

A Bibliometric Perspective on Health, Medical, and Wellness Tourism Research: Trends, Themes, and Future Directions

Tayfun Arar

Kırıkkale University, Turkey
tayfunarar@kku.edu.tr

Ceren Dirik

Kırıkkale University, Turkey
cerendirik@kku.edu.tr

Although medical tourism, wellness tourism, and health tourism have expanded significantly in recent decades, research has often addressed them separately, limiting comprehensive understanding of their shared development, particularly in response to global health disruptions. This study addresses that gap by conducting a unified bibliometric analysis that maps the thematic evolution, intellectual foundations, and collaboration patterns across health-oriented tourism. A total of 1,717 peer-reviewed articles published between 1974 and 2025 were retrieved through title-based searches from Scopus and Web of Science. Data were cleaned, merged, and analysed using the Biblioshiny 4.0 platform, with performance metrics, co-occurrence networks, thematic mapping, and international collaboration examined. The study also compares recent patterns with earlier bibliometric research to assess the continuity and divergence in the field's development. The analysis yields three key findings. First, academic interest surged post-2010, particularly after the COVID-19 pandemic. Second, thematic clusters show a shift from treatment-focused medical tourism/health tourism toward wellness, mental health, and preventive care, suggesting a broader emphasis on proactive well-being. Third, co-authorship analysis reveals regionally concentrated networks with limited integration between Global North and South researchers. Theoretically, the study contributes to the Push-Pull Theory of Travel Motivation by integrating health-specific drivers such as affordability, safety, risk perception, and psychological well-being. It also adds to crisis-sensitive tourism literature by linking global disruptions to evolving motivational structures. Practically, the findings provide actionable insights for policy-makers and destination managers seeking to align services with shifting post-pandemic traveller priorities and to reposition health-focused destinations in a more resilient global tourism economy.

Keywords: health tourism, medical tourism, wellness tourism, bibliometric analysis, COVID-19



<https://doi.org/10.26493/2335-4194.18.285-304>

Introduction

Health tourism (HT) is defined broadly as individuals travelling abroad to access medical treatment (Figueroa et al., 2024) and includes medical tourism (MT)

and wellness tourism (WT) (Zhong et al., 2024). MT refers to travelling abroad to receive medical treatment, such as surgery or oncology, that is either too expensive or unavailable in one's home country (Jiang

et al., 2022; Zhong et al., 2024), while WT encompasses non-clinical services aimed at promoting well-being, including yoga, meditation, and spa therapies (Figueiredo et al., 2024). Therefore, while MT focuses on reactive action, WT is based on proactive treatment.

HT is one of the fastest-growing subsectors, comprising 15% of global tourism revenues (Pirnar & Altın, 2024). According to the Global Wellness Institute, its value increased from \$563 billion in 2015 to \$639 billion in 2017, with a 6.5% annual growth rate – twice that of the overall travel industry. By 2022, this growth was expected to reach 7.5%, surpassing the global tourism average of 6.4% (Jiang et al., 2022). This trend underscores not only the economic vitality of HT, but also its increasing alignment with broader shifts in health-conscious consumer behaviour. HT also enables service exports and medical knowledge transfer, particularly benefitting developing nations that position themselves as affordable, quality destinations for treatment and recovery (Lukose et al., 2024). For instance, Türkiye, Thailand, and Mexico have become prominent in MT, while regions such as Iceland, Bali, and Costa Rica have carved a niche in WT (Zhong et al., 2024).

Individuals' decisions to engage in HT are largely influenced by a balance between push and pull factors. Push factors are internal motivations rooted in dissatisfaction with domestic healthcare systems, such as long waiting times, high costs, bureaucratic complexity, or perceived inadequacies in service quality. These are especially potent when treatments are not covered by public or private insurance (Pirnar & Altın, 2024; Lukose et al., 2024). In contrast, pull factors derive from the appealing attributes of foreign destinations. These include advanced medical technologies, comprehensive treatment packages, multilingual staff, integrative wellness philosophies, and accessibility through low-cost carriers (Pirnar & Altın, 2024). Favourable currency exchange rates and positive destination branding also play significant roles in travellers' evaluations (Figueiredo et al., 2024). The Push-Pull Theory of Travel Motivation (Dann, 1977) offers a valuable lens to interpret the motivational spectrum behind HT. Push factors often involve emotional states like anxiety, fear of inadequate care,

or a desire to avoid long delays, while pull factors are based on perceptions of safety, quality, and cost-efficiency in foreign healthcare systems. The outbreak of COVID-19 reshaped this balance. On one hand, push factors intensified due to heightened distrust in local health infrastructure, pandemic-induced stress, and backlogs in elective care. On the other hand, destinations that emphasized safety protocols, holistic recovery, and mental well-being emerged as attractive alternatives, intensifying the emotional pull of wellness-oriented locations (Figueiredo et al., 2024). The pandemic's effects extend beyond behaviour – it transformed academic inquiry into HT. Recent studies, particularly from China, report that health awareness, health knowledge, and subjective health literacy have become central predictors of HT intention in the post-COVID era (Pu et al., 2021). These changes suggest a paradigm shift, which is instead of being a discretionary or luxury activity, HT is increasingly perceived as a strategic decision for physical and mental preservation. Moreover, COVID-19 triggered a surge in thematic interest toward 'risk management', 'mental health', and 'resilience' in tourism studies (Zhong et al., 2024; Figueiredo et al., 2024). Therefore, this study also seeks to answer the following research question: *To what extent has the COVID-19 pandemic influenced the thematic structure and intellectual evolution of academic literature on HT, MT, and WT?* The research of Pu et al. (2021) indicates that even at the beginning of the COVID-19 pandemic, in contrast to expectations about general lockdowns leading to a downward trend in tourism generally, people with high consciousness about their health indicated greater intention to apply for HT, MT, and WT. However, to answer this question in detail, we need to apply bibliometrics, one of the analyses conducted with big data.

Bibliometrics, originally developed in library science, is used to analyse large sets of academic literature, such that bibliometric studies frame representative summaries of the existing literature to examine and categorize bibliographic content (Donthu et al., 2020). Bibliometric analysis is particularly suitable for mapping the evolution of academic interest over time and identifying thematic shifts in response to major global events such as the COVID-19 pandemic.

Despite the sector's dynamism, bibliometric analyses of HT remain limited in scope. Several studies focus exclusively on MT without considering the broader wellness dimension (Virani et al., 2020; Habibi et al., 2022; Dhakate et al., 2023; Latief & Ulfa, 2024), while others study WT independently of the medical context (Gulyas & Molnar, 2023; Martins et al., 2023). Figueiredo et al. (2024) likewise performed basic bibliometric analyses on HT. However, this study focuses more on the 'sustainability factor of HT' as a systematic literature review covering only 93 articles. Moreover, analyses relying solely on regional or language-specific databases, particularly in Chinese, have inherent limitations in generalizability and coverage (Sun et al., 2022; Zhong et al., 2023). While Lukose et al. (2024) conducted a broader Scopus-based analysis, their study did not track post-pandemic keyword shifts or cross-database validation. Furthermore, Scopus is more comprehensive but less selective than Web of Science, prioritizing coverage over strict quality control (Mongeon & Paul-Hus, 2016). The authors call for future studies to analyse the effects of the global health crisis, particularly COVID-19, on this issue. Therefore, in terms of responding to this call, to understand the evolution of the HT, MT, and WT issues in academia more deeply with more comprehensive analyses and to see the effect of COVID-19, we believe that our study will be fruitful for both researchers and practitioners.

While prior bibliometric studies have examined either MT (e.g. Habibi et al., 2022; Dhakate et al., 2023) or WT separately (e.g. Martins et al., 2023; Gulyas & Molnar, 2023), this study uniquely integrates HT, MT, and WT into a single analytical framework. Moreover, unlike studies that rely on a single database (e.g. Scopus-only in Lukose et al., 2024 or CNKI in Sun et al., 2022), we use a dual-database approach to improve comprehensiveness and reduce database bias. Finally, our focus on post-COVID-19 thematic evolution, which is absent in most earlier works, adds timely value to the literature by revealing how global health crises reshape academic discourse. This positions our study as both broader in scope and more sensitive to crisis-induced shifts in health tourism research.

By analysing 1,717 peer-reviewed articles through Biblioshiny 4.0, we examine publication outputs, the-

matic evolution, keyword co-occurrence, and global collaboration networks. The use of both databases allows for comprehensive retrieval, better representativeness, and correction of platform-specific biases (Mongeon & Paul-Hus, 2016). This approach also reveals a theoretical shift in which the COVID-19 era amplified the salience of emotional, psychological, and subjective factors in HT decision-making. The literature now reflects increased attention to psychological variables such as behavioural intention, subjective knowledge, and perceived safety (Pu et al., 2021; Zhong et al., 2024). This indicates a deeper alignment between the Push-Pull framework and emotional travel motivations.

