| **RESEARCH ARTICLE**

Analysis of the Research Status of Traditional Chinese Medicine Pension Industry Based on Bibliometrics

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| **ABSTRACT**

At present, the problem of population aging in China is becoming increasingly prominent, and the combination of traditional Chinese medicine and elderly care is becoming a hot topic. In this paper, VOSviewer was used to statistically and visually analyze the literature related to traditional Chinese medicine pension in CNKI database from 2013 to 2023. Firstly, we collected and sorted out the research literature on the Chinese medicine pension industry in recent years, and then used bibliometric methods to quantitatively analyze the quantity, quality and research fields of the literature. The study found that the number of research literature on the elderly care industry of traditional Chinese medicine has increased year by year, the research quality has been continuously improved, and the research field has gradually expanded. At the same time, we also found that the research hotspots of traditional Chinese medicine for the elderly care industry are mainly focused on elderly care services, traditional Chinese medicine health preservation, rehabilitation treatment, etc (Ge & Xu, 2023). In addition, this paper also puts forward the shortcomings and development directions of the research on the Chinese medicine pension industry in China and hopes that this study can provide useful reference and guidance for the development of the Chinese medicine pension industry. Based on the China National Knowledge Infrastructure (CNKI) database as the main data source, this paper uses the topic search method in advanced search to search the CNKI database, and confirms that "Chinese medicine for the elderly" is used to read a large number of literature and understand the health care of traditional Chinese medicineAs the theme, the document format was set to see the full text only and Chinese and English extensions, the search time range was set from January 1th, 2013 to December 31th, 2023, the document type was set to academic journals, and the journal source category was set to all journals, a total of 149 articles were obtained, excluding news, publicity, interviews, correspondence and other literature that did not meet the research theme, and finally a total of 149 articles were obtained by manual screening 126 articles in Chinese. VOSviewer is an open-source network analysis tool, mainly used for scientific literature analysis, which can help users carry out visual analysis and network construction and is suitable for analyzing the research status of a certain field. In this paper, the VOSviewer visual analysis tool was used to process and analyze the literature data of 126 academic journals included in CNKI from 2013 to 2023, and the knowledge map of Chinese medicine pension in China was drawn, so as to visually analyze the author cooperation, hot topics and cutting-edge trends of Chinese medicine pension research in China.

| **KEYWORDS**

Traditional Chinese Medicine, Elderly Care Industry, Bibliometric Analysis.

| **ARTICLE INFORMATION**

1. Introduction
1.1 Research Background
The analysis of the research status of traditional Chinese medicine for the elderly is based on the role and status of traditional Chinese medicine in elderly care services, as well as the current social demand for traditional Chinese medicine for elderly care.

With the deepening of the aging of the population, pension services have become the focus of social attention. As a traditional Chinese medicine, traditional Chinese medicine has unique advantages and potential in the elderly care service industry.

First of all, traditional Chinese medicine focuses on the holistic concept and individualized treatment, emphasizing prevention and rehabilitation, which has a significant effect on the conditioning and rehabilitation of chronic diseases in the elderly. Secondly, there are various ways of traditional Chinese medicine elderly care services, including traditional Chinese medicine, acupuncture, massage, dietary therapy, etc., which can meet the needs of different elderly people. Thirdly, TCM pension has lower medical costs and lower side effects, which is beneficial to the health of the elderly.

1.2 Literature Review

When reviewing the relevant literature of the Chinese medicine elderly care industry, it can be found that at the level of research on Chinese medicine health care services, Deng Min carried out research on Chinese medicine home care services, analyzed the demand preferences and demand content of different elderly groups for Chinese medicine home care services by using the demand measurement model, and put forward relevant countermeasures for the supply of Chinese medicine home care services according to the research results. At the level of research on the combination of traditional Chinese medicine and medical care and elderly care model, Wu Xiaofei carried out the research on the integration of traditional Chinese medicine and medical care and elderly care, and conducted a SWOT analysis of the integration model of traditional Chinese medicine and medical care in China, and found that the current characteristics of traditional Chinese medicine are the biggest advantages of the combination of traditional Chinese medicine and medical care and elderly care in China, but the weak leading role of the government, insufficient talent reserve, insufficient social support, and uncoordinated regional development are all current disadvantages and challenges. These literatures mainly discuss the role of traditional Chinese medicine in the elderly care service industry, including the application of traditional Chinese medicine in health preservation, rehabilitation, health care, etc. These studies have shown that traditional Chinese medicine has unique advantages in elderly care services, which can improve the quality of life of the elderly and prolong their healthy lifespan. At the same time, it also analyzes the demand of the TCM pension service market and the government's support for the TCM pension industry at the policy level. The research shows that with the intensification of China's aging population, the market demand for traditional Chinese medicine pension services continues to expand, and the government has gradually increased its support for the traditional Chinese medicine pension industry, which provides a good policy environment for the development of traditional Chinese medicine pension industry. The previous literature also put forward a series of strategies for the innovation and development of traditional Chinese medicine pension services, such as strengthening the construction of traditional Chinese medicine pension service system, improving the quality and level of traditional Chinese medicine elderly care services, and promoting the integrated development of traditional Chinese medicine elderly care industry and other industries. Through empirical research methods, some literatures have evaluated the quality and effect of TCM elderly care services in specific regions or institutions, which provides a basis for the improvement of traditional Chinese medicine elderly care services.

