

The Relationship between Service Quality, Culture Similarity to Satisfaction and Loyalty of Medical (Dental) Tourism

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ABSTRACT

Objective: This systematic review aimed to investigate and understand the relationship between service quality, cultural equality to satisfaction and loyalty of dental tourism.

Methods: 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. The electronic search engines used are PubMed, Science Direct and Research Gate from 2016 to 2020.

Results: 35 research articles were included in the inclusion criteria. The reviews identified that relationship of service quality, cultural equality on satisfaction and loyalty of dental tourism, has a related impact. Good quality service will produce patient loyalty, patients who receive a good quality of service tend to be loyal to the clinic and the health care workers in the clinic.

Conclusion: Quality of service with loyalty through satisfaction when patients have a high perception of service quality, will produce high loyalty. Satisfied patients will positively affect the loyalty itself. Quality of service greatly affects overall satisfaction and loyalty, satisfied patients are caused by the good quality of service they have received, so that it gives an impact to patients by increasing their loyalty to the health clinic and health workers in the clinic.

Keywords: Quality Service, Dental Tourism, Loyalty Patient, Patient Satisfaction, Similarity Culture

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INTRODUCTION

Tourism is defined as the activity of traveling and having fun or increasing knowledge and others. Meanwhile, tourism is everything related to recreation and travel outside the country. Nowadays many tourists have taken tours not only to travel but to travel to get better medical care at affordable prices. Medical tourism is a phenomenon where tourists seek medical care by traveling abroad to seek medical care for better health. Today there are many citizens from developed countries who travel to developing countries to get high quality medical care but at low prices. Tourists seeking medical and dental care also sometimes include recreational activities. Tourism is not only related to recreation or tourism, but there are several other reasons that tourists do outside tourism. Traveling to a certain area is usually called tourism, but nowadays tourists who travel abroad are not just for fun, but to seek better health care at affordable prices in a different region or country from where they live, tourists who stay at least one day or more than one day need to improve and recover associated medical interventions. Medical tourism also does not only market existing medical tourism activities, but rather directs medical tourists to return for medical treatment in the same country and sell medicines as a product of tourism and services. Among health tourism, dental health tourism is the most popular tourism.^{1,2,3,4,5}

In recent years, many Europeans and Americans have preferred dental tourism because of the savings related to the low costs in dental care such as root canal treatment, veneers, fillings, crowns, dental bridges, dental

implants, orthodontic treatments, etc. A study in Romania found that Romania as a popular destination for providing dental care and affordable prices by using sophisticated technology and materials. It was also found that the quality of dentists and the technology and also materials and tools used were have a highest quality in Hungary with the same quality as Europe. In Indonesia, the level of patient satisfaction based on the quality of services provided by 13.87%, shows the quality of clinical services in Indonesia is good and exceeds patient expectations and produce satisfaction in terms of service.^{1,2,8,9}

Literature Review

Quality of health services

Quality is a measure of how much a service is rendered. Improved quality, an action taken to achieve more advanced excellence in the future in an industry, increasing reputation in health organizations. Quality can be related to the quality of conformity, quality requirements and the type of quality. Dermatologists meet the requirements of the conformity quality standards when they are licensed to practice.

The requirements for quality fulfillment are seen from the fulfillment that has been made. A quality type represents a superior product type that exceeds the level of customer expectations and satisfaction by setting new products to standard products.^{11,12,13} Quality of service is the level of health care provided to individuals or

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communities to promote better health and develop in the future. The quality of health services and affordable costs are the considerations for tourists to travel abroad in obtaining health. Competent doctors also influence tourists in choosing countries to become health destinations.^{1,8,13}

Cultural equality

Culture is a process in which the views or lifestyle of a person or group associated with a belief, behavior, values, norms, manners and symbols they receive unconsciously are passed on from the previous generation to the next generation. The cultural similarity makes some tourists consider this in choosing the country to visit as a place for medical tourism. Some tourists are more motivated to take a medical tour by paying attention to language, culture, religion and halal food that is easily available to be a factor taken by tourists to visit the country.^{1,17}

Satisfaction of health services

Satisfaction is one of the most widely seen things because satisfaction is a measure of the success of a performance or quality given to a person or group. Satisfaction is an important consideration in health services, so that satisfaction becomes a matter of consideration in order to increase the efficiency of the health service system in the future. Patients who are satisfied with the health services provided will give a positive response continuously and tourists are happy to return to treatment in the country and can recommend other tourists to visit the country in terms of medical tourism because of the satisfaction obtained from health services previous.^{7,8}

Loyalty

Loyalty is a firmly held commitment to return or buy an item back or use the product or service on an ongoing basis. Loyalty is the experience of a visited tour, allowing suppliers to perform optimally in order to create a good experience for tourists. In general, satisfied tourists are considered loyal, and loyalty is seen as something that can affect satisfaction. Loyalty from tourists usually shows good things, they will usually recommend good experiences they have had to their relatives or family. Patient satisfaction as service recipients is at the core of the health service-based marketing process.^{3,18,19}

Satisfaction as a mediator between service quality and patient loyalty.

