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Postprint: Bibliometric Analysis of the Current Application Status of Rapid Reviews in Medical Research

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Abstract

Background In the face of public health emergencies such as Coronavirus Disease 2019 (COVID-19), decision-makers need to make decisions that can guide clinical practice within a short timeframe. However, confronted with a surge in the number of primary studies within a certain period, the time-consuming traditional systematic review methodology struggles to provide timely evidence-based support for clinical practice. Rapid review (RR), as an extension of systematic review methodology, can integrate existing research within a limited timeframe by streamlining its processes, thereby meeting the needs of rapid decision-making. Currently, RR has been widely applied in medical research, but its application status remains unclear. Objective To explore the research status and hotspots of RR using bibliometric methods. Methods Application studies on RR from 2001 to 2023 were retrieved from the CNKI and Web of Science databases, and bibliometric software CiteSpace and VOSviewer were used to conduct visual analysis of annual publication volume, countries, institutions, authors, journals, keywords, and other aspects of Chinese and English literature. Results A total of 151 Chinese articles and 1,197 English articles were included. From 2001 to 2023, the publication volume of RR application studies gradually increased, but the number of foreign publications was higher than domestic ones with a more pronounced increasing trend. The United Kingdom was the country with the most publications (252 articles), the University of Toronto in Canada was the institution with the most publications (52 articles), and Peking University Third Hospital ranked first domestically in publication volume (23 articles). The journal with the most domestic publications was "Evaluation and Analysis of Drug-Use in Hospitals of China" (22 articles), and the journal with the most foreign publications was BMJ Open (42 articles). Domestic author teams led by Men Peng, Zhai Suodi, Zhao Zinan, among others, published more studies; foreign author teams led by NUSSBAUMER-STREIT,

GARTLEHNER, TRICCO, among others, published more studies. Domestically highly-cited literature mainly focused on RR application and methodology introduction, rapid assessment of drugs or technologies, and impacts of COVID-19; foreign highly-cited literature mainly focused on rapid assessment of COVID-19 impacts, treatment, and epidemiological factors, or rapid review methodology research. Domestic research hotspots mainly concentrated in the field of rapid health technology assessment for safety, effectiveness, and cost-effectiveness of interventions for chronic or major diseases; foreign research hotspots mainly concentrated in the field of rapid evidence synthesis related to decision-making, including COVID-19 etiology, interventions, diagnosis, prevention, and impacts, safety and effectiveness of drug interventions in children, healthcare for middle-aged and elderly populations, and cancer treatment or mortality risk. Conclusion Currently, there are significant differences in the development of RR application studies in the medical field between domestic and international contexts; foreign RR application studies are gradually maturing, while domestic studies are still in the preliminary development stage. Future development can draw on foreign application experience to continuously broaden domestic RR development fields.

Full Text

The Application of Rapid Review in the Field of Medical Research: A Bibliometric Analysis

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Abstract

Background: In the face of public health emergencies such as COVID-19, decision-makers need to make rapid decisions that can guide clinical practice in a short time. However, when confronted with a surge of primary studies within a certain period, the traditional time-consuming systematic review method is difficult to provide timely evidence-based support for clinical practice. Rapid review (RR), as an extension of systematic review, can integrate existing research

within limited time to meet the need for rapid decision-making. Currently, RR has been widely used in the field of medical research, but its application status remains unclear.

Objective: To explore the current status and hotspots of RR research using bibliometric analysis.

Method: CNKI and Web of Science databases were searched for research on RR applications from 2001 to 2023. Visualization analysis was performed on annual publication volume, countries, institutions, authors, journals, and keywords of Chinese and English literature using bibliometric software VOSviewer and CiteSpace.

