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A BIBLIOMETRIC ANALYSIS OF THE 100 TOP-CITED PUBLICATIONS IN HEALTH TOURISM

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Research Article

Abstract:

Objectives: The purposes of this study are: a) to review evidence-based and cumulative information health tourism literature by bibliometric analysis; b) to identifies the current 100 top-cited articles in health tourism ranging from 1970 to 2020 and indexed in Web of Science (WoS).

Method: Retrospective analysis was used bibliometric information from database of WoS. The obtained data analyzed by using VOSviewer through software package. Statistical analysis were performed using SPSS software version 23.0 (SPSS Inc., Chicago, IL).

Results: The citation count of the most-cited articles varied from 27 to 361 WoS (1970 – 2020). The most productive year was 2010 and the most productive country is USA. 65 different journals were detected and the most frequent article was Tourism Management. Total citation time was positively associated with age of article ($p<0.001$). Citation time in 2017 was positively associated with average citation per year ($p<0.001$). Citation time in 2017 was negatively associated with age of article ($p<0.001$).

Conclusion: This study shows that the trends of health and medical tourism research fields and also the main papers, authors, journals, institutions and countries within the most cited top 100 articles in this area.

Keywords: *Tourism, Health tourism, medical tourism, top 100 articles, bibliometric analysis*

Highlights:

- To discover topic-linked innovation evaluation paths in health tourism area
- Revealing patterns in the evaluation of science product into health tourism field.
- Summarizing the top cited top 100 publication relationship between health tourism and scientific production

Introduction

Tourism is one of the economic sectors that have been constantly expanding and diversifying, including travelers with different motivations over the past 50 years (Sánchez et al., 2017: 9). Health and medical tourism have an important interest in this sector and the value of health and medical tourism is becoming increasingly important in the world (Horowitz et al.,2007: 33). All over the world, the number of people moved abroad to seek medical treatment as international health tourists have been increased dramatically in recent years. It could be part of a growing global trend (Morgan, 2010: 12). International medical tourists preference such treatments (e.g., in vitro fertilization or stem cell treatments) abroad that are approved by their health authorities at home (United Nations World Tourism Organization, 2018) and travel all over the world for treatment.

Depending on the source estimates of the value of the medical tourism market differ greatly. According to Reportlinker, the global medical tourism sector was valued at $53,768 million in 2017 and is estimated to reach $143,461 million by 2025. This is also a rising trend that has attracted interest in the scientific community (Correa et al., 2018: 201; Chew and Darmasaputra, 2015: 119).

Scientific publications have undergone an evolution process in recent years. Publications are the primary output of scientific research and the most widely-used method of releasing scientific discoveries to other researchers. In the academic area, scientific papers are the best way of sharing and distributing new knowledge (Fan and Frcophth, 2008: 56; Cant and Cooper, 2019: 2). The universities are key institutions in scientific paper production and this function plays an important role in the acceleration of progress in every country (Soosarei et al., 2018: 34). Scientific papers show up developments in different disciplines using different techniques and methodologies (Fontana et al., 2019: 1773). To measure the scientific output of researchers is an important task for the scientific community. Nowadays, almost every research assessment decision accepting research projects, contracting researchers, awarding scientific prices, concede a grant, and so on depends to a great extent upon the scientific merits of the involved researchers (Alonso et al., 2009: 273). Increasingly, evaluation studies of scientific performance conducted during the last years focus on the identification of research of the highest quality, top research, or scientific excellence. This shift in focus has lead to the development of new bibliometric methodologies and indicators (Van Leeuwen, 2003: 257). The scientific bibliometric analysis utilizes citation data and is an important scientific tool for evaluation of the research performance of authors, institutions, and journals (Gogos et al., 2019: 2; Ahmad et al., 2019: 3). Citation analysis is the most commonly used bibliometric assessment method. This analysis indicates the relationship between the cited study with the studies published afterward. This approach assumes that the cited publications have an influence on other authors (Onat, 2011: 158; Sims and Franzco, 2003: 15). This analysis is important in terms of the use of quantitative parameters in the assesment of scientific publication performance (Wallin, 2005: 263). It also provides researchers with substantial evidence of the research area. In this context, the purpose of this study are a) to review evidence-based and cumulative information medical tourism literature by bibliometric analysis; b) identifies the current 100 top-cited articles in health tourism ranging from 1970 to 2020.

Method

Literature Searching

The WoS database was used to find publications. Web of Science is a web technology owned by Thomson Reuters and it has conducted bibliographic databases, citations, and references of scientific publications in any discipline of knowledge; scientific, technological, humanistic, and

sociological since 1945. It occurs of more than 12,000 live journals, 23 million patents, 148,000 congress proceedings, more than 40 million, and 760 million sources of cited references (Sánchez, 2017: 12).

Bibliometric Analysis

In this study, medical tourism literature investigated with a bibliometric analysis by executing a citation analysis to top 100 cited papers at the WoS. A retrospective analysis was used bibliometric information from the database of WoS. The obtained data analyzed by using VOSviewer through a software package. The following keywords were search: "medical tourism" and "health tourism" in the topic section; "aesthetic", "plastic"," transplantation"," dental", "transplant tourism", "transplant tourist", "medical", "health", "cross border", "medical tourist", "health tourist", "wellness tourism", "wellness tourism", "stem cell", "medical travel" from 1970 to January 2020. Then publications were ranked by the number of citations using the option 'Times cited-highest to lowest' listed on the WoS, the abstracts were checked according to relevance and were exported using Microsoft Excel 2016.

