

# Visualization Analysis of Humanistic Nursing in China

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**Abstract:** This article focuses on a visualization analysis of humanistic nursing in China. It elaborates on the connotation of humanistic nursing, visualization analysis tools, data sources, and other foundational aspects. Through bibliometric and knowledge graph evolution analysis, it reveals publication trends, core contributors, research hotspots, and more. The study suggests that future efforts should strengthen multi-database integration and international comparative research to obtain more comprehensive data, draw lessons from international experience, clarify research directions, promote the development of humanistic nursing research in China, and enhance the quality of nursing services as well as academic influence.

**Keywords:** Humanistic nursing; visualization analysis; research hotspots; development trends

## Introduction

In the field of medical care, humanistic nursing has received increasing attention. Centered on patients and emphasizing multi-dimensional care, it is a key concept in modern nursing. Visualization analysis can intuitively present research dynamics and patterns. This article aims to systematically review humanistic nursing research in China using visualization analysis methods, analyze the current status, hotspots, and trends in research, provide references for subsequent studies, and contribute to the high-quality development of humanistic nursing in China, thereby better meeting patients' nursing needs.

## 1. Theoretical and Methodological Foundations of Visualization Analysis in Humanistic Nursing

### 1.1 The Connotation of Humanistic Nursing

Humanistic nursing, with the patient as its core,

emphasizes the integration of care for patients' physiological, psychological, social, and spiritual dimensions throughout the entire nursing process. It focuses on respecting individual differences, values, and emotional needs of patients, aiming to build a harmonious nurse-patient relationship and enhance the warmth and quality of nursing services. It requires nursing professionals not only to possess specialized nursing skills but also to have empathy, communication abilities, and humanistic literacy. Through personalized nursing interventions, it seeks to alleviate patients' physical and mental distress, help them build confidence in recovery, and facilitate a shift from a "disease-centered" to a "patient-centered" care model. As an indispensable component of the modern nursing system and a key conceptual support for promoting the high-quality development of the nursing profession, humanistic nursing is essential for advancing nursing practices.



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## 1.2 Tools and Technological Support for Visualization Analysis

The visualization analysis of humanistic nursing relies on various professional tools and technologies. Commonly used tools include CiteSpace, VOSviewer, and BibExcel, which enable the visual presentation of literature data—such as generating knowledge maps, cluster analysis diagrams, and timeline maps—thereby helping researchers intuitively grasp research dynamics and associations<sup>[1]</sup>. In terms of technological support, it encompasses data mining techniques, statistical analysis methods, and graphic visualization technologies. Data mining techniques extract key information from vast amounts of literature data, statistical analysis methods are used for quantitative processing and summarization of patterns within the data, and graphic visualization technologies transform complex data relationships into clear and comprehensible visuals. The collaborative application of these tools and technologies provides robust technical support for the in-depth exploration of humanistic nursing research, assisting researchers in identifying patterns and trends within the field.

## 1.3 Data Sources and Preprocessing Standards

Data sources for humanistic nursing research primarily include core academic databases both domestically and internationally. Commonly used domestic databases include China National Knowledge Infrastructure (CNKI), Wanfang Data Knowledge Service Platform, and VIP Chinese Sci-Tech Journal Database. International databases encompass Web of Science, PubMed, and Scopus. These databases host a wealth of literature resources related to humanistic nursing, such as journal articles, dissertations, and conference papers. Data preprocessing must adhere to strict standards. Initially, collected data undergo deduplication to remove redundant entries. This is followed by data cleansing, where literature relevant to the research topic is screened while irrelevant materials are excluded. Subsequently, bibliographic information (including titles, authors, keywords, publication dates, source journals, etc.) is standardized to ensure uniform data formats and accurate, complete information. This establishes a reliable data foundation for subsequent visualization analysis.