Results: A total of 151 Chinese articles and 1,197 English articles were included. The publication volume of RR application research increased gradually from 2001 to 2023, but the foreign publication volume was higher than that in China with a more obvious increasing trend. The United Kingdom was the country with the highest publication volume (252 articles), the University of Toronto in Canada was the institution with the highest publication volume (52 articles), and Peking University Third Hospital ranked first in China (23 articles). The journal *Evaluation and Analysis of Drug-use in Hospitals of China* had the highest publication volume in China (22 articles), while the journal *BMJ Open* had the highest publication volume abroad (42 articles). In China, the author team mainly composed of MEN Peng, ZHAI Suodi, and ZHAO Zinan published more research. Abroad, authors including NUSSBAUMER-STREIT, GARTLEHNER, and TRICCO published more studies. The most frequently cited literature in China mainly focused on RR application and methodology, rapid assessments of drugs or technologies, and the impact of COVID-19, while the most frequently cited literature abroad mainly focused on the impact, intervention, and epidemiological factors of COVID-19, or methodological studies of RR. Domestic research hotspots mainly focused on the field of rapid health technology assessment regarding the safety, efficacy, and cost-effectiveness of interventions for chronic or serious diseases. Foreign research hotspots mainly focused on rapid evidence synthesis related to decision-making, such as the etiology, intervention, diagnosis, prevention, and impact of COVID-19, the safety and effectiveness of drug interventions in children, healthcare for middle-aged and elderly populations, and cancer treatment or mortality risk.

Conclusion: At present, there is a great difference in the development of RR application in the medical field between domestic and international contexts. The application of RR abroad is gradually maturing, but in China, it is still in the preliminary stage. The experience of RR application abroad can be learned to expand the development of domestic RR application.

Keywords: Bibliometrics; Rapid review; Systematic review; Rapid assessment; Medical research; CiteSpace; VOSviewer

Introduction

Healthcare decision-makers (including clinicians, patients, managers, and policymakers) often need timely access to relevant medical information. Although such information can be obtained from systematic reviews (SRs), these typically consume substantial resources, and the time frame required for SRs may not always meet decision-makers' needs. It is estimated that completing an SR requires an average of 1,139 hours (ranging from 216 to 2,518 hours) and involves high costs. Therefore, in situations requiring urgent decision-making, such as public health emergencies like COVID-19, stakeholders may be forced to rely on less reliable evidence, such as expert opinions or results from single small studies, leading to suboptimal decisions.

Rapid review (RR) is a knowledge synthesis method that provides evidence for decision-makers in a time- and resource-efficient manner by simplifying the steps or processes of traditional SRs. The differences between RR and SR can be summarized in eight main aspects: (1) Research topics: RR is not limited and is often directly proposed by evidence users, while SR mainly focuses on clinical questions. (2) Assessment content: RR focuses on clinical effectiveness, safety, economics, transferability, and policy recommendations, whereas SR primarily concerns clinical effectiveness and safety. (3) Evidence retrieval: RR employs rigorous but limited database searches, while SR requires comprehensive and rigorous retrieval across all relevant databases. (4) Data extraction: RR often involves researchers determining priority information for extraction, sometimes completed by a single person, while SR requires complete extraction of all relevant information by at least two researchers. (5) Quality assessment: RR currently lacks consensus-based quality evaluation methods, while SR has standard quality assessment methods and tools. (6) Data synthesis: RR is primarily qualitative, sometimes with quantitative synthesis, while SR combines both qualitative and quantitative synthesis. (7) Results: RR results have high relevance, timeliness, and transferability, while SR results have high relevance and transferability. (8) Completion time: RR has a shorter completion time, generally within 1-2 months depending on the report type, while SR requires a longer time, typically 6 months to 2 years.

In 2021, the Cochrane Rapid Reviews Methods Group (Cochrane RRMG) developed evidence-based guidelines for producing RR, providing specific implementation recommendations for the eight basic steps of RR (research question identification, protocol development, eligibility criteria setting, literature search, study selection, data extraction, methodological quality assessment, and evidence synthesis) to improve the utility and robustness of RR results.

General practice is an important component of healthcare services, integrating preventive medicine, clinical medicine, rehabilitation medicine, and humanistic medicine. It promotes the rational use of medical resources and the cost-effective development of "universal health." The introduction of general practice and its service model is conducive to establishing a comprehensive primary healthcare

system, safeguarding residents' health, and reducing healthcare burdens. As medical and healthcare system reforms advance, general practice continues to develop, with increasingly improved service models and expanding talent pools. The discipline' s research methods have evolved from early emphasis on quantitative research to a model combining quantitative and qualitative research, actively adopting evidence-based medicine methods to continuously optimize clinical practice strategies.

With the arrival of an aging society and frequent public health emergencies in recent years, China's primary public health service system has been significantly impacted, exposing shortcomings such as insufficient general practice talent in the primary healthcare system and unmet public health service demands. As a concept or method, RR has already permeated multiple methodological domains, giving rise to knowledge products such as rapid SRs, rapid scoping reviews, rapid umbrella reviews, rapid narrative syntheses, rapid thematic syntheses, and rapid guidelines, which strongly promote the production, dissemination, and utilization of high-demand evidence in the evidence ecosystem. Introducing RR methods into the field of general practice may help meet the demand for rapid synthesis of complex interventions, avoiding waste of research resources.

