

Postprint: A Study on the Evolutionary Path and Development Trend Prediction of Research Hotspots in Chronic Disease Management in China

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Abstract

Background: The disease spectrum of Chinese residents is undergoing fundamental changes, and chronic diseases have become the most important public health issue affecting population health. **Objective:** To conduct a visualized analysis of research hotspots and their evolutionary pathways in chronic disease management in China, generate a prediction model based on trend degree, and reveal the evolutionary logic and future development directions of hotspot topics in the chronic disease management domain. **Methods:** Literature retrieval was conducted up to April 31, 2023, limited to academic journals, excluding non-research literature such as conference proceedings, news reports, and expert consensus. Relevant literature was searched in CNKI, VIP Chinese Science and Technology Journal Full-text Database, and Wanfang Data Knowledge Service Platform. To ensure the quality of included literature, journal types were limited to Peking University Core Journals, Chinese Science Citation Database (CSCD), and Chinese Social Sciences Citation Index (CSSCI). Based on text mining technology and bibliometric methods, VOSviewer software was utilized to construct co-word timeline network maps for in-depth analysis of structural relationships and evolutionary characteristics among chronic disease management research hotspots. Cluster analysis and strategic coordinate analysis were employed to reveal the research status and development trends of clustered themes. Characteristic indicators such as topic novelty and intensity were weighted and superimposed to construct a topic trend degree indicator, and triple exponential smoothing was applied to conduct predictive analysis on the time series of topic trend degree. **Results:** The research focus in the chronic disease management field was initially policy-oriented and fragmented, gradually evolving toward diversification, forming a multi-center network structure where core nodes such as “diabetes,” “hypertension,” “community,” “manage-

ment model,” “tiered diagnosis and treatment,” “medical consortium,” “internet healthcare,” and “integration of sports and medicine” are interconnected. Conclusion: Literature in the chronic disease management field exhibits exponential growth and has become a key research topic in academia. Multiple chronic disease management, chronic disease management for specific populations, psychological status of chronic disease patients, smart healthcare, traditional Chinese medicine chronic disease management, and comprehensive health management are emerging hotspot topics in the current chronic disease management field. Primary-level chronic disease management belongs to marginal research content, with immature research outcomes. Future research should focus on health management models for chronic disease comorbidities, continue to explore deep integration mechanisms between big data, cloud computing, Internet of Things, and wearable devices with chronic disease management, innovate new models of integrated medical prevention chronic disease management, and create new health management solutions for all populations and across the entire life cycle.

Full Text

Preamble

Analysis of the Evolution Path and Development Trend of Research Hotspots in Chronic Disease Management in China

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Abstract

Background: The disease spectrum of Chinese residents is undergoing fundamental changes, with chronic diseases becoming the most critical public health problem affecting population health. **Objective:** To visually analyze research hotspots and their evolutionary paths in chronic disease management in China, generate a prediction model based on trend degree, and reveal the evolution logic and future development direction of hot topics in this field. **Methods:** Literature searches were conducted in CNKI, VIP Chinese Science and Technology Journal Full-text Database, and Wanfang Data Knowledge Service Platform up to April 31, 2023, limited to academic journals from Peking University Core, CSCD, and CSSCI sources. Non-research documents such as meeting minutes,

news reports, and expert consensus were excluded. Using text mining and bibliometric methods, VOSviewer software was employed to create co-word timeline network maps for visual analysis of structural relationships and evolution characteristics among research hotspots. Cluster analysis and strategic coordinate analysis revealed the research status and development trends of thematic clusters. A theme trend degree index was constructed by weighting and superimposing characteristic indicators including novelty and intensity, with cubic exponential smoothing used for predictive analysis of the time series. **Results:** Initially policy-oriented and fragmented, research focus in chronic disease management has gradually diversified, forming a multi-center network structure with interconnected core nodes including “diabetes,” “hypertension,” “community,” “management model,” “hierarchical diagnosis and treatment,” “medical consortium,” “Internet medicine,” and “sports-medicine integration.” **Conclusion:** Literature in chronic disease management shows exponential growth, establishing it as a key academic research topic. Emerging hotspots include multimorbidity management, chronic disease management in specific populations, psychological status of chronic disease patients, smart healthcare, traditional Chinese medicine (TCM) chronic disease management, and comprehensive health management. Grassroots chronic disease management remains marginal with immature research outcomes. Future research should focus on health management models for chronic disease comorbidities, deepen integration of big data, cloud computing, IoT, and wearable devices with chronic disease management, innovate integrated prevention-treatment models, and develop health management solutions for entire populations and life cycles.

