obtained 3 duplicate articles, 2 obtained simultaneously 2 in the search engine journal PubMed and Research Gate and 1 in the search engine journal Science Direct and Research Gate so that the search results after duplication obtained namely as many as 760 articles. The benefits of searching for duplicate articles is to achieve balance, because duplicating systematic reviews is unnecessary, evidence reveals that the authors examined the same or similar topics produce different results [40].

During the initial systematic review search, one looks for several full-text articles on research questions to find out what the literature is about. There may be important articles that are not available in full text online, but it is better to search because it probably will influence the initial research choices in the systematic review process. Many libraries have placed icons or images of each citation in the database, which allows searchers to quickly navigate to full-text articles online for subscribed journals or make orders (requests for loans between libraries) to have articles found and emailed to them.⁴¹ Final selection of the full text article and the articles that were released after filtered the title and abstract were 207 articles in total, articles that did not meet the criteria were 192 articles, and the identification of articles that had been done previously showed the results of the articles to be reviewed later, namely 15 articles. Literature search is summarized in the PRISMA flowchart (Figure 1).

Science Direct was the first database used, with the keywords entered was *access information dental tourism*. In this database, 537 articles were collected from the journal finder ranging from 1996 to 2020 in the initial search.

Following the established inclusion and exclusion criteria, a search was made using the same keywords for different years, namely the last 5 years, and 115 articles were obtained from the journal finder in the past 5 years. Further article identification is done afterwards to ensure completeness and adjust to the existing inclusion and exclusion criteria, after further article identification is obtained, 6 articles have met the specified criteria.

The second database used in search strategy is PubMed, with three keywords entered *access information dental tourism* and *patient loyalty*. In this database, 126 articles were excluded from the journal finder with a specified time period of the last 10 years for the initial search. Furthermore, following the inclusion and exclusion criteria that have been set, do a search again using the same keywords with a range of different years ie the last 5 years, 42 articles obtained from the journal finder in the last 5 years. Article identification is done further after that to ensure completeness and adjust to the inclusion and exclusion criteria, after further article identification is obtained, 5 articles are selected because they are articles that have met the specified criteria.

The third database used to apply the search strategy is Research GateNet, with two keywords entered *vizaccess information dental tourism*. In this database produces 100 articles from the time range from 2007 to 2020. Furthermore, following the inclusion and exclusion criteria that have been set, using the same keywords with a different range of years ie the last 5 years, totalled 50 articles generated from journal search for the past 5 years. Article identification is carried out further afterwards to ensure completeness and adjust to the existing inclusion and exclusion criteria, after further article identification is obtained, 4 articles have met the specified criteria.

Characteristics of each article obtained will be extracted and entered into the matrix (Table 1, Table 2 and Table 3)

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Table 1. Characteristics of each article based on Information Access

No	Author's Name (Origin)	Title	Year	Journals	Research design	Sample	Results
1.	Busra, et al (Turkey)	Dental Websites New Media Tools for Patients in Dental Helath Tourism	2019	Acta Inform Med	Cross sectional	555 websites	At service agencies private dental health, "contact information" and "website layout" of the website are observed as the most prominent features in carrying out public relations activities. Websites with foreign language alternatives are classified as well-designed in line with the fact that language choice is considered an incentive for health tourists.
2.	Moghavvemi S, et al. (Malaysia)	Connecting with prospective medical tourists online: a cross-sectional analysis of private hospital websites promoting medical tourism in India, Malaysia and Thailand	2017	Tourism Management	Cross sectional	51 hospital web	The results show the differences between Indian, Malaysian and Thai hospital websites, which indicate the need for hospital managers to increase hospital online presence and interactive communication.
3.	Doris Perucic, Edward Bernays (Croatia)	Limitation and Development of Opportunities of Dental Tourism: The case of Croatia	2019	Ekonomski vjesnik / esconviews	Cross sectional	33 clinics	Dental tourism in Croatia, as in neighboring countries, has a competitive advantage based on generally good price-quality products / ratio of dental care services, highly educated, professional, experienced medical staff, high professional standards, solutions for dental problems in time short information at a lower cost, communication with patients using foreign languages, quality of support services and tourist facilities, good geographical location and easy accessibility of the country.
4.	Rota, Spanbaver, Szabo, Okunseni (Albania)	Oral health practices, beliefs, and dental services utilization of Albanian Immigrants in Milwaukee, Wisconsin: A Pilot Study	2018	Journal of immigrant and minority health	Systematic Review with PRISMA	266 patients	Participants or participants with general knowledge about dental health have more potential to visit dental care and participants who cannot read or write English have lower reporting on visits to dental clinic.
5.	Mustaffa, Ghazali, Sedigheh and Roslan (Malaysia)	Dental Tourism: Examining tourist profiles, motivation, and satisfaction	2017	Tourism Management	Cross sectional	196 patients	Malaysia is the largest market for dental tourism needs of Southeast Asian tourists cannot be ignored. Tourists from this region place more emphasis on supporting services compared to more independent European, Australian and New Zealand tourists.