Bibliometrics applies statistical or mathematical methods to conduct quantitative and visual analysis of a discipline' s knowledge system, helping to understand the development characteristics of scientific research in a specific historical period and grasp future trends. Based on CNKI and Web of Science core collection databases, this study uses scientific analysis software CiteSpace 6.1.R6 and VOSviewer 1.6.18 to visually analyze the publication volume, countries, institutions, authors, journals, highly cited articles, and keywords of RR application research in the medical field from 2001 to 2023. By organizing and analyzing the results, this study outlines the development status of RR application research in the medical field and explores potential research directions to predict future trends. This study supplements the bibliometric analysis of RR application research literature in the medical field over the past 20 years, provides a preliminary overview of its application status, and lays a foundation for the systematic introduction of RR methods in the future, offering certain guiding significance for the development of RR application research in the medical field.

Methods

1.1 Literature Sources and Search Strategies Chinese literature was sourced from CNKI using subject search with terms including "rapid assessment," "rapid review," "rapid evaluation," and "medicine." The search formula was: SU%=("rapid assessment" OR "rapid review" OR "rapid evaluation") AND FT% "medicine." The search period was from January 1, 2001, to January 12, 2023. After excluding duplicate, irrelevant, and full-text unavailable literature, 151 Chinese articles were included.

English literature was sourced from the Web of Science Core Collection database (WOS), with search fields limited to title and abstract. English search terms included "rapid review*" and "medicine." The search period was from January 1, 2001, to January 12, 2023. After excluding editorial materials, letters, duplicates, irrelevant, and full-text unavailable literature, 1,197 English articles were included.

1.2 Data Analysis WPS Office 2021, CiteSpace 6.1.R6, and VOSviewer 1.6.18 software were used to statistically analyze relevant literature data. Descriptive analysis of annual publication volume, countries, institutions, journals, and highly cited articles was conducted using WPS Office 2021. CiteSpace 6.1.R6 was used to create author collaboration network maps, keyword timeline maps, and conduct burst detection analysis for keywords. Data were exported from NoteExpress 3.4.0.8878 in RefMan (RIS) Export format, saved with the ".ris" suffix, transformed into a format recognizable by VOSviewer using Notepad++, and then VOSviewer 1.6.18 was used for keyword clustering analysis.

Results

2.1 Annual Publication Volume The initial search retrieved 2,133 Chinese articles, with 151 included after screening. The initial search retrieved 1,386 English articles, with 1,197 included after screening. The first Chinese application study of RR in medical research was published in 2014, in which LI Youping et al. provided a detailed introduction to the background, definition, characteristics, and methodological process of RR, laying a solid foundation for RR' s introduction in China. Since then, the publication volume has shown a low and flat trend, beginning to increase from 2019 and peaking in 2022 before declining. The first English application study of RR in medical research was published in 1997, in which BEST et al. described a rapid response service for health technology assessment (South and West Development and Evaluation Service, SWDES) that balanced limited health technology resources with inadequate decision-making. This service provided decision-makers with recommendations on health technology effectiveness and cost-effectiveness in the form of reports within a short time frame. Since then, the publication trend has been relatively flat, gradually increasing from 2012 and reaching the first peak in 2018. After a one-year plateau, publications increased again in 2019, reaching a second peak in 2021 before declining. The overall publication volume shows a year-by-year increasing trend, but the growth trend of Chinese publications is lower and slower than that of foreign publications. The annual publication volume is shown in [Figure 1: see original paper].

2.2 Distribution of Countries and Institutions A total of 88 countries and 498 institutions published RR application studies in the medical field. The

United Kingdom had the highest publication volume with 252 articles, followed by the United States (217 articles) and Canada (214 articles). China ranked fifth with 170 articles, after Australia. The institution with the highest publication volume was the University of Toronto in Canada (52 articles), followed by King' s College London (34 articles) and Monash University in Australia (33 articles). Peking University Third Hospital ranked first in China. The top ten countries and institutions by publication volume are shown in .