Keywords: Chronic disease; Chronic disease management; Bibliometrics; VOSviewer; Strategic coordinate method; Cubic exponential smoothing method

Introduction

With rapid socioeconomic development and lifestyle changes, China’s disease spectrum is undergoing fundamental transformation, with chronic diseases becoming the most important public health problem affecting population health. According to the *China Health Statistics Yearbook*, the chronic disease prevalence rate among residents reached 34.29% in 2022, with the rate among those under 35 years old at 10.73%, accounting for nearly one-third of all chronic disease patients. Chronic disease incidence is rising rapidly and showing a trend toward younger age groups. Chronic diseases not only pose a major threat to residents’ health but also represent a key constraint on national economic and social development. Due to their long course, complex etiology, and difficulty in achieving complete cure, the increasing incidence of chronic diseases inevitably leads to heavier burdens on both residents and healthcare finances, reducing socioeconomic benefits. Statistics from the Disease Prevention and Control Bureau indicate that chronic disease deaths accounted for 88% of total deaths in 2022, with chronic disease burden exceeding 70% of total disease-related pub-

lic expenditures, marking China's entry into a high-burden period for chronic diseases.

Although chronic diseases are the main threat to human health, they are preventable and controllable through health education, health monitoring, lifestyle intervention, early diagnosis and treatment, and standardized therapy to reduce disease risk. Scientific and effective chronic disease management is a critical practical issue concerning residents' well-being and sustainable socioeconomic development. China has always prioritized public health, placing chronic disease management and prevention at the forefront of healthcare reform. The "*Healthy China 2030*" *Planning Outline* explicitly proposes achieving "whole-population, whole-life-cycle chronic disease health management by 2030," while the 20th Party Congress report emphasizes "adhering to prevention-first principles and strengthening health management of major chronic diseases." Driven by policy guidance and practical needs, chronic disease management research has proliferated in recent years. Understanding the evolution path of research hotspots can help grasp future research directions and provide references for chronic disease management practice.

Previous analyses of chronic disease management research hotspots have largely been limited to simple bibliometric and descriptive statistical analyses of journals, authors, institutions, and keywords, lacking in-depth examination of evolutionary paths and future development trends. Therefore, this study employs VOSviewer to visualize high-frequency keyword co-occurrence networks in chronic disease management, uses strategic coordinate analysis to scientifically measure research dynamics and strategic positions, constructs a theme trend degree index by weighting novelty and intensity indicators, and applies cubic exponential smoothing for trend prediction of core themes, aiming to deeply explore evolution paths and future development trends to provide references for chronic disease management research in China.

1. Materials and Methods

1.1 Data Sources

To ensure systematic, comprehensive, and accurate literature retrieval, we first conducted effective and precise identification of relevant literature. The search was limited to academic journals up to April 31, 2023, excluding non-research documents such as meeting minutes, news reports, and expert consensus. Using search terms including "chronic disease management OR chronic disease management," "(chronic non-communicable diseases OR chronic diseases OR chronic conditions) AND (disease management OR health management OR management model OR standardized management)," we searched titles, keywords, and abstracts in CNKI, VIP Chinese Science and Technology Journal Full-text Database, and Wanfang Data Knowledge Service Platform. To ensure literature quality, journals were limited to Peking University Core, Chinese Sci-

ence Citation Database (CSCD), and Chinese Social Sciences Citation Index (CSSCI). The initial search yielded 3,814 documents. Based on the main disciplinary fields involved in chronic disease management research, we retained literature from management, public health, traditional Chinese medicine, and related fields, then removed duplicates using Endnote X9 software. After reviewing full texts, we further excluded irrelevant documents without substantive connection to the search terms, ultimately retaining 1,556 documents for analysis.

1.2 Methods

1.2.1 Keyword Co-occurrence Analysis Keyword frequency reflects research hotspots in a field, while keyword network analysis can reveal the maturity and structural changes of research topics. VOSviewer, developed by the Centre for Science and Technology Studies at Leiden University, is a software tool for creating visual bibliometric knowledge maps based on network data. It enables co-occurrence analysis of keywords, subject terms, authors, and other information, and provides text mining functions, having been widely applied in sociology, psychology, management, public health, and other fields. Using text mining and bibliometric methods, we imported preprocessed bibliographic records from 1,556 documents into VOSviewer 1.6.19, extracted keywords, set a threshold of 4 to extract high-frequency terms, and used Pajek 5.17 software to create co-word timeline maps for visual analysis of structural relationships and evolution paths among research themes in chronic disease management.