The remainder of the article is organized as follows: Section 2 outlines the methodology; Section 3 presents bibliometric findings; Section 4 offers a theoretical discussion; and Section 5 concludes with contributions, limitations, and future directions.

Methodology

Research Design

This study adopts a bibliometric analysis approach, which is widely used to explore the intellectual structure, thematic evolution, and collaborative dynamics of large bodies of academic literature (Donthu et al., 2021). Four research questions were developed to obtain a thorough grasp of "the literature in the fields of wellness tourism (WT), medical tourism (MT), and health tourism (HT):

- RQ1: *How well do studies perform in terms of trends in citations and publications?*
- RQ2: *How are studies about HT, MT, and WT conceptually structured?*
- RQ3: *How is health-oriented tourism research structured socially?*
- RQ4: *Has the thematic development of literature on health-oriented tourism been impacted by the COVID-19 pandemic?*

Data Collection and Search Strategy

Data were gathered from the Web of Science Core Collection (WoS) and Scopus, two significant academic databases, to improve coverage and depend-

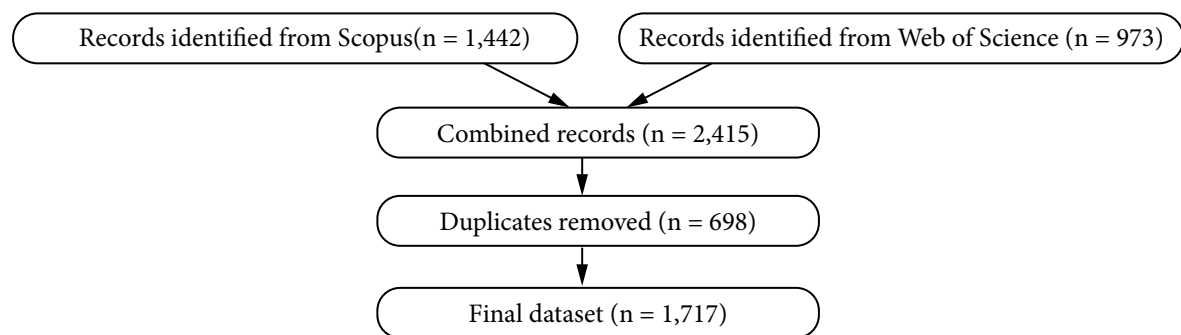


Figure 1 Flow Diagram of the Dataset Identification and Filtering Process

ability. WoS is renowned for its stringent indexing criteria, consistent metadata quality, and high citation reliability (Gavel & Iselid, 2008), whereas Scopus provides more coverage (Mongeon & Paul-Hus, 2016). For the analysis of multidisciplinary fields like HT, MT, and WT, the combination of both guarantees a thorough scope while preserving high data quality. To ensure accessibility and scholarly validity, the search was limited to English-language, peer-reviewed journal articles (Block et al., 2020), while conference papers, reviews, book chapters, editorials and non-peer reviewed documents were excluded. The search terms used were: 'health tourism' OR 'medical tourism' OR 'wellness tourism'. Searches were limited to the *Title* field to enhance topical precision. Searching abstracts or keywords could yield more results; however, limiting the search to titles helps exclude unrelated studies and ensures thematic precision. This method adheres to best practices for improving conceptual clarity in bibliometric research (Donthu et al., 2021). In addition, according to Kraus et al. (2020), if a title-only search yields sufficient literature for synthesis, this will suffice. Articles from 1974 to 2025 were included in the data that was retrieved on July 8, 2025. This period was not predetermined; rather, it developed from the databases' scope, as the first pertinent article indexed in Scopus was published in 1974.

Data Cleaning and Processing

The initial search yielded 973 records from WoS and 1,442 records from Scopus, totalling 2,415 documents. A customized R script in Rstudio was used to merge and clean the datasets in order to remove duplication.

Based on author matching, title similarity, and DOI, duplicate records were found. After 698 duplicate articles were eliminated, the final dataset contained 1,717 unique articles. The flow diagram is presented in Figure 1.

Analytical Tools and Techniques

Bibliometric analysis was conducted using the Bibliometrix R package via the Biblioshiny 4.0 interface. Biblioshiny was chosen over other tools like VOSviewer because it has a full set of analysis tools, works with R, and has an easy-to-use interface that lets you do performance and conceptual structure analysis, track the evolution of themes, and map international collaboration all in one place. This software enabled performance analysis (publication and citation trends), co-word and thematic mapping for conceptual structure, and co-authorship and collaboration network analysis for social structure mapping. Keyword co-occurrence and thematic clustering analyses were conducted to identify core research themes, their temporal evolution, and the density and centrality of conceptual subdomains within the field. Keyword evolution and thematic clustering were also used to analyse temporal and thematic shifts associated with the COVID-19 pandemic. Table 1 provides a summary of the cleaned dataset that was used for the analysis.

Results

The findings presented in this section address the four research questions posed earlier by analysing the bibliometric patterns of 1,717 health tourism-related publications.

Table 1 Main Information

Description	Results
Timespan	1974:2025
Data Retrieval Date	July 8, 2025
Total Records	2,415
From Scopus	1,442
From the Web of Science	973
Duplicate Entries Removed	698
Final Unique Documents	1,717
Sources	861
Annual Growth Rate %	9.55
Document Average Age (Years)	6.73
Average citations per doc	15.9
References	0
Document Contents	
Keywords Plus (ID)	2,619
Author's Keywords (DE)	4,017
Authors	
Authors	3,953
Authors of single-authored docs	274
Authors Collaboration	
Single-authored docs	334
Co-Authors per Doc	3.08
International co-authorships %	13.28

Performance Analysis

In this part, to answer the first research question, we analysed publication and citation trends using the figures below. Figure 2 illustrates the annual scientific production on HT, MT, and WT from 1974 to 2025. Three different publication phases are revealed by the results. The first time frame, which spans 1974 to 2007, shows a very early stage of research with very few publications, usually less than 10 annually, and little scholarly attention. Significant growth started in 2008 and peaked in 2010, most likely as a result of rising interest in cross-border medical services worldwide and new laws promoting health tourism in nations like India, Malaysia, and Türkiye. The yearly publication count increased steadily between 2011 and 2016, indicating that the field was becoming more established

and thematically diverse. From 2017 to 2022, scientific output increased sharply, peaking in 2023. This rise coincides with COVID-19, which raised global awareness of personal health and responsive tourism behaviour. The pandemic appears to have not only influenced practical HT behaviours but also intensified academic interest in the subject. Earlier bibliometric analyses (Sun et al., 2022; Zhong et al., 2023) noted similar growth phases but lacked attention to the pandemic's impact. Our study highlights COVID-19 as a pivotal catalyst for the exponential rise in publications, offering a stronger explanatory framework. This finding reinforces patterns observed by Zhong et al. (2023), who also reported a post-pandemic publication surge. However, our dual-database approach captures a more pronounced and globally representative trend. Interestingly, 2024 shows a sudden drop in the number of publications. This decline is most likely attributable to indexing delays or the fact that 2024 data were incomplete at the time of retrieval (July 8, 2025). Therefore, the decrease should be interpreted cautiously and not as a definitive reversal of the upward trend.