2.3 Journal Analysis The journal with the highest Chinese publication volume was *Evaluation and Analysis of Drug-use in Hospitals of China* (22 articles), followed by *China New Drug Journal* (17 articles) and *China Pharmacy* (17 articles), mainly involving drug evaluation. The journal with the highest English publication volume was *BMJ Open* (42 articles), followed by *International Journal of Environmental Research and Public Health* (31 articles) and *Systematic Reviews* (23 articles), mainly covering medical research fields. The journal with the highest impact factor was *Cochrane Database of Systematic Reviews*, with a 2022 impact factor of 12.008. The top ten journals by publication volume are shown in .

2.4 Author and Team Analysis A total of 463 authors participated in Chinese RR application research in the medical field. Collaboration network analysis was conducted on authors with appearance frequency $ $3 times, forming five main network clusters. The author team centered around MEN Peng, ZHAI Suodi, and ZHAO Zinan, along with the team centered around ZHAO Zinan and LI Ting, published more Chinese studies, with limited collaboration between different author teams, as shown in [Figure 2: see original paper].

A total of 5,436 authors participated in English RR application research in the medical field. Collaboration network analysis was conducted on authors with appearance frequency $ $4 times, forming four main network clusters. The author team centered around NUSSBAUMER-STREIT, GARTLEHNER, and TRICCO, along with the team centered around CHEN and LEE, published more English studies, with limited collaboration between different author teams, as shown in [Figure 3: see original paper].

2.5 Highly Cited Literature Analysis The top ten most cited RR application studies in the medical field domestically and internationally are shown in . Highly cited Chinese literature mainly focused on RR application and methodology introduction, rapid assessment of drugs or new technologies, and the impact of COVID-19. The most frequently cited article was "Methods and Application of Rapid Health Technology Assessment for Drugs" (cited 72 times) published by TANG Huilin et al. from Peking University Third Hospital in 2016, followed by "Exploration of Rapid Assessment Methods and Processes" (cited 28 times) published by LI Youping et al. from West China Hospital in 2014.

Highly cited English literature mainly focused on the impact, treatment, and

epidemiological factors of COVID-19, as well as RR methodological studies. The most frequently cited study was the rapid evidence review on the psychological impact of quarantine due to COVID-19 and how to reduce it, published by BROOKS et al. from King' s College London in *Lancet* in 2020 (cited 5,417 times).

2.6 Keyword Analysis

2.6.1 Keyword Frequency Analysis The top ten keywords by frequency in RR application research in the medical field are shown in . Chinese research themes concentrated on rapid health technology assessment of safety, effectiveness, and economics, while English research themes focused on intervention effects, healthcare, disease impact, rapid assessment, or rapid SR.

2.6.2 Keyword Clustering Analysis The included Chinese RR application studies involved 266 keywords. Clustering analysis was conducted on keywords with frequency $ $2, generating three main clusters. The included English RR application studies involved 2,282 keywords. Clustering analysis was conducted on keywords with frequency $ $10, generating four main clusters. In the clustering diagrams, each color (area) represents a cluster; nodes represent keywords, with larger nodes and fonts indicating higher frequency; connections between nodes represent undirected links between terms, with thicker lines indicating closer connections.

Chinese keyword clustering analysis showed that RR application research mainly focused on rapid health technology assessment of safety, effectiveness, and economics for interventions in chronic or major diseases such as osteoporosis, idiopathic pulmonary fibrosis, Alzheimer' s disease, non-small cell lung cancer, and chronic myeloid leukemia, as shown in [Figure 4: see original paper].

English keyword clustering analysis showed that RR application research mainly focused on rapid assessment of COVID-19 epidemiological factors, interventions, diagnosis, prevention, and impact (green cluster); rapid assessment of safety and effectiveness of drug interventions in children (blue cluster); rapid assessment of cancer treatment or mortality risk (yellow cluster); and rapid assessment of healthcare and medical services for middle-aged and elderly populations (red cluster), as shown in [Figure 5: see original paper].

2.6.3 Keyword Timeline Analysis The keyword timeline map combines clustering and time, showing the development of keywords over time and helping to analyze research hotspots. Diamonds represent keywords, with the time above indicating when the keyword first appeared; larger diamonds indicate higher cumulative frequency. According to the color bar at the bottom, colors closer to the bottom (purple, blue) indicate earlier appearance, while colors closer to the top (yellow, red) indicate later appearance.

Domestic research hotspots are effectiveness, safety, and economic rapid assessment, with hotspots appearing relatively late, around 2014-2016, after which they gradually became research themes. Only the top ten clusters are shown in [Figure 6: see original paper]. International research is more dispersed, with clusters first appearing around 2003, gradually forming emerging research themes such as mental health, COVID-19, cancer, alternative medicine, medical care, and evidence-based practice. The top twelve clusters are shown in [Figure 7: see original paper].