1.2.2 Strategic Coordinate Analysis To further explore development trends of research themes, we created two-dimensional strategic coordinate maps based on co-word cluster analysis, using novelty and attention as parameters to identify the development status and trends of clusters representing research themes in chronic disease management. In strategic coordinate maps, research themes are divided into four main types: core, potential, marginal, and basic (Figure 1 [Figure 1: see original paper]).

Assuming n co-occurring keywords form k clusters, with each cluster containing m keywords, novelty and attention are calculated as follows:

$$ND_i = 1/m \sum_{n=1} C_i = 1/m \sum_{g=1} Y_g \quad (\text{Formula 1})$$

$$F_i = \sum_{n=1} F_i \quad (\text{Formula 2})$$

Where Y_g , represents the co-occurrence year of the m -th keyword in the i -th cluster, and ND_i is the novelty of the i -th cluster. F_i refers to the co-occurrence frequency of the m -th keyword in the i -th cluster, and C_i is the attention level of the i -th cluster, where $i = 1, 2, 3, \dots, k$.

1.2.3 Theme Trend Degree Prediction Analysis Referring to TU et al.'s definition of topic novelty, novelty refers to the decreasing degree of newness of a research theme since its first appearance, with specific calculation formula:

$$NICY = 1/(CY - FY + 1) \text{ (Formula 3)}$$

Where NICY represents the novelty of a research theme in the current year, FY is the first appearance year of the theme, and CY is the current calculation year. The novelty of a theme is 1 in its first year and 1/2 in the second year, forming a quasi-exponential decreasing curve.

Theme intensity is defined based on publication volume and citation volume:

$$CY = \alpha[\text{sum1}(CY)]/[\text{sum1}(Sj)] + \beta[\text{sum2}(CY)/\text{sum2}(Sj)] \text{ (Formula 4)}$$

Where TSYS represents the intensity of research theme Sj in the current year, sum1(CY) is the cumulative number of publications on theme Sj from year 1 to the current year, sum1(Sj) is the total number of publications on theme Sj, sum2(CY) is the cumulative citation count of theme Sj from year 1 to the current year, and sum2(Sj) is the total citation count of theme Sj, with α, β (0, 1) and $\alpha + \beta = 1$. Publication trends reflect the current research status and attention level of a field, while citation trends reflect the attention level of a research theme, both being equally important, thus $\alpha = \beta = 0.5$.

Multiplying novelty and intensity yields the theme trend degree (Theme Intensity Value, TTD). Since NI shows a yearly decreasing trend while TSY shows an upward trend, multiplication balances these opposite trends:

$$CY = NISj \text{ (Formula 5)}$$

Considering the impact of time factors on future trends of research themes, we constructed time series of core themes based on trend degree and selected the widely used exponential smoothing method for trend prediction. While first and second-order exponential smoothing may produce large errors when predicting highly volatile data, cubic exponential smoothing can track nonlinear trends in time series and has strong practical utility, being widely applied across various fields. Therefore, we adopted cubic exponential smoothing for fitting and predictive analysis of this sequence.

2. Results

2.1 Annual Publication Trends

The first domestic literature on chronic disease management was published in 1995, focusing on community organizational structures and preventive measures for chronic disease management. Since 1996, annual publications have shown an overall upward trend, peaking in 2019 and 2020 (160 and 163 articles respectively), and maintaining steady growth in the past four years at 140-170 articles. As of April 31, 2022, annual publications in the field reached 42 articles (Figure 2 [Figure 2: see original paper]). By stage: Phase 1 (1995-2008) had fewer than 10 annual publications with stable changes, representing an embryonic period. Phase 2 (2009-2016) showed exponential growth with over 40

annual publications, representing an acceleration period when chronic disease management gradually became a key research topic. Phase 3 (2017-present) has exceeded 100 annual publications, entering a period of intense development.