## 2. Bibliometric Visualization Analysis of Humanistic Nursing Research in China

### 2.1 Publication Trends and Spatiotemporal Distribution Characteristics

In terms of dynamic changes in publication trends, research on humanistic nursing in China demonstrates a robust and thriving development, with the overall volume of publications showing a steady year-on-year increase. Particularly in recent years, alongside rapid socioeconomic growth and a significant rise in public health awareness, demands for nursing service quality have intensified, and the concept of humanistic care has gained widespread recognition. Against this backdrop, research attention in the field of humanistic nursing has continued to rise, with a noticeable acceleration in the growth rate of publications. Regarding spatiotemporal distribution, certain regional disparities are evident at the spatial level. Economically developed regions such as Beijing, Shanghai, Guangdong, and Jiangsu, benefiting from abundant medical resources, numerous higher education institutions, and strong research capabilities, have fostered a conducive research environment and provided solid resource support for humanistic nursing studies. Consequently, these regions exhibit relatively higher publication volumes<sup>[2]</sup>. In the temporal dimension, research emphases have varied across different stages. Early-stage research primarily focused on the introduction of humanistic nursing concepts and in-depth exploration of their connotations, laying a theoretical foundation for subsequent studies. In later stages, the focus gradually expanded toward practical applications and the evaluation of intervention outcomes. Through extensive empirical research, the theoretical framework and practical models of humanistic nursing have been continuously enriched and refined, reflecting a progressive deepening and broadening of the research scope.

### 2.2 Visualization of Core Research Entities

Utilizing visualization analysis techniques allows for the clear and precise identification of the core research entities in the field of humanistic nursing in China, which primarily encompass key research institutions and leading researchers. Core research institutions are predominantly concentrated in well-known domestic medical universities, such as Peking Union Medical College, Southern Medical University, and Zhejiang

University School of Medicine, as well as major top-tier tertiary hospitals like Peking Union Medical College Hospital, Ruijin Hospital in Shanghai, and the First Affiliated Hospital of Sun Yat-sen University in Guangzhou. These institutions possess strong research teams, advanced facilities, and abundant resources, enabling them to make continuous efforts in the field of humanistic nursing and consistently produce high-quality research outcomes. Core researchers are primarily affiliated with these leading institutions. They have long been dedicated to research related to humanistic nursing and, leveraging their profound academic expertise and extensive practical experience, have published a significant number of influential academic papers. Their research directions are diverse, covering crucial areas such as humanistic nursing education, clinical humanistic nursing practices, and nurse-patient communication, playing a pivotal role in guiding and advancing the development of humanistic nursing research in China. Furthermore, through visual mapping, collaboration networks among different institutions and individuals can be intuitively presented, clearly revealing cooperative relationships within the research community.

### 2.3 Analysis of Publication Outlets and Funding Support

In terms of publication outlets, literature on humanistic nursing research in China is primarily published in core nursing journals, such as *Chinese Journal of Nursing*, *Chinese Nursing Management*, *Journal of Nursing Science*, and *Chinese Nursing Research*. These journals hold considerable authority and academic influence within the nursing field, serving as vital platforms for presenting and exchanging research findings on humanistic nursing. They maintain strict quality control over the literature they accept, ensuring that published research demonstrates high academic standards and innovative value. This provides researchers in the field with rich and high-quality academic references, effectively promoting academic exchange and knowledge dissemination. Regarding funding support, in recent years, an increasing number of humanistic nursing research projects have received grants from various funding sources. These include the National Natural Science Foundation of China, the National Social Science Fund of China, ministerial and

provincial-level research funds such as the Ministry of Education's Humanities and Social Sciences Research Projects, provincial natural science foundations, as well as institutional-level research funds. The increase in funding support has provided substantial financial security for humanistic nursing research, enabling researchers to conduct more in-depth and systematic empirical studies and practical explorations, thereby enhancing the scientific rigor and practical applicability of the research. This trend also fully reflects the growing emphasis placed on humanistic nursing research by departments at all levels, injecting strong momentum into the sustained development of this field.

## 3. Knowledge Graph Evolution Analysis of Humanistic Nursing Research in China

### 3.1 Keyword Co-occurrence and Cluster Analysis

Keyword co-occurrence analysis can reveal the degree of association between different keywords within the field of humanistic nursing research in China. By generating a keyword co-occurrence network map, high-frequency keywords such as "humanistic nursing," "high-quality nursing services," "nurse-patient relationship," "nursing education," "clinical nursing," "patient satisfaction," and "empathy" can be identified. These high-frequency keywords exhibit strong co-occurrence relationships, indicating that they represent the core content of humanistic nursing research<sup>[3]</sup>. Cluster analysis groups closely related keywords into distinct categories, forming multiple research clusters, such as "humanistic nursing concepts and connotations research cluster," "clinical humanistic nursing practice application cluster," "humanistic nursing education and talent cultivation cluster," and "nurse-patient communication and patient experience cluster." Each cluster represents a relatively independent research direction. Through cluster analysis, the overall structure and content distribution of humanistic nursing research in China can be clearly understood, revealing the connections and differences among various research directions.