Table 2. Characteristics of articles based on patient satisfaction

No	Author's Name (Origin)	Title	Year	Journals	Research design	Sample	Results
1.	Elena, Viorel, Marin, and Vasile. (Romania)	Combining Direct and Indirect Measurements to Assess Patients' Satisfaction with the	2019	International journal of environmental research and public health	Cross sectional	1500 patients	One of the most efficient solutions to improve patient satisfaction and their compliance is to empower the dimension of communication between patients and health

		Quality of Public Health Services in Romania: Uncovering Structural Mechanisms and Their Implications					practitioners. The most relevant variable for intervention is the level of attention to the patient, the patient will feel happy and feel accepted.
2.	Tashkandi FS, Hejazi LO, Lingawi HS (Saudi Arabia)	Patients' Satisfaction with Dental Care Services Provided By Educational Dental Hospital	2017	International journal of Health Science and Research	Cross sectional	150 patients	Overall factors related to satisfaction showed an average percentage of 88.5%
3.	George R, Zurcher A, Fillipi ARaluca, Andrea and Andreas (Switzerland)	Dental Tourism from Switzerland to Germany.	2017	Swiss dental journal	Cross sectional	509 patients	95.6% of respondents were very satisfied with the effectiveness of the costs incurred when performing dental care in Germany.
4.	Fuad, Syahrir, and Abd (Indonesia)	Factors Affecting Quality Dental Service Centers in Indonesia	2019	Association of support for oral health research	Cross sectional	114 patients	Insurance, reliability, tangibility or physical conditions are factors that influence the quality of dental health services in Bantaeng district
5.	Kuldeep, et al (India)	Global Tourist Guide to Oral Care - A Systematic Review	2016	Journal of Clinical and Diagnostic Research	Systematic review with the PRISMA method	29 articles	This review article focuses on the strength of India's dental tourism services because there are many differences in costs with good quality work when compared to other countries.
6.	Shandu R (India)	Dental Tourism: A Review.	2018	International Health Care Research Journal.	Review	16 articles	India is a leading country in the field of dental tourism with many advantages, has many international and accredited hospitals.
7.	Soonae, Donhee, Chang Yuil (Korean)	Medical Tourism: Focusing on Patientsprior, Current, and Post Experience.	2018	International Journal of Quality Innovation.	Research models use structural equations.	118 patients	Quality of service is the most important factor for attracting foreign patients.

Table 3. Characteristics of Articles based on Patient Loyalty

No.	Author's Name (Origin)	Title	Year	Journals	Research design	Sample	Results
1.	Ozgun, Mafmut and Mustafa (Turkey)	The Influence of Patient-Physician Communication on Physician Loyalty and Hospital Loyalty of The Patient.	2018	Mr. J Med Sci	Cross sectional	500 patients	Patient-doctor communication has a significant influence on loyalty to doctors and hospitals. In addition, patient loyalty has a mediating role on doctors which has an effect on hospital loyalty.
2.	Minseong, Dong, Dongjin and Sae (Korea)	From servicescape to loyalty in the medical tourism industry: a medical clinic's service perspective	2017	INQUIRY: The Journal of Healthcare Organization, Provision, and Financing	Cross sectional	25 clinics	The results showed that, doctors are the most important emotional drivers in terms of satisfaction, so that it can affect the loyalty of medical tourists.
3.	Ahmad, Aminul and Idris (Malyasia)	Determinants of foreign patients' loyalty of medical tourism in Malaysia: trust and perceived value as moderators	2017	Sci.Int. (Lahore)	Cross sectional	140 patients	Found in this study all the existing hypotheses were significantly related to the loyalty of foreign patients.

The overall results of the extracted articles can be seen in Table 1, Table 2 and Table 3. All articles included in this study were published from 2016 to 2020. The original research studies were (n = 14) and reviews (n = 1).