The most cited top 100 articles were classified into and analyzed as title, authors, number of authors, journals, publication year, total citations WoS. The articles were also mapped with a co-citation network to understand what outstanding articles are. The obtained data were analyzed by using VOSviewer through software packages on 16th January 2020 (VOSviewer, 2020).

Statistical Analysis

Statisticalanalyses were performed using SPSS software version 23.0 (SPSS Inc., Chicago, IL). The statistical significance of the correlations among citation times in 2017, the average per year, total citation times, age of the article. The variables were determined by Spearman test $P<0.05$ was considered to be statistically significant.

Limitations

This study has several limitations. In this study only used and searched WoS database and the other sources as Pub Med, Scopus, etc. may be missed, our findings may be affected by the interpretation of the results. This is a basic limitation of the study. Besides, the fact that only mentioned keywords were used in obtaining scientific publications related to medical tourism can be considered as another limitation of the study. Despite these limitations, it is assumed that this study reflects the

100 most cited studies in the field of health tourism and the software reflects the best results during the analysis.

Results

A total of 1316 articles were found in WoS using the search terms and the most cited top 100 publications were reviewed the most cited first 120 paper and selected 100 paper according to title and abstract by two authors (Fig 1).

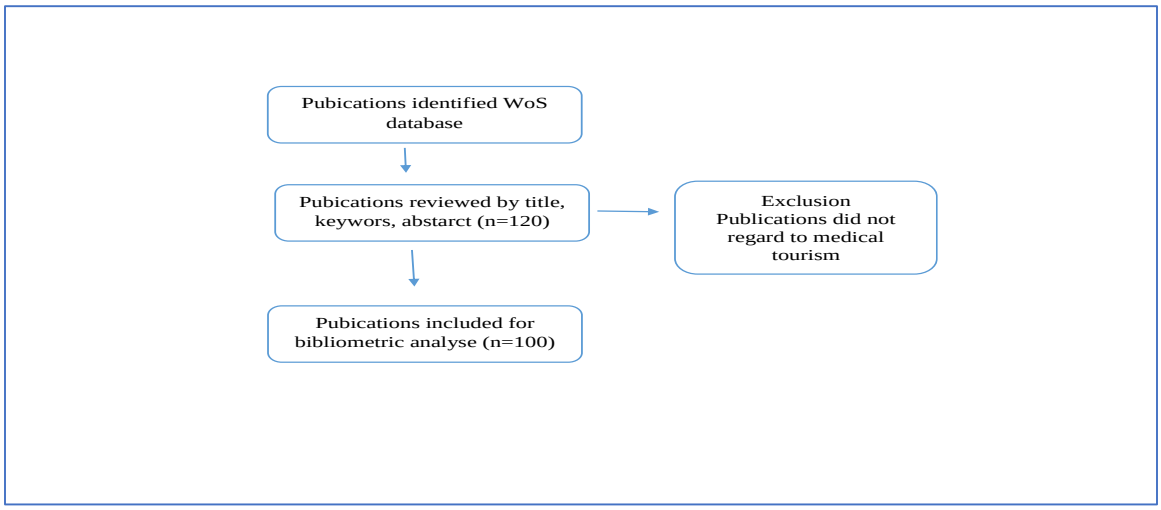

Figure 1. Flow Chart

As our findings these publications were written English which included 77 articles, 11 editorial material, 10 reviews, 2 proceedings paper, 1 book, and 1 news item. While the top paper has been cited 361 times, the number of citations the least was 27 and the average number of these citations was 6,16 (616,39/100). The two oldest cited papers were by Bezruchka and Bishop & Lithch and were published in 2000 (Bezruha, 2000; Bishop and Litch, 2000). Nearly 12 % of publications had more than 100 citations and the most cited paper was published by J. Connell from the University of Sydney in 2006 in the Tourism Management Journal (IF: 6.012) (Connell, 2006).

Table 1 has shown that the most cited top – 100 publications. The top-ranked author was John Connell who published two the most cited articles in Tourism Management Journal in 2006 and 2013. The most cited top 10 publications have a total of 1764 cited compose of 28 % (1764/6178) and published between 2006 – 2010. According to total citation time 2017 was the most cited year (866 citations).

Table 1. Top 100 list most – cited articles in Health and Medical Tourism

Rank	WoS Citation	Author	Title	Year
1	361	Connell, John	Medical tourism: Sea, sun, sand and . . . surgery	2006
2	190	Bookman, Milica Z. Bookman, Karla R.	Medical Tourism in Developing Countries	2007
3	183	Connell, John	Contemporary medical tourism: Conceptualisation, culture and commodification	2013
4	183	Crooks, Valorie A, Kingsbury, Paul, Snyder, Jeremy; Johnston, Rory	What is known about the patient's experience of medical tourism? A scoping review	2010
5	173	Shenfield et al.	Cross border reproductive care in six European countries	2010
6	143	Lunt, Neil; Carrera, Percivil	Medical tourism: Assessing the evidence on treatment abroad	2010
7	138	Budiani-Saberi, D. A. Delmonico, F. L.	Organ trafficking and transplant tourism: A commentary on the global realities	2008
8	138	Ramirez de Arellano, Annette B.	"atients without borders: The emergence of medical tourism	2007
9	128	Han, Heesup; Hyun, Sunghyup Sean	Customer retention in the medical tourism industry: Impact of quality, satisfaction, trust, and price reasonableness	2015
10	127	Hopkins, Laura; Labonte, Ronald; Runnels, Vivien; Packer, Corinne	Medical tourism today: What is the state of existing knowledge?	2010