2.2 Journal Distribution

The 1,556 articles were published in 152 Chinese core journals, with 21 journals (13.82%) publishing \$ \$15 articles each. The top journals with \$ \$50 articles were *Chinese General Practice* (217 articles), *China Chronic Disease Prevention and Control* (144 articles), *Chinese Journal of Public Health* (81 articles), *Chinese Journal of Health Education* (74 articles), *Modern Preventive Medicine* (72 articles), *Chinese Health Service Management* (59 articles), *Chinese Health Economics* (51 articles), and *Medicine and Society* (50 articles), as shown in Table 1 .

2.3 High-Frequency Keyword Distribution

The chronic disease management field yielded 2,172 keywords, with 188 keywords appearing \$ \$4 times. The top ten keywords were chronic disease, chronic disease management, hypertension, diabetes, community management, community, influencing factors, elderly, health management, and chronic disease prevention and control (Table 1). Research hotspots focused on influencing factors of common chronic diseases like hypertension and diabetes, community management, and health management of elderly populations. Specific discussions on chronic disease management models centered on community management and self-management.

2.4 Keyword Co-occurrence Timeline Analysis

Based on the above stage divisions, we used VOSviewer 1.6.19 and Pajek 5.17 to create keyword co-occurrence timeline maps for three periods: 1995-2008, 2009-2016, and 2017-2023 (Figures 3 [Figure 3: see original paper], 4 [Figure 4: see original paper], and 5 [Figure 5: see original paper]). Domestic chronic disease management research has undergone three stages: embryonic (1995-2008), accelerated development (2009-2016), and diversified development (2017-2023). In the embryonic stage, 10 keyword co-occurrence nodes formed a network centered on “chronic disease prevention and control” supplemented by “hypertension,” “diabetes,” “community,” and “prevalence.” Research output was limited and in its infancy. In the accelerated development stage, increased co-occurrence frequency formed a network with core nodes of “chronic disease management,” “community,” “hypertension,” “diabetes,” and “health management,” secondary nodes of “health education,” “rural,” “elderly,” and “epidemiology,” and peripheral nodes of “TCM,” “self-management,” “quality of life,” and “two-way referral.” “Elderly,” “TCM,” and “management model” emerged as new high-frequency core terms. In the diversified development stage, 50 keyword co-occurrence nodes formed a multi-center structure with interconnected core nodes including “community management,” “diabetes,” “hypertension,”

“health management,” “middle-aged and elderly,” “medication management,” and “Internet medicine,” radiating toward key nodes such as “multimorbidity,” “mobile health,” “sports-medicine integration,” “TCM,” “medical consortium,” and “hierarchical diagnosis and treatment.” New research themes included “integration of medical treatment and prevention,” “hierarchical diagnosis and treatment,” “mobile health,” and “sports-medicine integration.”

2.5 Strategic Coordinate Distribution of Research Themes

To further explore development status and future trends of research themes, we used VOSviewer to cluster high-frequency words in the co-occurrence matrix, named each cluster through secondary literature interpretation, and extracted research themes in chronic disease management (Table 3). We created a strategic coordinate map with “attention level” as the x-axis and “novelty” as the y-axis (Figure 6 [Figure 6: see original paper]) to identify the strategic positions of clusters.

By quadrant distribution: Themes 3 (multimorbidity management), 5 (chronic disease management in specific populations), 6 (psychological status of chronic disease patients), 8 (smart healthcare), 9 (TCM chronic disease management), and 10 (comprehensive health management) were in Quadrant II, representing potential research content with attention <0 and novelty >0 . Theme 4 (grass-roots chronic disease management) was in Quadrant III, representing marginal research content with both attention and novelty <0 . Themes 1 (common chronic disease management), 2 (epidemiology of chronic disease risk factors), 7 (chronic disease management models), and 11 (chronic disease prevention and control) were in Quadrant IV, representing basic research content with attention >0 and novelty <0 .

2.6 Core Theme Trend Prediction Results

Strategic coordinate analysis identified six potential research themes in chronic disease management: Theme 3 (multimorbidity management), Theme 5 (chronic disease management in specific populations), Theme 6 (psychological status of chronic disease patients), Theme 8 (smart healthcare), Theme 9 (TCM chronic disease management), and Theme 10 (comprehensive health management). We calculated annual theme trend degrees (Formulas 3, 4, 5) and used Eviews 10 software with cubic exponential smoothing to fit the 2016-2022 theme trend degree sequence values, using Sum of Squared Residuals (SSR) and Root Mean Squared Error (RMSE) as evaluation indicators, then predicted values for 2023-2030 (Figure 7 [Figure 7: see original paper]).