There is research that states that there is a strong relationship between service quality and customer satisfaction. Research in the UAE reveals that the perceived quality of health care has a positive effect on patient satisfaction, which conducts research internationally. Patients who received treatment at a private hospital in Penang, Malaysia concluded that all dimensions of service quality had a positive relationship with patient satisfaction. As according to other studies, overall perceived service quality has a positive relationship with patient satisfaction.^{20,21,22}

MATERIAL AND 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 PRISMA tool contains a list and a four-phase flow chart that outlines all aspects of a systematic review performance.³⁴

In this study also used PICO (population, intervention, comparison and outcome). PICO in this research can be seen at each stage on the part of the research method that perform, starting from the determination of keywords to the stages on the PRISMA flow diagram (Figure 1).^{35,36}

Data source

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

1. "Quality service"
2. "Dental tourism"
3. "Loyalty patient"
4. "Patient satisfaction"
5. "Similarity culture"

The databases used to apply the search strategy are PubMed, Science Direct and Research Gate, were published from early 1981 to the latest data in 2020, the selection of the three databases because of the ease to accessing various desired articles to can be quickly obtained, and more commonly used in health-based journal search.^{34,38,39}

Eligibility criteria

A. Inclusion criteria.

1. Articles in English.
2. Articles with full text.
3. Articles directly relate to discussions on service quality, cultural equality, satisfaction and loyalty in dental tourism.
4. Articles in the past 5 years.

B. Exclusion criteria.

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

Data collection

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

RESULTS

Literature search was performed on all three databases online; PubMed, Science Direct and Research Gate using five key words of service quality, dental tourism, patient loyalty, patient satisfaction and similarity culture which resulted in 940 articles in the initial search. Literature search is summarized in the PRISMA flow diagram (Figure 1). There are 940 articles found as initial samples, articles that have been found before will be further identified to ensure completeness of the article.

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Identification of the article was carried out, when identification obtained 2 similar articles, obtained simultaneously in the search engine journal PubMed and Research Gate, then the search results after the duplication obtained were 938 articles.

The overall results of the extracted articles can be seen in Table 1. All articles included in this study were published from 2016 to 2020. The original research studies were (n = 33) and reviews study (n = 2). Most articles report that research has been conducted in several countries, namely Iran (n = 5), Indonesia (n = 3), Malaysia (n = 3), India (n = 2), Turkey (n = 3), Korea (n = 3) = 3), Taiwan (n = 2), Germany (n = 2) and France, the United States, Arabic, Canada, Romania, California, Thailand, Hong Kong, Poland, New Zealand, and Albania (n = 1). Five articles were written in 2016, eight articles were written in 2017 and 2019, thirteen articles were written in 2018 and one article in 2020. A total of 20 studies used a cross sectional research design, seven studies used a systematic review with the PRISMA method, three studies used descriptive studies, two studies used qualitative studies, two studies were reviews and one research with research models using structural equations. Most articles involved medical tourists as a sample in their research.^{1-3,6-7,9,12,29,41-43,58}

DISCUSSION

Quality of health services

Quality of service is the analysis expected of customer service and the services offered. Satisfied and loyal customers can be created with the help of enhanced services, as found in a study by Cohen, Prayag and Moital. Other studies show related results in 10 research articles conducted by Chang, Shandu, Fatemeh, Oneslmo, Busra, Adrian, Matthew, Jennifer, Maryam and Kuldeep. Ten articles are interconnected because almost all the results found by the researchers have the same opinion about the quality of health services, the quality of health services can be developed to increase patient satisfaction and loyalty, there are several example such as good facilities and environment as well as prior consultation. agreements with the doctor which also gives a good impression on the quality of service for patients, in addition to the sophisticated technology and materials used can affect the quality of health services received by patients. Similar to research in Romania by Elena, Elena found that Romania is a popular destination that provides affordable quality dental care along with sophisticated technology and materials and has been found to have the highest quality dental profession, the quality of technology, the quality of materials and equipment used for dental health, and the best quality also same as Europe.

Cultural equality

According to research by Hsin, regarding the status in cultural equality apparently affects the patient's own safety, it can be related to the positive attitude that is given, both by the patient and the health workers, the culture here can be related to the pattern of behavior shown, so it can be affect patient safety in a health clinic. In another study by Mustafa revealed the results of research that were different from those conducted by Hsin, research conducted by Mustafa in Malaysia shown some medical tourists were more comfortable and motivated to

travel medical tourism that had a similar environment and culture, such as similarities in language, culture, and geographical proximity, but on the other hand it turns out that cultural similarity is also the least important travel motivation factor as felt by other dental tourists.

Satisfaction of health services

Studies that have related results to health service satisfaction are found in 4 research articles conducted by Ozgur, Raluca, Rasmidar and Elena. The research is related, because in my opinion, the results of their research related to the satisfaction of health services and have an influence on patients, such as cost savings factors, many medical tourists are satisfied with the proven cost savings from the large number of medical tourists from developed countries that visiting their developing countries and they are very satisfied because received the highest quality medical care at an affordable price.