11	118	Pocock, Nicola S.; Phua, Kai Hong	Medical tourism and policy implications for health systems: a conceptual framework from a comparative study of Thailand, Singapore and Malaysia	2011
12	112	Johnston, Rory; Crooks, Valorie A.; Snyder, Jeremy; Kingsbury, Paul	What is known about the effects of medical tourism in destination and departure countries? A scoping review	2010
13	98	Canales, Muna T.; Kasiske, Bertram L.; Rosenberg, Mark E.	Transplant tourism: Outcomes of United States residents who undergo kidney transplantation overseas	2006
14	96	Yu, Ji Yun; Ko, Tae Gyou	A cross-cultural study of perceptions of medical tourism among Chinese, Japanese and Korean tourists in Korea	2012
15	91	Glinos, Irene A.; Baeten, Rita; Helble, Matthias; Maarse, Hans	A typology of cross-border patient mobility	2010
16	90	Lindvall, Olle; Hyun, Insoo	Medical Innovation Versus Stem Cell Tourism	2009
17	88	Heung, Vincent C. S.; Kucukusta, Deniz; Song, Haiyan	Medical tourism development in Hong Kong: An assessment of the barriers	2011
18	88	Crooks et al.	Promoting medical tourism to India: Messages, images, and the marketing of international patient travel	2011
19	82	Heung, Vincent C. S.; Kucukusta, Deniz; Song, Haiyan	A Conceptual Model Of Medıcal Tourısm: Implıcatıons For Future Research	2010
20	82	Ryan, Kirsten A.; Sanders, Amanda N.; Wang, Dong D.; Levine, Aaron D.	Tracking the rise of stem cell tourism	2010
21	79	Garcia-Altes, A	The development of health tourism services	2005
22	76	Chen, Chun-Chu; Petrick, James F.	Health and Wellness Benefits of Travel Experiences: A Literature Review	2013
23	75	[Anonymous]	The Declaration of Istanbul on organ trafficking and transplant tourism	2008
24	74	Murdoch, Charles E.; Scott, Christopher Thomas	Stem Cell Tourism and the Power of Hope	2010
25	69	York, Diane	Medical tourism: The trend toward outsourcing medical procedures to foreign countries	2008

26	68	Burkett, Levi	Medical tourism - Concerns, benefits, and the American legal perspective	2007
27	65	Cormany, Dan; Baloglu, Seyhmus	Medical travel facilitator websites: An exploratory study of web page contents and services offered to the prospective medical tourist	2011
28	64	NaRanong, Anchana; NaRanong, Viroj	The effects of medical tourism: Thailand's experience	2011
29	63	Horton, Sarah; Cole, Stephanie	Medical returns: Seeking health care in Mexico	2011
30	62	Chen, Kaung-Hwa; Liu, Hsiou-Hsiang; Chang, Feng-Hsiang	Essential customer service factors and the segmentation of older visitors within wellness tourism based on hot springs hotels	2013
31	62	Lautier, Marc	Export of health services from developing countries: The case of Tunisia	2008
32	59	Hanefeld, J.; Lunt, N.; Smith, R.; Horsfall, D.	Why do medical tourists travel to where they do? The role of networks in determining medical travel	2015
33	58	Penney, Kali; Snyder, Jeremy; Crooks, Valorie A.; Johnston, Rory	Risk communication and informed consent in the medical tourism industry: A thematic content analysis of canadian broker websites	2011
34	58	Song, Priscilla	Biotech Pilgrims and the Transnational Quest for Stem Cell Cures	2010
35	55	Ogbogu, Ubaka; Rachul, Christen; Caulfield, Timothy	Reassessing direct-to-consumer portrayals of unproven stem cell therapies: is it getting better?	2013
36	52	Hanefeld, Johanna; Horsfall, Daniel; Lunt, Neil; Smith, Richard	Medical Tourism: A Cost or Benefit to the NHS?	2013
37	51	Fetscherin, Marc; Stephano, Renee-Marie	The medical tourism index: Scale development and validation	2016
38	51	Turner, Leigh G.	Quality in health care and globalization of health services: accreditation and regulatory oversight of medical tourism companies	2011
39	51	Zarzeczny, Amy; Caulfield, Timothy	Stem Cell Tourism and Doctors' Duties to MinorsA View From Canada	2010
40	51	Turner, Leigh	Medical tourism - Family medicine and international health-related travel - Commentary	2007