Table 4. Distribution of articles by place of study (Country)
(n = 15)

Research Samples	Number of Articles (%)	Author's name, year
Malaysia	3 (20%)	Mustaffa et al, 2017 Moghavvemi S, et al, 2017 Ahmad et al, 2017
Turkey	3 (20%)	Busra et al, 2019 Ozgun et al, 2019 Ozgur, et sl 2018
India	2 (13.3%)	Kuldeep et al, 2016 Shandu et al, 2018
Romania	1 (6.6%)	Elena et al, 2019
Korea	1 (6.6%)	Minseong et al, 2017
Indonesia	1 (6.6%)	Fuad et al, 2019
Saudi Arabia	1 (6.6%)	Tashkandi et al, 2017
Croatia	1 (6.6%)	Doris et al, 2019
Switzerland	1 (6.6%)	George et al, 2017
Albania	1 (6.6%)	Rota et al, 2018

Table 4 shows most articles report on research that has been carried out including in several countries namely Malaysia (n = 3), Turkey (n = 3), India (n = 2), Romania, Korea, Saudi Arabia, Indonesia, Switzerland, Croatia and Albanian (n = 1). One article was written in 2016, six

articles were written in 2017, three articles were in 2018, and five articles were in 2019. A total of twelve studies used the cross sectional method, two studies used a systematic review with the PRISMA method, and one study used review.

Table 5. Distribution of articles based on research samples (n = 15)

Research Samples	Number of Articles (%)	Author's name, year
Medical traveler	9 (60%)	Mustaffa et al, 2017 Tashkandi et al, 2017 Rota et al, 2018 George et al, 2017 Ahmad et al, 2017 Ozgun et al, 2018 Fuad et al, 2019 Elena et al, 2019 Ozgur et al, 2019
The website	2 (13.3%)	Busra et al, 2019 Moghavvemi S, et al, 2017
Article	2 (13.3%)	Kuldeep et al, 2016 Shandu et al, 2018
Clinic	2 (13.3%)	Minseong et al, 2017 Doris P et al, 2019

Table 5 shows most articles involve medical tourists, especially dental tourism as a sample in their research. There are two studies that use websites as research samples, three studies that use articles as research samples and two studies that use clinics as research samples.

Table 6. Distribution of articles based on the relationship of access to information on patient satisfaction

Author's name, year	Assessment Method	Results
Mustaffa et al (2017)	Likert Scale	Two dimensions of travel motivation namely the quality of dental care and access to dental care information that can positively influence the overall satisfaction of tourists themselves
Rota K, et al (2018)	Self-administered questionnaire	Participants or participants with general knowledge on dental health have more potential to visit dental care and participants who cannot read or write English have less reporting on visits to dental clinics.
Moghavemi et al (2017)	Medical Travel Quality Alliance	An organized website can improve dental tourism patient satisfaction.
Doris et al (2019)	Likert scale	Patient communication using foreign languages is one of the factors that can affect the quality and satisfaction of patient services
Busra et al (2019)	E-infomartion quality Scale	Websites with foreign language alternatives are classified as well-designed in line with the fact that language choice is considered an incentive for health tourists.

Table 6 shows five articles relating to access to information were found in the journal reviewed. There are two articles that assess information access by using a website as an indicator of satisfaction. In accessing information, foreign languages are also one of the factors that influence patient satisfaction, especially dental tourism [5,6,13,14,19].

In the fifteen articles analyzed, there were four articles that examined the satisfaction of medical tourists related to dental and oral health services received and the results obtained varied [31,32,42].

Table 7. Distribution of articles based on patient satisfaction

Author's name, year	Assessment Method	Results
Tashkandi FS, et al (2017)	Likert Scale	Overall factors related to satisfaction showed an average percentage of 88.5%
Elena et al, (2019)	Partial least squares — path modeling approach (PLS-PM)	One of the most efficient solutions to improve patient satisfaction and their compliance is to empower the dimension of communication between patients and health practitioners.
Research Samples	Number of Articles (%)	Author's name, year
Ozgur et al, (2019)	Life Satisfaction Statistics Survey	Agreement, cost savings, cleanliness, good attitude of health services, are factors that influence patient satisfaction.
George R et al, (2017)	Visual analogue scale (VAS).	95.6% of respondents were very satisfied with the effectiveness of the costs incurred when performing dental care in Germany.

Table 7 shows in the fifteen articles analyzed, there were four articles that examined the satisfaction of medical tourists related to dental and oral health services received and the results obtained varied [31,40,44,45].

Two articles that show that cost is a factor that influences patient satisfaction is done by Ozgur and George.

Table 8. Distribution of articles based on the relationship between patient satisfaction and patient loyalty

Author's name, year	Assessment Method	Results
Minseong et al, 2017	Blind translation-back-translation approach	The results showed that, doctors are the most important emotional drivers in terms of satisfaction, so that it can affect the loyalty of medical tourists.
Ahmad et al, (2017)	Partial Least Squares - Structural Equation Model (PLS-SEM)	Found in this study all the existing hypotheses were significantly related to the loyalty of foreign patients.
Ozgun et al, (2018)	Likert scale	Patient-doctor communication has a significant influence on loyalty to doctors

Table 8 shows there are three articles that examine the loyalty of medical tourists related to dental and oral health services received, these three articles have mixed results. The article shows that doctors are one of the satisfaction factors of dental tourism services that can affect patient loyalty.