Loyalty

Patient loyalty have a significant results, from five studies by Shadi, Chih, Laura, Ozgun and Minseong showing interrelated results, it was stated that patient loyalty can occur based on good communication between patients and medical service personnel, good communication such as giving a friendly attitude to the patient then the patient feels comfortable besides being the first medical service officer, listening to the patient well, giving more attention can increase patient satisfaction and it will affect patient loyalty, so there is a desire from patients to do treatment again. Relationship of service quality, cultural equality with satisfaction and loyalty among dental tourists.

The relationship of service quality, cultural equality to satisfaction and loyalty to dental tourists, has a interrelated effects. Good service quality will create patient loyalty, that means good service quality will increase patient loyalty. Patients who receive good quality services tend to be loyal to the clinic and health care workers in the clinic.

Cultural similarities for some dental tourists, motivate them to travel to seek medical care. Similarities in language, culture, religion, halal food availability, and locations visited have exotic and interesting environments and places, make dental tourists want to do medical tourism in combined with holidays.

CONCLUSION

The relationship between service quality and satisfaction shows that good service quality will increase patient satisfaction, patient satisfaction is very important as a measure of service quality because it provides information about the success of providers in meet patient values and expectations, means patients are the highest priority.

The relationship between service quality and loyalty shows that good service quality will create patient loyalty, which means good service quality will increase patient loyalty. Patients who receive good quality of services tend to be loyal to the clinic and health workers in the clinic.

The relationship of satisfaction with loyalty shows that good satisfaction can increase patient loyalty, patient satisfaction will have a significant effect on patient loyalty thereby creating patient loyalty to the choices they make themselves.

The relationship of service quality with loyalty through satisfaction when patients have a high perception of

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service quality, will produce high loyalty. Satisfied patients will positively affect the loyalty itself.