### 3.2 Visualization of Research Hotspots and Thematic Focus

With the aid of visualization tools, the hotspots and thematic focus of humanistic nursing research in China can be intuitively presented. Recent research hotspots primarily concentrate on the following areas: First,

the exploration of practical pathways for humanistic nursing within the context of high-quality nursing services, focusing on how to integrate humanistic care into every aspect of high-quality nursing services to enhance the overall quality of care. Second, humanistic nursing studies targeting specific populations, such as elderly patients, cancer patients, and critically ill patients, which develop personalized humanistic care plans based on the physiological and psychological characteristics of different groups. Third, research on the reform of humanistic nursing education, exploring ways to strengthen the cultivation of humanistic literacy during nursing education, optimize curriculum design, and improve the humanistic care abilities of nursing students. Fourth, studies on the construction of evaluation systems for humanistic nursing, focusing on how to establish scientific and reasonable evaluation indicators to effectively assess the implementation outcomes of humanistic nursing.

### 3.3 Analysis of Research Frontiers and Emerging Themes

Through the dynamic analysis of literature data, the frontier areas and emerging themes in humanistic nursing research in China can be identified. Research frontiers primarily include the application of digital technologies in humanistic nursing, such as utilizing artificial intelligence and big data technologies for monitoring patients' psychological states and developing personalized care plans, thereby advancing humanistic nursing toward intelligent and precise development. Another frontier involves humanistic nursing research from an interdisciplinary integration perspective, which enriches the content and perspectives of the field by incorporating theories and methods from disciplines such as psychology, sociology, and ethics. Additionally, long-term outcome tracking studies on humanistic nursing, through extended follow-ups with patients, analyze the long-term impacts of humanistic nursing on patients' rehabilitation processes and quality of life. Emerging themes include humanistic nursing research in the post-pandemic era, exploring how to enhance humanistic care for both patients and healthcare professionals in the context of pandemic prevention and control, and alleviating the psychological stress induced by the pandemic. Another emerging theme is research on

community-based humanistic nursing service models. With the advancement of community health services, community-based humanistic nursing has become a new research hotspot, focusing on how to establish a comprehensive service system to meet the nursing needs of community residents.

## 4. Future Research Directions

### 4.1 Multi-database Integrated Analysis

Current research on humanistic nursing in China is predominantly based on single databases, which poses limitations in data coverage and risks omitting significant literature. Therefore, future efforts should strengthen multi-database integrated analysis. On one hand, it is essential to integrate diverse types of domestic database resources—such as journal article databases, dissertation databases, conference proceeding databases, and patent databases—to comprehensively collect research outcomes related to humanistic nursing. On the other hand, promoting joint analysis of domestic and international databases will help compare data between Chinese and global humanistic nursing research, thereby broadening the research perspective. During the multi-database integration process, challenges such as data format discrepancies and inconsistent data standards must be addressed. Establishing a unified framework for data integration and processing is crucial. Through multi-database integrated analysis, more comprehensive and richer research data can be obtained, enhancing the accuracy and reliability of research conclusions. This approach will provide a broader research perspective and a more solid data foundation for humanistic nursing studies.

### 4.2 International Comparative Research

Conducting international comparative research is a vital future direction for humanistic nursing studies in China. By comparing with countries where humanistic nursing research is more mature, such as the United States, the United Kingdom, and Japan, researchers can gain deeper insights into the differences and unique characteristics in humanistic nursing concepts, practical models, educational systems, and policy support across different nations<sup>[4]</sup>. Comparative research can be carried out across multiple dimensions. For instance, comparing research hotspots and development trends in humanistic nursing among different countries

can help identify international frontier research directions and provide references for Chinese studies. Comparing the implementation methods and outcomes of clinical humanistic nursing in various countries can help summarize advanced practical experiences and optimize China's clinical humanistic nursing service models. Furthermore, comparing curriculum design, teaching methods, and evaluation systems in humanistic nursing education across different countries can promote reforms and innovations in China's nursing education. Through international comparative research, gaps between Chinese humanistic nursing research and international advanced levels can be identified, clarifying future research priorities and development directions. This will facilitate the alignment of Chinese research with international standards and enhance China's academic influence and voice in the global humanistic nursing field.

## Conclusion

This study comprehensively analyzes humanistic nursing research in China using visualization tools, presenting its developmental trajectory, hotspots, and frontiers. Multi-database integrated analysis and international comparative research represent key future directions, capable of broadening research perspectives and enhancing research quality. It is hoped that more

scholars will engage in this field to promote the continuous deepening of humanistic nursing research, contribute to building a more comprehensive nursing system, improve patient care experiences, and foster the flourishing development of humanistic nursing in China on the international stage.

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