41	51	Jones, C. A.; Keith, L. G.	Medical tourism and reproductive outsourcing: The dawning of a new paradigm for healthcare	2006
42	49	Ferraretti et al.	Cross-border reproductive care: a phenomenon expressing the controversial aspects of reproductive technologies	2010
43	48	Turner, Leigh	Medıcal Tourısm And The Global Marketplace In Health Servıces: Us Patıents, Internatıonal Hospıtals, And The Search For Affordable Health Care	2010
44	47	Lee, Misung; Han, Heesup; Lockyer, Tim	Medıcal Tourısm-Attractıng Japanese Tourısts For Medıcal Tourısm Experıence	2012
45	47	Smith, Richard; Alvarez, Melisa Martinez; Chanda, Rupa	Medical tourism: A review of the literature and analysis of a role for bi-lateral trade	2011
46	47	Petrosoniak, Andrew; McCarthy, Anne; Varpio, Lara	International health electives: thematic results of student and professional interviews	2010
47	46	Abubakar, Abubakar Mohammed; Ilkan, Mustafa	Impact of online WOM on destination trust and intention to travel: A medical tourism perspective	2016
48	46	Petersen, Alan; Seear, Kate; Munsie, Megan	Therapeutic journeys: the hopeful travails of stem cell tourists	2014
49	46	Reddy, Sumanth G.; York, Valerie K.; Brannon, Laura A.	Travel for Treatment: Students' Perspective on Medical Tourism	2010
50	46	Reed, Christie M.	Medical Tourism	2008
51	46	Chinai, Rupa; Goswami, Rahul	Medical visas mark growth of Indian medical tourism	2007
52	45	Crush, Jonathan; Chikanda, Abel	South-South medical tourism and the quest for health in Southern Africa	2015
53	45	Chen, Lin H.; Wilson, Mary E.	The Globalization of Healthcare: Implications of Medical Tourism for the Infectious Disease Clinician	2013
54	45	Adler et al.	Introduction of OXA-48-producing Enterobacteriaceae to Israeli hospitals by medical tourism	2011
55	45	Snyder et al.	The 'patient's physician one-step removed': the evolving roles of medical tourism facilitators	2011
56	44	White et al.	The global diffusion of organ transplantation: trends, drivers and policy implications	2014

57	44	Alleman et al.	Medical Tourism Services Available to Residents of the United States	2011
58	43	Sobo, Elisa J.	Medical Travel: What It Means, Why It Matters	2009
59	42	Helble, Matthias	The movement of patients across borders: challenges and opportunities for public health	2011
60	41	Rizvi et al.	A kidney transplantation model in a low-resource country: an experience from Pakistan	2013
61	40	Chuang, Thomas C.; Liu, John S.; Lu, Louis Y. Y.; Lee, Yachi	The main paths of medical tourism: From transplantation to beautification	2014
62	40	Cohen, Cynthia B.; Cohen, Peter J.	International Stem Cell Tourism and the Need for Effective Regulation Part I: Stem Cell Tourism in Russia and India: Clinical Research, Innovative Treatment, or Unproven Hype?	2010
63	40	Turner, L.	Cross-border dental care: 'dental tourism' and patient mobility	2008
64	40	Bies, William; Zacharia, Lefteris	Medical tourism: Outsourcing surgery	2007
65	39	Hanefeld, Johanna; Smith, Richard; Horsfall, Daniel; Lunt, Neil	What Do We Know About Medical Tourism? A Review of the Literature With Discussion of Its Implications for the UK National Health Service as an Example of a Public Health Care System	2014
66	39	Shetty, Priya	Medical tourism booms in India, but at what cost?	2010
67	38	Bochaton, Audrey	Cross-border mobility and social networks: Laotians seeking medical treatment along the Thai border	2015
68	38	Birch, Daniel W.; Vu, Lan; Karmali, Shahzeer; Stoklossa, Carlene Johnson; Sharma, Arya M.	Medical tourism in bariatric surgery	2010
69	38	Barclay, Eliza	Stem-cell experts raise concerns about medical tourism	2009
70	38	Bezruchka, S	Medical tourism as medical harm to the Third World: Why? For whom?	2000
71	37	Mason, Alicia; Wright, Kevin B.	Framing Medical Tourism: An Examination of Appeal, Risk, Convalescence, Accreditation, and Interactivity in Medical Tourism Web Sites	2011

72	35	Lee, Hwee Khei; Fernando, Yudi	The antecedents and outcomes of the medical tourism supply chain	2015
73	35	Crooks et al.	Ethical and legal implications of the risks of medical tourism for patients: a qualitative study of Canadian health and safety representatives' perspectives	2013
74	35	Moghimehfar, Farhad; Nasr-Esfahani, Mohammad Hossein	Decisive factors in medical tourism destination choice: A case study of Isfahan, Iran and fertility treatments	2011
75	35	Hazarika, Indrajit	Medical tourism: its potential impact on the health workforce and health systems in India	2010
76	34	Cohen, I. Glenn	Transplant Tourism: The Ethics and Regulation of International Markets for Organs	2013
77	34	Chen, Y. Y. Brandon; Flood, Colleen M.	Medical Tourism's Impact on Health Care Equity and Access in Low- and Middle-Income Countries: Making the Case for Regulation	2013
78	33	Wang, Hsiu-Yuan	Value as a medical tourism driver	2012
79	33	Palattiyil, George; Blyth, Eric; Sidhva, Dina; Balakrishnan, Geeta	Globalization and cross-border reproductive services: Ethical implications of surrogacy in India for social work	2010
80	32	Runnels, Vivien; Carrera, P. M.	Why do patients engage in medical tourism?	2012
81	32	Lee, Chew Ging	Health care and tourism: Evidence from Singapore	2010
82	32	Cohen, I. Glenn	Protecting Patients with Passports: Medical Tourism and the Patient-Protective Argument	2010
83	31	Ormond, Meghann; Sothern, Matthew	You, too, can be an international medical traveler: Reading medical travel guidebooks	2012
84	31	Connell, John	A new inequality? Privatisation, urban bias, migration and medical tourism	2011
85	31	Whittaker, Andrea	Cross-border assisted reproduction care in Asia: implications for access, equity and regulations	2011
86	31	Bishop, RA; Litch, JA	Medical tourism can do harm	2000
87	30	Bell, David; Holliday, Ruth; Ormond, Meghann; Mainil, Tomas	Transnational healthcare, cross-border perspectives Introduction	2015
88	30	Crozier, G. K. D.; Baylis, Francoise	The ethical physician encounters international medical travel	2010