REFERENCES

1. Jaapar, M., Musa, G., Moghavvemi, S., & Saub, R. (2017). Dental tourism: Examining tourist profiles, motivation and satisfaction. *Tourism Management*, 61, 538-552. <http://dx.doi.org/10.1016/j.tourman.2017.02.023>.
2. Sandhu R. (2018). Dental Tourism: A Review. *International Health Care Research Journal*, 2(3): 55-57. http://dx.doi.org/10.26440/IHRJ/02_03/172.
3. Kim, M., Koo, D. W., Shin, D. J., & Lee, S. M. (2017). From servicescape to loyalty in the medical tourism industry: a medical clinic's service perspective. *INQUIRY: The Journal of Health Care Organization, Provision, and Financing*, 54, 0046958017746546. <https://doi.org/10.1177/0046958017746546>.
4. Murdoch, W. W., Chu, F. I., Stewart-Oaten, A., & Wilber, M. Q. (2018). Improving wellbeing and reducing future world population. *PLoS one*, 13(9), e0202851. <https://doi.org/10.1371/journal.pone.0202851>.
5. Johnston, R., Crooks, V. A., Snyder, J., & Kingsbury, P. (2010). What is known about the effects of medical tourism in destination and departure countries? A scoping review. *International Journal for Equity in Health*, 9(1), 24. <https://doi.org/10.1186/1475-9276-9-24>.
6. Ahmadimanesh, F., Paydar, M. M., & Asadi-Gangraj, E. (2019). Designing a mathematical model for dental tourism supply chain. *Tourism Management*, 75, 404-417. <https://doi.org/10.1016/j.tourman.2019.06.001>.
7. Ugurluglu O, Urek D, Demir BI. (2019). Evaluation of Individual Satisfaction with Health Care Services in Turkey. <https://doi.org/10.1016/j.hlpt.2019.02.003>.
8. Mahendrayana, I. M. A., Yasa, P. N. S., & Indiani, L. P. (2018). The effect of service quality on patient loyalty mediated by patient satisfaction in Bali Siloam hospital. *Jurnal Ekonomi & Bisnis JAGADITHA*, 5(1), 1-7. <https://doi.org/10.9790/487X-2007010108>.
9. Dhama, K., Patthi, B., Singla, A., Gupta, R., Niraj, L. K., Ali, I., ... & Prasad, M. (2016). Global tourist guide to oral care-A systematic review. *Journal of clinical and diagnostic research: JCDR*, 10(9), ZE01. <https://doi.org/10.7860/JCDR/2016/19438.8408>.
10. Kementrian menteri Kesehatan. (2015). Berita Negara Republik Indonesia. 1-29 p.
11. Akbar, F. H., Pasinringi, S., & Awang, A. H. (2019). Factors Affecting Dental Center Service Quality in Indonesia. *Pesquisa Brasileira em Odontopediatria e Clínica Integrada*, 19. <http://doi.org/10.4034/PBOCI.2019.191.53>.
12. Mohebifar, R., Hasani, H., Barikani, A., & Rafiei, S. (2016). Evaluating service quality from patients' perceptions: application of importance-performance analysis method. *Osong public health and research perspectives*, 7(4), 233-238. <https://doi.org/10.1016/j.phrp.2016.05.002>.
13. Penneys, N. S. (1997). Quality: Its definition, measurement, and applications in dermatology. *Journal of the American Academy of Dermatology*, 37(3), 503-507. [http://doi.org/10.1016/s0190-9622\(97\)70161-0](http://doi.org/10.1016/s0190-9622(97)70161-0).
14. Zhang, J., Seo, S., & Lee, H. (2013). The impact of psychological distance on Chinese customers when selecting an international healthcare service country. *Tourism Management*, 35, 32-40. <https://doi.org/10.1016/j.tourman.2012.05.007>.
15. Zailani, S., Ali, S. M., Iranmanesh, M., Moghavvemi, S., & Musa, G. (2016). Predicting Muslim medical tourists' satisfaction with Malaysian Islamic friendly hospitals. *Tourism Management*, 57, 159-167. <http://dx.doi.org/10.1016/j.tourman.2016.05.009>.
16. Nastasi, B. K., Arora, P. G., & Varjas, K. (2017). The meaning and importance of cultural construction for global development. <https://doi.org/10.1080/21683603.2016.1276810>.
17. Abu Bakar, H., Bahtiar, M., Halim, H., Subramaniam, C., & Choo, L. S. (2018). Shared cultural characteristics similarities in Malaysia's multi-ethnic society. *Journal of Intercultural Communication Research*, 47(3), 243-267. <https://doi.org/10.1080/17475759.2018.1460274>.
18. Chaudhuri, A., & Holbrook, M. B. (2001). The chain of effects from brand trust and brand affect to brand performance: the role of brand loyalty. *Journal of marketing*, 65(2), 81-93. <https://doi.org/10.1509/jmkg.65.2.81.18255>.
19. Chiou, J. S., & Droge, C. (2006). Service quality, trust, specific asset investment, and expertise: Direct and indirect effects in a satisfaction-loyalty framework. *Journal of the academy of marketing science*, 34(4), 613. <https://doi.org/10.1177/0092070306286934>.
20. Eggert, A., & Ulaga, W. (2002). Customer perceived value: a substitute for satisfaction in business markets? *Journal of Business & industrial marketing*, 17(2/3): 107-118. <http://dx.doi.org/10.1108/088586202104197>.
21. Fam, K. S., Foscht, T., & Collins, R. D. (2004). Trust and the online relationship—an exploratory study from New Zealand. *Tourism Management*, 25(2), 195-207. [http://dx.doi.org/10.1016/S02615177\(03\)00084-0](http://dx.doi.org/10.1016/S02615177(03)00084-0).
22. Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. 382-388. <https://doi.org/10.2307/3150980>.
23. Garbarino, E., & Johnson, M. S. (1999). The different roles of satisfaction, trust, and commitment in customer relationships. *Journal of marketing*, 63(2), 70-87. <https://doi.org/10.2307/1251946>.
24. Gheorghe, R., Zürcher, A., & Filippi, A. (2017). Dental tourism from Switzerland to Germany. *Swiss dental journal*, 127(7-8), 618-633. <https://doi.org/10.18276/ejms.2018.27/1-16>.
25. Hwang, S., Lee, D., & Kang, C. Y. (2018). Medical tourism: focusing on patients' prior, current, and post experience. *International Journal of Quality Innovation*, 4(1), 4. <https://doi.org/10.1186/s40887-018-0024-2>.
26. Cohen, S. A., Prayag, G., & Moital, M. (2014). Consumer behaviour in tourism: Concepts, influences and opportunities. *Current issues in Tourism*, 17(10), 872-909. <http://dx.doi.org/10.1080/13683500.2013.850064>.
27. Yamalik, N. (2005). Dentist-patient relationship and quality care 3. Communication. *International dental journal*, 55(4), 254-256.