The average number of citations per publication annually is shown in Figure 3. Particularly in the early stages of the development of the literature on HT, the impact of citations seems to be very erratic. Interestingly, there are isolated peaks in 1987, 2000, and 2005, with an average of more than four citations per article. These spikes most likely reflect a few key or influential works that were released during those years and attracted ongoing scholarly interest. The average number of citations per year stabilizes a little after 2010, ranging from 1.5 to 2.5 citations per article. As previously noted, this time frame corresponds with a dramatic rise in the number of publications, indicating that although the field experienced a quantitative expansion, its per-paper impact became more dispersed throughout a greater corpus of literature. This illustrates how the field has developed and how the research topics within HT, MT, and WT have become more varied. This period coincides with a sharp increase in publication volume, as previously observed, suggesting that while the field expanded quantitatively, its per-paper impact became more distributed

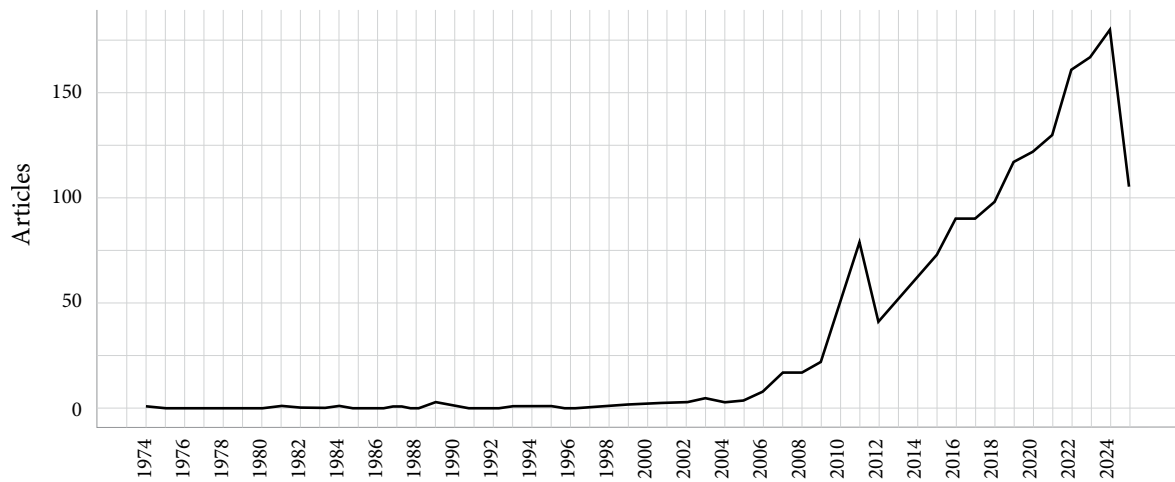


Figure 2 Annual Scientific Production

across a larger body of literature. This reflects the maturation of the field and the diversification of research themes within HT, MT, and WT. Similar to Figure 2, in the most recent years, a visible decline in citation averages is recorded (see Figure 3). This drop is not necessarily indicative of reduced scholarly impact but rather reflects citation lag; newer articles typically require time to accumulate citations. Thus, average citation data for the most recent years should be interpreted cautiously. Similar findings were reported by Lukose

et al. (2024), who noted that MT studies showed high volume but modest average impact. By combining Web of Science and Scopus, our study confirms this imbalance while also highlighting how the COVID-19 pandemic accelerated production, further widening the gap between output and citation maturity. This continuity with earlier bibliometric work reinforces the interpretation that HT scholarship is undergoing rapid expansion with delayed impact recognition.

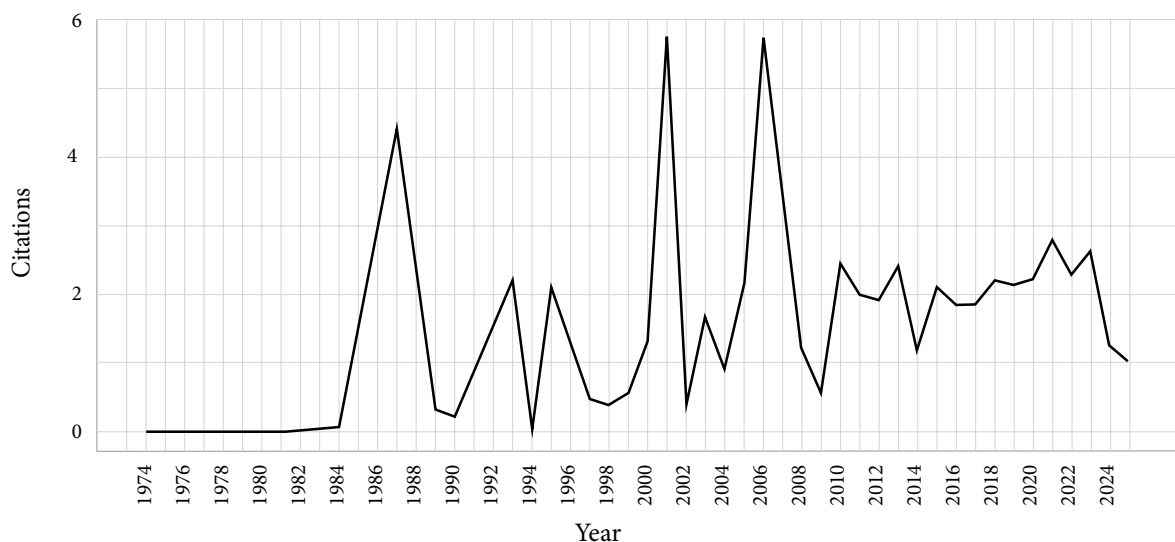


Figure 3 Average Citations per Year

Table 2 Sources of Highest Impact

Journal	TP	TC	h-index	g-index	PY_Start
<i>Tourism Management</i>	25	3,182	24	25	1987
<i>International Journal of Environmental Research and Public Health (IJERPH)</i>	27	453	15	20	2019
<i>Journal of Travel & Tourism Marketing</i>	18	804	15	18	2010
<i>Tourism Review</i>	21	661	15	21	2011
<i>International Journal of Tourism Research</i>	29	562	12	23	2010
<i>Asia Pacific Journal of Tourism Research</i>	16	341	10	16	2013
<i>Current Issues in Tourism</i>	13	448	10	13	2013
<i>International Journal of Healthcare Management</i>	17	298	10	17	2014
<i>Sustainability</i>	39	344	10	16	2015
<i>Globalization and Health</i>	10	330	9	10	2011

Notes TP: Total Publications; TC: Total Citations; PY: Publication Year

Next, we analysed the 10 most impactful sources within this research. Table 2 provides us with the number of articles published in the relevant journal, their h-indexes, g-indexes, and the number of citations they have so far.

The journals in Table 2 are ranked in terms of their h-index, as it is advantageous in providing productivity and the impact of the journal at the same time (Walters, 2007). On the other hand, Leo Egghe proposed the g-index in 2006 as an enhancement of the h-index to more accurately gauge the worldwide citation performance of a collection of articles (Ali, 2021). *Tourism Management* stands out among these sources, earning the highest h-index and g-index. Since its first publication in the field in 1987, it has published a significant number of articles, and those articles have been regularly cited, demonstrating their academic impact and ongoing relevance. The prominence of *Tourism Management* illustrates the field's increasing integration into mainstream tourism scholarship, signalling that HT is no longer peripheral but part of the core tourism research agenda. The presence of *IJERPH* and *Sustainability* shows the interdisciplinary expansion of HT, linking tourism not only with health sciences but also with environmental and social sustainability debates. This diversification reflects how HT research is moving beyond a purely economic or service delivery perspective toward a broader frame-

work that includes well-being, resilience, and sustainable development.

Next, we identified the 10 most influential authors related to this study in Table 3.

The most important writers in the literature on health-oriented travel are compiled in Table 3 according to impact indices, total citations, and publication count. With 41 publications and 1,303 citations, Valorie Crooks is the most prolific author. She also has the highest h-index and g-index of any author. Her work, which dates back to 2010, is regularly published in prestigious journals and frequently addresses the accessibility, policy, and ethical aspects of medical tourism. Following closely behind is Jeremy Snyder, who exhibits comparable scholarly output and citation impact, indicating a strong working relationship between these two authors that is frequently seen in Canadian contexts. Despite having fewer publications, authors like Heesup Han and Leigh Turner have comparatively high citation-to-publication ratios, suggesting that their work may be more selective but heavily cited. Ying Li is a noteworthy latecomer to the field; she started publishing in 2022 and has already accumulated 252 citations from 15 papers, indicating quick scholarly traction and a significant emerging influence. It is also noteworthy that the most productive authors are not always the most cited. This suggests that while some scholars drive the field forward

Table 3 Author's Local Impact

Author	TP	TC	h-index	g-index	PY_Start
Valorie Crooks	41	1,303	19	35	2010
Jeremy Snyder	38	1,266	18	35	2010
Rory Johnston	28	1,072	16	28	2010
Leigh Turner	12	567	11	12	2008
Heesup Han	13	731	10	13	2012
Seongseop Kim	16	345	10	16	2013
Krystyna Adams	11	244	9	11	2011
Timothy Lee	11	347	9	11	2011
Sunhyup Hyun	8	540	8	8	2014
Ying Li	15	252	8	15	2022

Notes TP: Total Publications, TC: Total Citations; PY: Publication Year

through volume, others shape its intellectual influence through conceptual or highly innovative contributions. Table 3 reveals not only differences in publication volume and citation counts but also generational and geographic diversity in impact. For instance, while authors like Valorie Crooks and Jeremy Snyder have contributed consistently since 2010 with high cumulative influence, newer scholars such as Ying Li, who began publishing only in 2022, have achieved rapid visibility, reflecting the emergence of East Asian authorship in the field. Such asymmetry is typical in emerging research domains, where both foundational theorists and prolific contributors coexist.