The innovation of this paper is mainly reflected in the innovation of research methods, and this paper uses the bibliometric method to systematically analyze the research status of traditional Chinese medicine pension industry. This method can intuitively show the research hotspots, development trends and shortcomings of the TCM elderly care industry, and provide a useful reference for follow-up research. Compared with traditional research methods, bibliometric methods are more objective and scientific. This paper takes the traditional Chinese medicine pension industry as the research object, and discusses the application of traditional Chinese medicine in the elderly care service from the perspective of the pension industry. This perspective is helpful to fully understand the status and role of traditional Chinese medicine in elderly care services, and provides new ideas for the development of traditional Chinese medicine elderly care industry. The data source of this article is mainly from CNKI, an authoritative database in China. The database covers the relevant Chinese literature of the Chinese medicine pension industry, which can ensure the accuracy and comprehensiveness of the data. Compared with previous studies, this data source is more authoritative and reliable. This paper not only analyzes the research status of the Chinese medicine pension industry, but also discusses the development trend, policies and regulations, and talent training of the Chinese medicine pension industry. This makes the research content of the paper richer, and has high practical value and guiding significance.

1.3 Problem Statement and Objectives

However, the current research and practice of traditional Chinese medicine for the elderly still faces many problems, such as uneven service quality, lack of professional talents, and imperfect service standards and norms. Therefore, by analyzing the research status of the Chinese medicine pension industry through bibliometric methods, we can understand the current development level, research hotspots and existing problems of the Chinese medicine pension industry, and provide reference for future research and policy formulation.

The main purpose of this research background is to promote the development of traditional Chinese medicine for the elderly, improve the role and status of traditional Chinese medicine in elderly care services, meet the social demand for traditional Chinese

medicine for elderly care, and provide more choices for the healthy elderly care of the elderly. At the same time, it will also help promote the diversified development of the social pension service industry and promote the inheritance and development of traditional Chinese medicine.

2. Research Results and Analysis
2.1 Statistical Analysis of the Annual Change in the Number of Published Papers

The statistics of the 126 articles collected were counted, and the annual trend of literature publication is shown in Figure 1. In the past 10 years, although the annual number of publications on TCM pension-related literature was the same in 2019-2021, it showed an overall upward trend, and there was no relevant literature from 2013 to 2014, but the number of publications has increased rapidly since 2015. As can be seen from Figure 1, there were 3 articles in 2015, 7 in 2016, 13 in 2017, and 16 in 2018. Although there were 16 articles from 2018 to 2021, the number of papers published in 2022 was 19, and in 2023, it was 21. Especially in the past three years, the growth rate of the number of published papers has increased significantly, indicating that scholars are paying more and more attention to the field of traditional Chinese medicine for the elderly in China. It can be seen from the change trend of the number of published articles that the field of traditional Chinese medicine for the elderly is in a stage of rapid development and may continue to receive great attention in the future.
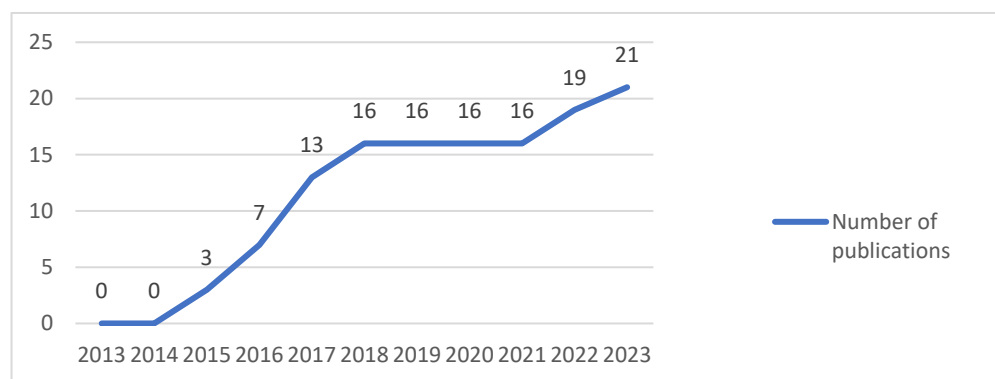