2.6.4 Keyword Burstiness Analysis Keyword burstiness analysis can reveal hotspots and frontiers of RR application research during certain periods, identify potential research directions, and predict research trends. Burstiness analysis was conducted separately for Chinese and English keywords.

Chinese RR application research has mainly concentrated in the past ten years, with the highest centrality for "rapid assessment," indicating it has been a major theme in recent years. The latest emerging themes include expert consensus, Chinese patent medicine, heart failure, renal anemia, and constipation, suggesting that RR research frontiers involve Chinese patent medicines, expert consensus, or assessments for diseases such as heart failure and renal anemia (see).

International RR application research hotspots over the past 20 years have concentrated on evidence-based practice, systematic reviews, and other themes, with "evidence-based practice" having the highest centrality, indicating RR is mainly applied in evidence-based practice as an evidence synthesis method. The burstiness of keywords such as health technology assessment, randomized controlled trials, and systematic reviews suggests that RR integrates well with other disciplines. COVID-19, as the most recently emerging keyword, shows good research prospects in the RR field (see).

Discussion

This study employed bibliometric methods to compare publication trends, distribution of countries, institutions, and journals, scholar collaboration, and analyze highly cited literature domestically and internationally, illustrating the landscape of RR application research in the medical field over the past 20 years. Combined with keyword frequency analysis, clustering analysis, and burstiness analysis, the study attempted to reveal research hotspot distribution, explore potential research themes, and predict future trends.

Research trends show that the number of RR application studies in the medical field has been continuously increasing over the past 20 years, with a more obvious upward trend internationally than domestically. This may be related to the development history of RR, as RR has been developing abroad for over 20 years, while its introduction in China was relatively late, with literature showing

RR was first introduced to China in 2014. Since 2019, both domestic and international literature has increased significantly, peaking in 2022, which may be closely related to the COVID-19 pandemic, as the rapid evidence synthesis characteristic of RR aligns with the need for rapid decision-making during public health emergencies. During this period, authoritative institutions including the WHO adopted RR methods to provide evidence for decision-making in evidence-based practice, which also demonstrates the practicality of RR as an evidence synthesis method and its important position in the evidence synthesis family.

RR application research is mainly distributed in European and American countries, including the United Kingdom, United States, Canada, and Australia. The institution with the highest domestic publication volume is Peking University Third Hospital. This distribution may be related to the development timeline of RR or the emphasis placed by different countries and institutions. Journal distribution analysis shows that international RR application research is mainly published in journals covering clinical medicine, environmental and public health, clinical epidemiology, integrative medicine, health services, and evidence synthesis methods, such as *BMJ Open*, *International Journal of Environmental Research and Public Health*, and *Systematic Reviews*. In contrast, domestic RR application research is mainly published in journals related to drug therapy, evaluation, and exploration, such as *Evaluation and Analysis of Drug-use in Hospitals of China*, *China New Drug Journal*, and *Clinical Drug Therapy Journal*. This comparison indicates that international RR application research has broader objects and scope, while domestic research is relatively narrow.

Author collaboration network maps show that currently, there is insufficient communication and cooperation between author teams both domestically and internationally. Analysis of highly cited literature reveals that international hotspots mainly focus on COVID-19 etiology, intervention, diagnosis, prevention, and impact, RR methodology introduction, while domestic hotspots mainly focus on RR method and process introduction, drug intervention effect assessment, and COVID-19 impact. After the COVID-19 pandemic, people realized that the gold standard of evidence synthesis—traditional SR—could no longer meet the needs of urgent decision-making. In this context, RR, as a highly timely method, rapidly gained popularity, and a large amount of evidence based on RR methods emerged. While this solved urgent decision-making needs in healthcare services to some extent, the quality of evidence needs further improvement.