We then checked the contributions of single-author and co-authored studies at the national level in Table 4.

Table 4 highlights the country-wise distribution of scientific output in health-oriented tourism. As evidence of its strong academic presence, the USA leads with the most publications and citations. Canada and Australia illustrate a 'high impact despite lower volume' profile; they achieve the highest AAC values, reflecting influential work published in widely cited international journals. This indicates that while these countries are not the most prolific, their contributions shape key academic conversations. In the case of Canada, this may be attributed to a small but cohesive research community (e.g. Crooks et al. 2010) that consistently publishes in high-impact journals and fo-

cuses on underexplored topics such as ethics, policy, and equity, areas with strong interdisciplinary appeal. For Australia, one possible explanation lies in the country's integration of wellness and environmental tourism, particularly in regions like Queensland and Tasmania, which attract international attention due to their eco-health offerings. Additionally, Australian institutions often publish in high-impact international journals and engage in cross-disciplinary work, linking health tourism with public health, indigenous studies, and sustainability. These interpretations are consistent with Lukose et al. (2024), who noted similar trends but did not offer in-depth country-level explanations. Our findings expand on theirs by identifying collaborative density and thematic focus as potential explanatory factors behind high impact-to-volume ratios in specific countries. Additionally, our results align with earlier bibliometric patterns (e.g. Donthu et al., 2021) which show that countries with targeted research agendas tend to yield higher impact despite lower publication volume. With a robust output and a lower AAC, China ranks second in terms of total publications, suggesting a trend toward quantity over impact. Similar to this, nations like Thailand, India, and Iran produce a lot, but their AAC scores are still low, indicating that their research profiles are still developing. Earlier bibliometric studies (e.g. Lukose et al., 2024) identified China's rapid rise in productivity but lower average impact, a pattern confirmed here.

Table 4 Country-Related Scientific Production

Country	General Status			Corresponding Author-Related			
	TP	TC	AAC	TP	SCP	MCP	MCP_Ratio
USA	422	4,757	26.40	180	166	14	7.8
China	357	2,747	15.20	181	154	27	14.9
Iran	221	674	7.20	94	80	14	14.9
India	190	836	9.00	93	90	3	3.2
Malaysia	177	1,378	16.20	85	73	12	14.1
South Korea	135	1,711	20.90	82	58	24	29.3
Canada	134	2,059	34.30	60	47	13	21.7
UK	112	1,364	27.30	50	35	15	30.0
Australia	96	1,885	41.00	46	36	10	21.7
Thailand	80	457	7.70	59	55	4	6.8

Notes TP: Total Publications; TC: Total Citations; AAC: Average Article Citations; SCP: Single-Authored Publication; MCP: Multi-Authored Publication

Our dual-database approach adds nuance by showing that Canada and Australia, often overlooked in Scopus-only analyses, exert disproportionate influence relative to their volume. High MCP ratios for international collaboration indicate active participation in cross-country research in South Korea, the UK, and Canada. In contrast, the MCP ratios for the USA and India are lower, suggesting a greater emphasis on domestic research. We also examined the most cited papers in the field as part of the performance analysis. The ten most cited papers in the HT field were thus examined.

Table 5 lists the most highly cited publications in the field of health-oriented tourism. The most cited article is Connell's study (2006) titled 'Medical Tourism: Sea, Sun, Sand and ... Surgery', published in *Tourism Management*, indicating foundational status in the development of MT literature. Mueller and Kaufmann study (2001) titled 'Wellness Tourism: Market Analysis of a Special Health Tourism Segment and Implications for the Hotel Industry', and Han and Hyun's study (2015) titled 'Customer Retention in the Medical Tourism Industry: Impact of Quality, Satisfaction, Trust, and Price Reasonableness' follow closely, suggesting both relevance and enduring influence in recent years. The dominance of Connell's contributions demonstrates how early conceptualiza-

tions of MT set the intellectual agenda for subsequent scholarship. Mueller and Kaufmann (2001) provided one of the first systematic frameworks for WT, which continues to serve as a cornerstone reference in WT literature. Han and Hyun (2015) advanced the field by applying service quality and customer satisfaction models, illustrating the convergence of marketing and HT. Connell's study (2013) titled 'Contemporary Medical Tourism: Conceptualisation, Culture and Commodification' Appears again among the top 5, demonstrating the author's sustained contribution to the domain. Horowitz et al.'s study (2007) titled 'Med-

Table 5 Most Cited Documents

Author(s)	TC	TCPY
Connell (2006)	542	27.10
Mueller and Kaufmann (2001)	414	16.56
Han and Hyun (2015)	372	33.82
Connell (2013)	369	28.38
Horowitz et al. (2007)	312	16.42
Abubakar and Ilkan (2016)	271	27.10
Lunt and Carrera (2010)	218	13.63
Yu and Ko (2012)	202	14.43
Crooks et al. (2010)	198	12.38
Hopkins et al. (2010)	192	12.00

ical Tourism: Globalization of the Healthcare Marketplace', though published in a medical journal, holds a strong citation profile, underscoring the interdisciplinary nature of the topic. This citation pattern suggests that interdisciplinary positioning, particularly within widely indexed journals outside core tourism outlets, may have contributed to broader academic visibility. Foundational conceptual works like those of Connell (2006) or Mueller and Kaufmann (2001) not only entered the discourse early but also addressed transferable themes – such as commodification, wellness, and service quality – that continue to resonate across disciplines. Previous bibliometric studies (e.g. Donthu et al., 2021) have similarly emphasized how early theoretical framing and cross-sector relevance enhance long-term citation impact.

Conceptual Structure

To address the second research question, we conducted a multi-layered analysis of the conceptual structure of the literature on HT, MT, and WT. Specifically, we employed three complementary bibliometric techniques: co-occurrence network analysis, thematic mapping, and thematic evolution analysis.

Figure 4 presents the co-occurrence network of keywords related to HT, MT, and WT research. 'Med-

ical tourism' emerges as the central node, indicating its dominant role in the conceptual landscape. Five major thematic clusters are identified. The first cluster (red), composed of health services, healthcare, medical tourism, Thailand, Malaysia, Canada, India, and medical travel, is renamed 'Medical Tourism Systems and Destinations'. The second cluster (purple) is composed of sustainable tourism, tourism development, wellness tourism, and sustainable development, and is renamed 'Sustainability and Broader Policy Perspectives'. The third cluster (blue) is composed of service quality, trust, satisfaction, behavioural intention, and destination image, and is renamed 'Service Quality and Consumer Behaviour'. The fourth cluster (green), composed of COVID-19, pandemic, mental health, and well-being, is renamed 'COVID-19 and Health Awareness'. The last cluster (orange), composed of motivation and tourist satisfaction, is renamed 'Tourist Motivation and Experience'. The structure suggests a multidisciplinary integration of tourism studies, health services, and marketing science, particularly intensified in the post-pandemic period. Moreover, the emergence of a dedicated COVID-19 cluster, closely linked with 'mental health' and 'well-being', reflects broader changes in tourist behaviour. As supported by recent studies, the pandemic triggered a significant



Figure 4 Co-Occurrences Network of Keywords

shift in preferences, from mass tourism toward small-group or individualized travel experiences, driven by heightened awareness of health and safety (Lo et al., 2025). This behavioural transition may help explain the growing academic focus on health-related tourism domains.

Thematic maps use centrality and density axes to classify clusters into four thematic quadrants (Sott et al., 2020). Centrality denotes the strength of interactions with different clusters and thus reflects the significance of the theme for advancing a specific domain (Saini et al., 2022), while density, conversely, indicates the robustness of the connections between the words within the group and assesses the potential for self-enhancement of the topic (Callon et al., 1991). The chart has four quadrants. As stated by Cobo et al. (2011), *Motor themes* (Q1) are crucial themes with high centrality and density and are thoroughly established themes that play a crucial role in organizing the research area; *Basic themes* (Q2) have strong cen-

trality but low development and relate to significant topics for the field, yet are still in progress; *Emerging or declining themes* (Q3) require qualitative analysis to determine their trend and are themes that are either diminishing in influence within the field or are just starting to appear; *Niche themes* (Q4) are clusters with high density and low centrality that could be isolated and signify particular subjects within the domain.