Figure 1. The annual trend of the publication of research literature on traditional Chinese medicine for the elderly in China from 2013 to 2023
Source: CNKI Visual Analytics

2.2 Distribution of Literature Disciplines

CNKI visual analysis was used to calculate the distribution of disciplines in the research literature, and the distribution of disciplines is shown in Figure 2. There are five rings in the diagram, each representing a different category. From left to right, the highest proportion is "Chinese Politics and International Politics", with a percentage of 37%. followed by "Research on medical and health policies, laws and regulations", with a percentage of 34%. "Traditional Chinese medicine" followed closely behind, accounting for 19%. "Services Economy" and "Trade Economy" accounted for the lowest proportions, both at 5%. From the perspective of discipline distribution type, the research literature related to traditional Chinese medicine pension is mainly based on the laws and regulations promulgated by the national government in China, and at the same time, combined with the knowledge of traditional Chinese medicine, a small number of studies focus on the service industry chain and pension economy related to traditional Chinese medicine pension (Gao et al., 2023).
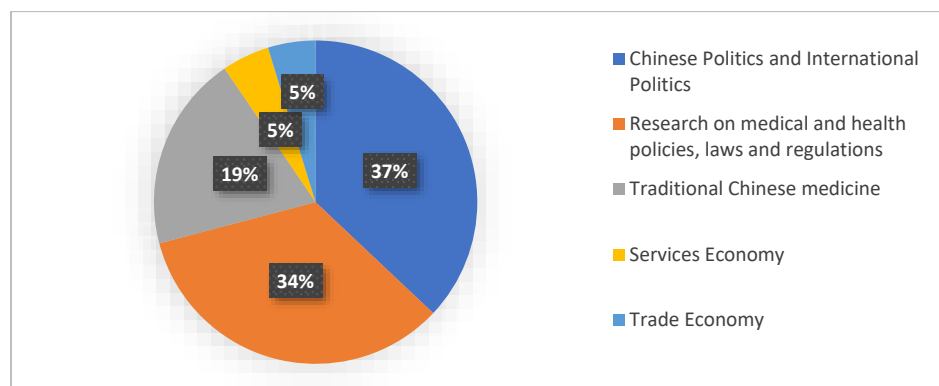

Figure 2. Discipline distribution of Chinese medicine pension research literature in China from 2013 to 2023
Source: CNKI Visual Analytics

2.3 Distribution of Research Institutions

The research institutions of Chinese medicine pension-related literature in China are mainly three Chinese medicine universities and other institutions. And the proportion of papers published by these universities and other institutions is balanced, with 7 articles each, accounting for 5.56%.

2.4 Keywords

VOSviewer was used to visualize the keywords of the literature, and the visual map was obtained, as shown in Figure 3. There are a total of 183 keywords in the CNKI database, and the clustering analysis is carried out, and the keywords with large nodes in the keyword clustering chart are summarized, and three clusters are mainly formed, namely traditional Chinese medicine, medical care and elderly care, and health care for the elderly. And the relevant literature of these three types of keywords can be found by color, which was published between 2020 and 2022.

Figure 3. Keyword cluster analysis of Chinese medicine pension literature in China from 2013 to 2023
Source: VOSviewer Visual Analytics