89	29	Connolly, Ruairi; O'Brien, Timothy; Flaherty, Gerard	Stem cell tourism - A web-based analysis of clinical services available to international travellers	2014
90	29	Gunter et al.	Cell therapy medical tourism: Time for action	2010
91	28	Schnabel et al.	Multistate US Outbreak of Rapidly Growing Mycobacterial Infections Associated with Medical Tourism to the Dominican Republic, 2013-2014	2016
92	28	Beladi, Hamid; Chao, Chi-Chur; Ee, Mong Shan; Hollas, Daniel	Medical tourism and health worker migration in developing countries	2015
93	28	Einsiedel, Edna F.; Adamson, Hannah	Stem Cell Tourısm And Future Stem Cell Tourısts: Polıcy And Ethıcal Implıcatıons	2012
94	28	Carrera, Percivil; Lunt, Neil	A European Perspectıve On Medıcal Tourısm: The Need For A Knowledge Base	2010
95	27	Viladrich, Anahi; Baron-Faust, Rita	Medical tourism in tango paradise: The internet branding of cosmetic surgery in Argentina	2014
96	27	Heung, Vincent C. S.; Kucukusta, Deniz	Wellness Tourism in China: Resources, Development and Marketing	2013
97	27	Lunt, Neil T.; Mannion, Russell; Exworthy, Mark	A Framework for Exploring the Policy Implications of UK Medical Tourism and International Patient Flows	2013
98	27	Wilson, Ara	Foreign Bodies and National Scales: Medical Tourism in Thailand	2011
99	27	Johnson, Tricia J.; Garman, Andrew N.	Impact of medical travel on imports and exports of medical services	2010
100	27	Lee, Chew Ging; Hung, Woan Ting	Tourism, Health and Income in Singapore	2010

This study discovered that the associations between average citation per year, citation time 2017, total citations time, and age of the article with bivariate correlation analysis. According to the result total citation time was positively associated with the age of the article ($r=0.957$, $p<0.001$). Citation time in 2017 was positively associated with average citation per year ($r=0.814$, $p<0.001$). However, there was no significant relationship between total citation time 2017 and citation time 2017 ($r=0.268$, $p=0.007$); total citation time and average citation per year ($r=0.156$,$p=0.122$); age of article and average citation per year ($r=-0.231$, $p=0.021$). In addition citation time in 2017 was negatively associated with the age of article ($r=-0.309$, $p<0.001$).

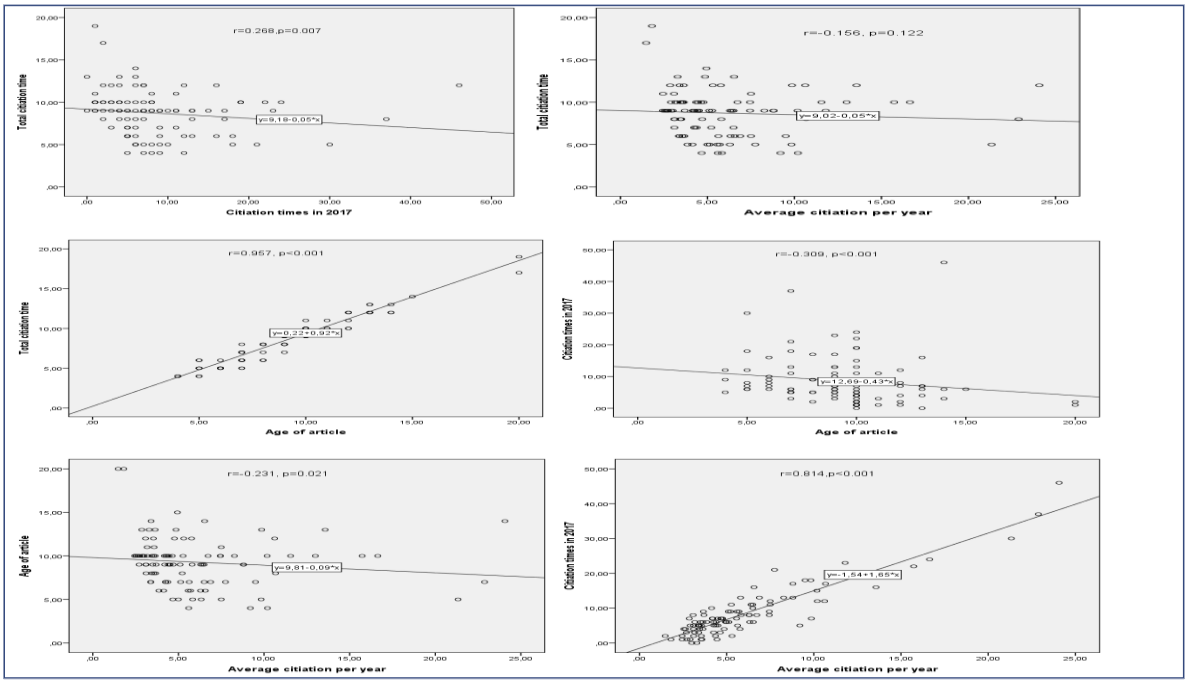

Figure 2. The relationship between average citation per year, citation time 2017, total citation time and age of the article