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- <http://dx.doi.org/10.1111/j.1875-595x.2005.tb00324.x>.
28. Nexhipi, O. (2018). Medical Tourism Management Challenges-The Case of Dental Tourism in Albania. *European Journal of Interdisciplinary Studies*, 4(1), 80-86. <http://dx.doi.org/10.26417/ejis.v4i1.p80-86>.
 29. Unal, O., Akbolat, M., & Amarat, M. (2018). The influence of patient-physician communication on physician loyalty and hospital loyalty of the patient. *Pakistan journal of medical sciences*, 34(4), 999. <https://doi.org/10.12669/pjms.344.15136>.
 30. Hajikhani, S., Tabibi, S. J., & Riahi, L. (2016). The relationship between the customer relationship management and patients' loyalty to hospitals. *Global journal of health science*, 8(3), 65. <http://dx.doi.org/10.5539/gjhs.v8n3p65>.
 31. Samad, R., Akbar, F. H., Pasiga, B. D., Pratiwi, R., Anwar, A. I., Djamaluddin, N., & Afiyah, N. (2018). Evaluation of patient satisfaction on quality of public dental health service from different dimensions in Indonesia. *Pesquisa Brasileira em Odontopediatria e Clinica Integrada*, 18(1), 4033. <http://dx.doi.org/10.4034/PBOCI.2018.181.49>.
 32. Al-Mudaf, B. A., Moussa, M. A., Al-Terky, M. A., Al-Dakhil, G. D., El-Farargy, A. E., & Al-Ouzairi, S. S. (2003). Patient satisfaction with three dental speciality services: a centre-based study. *Medical Principles and Practice*, 12(1), 39-43. <http://dx.doi.org/10.1159/000068160>.
 33. Luo, J. Y. N., Liu, P. P., & Wong, M. C. M. (2018). Patients' satisfaction with dental care: a qualitative study to develop a satisfaction instrument. *BMC oral health*, 18(1), 15. <http://dx.doi.org/10.1186/s12903-018-0477-7>.
 34. Boland, A., Cherry, G., & Dickson, R. (Eds.). (2017). *Doing a systematic review: A student's guide*. Sage.
 35. Holly, C., Salmond, S., & Saimbert, M. (Eds.). (2016). *Comprehensive systematic review for advanced practice nursing*. Springer Publishing Company.
 36. Tod, D. (2019). *Conducting Systematic Reviews in Sport, Exercise, and Physical Activity*. Springer Nature. h. 22.
 37. Jesson, J., Matheson, L., & Lacey, F. M. (2011). *Doing your literature review: Traditional and systematic techniques*. Sage. h. 27.
 38. Foster, M. J., & Jewell, S. T. (Eds.). (2017). *Assembling the PIECES of a systematic review: A guide for librarians*. Rowman & Littlefield. h. 71.
 39. Hogg, P. (2010). *Medical imaging and radiotherapy research: skills and strategies*. A. Ramlal (Ed.). Churchill Livingstone Elsevier. 2nd edition. Switzerland: Springer, 2020.
 40. Barrowman, R. A., Grubor, D., & Chandu, A. (2010). Dental implant tourism. *Australian dental journal*, 55(4), 441-445. <http://dx.doi.org/10.1111/j.1834-7819.2010.01267.x>.
 41. Yeon, A. A. A., Kamaruddin, A. I., Harun, N. A., & Kusumawardani, A. (2019). Parents' satisfaction and the quality of dental care provided by dental students at International Islamic University Malaysia. *Materials Today: Proceedings*, 16, 2341-2350. <https://doi.org/10.1016/j.matpr.2019.06.131>
 42. Adams, K., Snyder, J., Crooks, V. A., & Berry, N. S. (2018). A critical examination of empowerment discourse in medical tourism: the case of the dental tourism industry in Los Algodones, Mexico. *Globalization and health*, 14(1), 70. <https://doi.org/10.1186/s12992-018-0392-3>.
 43. Elmontsri, M., Almashrafi, A., Banarsee, R., & Majeed, A. (2017). Status of patient safety culture in Arab countries: a systematic review. *BMJ open*, 7(2), e013487. 7: 1. <https://doi.org/10.1136/bmjopen-2016013487>.
 44. Patino, C. M., & Ferreira, J. C. (2018). Inclusion and exclusion criteria in research studies: definitions and why they matter. *Jornal Brasileiro de Pneumologia*, 44(2), 84-84. <https://dx.doi.org/10.1590/S1806-37562018000000088>
 45. Lovelock, B., Lovelock, K., & Lyons, K. (2018). The impact of outbound medical (dental) tourism on the generating region: New Zealand dental professionals' perspectives. *Tourism Management*, 67, 399-410. <https://doi.org/10.1016/j.tourman.2018.02.001>
 46. Kopmaz, B., Kitapci, N. S., Kitapci, O. C., Bulu, S. B., Aksu, P. K., Koksall, L., & Mumcu, G. (2019). Dental Websites as New Media Tools for Patients in Dental Health Tourism. *Acta Informatica Medica*, 27(2), 128. <https://doi.org/10.5455/aim.2019.27.128-132>.
 47. Schaal, T., Schoenfelder, T., Klewer, J., & Kugler, J. (2016). Determinants of patient satisfaction and their willingness to return after primary total hip replacement: a cross-sectional study. *BMC musculoskeletal disorders*, 17(1), 330. <https://doi.org/10.1186/s12891-016-1196-3>.
 48. Rahmani, Z., Ranjbar, M., & Gara, A. A. N. (2017). The study of the relationship between value creation and customer loyalty with the role of trust moderation and customer satisfaction in Sari hospitals. *Electronic physician*, 9(6), 4474. <http://dx.doi.org/10.19082/447>.
 49. Aljumah, A. I., Islam, A., & Noor, I. M. (2017). Determinants of foreign patients' loyalty of medical tourism in Malaysia: Trust and Perceived Value as moderators. *Science International (Lahore)*, 29(3), 579-587.
 50. Kim, C. E., Shin, J. S., Lee, J., Lee, Y. J., Kim, M. R., Choi, A., & Ha, I. H. (2017). Quality of medical service, patient satisfaction and loyalty with a focus on interpersonal-based medical service encounters and treatment effectiveness: a cross-sectional multicenter study of complementary and alternative medicine (CAM) hospitals. *BMC complementary and alternative medicine*, 17(1), 174. <http://dx.doi.org/10.1186/s12906-017-1691-6>.
 51. Shandu R. (2018). Dental Tourism: A Review. *International Healthcare Research Journal*. 2(3): 55. https://doi.org/10.26440/IHRJ/02_03/172
 52. Cuamea O, Jorge C, Medina M, Estrada AR. (2017). Dental Tourism: Key Factors That Influence the Selection of A Dental Clinic in A Border Region. *International Journal of Advanced Research*. 5(7): 1.
 53. Lubowiecki-Vikuk, A. (2018). Consumption of dental services: Medical tourism in CEE. *European Journal of Service Management*, 27(1), 3. <https://doi.org/10.1016/j.tourman.2012.05.009>
 54. Byrne, M. J., Tickle, M., Glenney, A. M., Campbell, S., Goodwin, T., & O'Malley, L. (2019). A systematic review of quality measures used in primary care dentistry. *International dental journal*, 69(4), 252-264. <https://doi.org/10.1111/idj.12453>.