In the *Motor Themes* quadrant, we observe the cluster comprising ‘wellness tourism’, ‘wellness’, and ‘motivation’. These themes are well-developed and extremely central, suggesting that wellness-focused travel is not only a major force behind the current research agenda but also benefits from a body of knowledge that is reasonably mature and cohesive. Their stance highlights the change in academic focus toward lifestyle tourism experiences and preventive health behaviours. ‘Medical tourism’, ‘Malaysia’, and ‘India’ are fundamental and frequently mentioned subjects in the *Basic Themes* quadrant. The literature

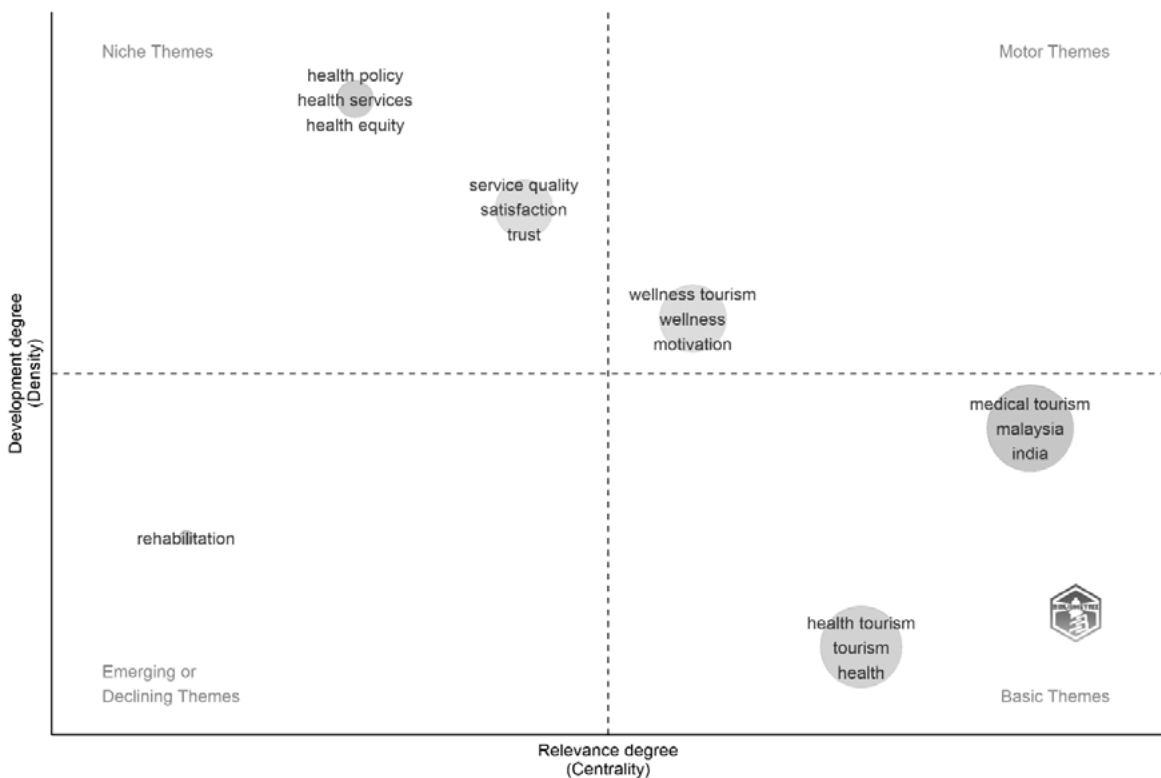


Figure 5 Thematic Map

is still wide, diverse, and conceptually less cohesive, even though these themes are extremely important to the field. This suggests that there is room for more in-depth theoretical growth and improvement regarding these fundamental subjects.

There are two different sets of concepts in the *Niche Themes* quadrant. The first comprises the specialized and developed subjects of ‘health policy’, ‘health services’, and ‘health equity’, which are probably related to health systems, governance, and access equity. The second micro-cluster, ‘service quality’, ‘satisfaction’, and ‘trust’, represents an applied marketing and consumer psychology angle. Although well-developed internally, both groups have limited centrality, suggesting that they are explored in isolated subfields or disciplinary silos rather than integrated into the mainstream tourism research discourse. In the *Emerging or Declining Themes* quadrant, ‘rehabilitation’ appears as an underdeveloped and peripheral concept. Because of its remote location, it may be a topic that is either in decline or has not yet received consistent scholarly attention in the larger body of literature on HT.

Thematic evolution analysis shows both continuity and transformation in health-oriented tourism literature. We selected 2020 as the cut-point year to see the impact of COVID-19. From 1974 to 2020, medical tourism remained dominant, with related themes

such as *rehabilitation*, *medical services*, and *health tourism*. In the 2021–2025 period, medical tourism still plays a central role, but new themes like COVID-19, cosmetic surgery, wellness tourism, and behavioural intention emerge. The explicit appearance of COVID-19 as a theme highlights the pandemic’s strong influence, marking a shift toward crisis-driven health awareness, service adaptation, and wellness-focused tourism trends. Our thematic evolution map broadly confirms Lukose et al. (2024), who found an early focus on practical and clinical aspects, mid-phase attention to legal and ethical concerns, and a post-2020 turn toward COVID-19, wellness, and sustainability. However, our dual-database analysis adds nuance by highlighting health equity and resilience as distinct post-pandemic themes that were not emphasized in their Scopus-only dataset.

Social Structure

This study uses a co-authorship network analysis, which illustrates the format of scholarly collaborations among authors, institutions, and nations, to answer the third research question and investigate the collaborative dynamics within health-oriented tourism research. This method aids in locating significant contributors, international partnerships, and the general interconnectedness of the research community.

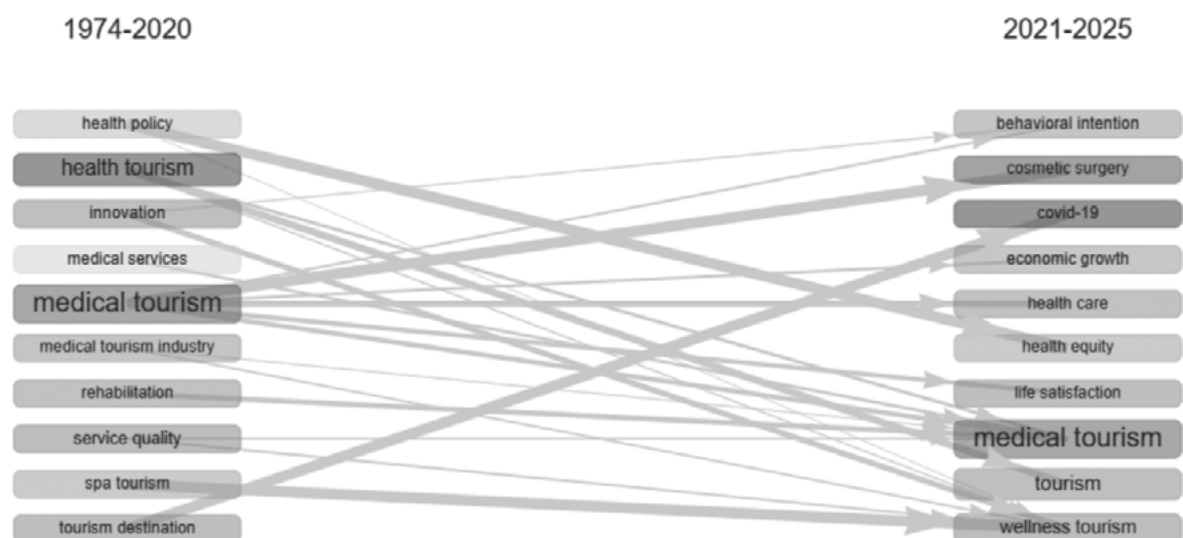


Figure 6 Thematic Evolution

According to Figure 7, the most prominent and densely connected cluster is led by Crooks V, who appears as the central figure in a strong Canadian research group including Adams K, Ormond M, Kingsbury P, and Labonté R. The size and tight connections within this purple cluster suggest sustained and prolific collaboration, likely producing influential work on policy, ethics, and accessibility in medical tourism. Researchers from South Korea, including Kim H, Kim S, Han H, Lee T, and Yu J, make up another distinct and closely related cluster. A cooperative academic community centred on customer satisfaction, service quality, and behavioural elements of medical and wellness tourism is exhibited by these authors (blue cluster). With numerous connections indicating a growing corpus of literature coming from China in recent years, the red cluster, which is centred on Liu Y, Chen X, and Li Y, represents a Chinese network. This group seems to be more interested in marketing-related and quantitative analyses. Smith M, Dryglas D, and Lubowiecki-Vikuk A are part of the green cluster, which most likely represents an interdisciplinary or European group focusing on specialized subjects. The orange group featuring Horsfall D and Smith R appears as a compact collaboration unit with limited external linkage. The clustering structure in Figure 7

reflects not only regional research hubs but also thematic differentiation across national contexts. Such co-authorship patterns often emerge due to national funding schemes, institutional collaboration incentives, and linguistic proximity. The prominence of the Canadian group may be tied to its policy-oriented research agenda and interdisciplinary outreach, while the distinct South Korean and Chinese clusters suggest regionally concentrated but growing engagement. These patterns underline the field's current fragmentation, but also its potential for convergence as thematic overlaps increase.