Journals

The total 65 different journals were detected which include indexes follows: BKCI-S, BKCI SSH, SCI-EXPANDED, ESCI, A&HCI, SSCI, CPCI-SSH, CPCI-S. Figure 3 has shown that the most frequent journals which include Tourism Management was the journal with greatest number of articles (11) in the top 100, followed by Social Science and Medicine (7), Bulletin of the World Health Services (4), International Journal of Health Services (3) and International Journal of Tourism Research (3).

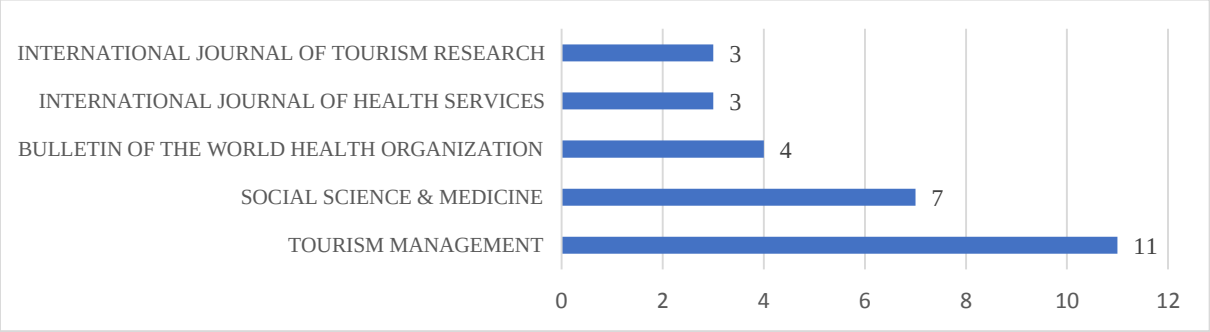

Figure 3. The Most Frequent Journals

The Publication Year

The publications included in the present study were between 2000 and 2018, there are no studies from 2001 to 2004. More than 10 published studies were found that in 2010, 2011 and 2013, the most productive year was in 2010 (Fig 4).

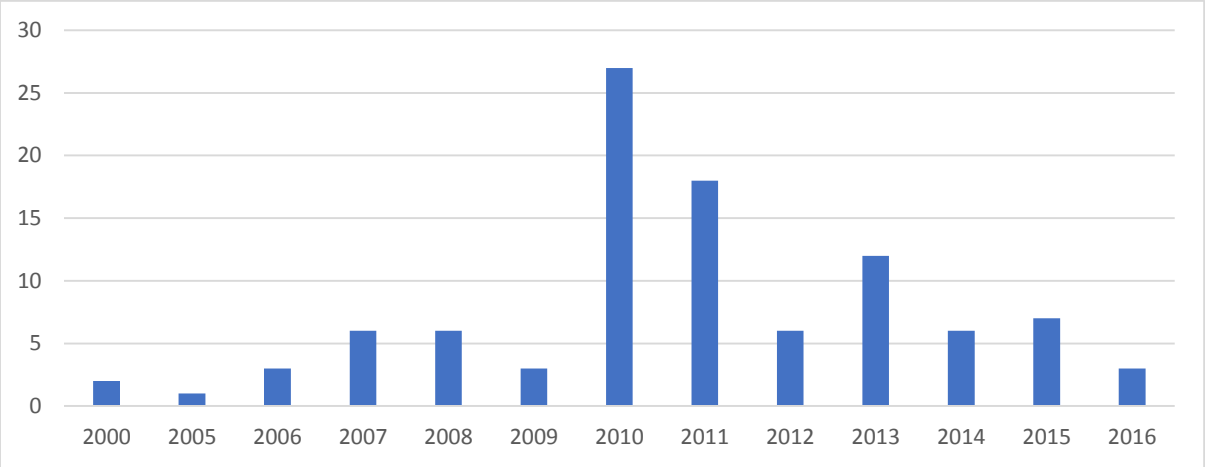

Figure 4: The Publication Year of the most cited publications

The Active Authors

Within 237 authors, the greatest number of articles were published by Crooks V. (n=6), Snyder J. (n=6), Johnstone R. (n=5), Turner Leigh G. (n=5), Lunt N. (n=5), Smith R. (n=4) and Kingsbury P. (n= 4). In addition Connel J. published 3 article as single author and has the greatest number of citation within the most cited top 100 articles (total 575 cite). Figure 5 has shown that the network visualization map. The colors indicate the clusters and the thickness of the lines indicates the strength of the relationship.