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55. Cheng, H. C., Yen, A. M. F., & Lee, Y. H. (2019). Factors affecting patient safety culture among dental healthcare workers: A nationwide cross-sectional survey. *Journal of Dental Sciences*, 14(3), 263-268. <https://doi.org/10.1016/j.jds.2018.12.001>.
56. Druică, E., Mihăilă, V., Burcea, M., & Cepoi, V. (2020). Combining direct and indirect measurements to assess patients' satisfaction with the quality of public health services in Romania: Uncovering structural mechanisms and their implications. *International journal of environmental research and public health*, 17(1), 152. <https://doi.org/10.3390/ijerph17010152>.
57. Huang, C. H., Wu, H. H., Lee, Y. C., & Li, L. (2019). What Role Does Patient Gratitude Play in the Relationship Between Relationship Quality and Patient Loyalty? *Inquiry: The Journal of Health Care Organization, Provision, and Financing*, 56, 0046958019868324. <https://doi.org/10.1177/0046958019868324>.
58. Gérard, L., François, M., de Chefdebien, M., Saint-Lary, O., & Jami, A. (2016). The patient, the doctor, and the patient's loyalty: a qualitative study in French general practice. *British Journal of General Practice*, 66(652), e810-e818. <https://doi.org/10.3399/bjgp16X687541>

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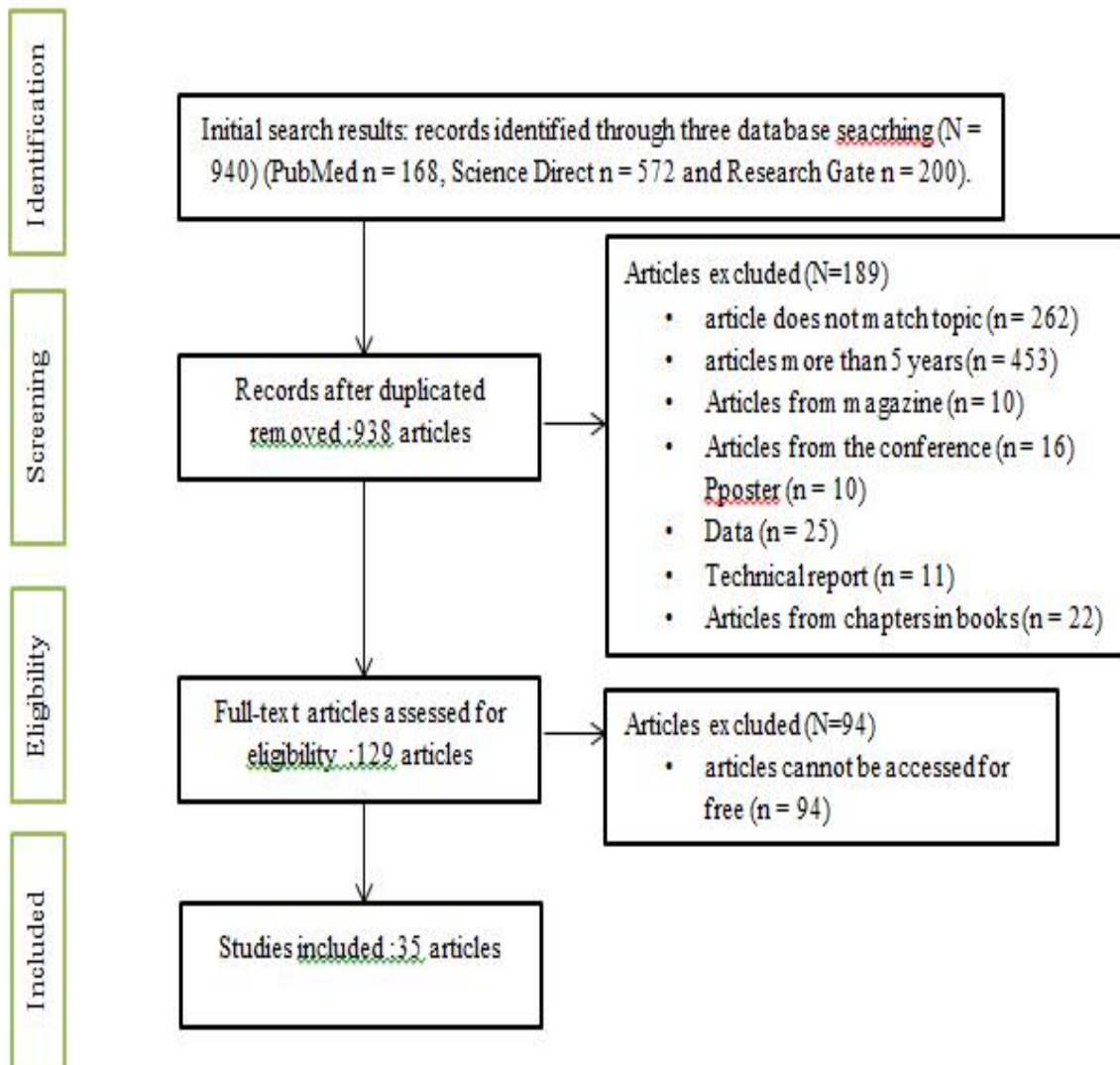