The Impact of COVID-19

Finally, we reviewed the figures gathered throughout the results section to answer the fourth research question. Several visual analyses clearly demonstrate the impact of the COVID-19 pandemic on the development of research about health tourism. Figure 1 shows that publication output increased significantly beginning in 2020 and peaked in 2023. This increasing trend is consistent with the global health crisis and reflects heightened scholarly interest in subjects such as perceptions of travel risk, personal well-being, and cross-border healthcare. Further evidence that the pandemic affected the volume and thematic scope of

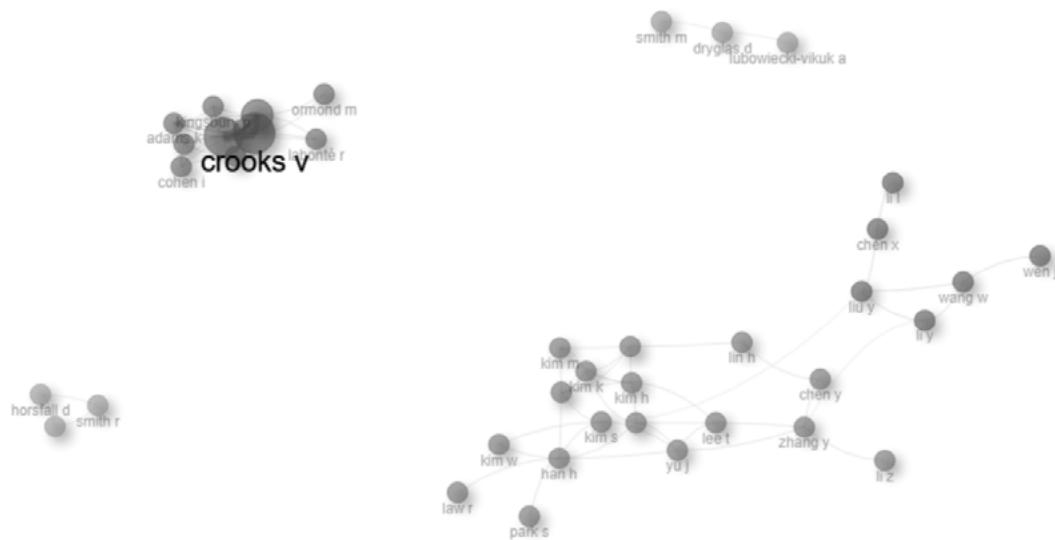


Figure 7 Co-Authorship Analysis

research is provided by Figure 3, which displays 'COVID-19' forming a visible cluster with terms like 'mental health', 'well-being', and 'pandemic'.

These connections highlight the increasing attention being paid by academics to psychosocial factors and preventive health practices. More specifically, Figure 6 identifies 'COVID-19' as a major and developing theme from 2021 to 2025, creating conceptual connections with terms like 'economic growth', 'health equity', and 'cosmetic surgery'. This implies that the pandemic broadened the field's interdisciplinary scope to include equity, healthcare infrastructure, and elective procedures in addition to inspiring new directions in the field. When combined, the visual evidence points to COVID-19 as a pivotal event that sped up the field's growth and changed its conceptual framework to include more varied, health-policy-conscious, and human-centred research topics.

Discussion

This study presents a comprehensive bibliometric overview of the health, medical, and wellness tourism literature, covering nearly five decades of scholarly work and illustrating how research priorities have evolved in response to global crises such as COVID-19. The findings reveal not only a quantitative growth in publications but also a qualitative shift in the conceptual architecture of the field. While earlier studies largely focused on infrastructure, service delivery, and destination attractiveness, more recent scholarship has turned toward themes such as mental health, subjective well-being, and resilience. These emerging themes signal a deeper engagement with the effective and psychological dimensions of health-oriented travel, marking a significant shift from reactive to proactive understandings of HT.

The pandemic has served as a critical juncture, reconfiguring both traveller motivations and research agendas. The increased prominence of keywords such as 'COVID-19', 'mental health', and 'well-being' in co-occurrence networks and thematic evolution analyses confirms the transformative impact of the crisis. From the perspective of the Push-Pull Theory of Travel Motivation (Dann, 1977), COVID-19 functions primarily as a macro-level push factor. It height-

ened travellers' anxieties, disrupted local healthcare systems, and elevated concerns over health and safety, thereby pushing individuals to seek alternatives abroad. These push factors were no longer limited to structural deficiencies like long waiting times or high costs but now encompassed deeper psychological drivers, including health anxiety, burnout, and the pursuit of emotional recovery. Conversely, destinations that responded with strict safety protocols, wellness-focused environments, and holistic treatment options became attractive through enhanced pull factors. These included spa retreats, forest resorts, and integrative therapies, all of which are perceived as both safe and restorative in a post-pandemic world. This evolving balance between push and pull reflects a broader transformation in the underlying motivations for health-related travel. No longer driven solely by physical needs or treatment access, motivations now often stem from subjective perceptions of well-being, trust, and empowerment.

A closer examination of the five major thematic clusters identified in the co-word analysis further clarifies this dynamic. The 'COVID-19 and Health Awareness' cluster encapsulates the immediate and long-term consequences of the pandemic, not just as a medical crisis but as a psychological and social one. Here, COVID-19 acts as a powerful push factor, triggering health-related anxieties and highlighting systemic vulnerabilities. Travellers were compelled to seek destinations offering a sense of safety, leading to the emergence of new pull factors such as 'mental wellness', 'resilience', and 'safety protocols'. The other cluster, centred around 'Tourist Motivation and Experience', exemplifies the shift from curative to preventive tourism. Push motivations in this cluster stem from stress, fatigue, and a desire for balance in increasingly complex urban lives. Pull factors include the availability of nature-based therapies, yoga, meditation, and personalized wellness programmes. Importantly, this cluster shows the growing centrality of wellness in health tourism discourse, suggesting that WT is no longer a subfield but a dominant conceptual pillar. In contrast, the 'Medical Tourism Systems and Destinations' cluster remains rooted in traditional pull factors such as affordability, procedural exper-

tise, and destination branding. Yet even this area has begun to shift, with patients increasingly considering non-medical factors like post-operative care quality, emotional support, and institutional transparency. The push factors here remain more structural – long waits, high costs, or inadequate care in home systems – but are now being complemented by emotional and trust-related concerns. In another cluster, ‘Service Quality and Consumer Behaviour’, although positioned as a niche theme in the thematic map, has critical implications for the field’s evolution. Trust, often seen as a pull factor, has become more multifaceted in the post-pandemic era. It encompasses not just provider reliability but also certification, safety communication, and ethical transparency. The inclusion of ‘behavioural intention’ and ‘satisfaction’ in this cluster indicates a growing interest in the psychological underpinnings of decision-making in HT contexts. Despite its peripheral position, this cluster is theoretically rich and deserves greater integration into mainstream HT research. Finally, the ‘Sustainability and Broader Policy Perspectives’ cluster reflects a nascent but significant shift in the field’s ethical and structural orientation. Here, motivations are less individualistic and more value-driven. Push factors include climate anxiety, health fatigue from urban living, and disillusionment with over-commercialized tourism models. Pull factors encompass eco-conscious resorts, green certifications, and community-based wellness projects. Although still underdeveloped, this cluster opens the door for an expanded motivational framework that incorporates environmental and social consciousness.

Taken together, these clusters reveal a field in transition, not just in terms of topics but also in its theoretical underpinnings. While the Push-Pull Theory remains a useful lens, its application must now account for more nuanced, multifactorial motivations that go beyond the dichotomy of escape versus attraction. For instance, post-pandemic travellers may be driven simultaneously by fear (push) and hope (pull), or by dissatisfaction with both home and host systems. Moreover, the pandemic has blurred the line between medical and wellness tourism, giving rise to hybrid experiences, such as recovery retreats, digital

detox packages, or integrated care tourism, that challenge traditional categorizations.

Thematic evolution analysis further supports this interpretation. Before 2020, themes such as ‘rehabilitation’, ‘hospital services’, and ‘cross-border care’ dominated the literature. In the post-2020 period, these were partially eclipsed by newer themes like ‘subjective knowledge’, ‘psychological resilience’, and ‘trust’. This shift suggests a move from externally validated care models to those centred on individual perception, satisfaction, and empowerment. It also reflects a growing acknowledgment of the emotional labour and psychological risk involved in health travel, especially during global crises. This transformation is also visible in the geographical structure of the field. Countries such as Canada, South Korea, and China lead in scholarly production and collaboration networks, but there remains a disconnect between academic output and real-world HT leadership. Destinations like Türkiye, Thailand, and Mexico are underrepresented in scholarly discourse despite being key players in the global HT market. This gap underscores the need for greater integration of practice-based insights into academic work, and for more diverse authorship and epistemologies within the field.