2.5 Author Collaboration Network

The journal involved 329 authors, of which Caixia Zhang (5 papers) from Guangzhou University of Chinese Medicine had published the largest number of papers, and the authors who had published only one relevant paper (306 authors, 93%). Four main research groups have been formed.
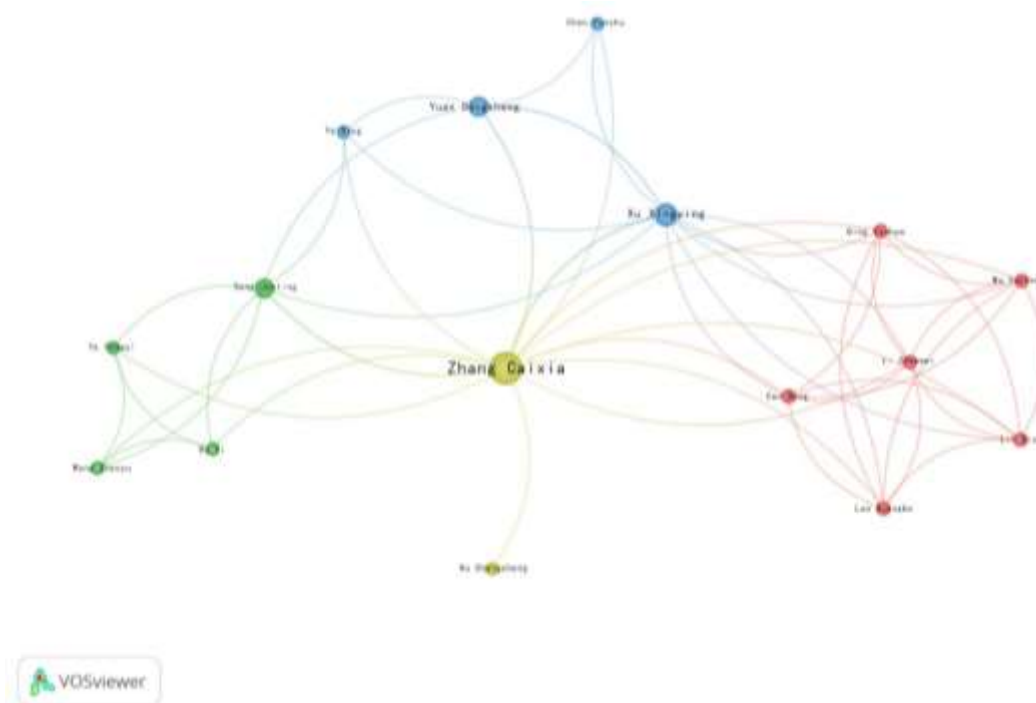
Figure 4. Author cooperation network of Chinese medicine pension literature in China from 2013 to 2023
Source: VOSviewer Visual Analytics

3. Conclusion
3.1 Limitations
This study may have the following limitations through the visual analysis of the literature included in the CNKI database: (1) Only the literature in the CNKI database from 2013 to 2023 is analyzed, which cannot fully represent the traditional Chinese medicine pension industry research status. (2) When VOSviewer software was used to make the map, there was subjectivity in the threshold setting, and the analysis results were biased. (3) Individual authors may have duplicate names or the same author may come from different countries and institutions, although they are checked one by one, there may be errors due to limited access to information.

3.2 Conclusions and Future Prospects
Nowadays, with the increasingly prominent problem of aging, the pension industry has gradually become a hot topic in society, and although the application advantages of traditional Chinese medicine in elderly care are obvious, it has not been widely promoted. However, judging from the number of publications in recent years, the research on the elderly care industry of traditional Chinese medicine has received more and more attention, and the number of studies has shown an increasing trend year by year. This shows that the status and role of traditional Chinese medicine in the field of elderly care services are gradually recognized, and it is expected to play a greater role in the future elderly care industry.

Secondly, through the analysis, it can be found that the research of traditional Chinese medicine pension industry involves multiple disciplines, including traditional Chinese medicine, gerontology, nursing, sociology, etc (Xia, 2023). The multidisciplinary research is helpful to comprehensively and deeply discuss the development of the TCM pension industry, and provide scientific basis and practical guidance for the TCM pension service industry.

At the same time, in recent years, the Chinese government has attached great importance to the development of traditional Chinese medicine pension industry, and has introduced a series of policies and measures, since 2015, the State Council and the Administration of Traditional Chinese Medicine have successively issued policy documents such as the "Development Plan for Traditional Chinese Medicine Health Services (2015-2020)" and the "Implementation Opinions on Promoting the Development of Traditional Chinese Medicine Health Care Services" (Wang et al., 2020). This has strongly promoted the research and practice of traditional Chinese medicine for the elderly, provided strong policy support for the development of the traditional Chinese medicine pension industry, and provided more opportunities and platforms for researchers.

The research on traditional Chinese medicine for the elderly also involves a variety of intervention methods and models, including traditional Chinese medicine treatment, acupuncture, massage, rehabilitation training, etc (Ye, 2022). The application effect and

feasibility of these intervention methods and models in elderly care service institutions need to be further studied and verified to provide targeted TCM elderly care services.

Although some progress has been made in the research of traditional Chinese medicine for the elderly, there are relatively few empirical studies. In the future, it is necessary to strengthen empirical research to verify the effect and feasibility of traditional Chinese medicine elderly care services through practice, so as to provide stronger evidence support for the development of traditional Chinese medicine elderly care industry. In addition, the development of traditional Chinese medicine for the elderly needs the support of professional talents (Gan, 2020). At present, the talent training system of traditional Chinese medicine pension service industry is not perfect, and it is necessary to strengthen talent training and standardization to improve the quality and level of traditional Chinese medicine pension service.

To sum up, some progress has been made in the research status of traditional Chinese medicine for the elderly, but there are still some problems and challenges. In the future, it is necessary to further strengthen research to promote the development of traditional Chinese medicine pension industry and provide more choices and possibilities for pension services.

Conflicts of Interest: The authors declare no conflict of interest.
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