Figure 1. PRISMA flow chart.

Table 1. Article's Characteristics of Service Quality, Culture Similarity to Satisfaction and Loyalty of Medical (Dental) Tourism

No	Author's name (country)	Title	Year	Journal	Study design	Sample	Independent variable	Dependent variable	Result
1	Krystna, Jeremy, Valorie, dan Nicole. (Canada)	A critical examination of empowerment discourse in medical tourism: the case of the dental tourism industry in Los Algodones, Mexico	2018	Globalization and Health	Cross sectional	43 patients	Dental tourism	Quality of service from the dental tourism industry	Dental tourists are not satisfied with the quality of services provided to the dental tourism industry, they are disappointed because elite industry stakeholders and employees are unable to do more in improving the oral health of residents and visiting tourists.
2	Mustafa, Ahmed, Ricky, dan Azeem. (Arab)	Status of patient safety culture in Arab countries: a systematic review	2016	BMJ Open	Systematic review	18 articles	Quality of service	Patient safety	Dental tourists are not satisfied with the quality of services provided at Arab countries, the lack of regulations made to manage and promote patient safety as a form of service quality, not developed in Arab countries and this impedes the service quality process.
3	James dan John. (United states)	Establishing Good Samaritan programs in healthcare institutions: a method for enhancing patient experiences and increasing loyalty.	2018	BMC Health Service Research	Review	25 articles	Quality and loyalty of patients	Good Samaritan program	Dental tourists are satisfied with the quality of services provided by the Good Samaritan program, such as lodging and free transportation with good offers, this enhances the experience and loyalty of dental tourists to come back again.
4	Amin, Mohammad dan Kamal. (Iran)	Medical tourism services quality analysis: a systematic review	2017	International Journal of Medical Review	Systematic review with PRISMA methods	16 articles	Quality of service	Medical tourism	The expansion of trade in East and Southeast Asia has experienced rapid development in terms of health services, triggering medical tourists for treatment in East and Southeast Asia.
5	Amy, et al. (German)	Quality measures for dental care: A systematic review	2018	Wiley Community Dentistry and Oral Epidemiology	Systematic review with PRISMA methods	79 articles	Quality of service	Dental tourism	Quality of service and appropriate formation will provide a good feedback on oral health care.
6	Fuad, Syahrir, dan Abd. (Indonesia)	Factors Affecting Dental Center Service Quality in Indonesia	2019	Pesquisa Brasileira em Odontopediatria e Clínica Integrada	Cross-sectional	114 patients	Quality of service	Dental clinics	Insurance, reliability, tangibility and physical condition are factors that influence the quality of dental health services in Bantaeng district.

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7	Olta Nexhipi. (Albania)	Medical Tourism Management Challenges - The Case of Dental Tourism in Albania	2018	European Journal of Interdisciplinary Studies	Observational descriptive study	100 patients	Quality of service	Dental tourism	Dental tourists are satisfied with the quality of services provided, the quality of services in Albania is very good and the cost of treatment is affordable, as evidenced by many satisfied dental tourists and people visiting Albania to do treatment because of these beneficial.
8	Soonae, Donha dan Chang. (Korea)	Medical tourism: focusing on patients' prior, current, and post experience	2018	International Journal of Quality Innovation	Cross sectional	118 patients	Quality of service	Medical tourism	Quality of service is the most important factor for attracting foreign patients.
No	Author's name (country)	Title	Year	Journal	Study design	Sample	Independent variable	Dependent variable	Result
9	Papon dan Jantima. (Thailand)	Factors Influencing the Use of Dental Services by Foreign Tourists in Thailand	2018	Asian Journal for Public Opinion Research	Cross - sectional	233 patients	Quality of oral health service	Dental tourism	Thailand is a potential dental tourism destination because the good conditions, has many requests for dental visits, lodgings directly connected to hospitals and uses world-class dental care standards.
10	Brent, Kristen dan Karl. (New Zealand)	The impact of outbound medical (dental) tourism on the generating region: New Zealand dental professionals' perspectives	2018	Elsevier	Descriptive study with quantitative methods	337 patients	Quality of service	Dental tourism	The quality of service in their own country also has satisfaction in population, the population is satisfied with the quality of services provided in their own country, this research reveals that the quality of dental care abroad with their own country is almost the same.
11	Chang, et al. (Korea)	Quality of medical service, patient satisfaction and loyalty with a focus on interpersonal-based medical service encounters and treatment effectiveness: A cross-sectional multicenter study of complementary and alternative medicine (CAM) hospitals	2017	BMC Complementary and Alternative Medicine	Cross - sectional	880 patients	Quality of service	Satisfaction and loyalty	Factors that influence patient satisfaction such as the quality of service (facilities) and environment (B = 0.13) and the effect of treatment (B = 0.40), both have significant factors for patients to make a return visit.
12	Fatemeh, Mohammad dan Ibrahim. (Iran)	Designing a mathematical model for dental tourism supply chain	2019	Elsevier	Literature Review	8 articles	Quality of service	Dental tourism needs	To improve the quality of services to dental tourists, the needs of dental tourists must be prepared, to facilitate this, the government financial subsidies for the private sector can reduce the cost of medical centers and their accommodations.
13	Ravneet Shandu.	Dental Tourism: A	2018	International	Literature	16	Quality of service	Satisfaction	Dental tourists are satisfied with the services