Ultimately, this study shows that health-oriented tourism is no longer a peripheral or emerging niche, but a mature, multidimensional field shaped by psychological, cultural, and global forces. The COVID-19 pandemic did not just influence travel behaviour; it restructured the very motivations, concepts, and methods through which we study health tourism. Future research must therefore expand the Push-Pull framework to better accommodate hybrid motivations, integrate underrepresented themes like trust and health equity, and more actively engage with the complex realities of travellers in a world increasingly shaped by crisis.

Theoretical Contributions

This research adds a number of theoretical insights to the body of knowledge on health-conscious travel. First of all, it is one of the few bibliometric analyses that looks at wellness, medical, and health tourism all at once, providing a more comprehensive and com-

parative viewpoint. A more thorough theoretical understanding of the field is also supported by the study's combination of data from the Web of Science and Scopus databases, which guarantees a more balanced and extensive representation of the world's literature. Second, the study connects changing scholarly themes with traveller motivation theory by framing the analysis through the Push-Pull Theory of Travel Motivation. This allows us to better understand how both internal and external factors influence research priorities. The Push-Pull Theory of Travel Motivation and bibliometric trends are combined in this study to provide a new theoretical framework that connects changing research topics with changing traveller motivation, particularly in light of international crises and growing health consciousness. Thirdly, the field's thematic development has been impacted by global health crises like COVID-19, highlighting the theoretical significance of crisis-sensitive dynamics in tourism literature. Lastly, a theoretical shift from reactive treatment to proactive and preventive care is indicated by the emergence of new themes like 'motivation', 'mental health', and 'wellbeing', which point to a growing field of study in health-related tourism. Crucially, the COVID-19 pandemic has changed the motivational framework that underpins health tourism. In contrast to pre-pandemic research, which focused primarily on pull factors like cost and care quality, post-pandemic literature is increasingly incorporating new push factors like increased personal health concerns, mental health, and safety needs. This transformation not only enriches the explanatory power of the Push-Pull framework but also aligns with broader global shifts in health consciousness. Additionally, the rising global emphasis on sustainability has reshaped pull motivations in health-oriented travel. Travellers increasingly seek wellness experiences that are not only restorative but also environmentally responsible, such as eco-retreats, plant-based detox programmes, or climate-conscious spa centres. While these trends are often positioned as industry innovations, they also carry theoretical significance by expanding the scope of the pull factor in the Push-Pull framework. As health tourism shifts from reactive care to preventive, holistic well-being, sustainable wellness practices

reflect a deeper alignment between individual health goals and environmental awareness. This suggests the need for a broadened theoretical approach that incorporates ecological and ethical considerations into traveller motivation frameworks.

It seems that COVID-19 will continue to shape the literature structure. According to our analysis, this topic, in addition to MT, WT, will be expected to be studied through 2025. However, we believe that it will last longer, but we are not quite sure how much; maybe until a new pandemic emerges or another global event that impacts HT, such as a war or a global financial crisis. Is it possible that researchers should expect another issue that has a global impact? We believe that, instead of waiting for another one, scientists should focus on the current global issues' effect, such as climate change on HT and its sub-dimensions, MT, and WT.

In addition to the findings regarding COVID-19, another important point that draws our attention is that the countries that are more productive and effective on the subject are not developed in the scope of HT, while the scientists of the countries with developed HT remain more passive on the subject. The USA, the UK, and China (the origin of COVID-19) lead other countries within the scope of HT in academia, but they are in the middle or last place in the implementation phase. On the other hand, Mexico, Türkiye, and Thailand indicate the reverse. Therefore, we call for papers examining HT-related issues conducted in developed countries to see theoretical and practical differences. Moreover, the co-authorship and collaboration network analysis reveals a clear regional clustering, particularly along East Asian–North American lines. This reflects existing geopolitical and academic power structures, where countries like China, South Korea, and the United States dominate both funding and publication volume. Such patterns parallel global research trends, especially in areas like digital health, wellness innovation, and medical infrastructure. However, this also highlights a lack of integration between high-output academic regions and high-demand tourism destinations. The imbalance points to a need for more collaborative work that bridges the Global North and South, ensuring that scholarly

agendas align with the operational realities of health tourism in emerging markets.

Practical Implications

This study contributes theoretically through bibliometric literature analysis. However, we can say that because health-oriented tourism enhances the broader tourism industry by attracting health-conscious travellers and patients seeking quality care, which benefits the local economy, it is critical to recognize its favourable impacts on the local economy, and policymakers must develop strategies to ensure these benefits are realized (Figueiredo et al., 2024).

The findings of this study offer actionable insights for policymakers, tourism authorities, and healthcare service providers. National tourism boards and health ministries should think about incorporating preventive health initiatives – like mental wellness retreats, thermal spas, and customized nutrition services – into tourism development strategies, especially in light of the noted post-COVID shift from reactive medical tourism to proactive wellness-oriented tourism. Countries like Thailand or Türkiye, for instance, could reposition some areas as centres of wellness and health, particularly where natural resources (like mineral waters or therapeutic climates) complement wellness trends. In order to improve service integration, governments should also provide incentives for hospitals and hospitality organizations to form cross-sectoral partnerships. Transparent pricing, international accreditation, and environmental consciousness are likely to become increasingly important factors in destination appeal, according to the bibliometric trend showing a rise in interest in ‘sustainability’ and ‘trust’. In addition to aiding in their recovery, these findings can help destinations reposition themselves competitively in the rapidly changing health tourism market. Strategic positioning can also be guided by an understanding of the motivational dynamics framed by the Pull Theory. For example, pull factors like affordability, quality, and innovation should be prioritized in destination marketing, while push factors draw attention to shortcomings in the health systems of home countries. Finally, governments can promote academic partnerships and international collabora-

tions to raise the profile and legitimacy of their HT industries.

Practically, the study equips tourism stakeholders, public health officials, and policymakers with evidence-based guidance on how the priorities and vulnerabilities of health-oriented tourism have evolved. As shown in the results, post-COVID research places significant emphasis on terms such as ‘COVID-19’, ‘healthcare’, and ‘health equity’, which reflect a shift in real-world operational focus – from growth-centric development toward health security, traveller confidence, and contingency planning. For researchers and institutions looking to make a significant contribution to the developing conversation, the identification of top nations and journals also enables strategic benchmarking. Furthermore, tourism boards and destination managers can create communication and service strategies that address safety, trust, and preparedness in the post-pandemic environment by using the thematic transition found in keyword co-occurrence clusters to learn about new traveller concerns. Furthermore, the observed trend of wellness tourism replacing medical and health tourism points to a rise in proactive and preventive health practices as well as a greater public awareness of personal health. While the above recommendations provide strategic direction, we propose several actionable steps for practitioners and policymakers to operate these insights. As a starting point, health ministries and tourism boards should develop national HT strategies that explicitly integrate mental wellness services such as spa resorts and nature-based therapies into tourism planning documents. Secondly, regional governments can establish certification schemes for wellness centres and medical providers, signalling adherence to international safety and ethical standards to build trust with prospective HT travellers. Thirdly, healthcare providers should collaborate with hospitality services to offer integrated recovery packages, especially in post-operative care, targeting medical tourists from countries with long waiting times. Fourth, policymakers should consider financial incentives such as tax breaks for hospitals and wellness resorts that attract international clients and adhere to sustainable and inclusive health practices. Fifth, governments and ac-

ademia should fund longitudinal studies to assess the well-being outcomes of HT and WT to ensure ethical, evidence-based marketing and service design. Lastly, destination marketing organizations should leverage insights from Push-Pull theory to tailor campaigns such as emphasizing safety, affordability, mental well-being, and cultural compatibility in post-pandemic recovery strategies.

Limitations and Further Research

Although the study involves comprehensive analyses, certain limitations remain. First, due to data structure constraints in the Scopus database, reference-level metadata were not available, preventing the execution of co-citation and bibliographic coupling analyses. These methods are crucial for mapping the intellectual structure of a field, and future research may overcome this by relying more heavily on the Web of Science or integrating reference metadata when available. Second, the search strategy was restricted to the title field to ensure thematic precision. Although this improves topical accuracy, it might have left out pertinent studies that touch on health tourism in other fields. Third, only English language publications were included in the study, which might lead to a lack of representation for non-English contributions, especially from nations with robust regional scholarship.