Combined with keyword frequency analysis, clustering analysis, and burstiness analysis, international research hotspots mainly focus on rapid assessment of COVID-19 etiology, intervention, diagnosis, prevention, and impact; safety and effectiveness of drug interventions in children; cancer treatment or mortality risk; and healthcare services for middle-aged and elderly populations. The research population is mainly vulnerable groups, and the research diseases mainly focus on public health emergencies, mental health diseases, and cancer. In the application process, RR has been effectively combined with evidence synthesis methods such as systematic reviews. In recent years, research on the long-term

effects of COVID-19 has gradually emerged and may become a future research hotspot. Domestic research hotspots are mainly limited to rapid assessment of safety, effectiveness, and economics of drug interventions for chronic or major diseases. The application process mainly uses health technology assessment as a carrier for rapid health technology assessment combined with RR. In recent years, rapid assessment of Chinese patent medicines has gradually emerged and may become a future research direction.

Currently, the development of RR abroad has gradually matured, accompanied by the release of authoritative implementation and reporting guidelines. In 2017, WHO released the *Rapid Reviews to Strengthen Health Policy and Systems: A Practical Guide*, which elaborated on the implementation steps of RR and how to apply RR results to health policy and decision-making systems. In the same year, the National Collaborating Centre for Methods and Tools (NCCMT) at McMaster University in Canada published a RR guide introducing RR methods and implementation processes. In 2021, Cochrane RRMG developed evidence-based guidelines for producing RR, proposing 26 recommendations on implementation methods to improve the utility and robustness of RR results. In contrast, the development of RR in China is still in its early stages, lacking implementation guidelines or standards for RR in the medical field, with considerable room for improvement.

Domestic RR application research has significant limitations. First, the scope of research is narrow, with existing RR application studies mostly limited to rapid assessment of drug safety, effectiveness, and economics, with ambiguous distinction from traditional SR and health technology assessment methods. Future exploration can be conducted at three levels: First, deepen and expand domestic RR research, broaden the research scope, and explore RR application research from different assessment perspectives, objects, stages, and contents. Domestic research tends to focus on drug safety, effectiveness, and economic evaluation, and it is necessary to learn from Western research to expand assessment perspectives, conducting RR research from public health, medical management, clinical nursing, and evidence synthesis perspectives. Domestic assessment objects are relatively single, mainly focusing on drugs. In the future, assessment objects can be expanded to include emerging technologies, surgeries, vaccines, and other treatment methods, while focusing on diseases with heavy disease burden such as diabetes, hypertension, AIDS, and rare diseases. Domestic assessment stages mainly focus on disease intervention, and future research could consider other disease stages such as etiology, diagnosis, prognosis, and clinical trial stages. Domestic assessment content mainly focuses on safety, effectiveness, and economics, and it is necessary to add assessments of accessibility and social adaptability.

Second, RR methods should be actively combined with evidence synthesis methods. Research shows that international RR methods and concepts have permeated various evidence synthesis methods, which is also confirmed by the analysis of international RR application research in this study. However, such literature

is rare domestically. In the future, RR could be combined with various evidence synthesis methods to conduct rapid SRs, rapid scoping reviews, rapid guidelines, and other studies.

Third, strengthen collaboration between author teams. Currently, domestic author teams are relatively dispersed, lacking communication between teams and cooperation with foreign institutions and authors. While conducting precise research, interdisciplinary exchanges and cooperation should be considered to enhance international research influence.

This study has several limitations. First, the study only searched CNKI and Web of Science databases, which cannot fully cover all journal literature on RR application research, potentially resulting in some omissions and affecting the comprehensiveness of the results. Second, literature search and screening were mainly conducted by one researcher, with another conducting spot checks, lacking double verification steps, which may introduce bias driven by personal subjective thinking and affect the accuracy of the results. Third, this study used bibliometric methods to analyze RR application research, which can only provide a macro-level preliminary overview of the current status of RR application research.

Conclusion

This study conducted statistical analysis of domestic and international RR application research literature from 2001 to 2023, intuitively reflecting the dynamic trends of RR application research over the past 20 years. The study shows that there are significant differences in the development of RR application research in the medical field between domestic and international contexts. International research is gradually maturing, with RR methods applied to various fields including public health, clinical nursing, environmental protection, and evidence synthesis, while domestic research is still in the preliminary stage, with research hotspots focusing on assessing drug effectiveness, safety, and economics, and still having many deficiencies that need improvement. Future development of domestic RR can learn from Western experiences to continuously expand its application fields.

Author Contributions

LI Miaomiao was responsible for conceptualization and design, data analysis, and manuscript writing. WU Xue, JING Chengyang, and ZHANG Le were responsible for data collation and extraction. LIAO Xing and ZHAO Hui were responsible for overall quality control, final version revision, and proofreading.

Conflict of Interest Statement

The authors declare no conflict of interest.

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