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	(India)	Review		Healthcare Research Journal	Review	articles			provided in India, India also leads in terms of dental tourism, the quality of services provided provides many benefits for dental tourists, has many international and accredited hospitals.
14	Matthew, et al. (United Kingdom)	A systematic review of quality measures used in primary care dentistry	2019	International Dental Journal	Systematic review	22 articles	Quality of service	dental care clinics	There has been a development in the quality of dental care in recent years. Consensus is needed to stabilize the quality of dental care.
15	Maryam, Ali, Shima dan Marjan. (Iran)	A Systematic Review of the Factors Affecting the Growth of Medical Tourism in Iran	2020	International Journal of Travel Medicine and Global Health	Systematic review	75 articles	Quality of service	Medical tourism	Important factors such as policy making, coherent planning and providing information about appropriate capabilities and capacities will develop health tourism.
No	Author's name (country)	Title	Year	Journal	Study design	Sample	Independent variable	Dependent variable	Result
16	Oneslmo, Jorge, Morgan dan Ario. (California)	Dental Tourism: key factors that influence the selection of a dental clinic in a border region.	2017	International journal of advances research	Descriptive study with quantitative methods	380 patients	Quality of service	Satisfaction	Dental tourists are satisfied with the quality of care provided in the border region, in the border region, they increase the market by increasing the quality of care, such as good service provided directly by staff, speed of care and follow-up to patients during treatment, it can triggers their own satisfaction to the dental tourists visiting.
17	Mustaffa, Ghazali, Sedigheh dan Roslan. (Malaysia)	Dental tourism: Examining tourist profiles, motivation and satisfaction	2017	Elsevier	Cross sectional	196 patients	Quality of service, cultural equality and satisfaction	Dental tourism	There is a positive and strong relationship between access to dental care information with the quality of dental care with overall satisfaction from dental tourists.
18	Busra, et al. (Turkey)	Dental Websites as New Media Tools for Patients in Dental Health Tourism	2019	Acta inform med	Cross - sectional	555 website	Website	Quality of service and satisfaction	Dental tourists are satisfied with the quality of services provided such as websites that show contact information and website layout, which can help dental tourists see information about clinics to be visited for treatment and assist in carrying out activities of visiting dental tourists.
19	Adrian. (Poland)	Consumption of Dental Service: Medical Tourism in CEE	2018	European journal of service management	Systematic review	26 articles	Quality of service and patients satisfaction	Medical tourism	The leading countries are Hungary, Croatia, Poland and the Czech Republic, offering quality specialist services and cooperation with foreign and more modern institutions so they meet the needs of patients and patients are very satisfied with the quality of services provided.

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20	Jennifer, Pearl dan May. (Hongkong)	Patients' satisfaction with dental care: a qualitative study to develop a satisfaction instrument	2018	BMC Oral Health	Qualitative approach	60 patients	Quality of service and patients satisfaction	Dental care clinics	Patients are very satisfied with the services provided, there are six factors that affect patients related with the dental care received, that is the quality of care, attitude, price and comfort felt by the patient.
21	Kuldeep, et al. (India)	Global Tourist Guide to Oral Care - A Systematic Review	2016	Journal of Clinical and Diagnostic Research	Systematic review with PRISMA methods	69 articles	Quality of service and patients satisfaction	Dental tourism	Dental tourists visiting Hungary are very satisfied with the quality of services in the country, the trigger for satisfaction because of favorable cost ratio for dental tourists and competent dentists and also the materials and technology used to be a value of satisfaction for tourists.
22	Hsin, Amy, dan Yi. (Taiwan)	Factors affecting patient safety culture among dental healthcare workers: A nationwide cross-sectional survey	2019	Journal of Dental Science	Cross sectional	172 patients	Cultural equality and satisfaction	Patient safety	The cultural equality applied in this study concerns the ethical culture or behavior of medical service workers, dental tourist are satisfied with the quality of services provided because their attitudes and behaviors in order to maintain patient safety at the clinic. It was received positively by tourists and they were happy because it was well implemented.

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