Including Chinese-language documents could offer deeper insights, particularly regarding the regional impact of COVID-19. Although this study includes only English-language publications, it differs fundamentally from previous research (Sun et al., 2022; Zhong et al., 2023) that relied solely on Chinese-language databases. The results of those studies were constrained by their regional focus and absence of global indexing. On the other hand, this study makes use of two internationally renowned academic databases, Web of Science and Scopus, guaranteeing scholarly rigour and extensive coverage. Rather than being a restriction on the data sources themselves, the decision to exclude non-English papers was made for consistency and interpretability. Finally, because it takes time for newer publications to accrue citations, the citation-based indicators for recent years might be impacted by time-lag effects. In addition to COVID-19,

future research could explore the impact of climate change-induced natural disasters on wellness and spa tourism, particularly in vulnerable regions such as the Caribbean and Southeast Asia, where infrastructure and service continuity are increasingly at risk. Notwithstanding these drawbacks, the results offer a strong basis for bibliometric investigations in the field of health-oriented tourism in the future.

Conclusion

This study provides a comprehensive bibliometric overview of HT, MT, and WT research, revealing key trends in scholarly output, thematic focus, and international collaboration. By analysing 1,717 articles from Scopus and Web of Science, the study highlights the field's growth trajectory, evolving conceptual structures, and the notable influence of the COVID-19 pandemic. These insights offer valuable guidance for future research and policy development in health-oriented tourism.

Declaration of Using AI

We utilized ScholarGPT 5.0 for language-proofreading the manuscript.

References

- Abubakar, A. M., & Ilkan, M. (2016). Impact of online WOM on destination trust and intention to travel: A medical tourism perspective. *Journal of Destination Marketing & Management*, 5(3), 192–201.
- Ali, M. J. (2021). 'G-indeksi' ve 'e-indeksi' anlamak. *Oftalmoloji Seminerleri*, 36 (4), 139.
- Block, J., Fisch, C., & Rehan, F. (2020). Religion and entrepreneurship: A map of the field and a bibliometric analysis. *Management Review Quarterly*, 70(4), 591–627.
- Callon, M., Courtial, J. P., & Laville, F. (1991). Co-word analysis as a tool for describing the network of interactions between basic and technological research: The case of polymer chemistry. *Scientometrics*, 22(1), 155–205.
- Cobo, M. J., López-Herrera, A. G., Herrera-Viedma, E., & Herrera, F. (2011). An approach for detecting, quantifying, and visualizing the evolution of a research field: A practical application to the Fuzzy Sets Theory field. *Journal of Informetrics*, 5(1), 146–166.
- Connell, J. (2006). Medical tourism: Sea, sun, sand and ... surgery. *Tourism Management*, 27(6), 1093–1100.

- Connell, J. (2013). Contemporary medical tourism: Conceptualisation, culture and commodification. *Tourism Management*, 34, 1–13.
- Crooks, V. A., Turner, L., Snyder, J., Johnston, R., & Kingsbury, P. (2010). What is known about the effects of medical tourism in destination and departure countries? A scoping review. *BMC Health Services Research*, 10, 266.
- Dann, G. M. S. (1977). Anomie, ego-enhancement and tourism. *Annals of Tourism Research*, 4(4), 184–194.
- Dhake, N., Joshi, R., Ali, F., & Kumar, S. (2023). Current knowledge and future research directions of medical tourism: Insights from a bibliometric analysis. *Asia Pacific Journal of Tourism Research*, 28(8), 889–906.
- Donthu, N., Kumar, S., & Pattnaik, D. (2020). Forty-five years of journal of business research: A bibliometric analysis. *Journal Of Business Research*, 109, 1–14.
- Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W. M. (2021). How to conduct a bibliometric analysis: An overview and guidelines. *Journal of Business Research*, 133, 285–296.
- Figueiredo, N., Abrantes, J. L., & Costa, S. (2024). Mapping the sustainable development in HT: A systematic literature review. *Sustainability*, 16(5), 1901.
- Gavel, Y., & Iselid, L. (2008). Web of Science and Scopus: A journal title overlap study. *Online Information Review*, 32(1), 8–21.
- Gulyas, G., & Molnar, E. (2023). Wellness tourism management research: A bibliometric analysis. *Management & Marketing*, 18(2), 172–191.
- Habibi, A., Mousavi, M., Jamali, S. M., & Ebrahim, N. A. (2022). A bibliometric study of medical tourism. *Anatolia-International Journal of Tourism and Hospitality Research*, 33(3), 415–425.
- Han, H., & Hyun, S. S. (2015). Customer retention in the medical tourism industry: Impact of quality, satisfaction, trust, and price reasonableness. *Tourism Management*, 46, 20–29.
- Hopkins, L., Labonté, R., Runnels, V., & Packer, C. (2010). Medical tourism today: What is the state of existing knowledge? *Journal of Public Health Policy*, 31(2), 185–198.
- Horowitz, M. D., Rosensweig, J. A., & Jones, C. A. (2007). Medical tourism: Globalization of the healthcare marketplace. *MedGenMed: Medscape General Medicine*, 9(4), 33.
- Jiang, L., Wu, H., & Song, Y. (2022). Diversified demand for HT matters: From a perspective of the intra-industry trade. *Social Science & Medicine*, 292, 114630.
- Kraus, S., Breier, M., & Dasí-Rodríguez, S. (2020). The art of crafting a systematic literature review in entrepreneurship research. *International Entrepreneurship and Management Journal*, 16(3), 1023–1042.
- Latief, A. & Ulfa, M. (2024). Healthcare facilities and medical tourism across the world: A bibliometric analysis. *Malaysian Journal of Medical Sciences*, 31(2), 18–29.
- Lo, M., Mohamad, A., Thong, J., & Law, F. (2025). Post-COVID-19 pandemic: Examining the moderating role of event image on visitors' intention to revisit major events. *Turyzm*, 35(1), 39–53.
- Lukose, A., Thomas, S. N., Ks, S., Bose, J., Jacob, G., & Simon, B. (2024). Exploring the frontiers of HT: A bibliometric analysis of research themes and trends. *Cureus*, 16(8), e66832.
- Lunt, N., & Carrera, P. (2010). Medical tourism: Assessing the evidence on treatment abroad. *Maturitas*, 66(1), 27–32.
- Martins, P., Jesus, S. N., Pocinho, M., & Pinto, P. (2023). Wellness tourism: A bibliometric analysis approach. *Journal of Tourism Sustainability and Wellbeing*, 11(4), 203–217.
- Mongeon, P., & Paul-Hus, A. (2016). The journal coverage of Web of Science and Scopus: A Comparative Analysis. *Scientometrics*, 106, 213–228.
- Mueller, H., & Kaufmann, E. L. (2001). Wellness tourism: Market analysis of a special health tourism segment and implications for the hotel industry. *Journal of Vacation Marketing*, 7(1), 5–17.
- Pirnar, I., & Altın, H. O. (2024). Systematic literature review of HT innovation. *PASOS Revista de Turismo y Patrimonio Cultural*, 22(2), 383–398.
- Pu, B., Du, F., Zhang, L., & Qiu, Y. (2021). Subjective knowledge and health consciousness influences on HT intention after the COVID-19 pandemic: A prospective study. *Journal of Psychology in Africa*, 31(2), 131–139.
- Saini, G. K., Lievens, F., & Srivastava, M. (2022). Employer and internal branding research: A bibliometric analysis of 25 years. *Journal of Product & Brand Management*, 31(8), 1196–1221.
- Sun, S., Zhong, L., Law, R., Li, X., Deng, B., & Yang, L. (2022). HT evolution: A review based on bibliometric analysis and the China national knowledge infrastructure database. *Sustainability*, 14(16), 10435.
- Virani, A., Wellstead, A. M., & Howlett, M. (2020). Where is the policy? A bibliometric analysis of the state of policy research on medical tourism. *Global Health Research and Policy*, 5, 19.

- Walters, W. H. (2007). Google Scholar coverage of a multi-disciplinary field. *Information Processing & Management*, 43(4), 1121–1132.
- Yu, L., & Ko, T. G. (2012). A cross-cultural study of perceptions of medical tourism among Chinese, Japanese and Korean tourists in Korea. *Tourism Management*, 33(1), 80–88.
- Zhong, L., Sun, S., Law, R., & Qi, X. (2024). Tourists' perception of HT before and after COVID-19. *International Journal of Tourism Research*, 26(1), e2620.
- Zhong, L., Sun, S., Law, R., Li, X., & Deng, B. (2023). HT in China: A 40-year bibliometric analysis. *Tourism Review*, 78(1), 203–217.