DISCUSSION

Access to Information

According to the Ministry of Communication and Information, information access is some way that is given to a person or public to obtain information using any sources such as telecommunications and through channels or media. access to information actually play part as a bridge that connects the source of information needed by each individual so it can be fulfilled. The Medical Tourism Association found that 49% of American medical tourists surveyed studied medical tourism via the internet and 73% sought specific information online about overseas health services before going abroad [24].

Five out of the fifteen articles reviewed discussed information access on dental tourism patients carried out by Mustafa et al, Rota et al, Moghavemi et al, Doris et al, and Busra et al. These five studies have results related to information access that most of the research uses the internet as a source for accessing information on dental tourism patients. Access to information obtained by dental tourism patients can affect the quality and satisfaction of patients. According to research conducted by Busra et al., communication between patients and health professionals in health tourism is as important as the quality of care itself. Institutions, taking into account trends in easy access to information, designing web pages that contain text and graphics to provide information about doctors, treatment option, special care, prganization structure and health care communication way to affect patient's choice in deciding health care centre and hospital [14].

Research conducted by Doris found that dental tourism that relies on the internet is not only for information sources, but also as a medium of communication between them and dental health service providers. Patients will consult with dentists online regarding dental issues and will consider dental care plans using the internet abroad. They share opinions, experiences and pre-travel information such as procedures, and alternative options via the internet [6].

According to research conducted by Moghavvemi S, et al. Hospital medical services are generally promoted as a modern trend today, advanced technology and high quality, often called the experience of doctors (abroad) to legitimize medical tourism as a practice and market medical tourism as an option for foreign tourists. Some scientists have used a qualitative approach to examine how the emergence of promotional materials such as brochures, leaflets and handbooks produced in collaboration with MTF (Medical Travel Facilitator), state support organizations, hospitals and clinics [19].

Mustaffa et al conducted a study and found two dimensions of travel motivation which the quality of dental care and access to dental care information that can positively influence overall satisfaction of tourists themselves. The strength of dental tourism in Malaysia is dental care information access that affects overall satisfaction. Information via the internet has created many new requests and the need for access to dental care

information about international health care services in the medical tourism industry and empowering patients to make important health decisions [5].

Patient Satisfaction

Many studies have stated satisfaction as an important indicator of the experience of medical tourists. The government has found that the stability of the health care system cannot be achieved without adequate satisfaction from the public and health service users. Therefore, they have begun to consider individual satisfaction with health care services as important indicators of the quality of health care services and the efficiency of the health care system [7]. Studies related to satisfaction of dental tourism patients found that there were four studies conducted by Tashkandi et al, Elena et al, Ozgur et al, and George et al. Research conducted by Elena, Ozgur, and George stated that patient satisfaction is influenced by cost savings or effectiveness, besides that patient satisfaction is also influenced by good behavior received by patients from health care workers, such as the attitude of friendly doctors and giving more attention to the patient. As well as research conducted by Tashkandi et al, the majority of patients were satisfied with the dental care services provided by teaching dental hospitals, it was found that the quality of dental care, the professionalism of dental students and staff, also communication ability enhance patient satisfaction [31,40,44,45].

Patient Loyalty

Satisfied tourists in general are considered as loyal, and loyalty is seen as the main consequence of satisfaction. Tourist loyalty tends to have a good attitude and intention [32]. This is in line with studies proposed by Ahmad, et al., which stated that the quality of service is significantly related to the loyalty of foreign patients in Malaysia. Satisfaction also shows positive results between service quality and loyalty of foreign patients [33].

According to research by Ozgun, revealed that there is a significant relationship on communication between patients and doctors that has a significant influence on loyalty to doctors and hospitals. According to his research, doctor and patient communication can be used as an important tool in creating loyalty to doctors and loyalty to hospitals. The results of other studies presented by Minseong in Korea are also almost the same as the research presented by Ozgun in 2018 that doctors are the most important emotional impetus in terms of satisfaction, so that it can affect the loyalty of medical tourists who visit for treatment. [32.46].

CONCLUSION

There is a relationship between information access and service satisfaction. The relationship of access to patient information on dental tourism can affect patient satisfaction. Access to information that is not good and not supportive will affect the satisfaction obtained by patients regarding dental tourism treatment that will be done.

The relationship of satisfaction with loyalty shows that good satisfaction can increase patient loyalty, patient satisfaction will significantly influence patient loyalty

thereby creating patient loyalty to the choices experienced by dental tourism patients.

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