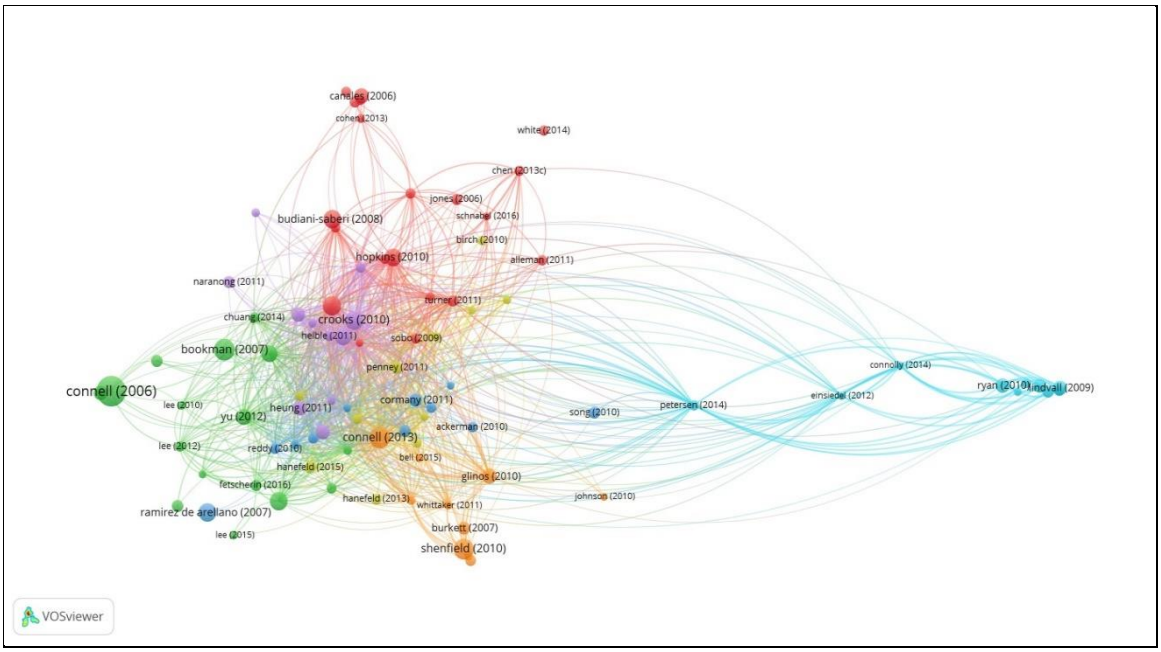

Figure 5: The Active Authors network visualization map

The Countries

The most 100 cited papers were published by institutions from 10 different countries. 36 articles were from America (USA), 18 articles were from North America (Canada), 1 article was from South America (Brazil), 9 articles from Oceania (Australia and New Zealand), 17 articles were from Asia and 18 articles were from Europa. More than half of the articles were published in the America continent (Fig 6).

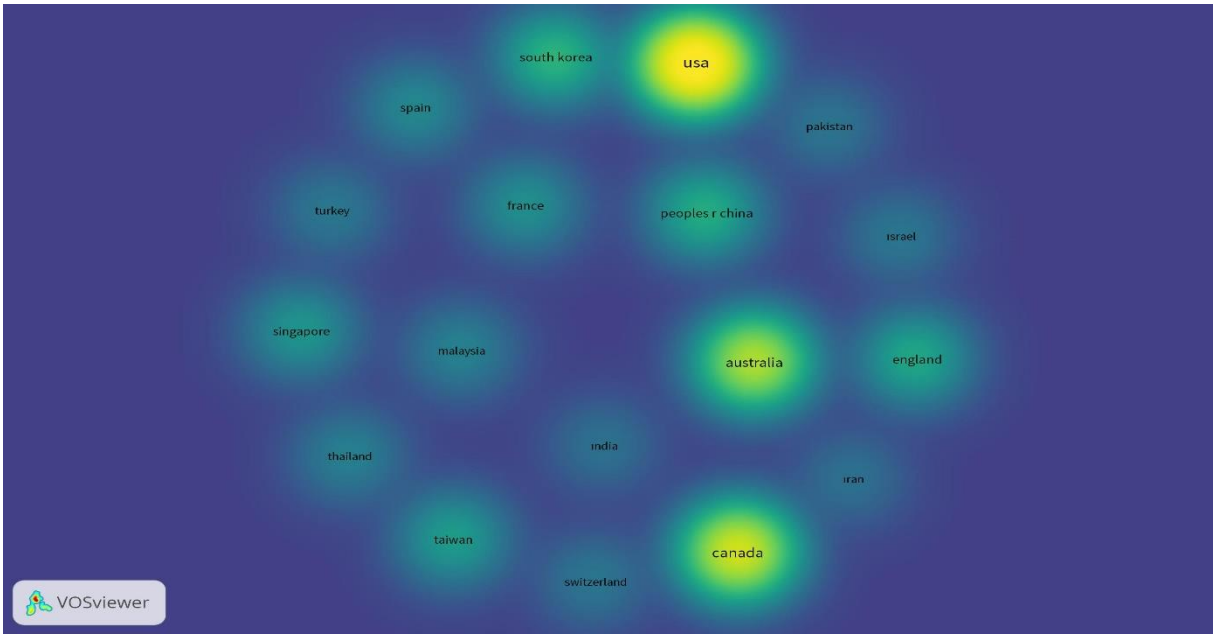

Figure 6: The Country of the most cited publications

Keyword Analysis

This analysis was used through keywords co – occurance and the purpose of this analysis was to conceptualize that the tendency and currently state of the main research topics in health and medical tourism. Figure 5 shows that the papers keywords were revealed down of the abstract. There were 222 different keyword in the most cited top 100 articles in this study. "Medical tourism" was occured 43 and total link strength was 57. "Globalization"(9), "stem cell tourism"(6), "health tourism"(6) and "ethics" (4) were another keywords. According to keywords visualization "tourism", "study" and "care" bigger than other keywords, it means that they have been aboved most commonly.

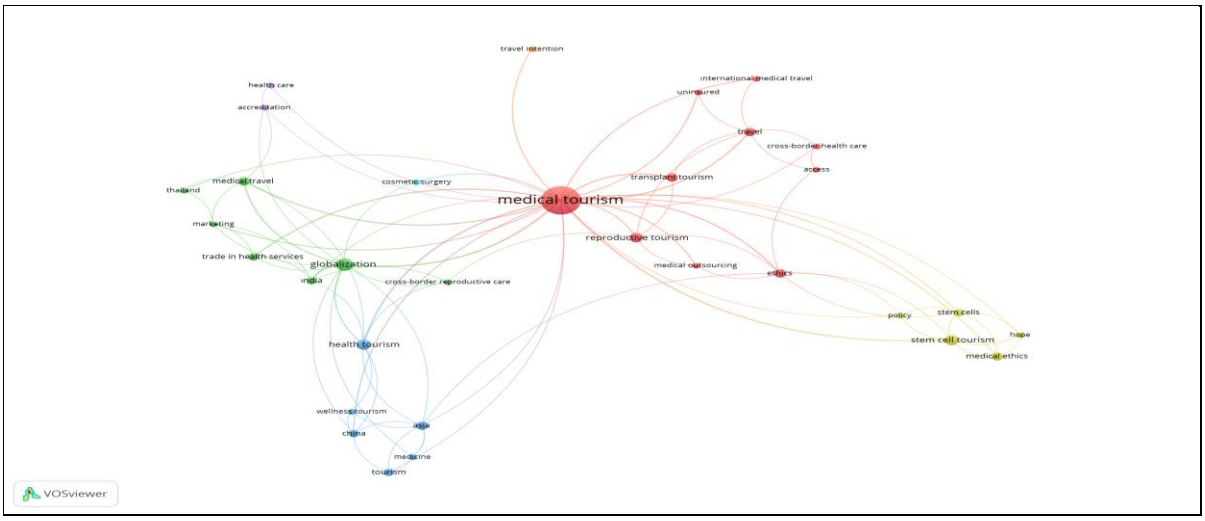

Figure 7. The keywords analysis network visualization map

Discussion

Bibliometric analysiss are useful to the evaluation of authors, journals, institutions, and countries in the academic field (Ramos et al., 2019: 369). The purposes of this study are a) to review evidence-based and cumulative information health tourism literature by bibliometric analysiss; b) identify the current 100 top-cited articles in medical tourism ranging from 1970 to 2020 and indexed in WoS.

Given how important research on Health and Medical Tourism field is in scientific areas, it is necessary to prove the most cited top 100 articles in this area and draw a picture of the output process. This study will also help researchers in the health and medical tourism field.

In the literature, tourism researches, analysis of journals, the tendency of health tourism researches, analysis of citations in publications were analyzed by bibliometric methods. Our study is consistent with these studies (Temizkan et al., 2015; Benckendorff and Zehrer, 2008; De la Hoz et al., 2018; Hall, 2011; Yuan et al., 2015; Canik et al., 2019).

According to publication years of the most cited top 100 articles, all of the articles were published between 2000 – 2016 and the most productive year was 2010. Almost 75% amount of those articles were published in 2010 and after years. The reason for such an increase may be Health Tourism being an emerging sector due to some internal problems in different countries in the last ten years (Toprak et al., 2014: 44). There were only five most frequent journals which include Tourism

Management Social Science and Medicine, Bulletin of the World Health Services, International Journal of Health Services and International Journal of Tourism Research. Nearly one – fourth of these articles were published in those five journals. Also a total of 65 different journals were detected in our study. This result shows that the health and medical tourism area was very large and varied as the tourism area. In their bibliometric analysis, Garrigos-Simon et al. (2019) have concluded that the Tourism Management journal is one of the biggest in the tourism literature.

The most 100 cited papers were published by institutions from 10 different countries. 36 articles were from America (USA), 18 articles were from North America (Canada), 1 article was from South America (Brazil), 9 articles from Oceania (Australia and New Zeland), 17 articles were from Asia and 18 articles were from Europa. More than half of the articles were published in the American continent. However, it is a remarkable finding that there is no publication from the African continent within the most cited top 100 articles in medical tourism. This is also confirmed that some bibliometric studies. For instance, a bibliometric study has shown that the total number of publications of the Journal of Cardiothoracic and Vascular Anesthesia from Africa has unvaried from 1990 to 2011 (Pagel and Hudetz, 2013).

Conclusion

Generally, medical tourism and related fields have been covered by the research area which including contributions from various authors, institutions, and countries. Within the most cited top 100 articles globalization and stem cell tourism seem to be trending topics in the field. We also have seen that health tourism is a very large area due to different journals. Bibliometric analysiss are a useful tool for researchers and they could implement it for their studies.

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