The cubic exponential smoothing prediction test results (Table 4) showed SSR <0.003 and RMSE <0.02 for Themes 3, 5, 6, 8, 9, and 10, indicating good model fit and prediction performance. Themes 3, 5, 6, 8, 9, and 10 showed overall upward trends from 2023-2030, remaining frontier topics in chronic disease management. Theme 9 (TCM chronic disease management) showed slight

overall growth despite a short-term decline in 2025. Theme 3 (multimorbidity management) grew fastest, with the highest predicted trend degree value by 2030, followed by Theme 9 (TCM chronic disease management), Theme 10 (comprehensive health management), Theme 5 (chronic disease management in specific populations), Theme 6 (psychological status of chronic disease patients), and Theme 8 (smart healthcare).

3. Discussion

3.1 Analysis of Annual Publications and Journal Distribution

Annual publications in chronic disease management show steady growth overall, peaking in 2019 and 2020. Driven by policy guidance and practical needs, chronic disease management has gradually become a key academic research topic. The “*Healthy China 2030*” *Planning Outline* elevated chronic disease management to a national strategy, while the *China Chronic Disease Prevention and Control Medium- and Long-Term Plan (2017-2025)* emphasizes “strengthening early screening, early detection, and early intervention for chronic diseases.” The 20th Party Congress report proposed “adhering to prevention-first principles and strengthening health management of major chronic diseases.” With chronic disease prevalence increasing yearly, chronic diseases have become the main threat to residents’ health, making chronic disease management research a priority for health researchers.

In terms of journal distribution, important journals for chronic disease management research primarily cover health policy, health economics, health education, and disease prevention and control. However, few academic journals focus on TCM chronic disease management. The World Health Organization has clearly recognized TCM as a key element in complementary and alternative medicine, with countries like the United States, Vietnam, and South Korea gradually integrating TCM into their healthcare systems. Through rigorous scientific research and clinical practice, TCM has demonstrated unique advantages and significant therapeutic effects in preventing and treating common, frequent, and chronic diseases. Therefore, future research should focus on TCM applications, effectiveness, and limitations in chronic disease management to fully leverage its potential.

3.2 Analysis of Evolution Path of Chronic Disease Management Research Hotspots

In the embryonic stage (1995-2008), research focus was policy-oriented, concentrated on chronic disease prevention and control, with limited outward diffusion and weak internal structure and element connections in the co-word network, showing fragmented characteristics. In the accelerated development stage (2009-2016), research hotspot concentration increased, co-occurrence frequency among

nodes improved, and connections between hotspots strengthened. Research heat on chronic disease prevention and control cooled, while topics on hypertension, diabetes, and community management continued to gain attention. “Hypertension” and “diabetes” newly connected with nodes for “stroke” and “chronic obstructive pulmonary disease,” indicating scholars began focusing on multimorbidity or chronic disease comorbidities. New core terms like “elderly,” “TCM,” and “management model” emerged frequently, extending research content and deepening exploration of management models and mechanisms. However, the “TCM” node remained small, indicating insufficient research output.

In the diversified development stage (2017-present), community-based elderly chronic disease management and epidemiological studies on risk factors for common chronic diseases like hypertension and diabetes remain research foci. The shift from recognizing chronic disease comorbidities to multimorbidity management becoming a major topic has deepened toward comorbidity patterns, quality of life, and mental health. However, current multimorbidity research largely remains at the level of medication adherence, model studies, and health hazards, with gaps in health management strategies and community intervention programs for middle-aged and elderly populations. Despite multiple major national policies, TCM chronic disease management research progress remains slow. Emerging research topics include “parallel” explorations of smart healthcare, comprehensive health, hierarchical diagnosis and treatment, and medical consortium perspectives on chronic disease management status, problems, models, and countermeasures.

Common chronic disease management, epidemiology of chronic disease risk factors, chronic disease management models, and chronic disease prevention and control constitute basic research content—early hotspots or long-term academic concerns with mature outcomes but low novelty. Multimorbidity management, chronic disease management in specific populations, psychological status of chronic disease patients, smart healthcare, TCM chronic disease management, and comprehensive health management represent potential research content—emerging hotspots with low current attention requiring deeper investigation and likely to become future priorities. Grassroots chronic disease management remains marginal with low attention and immature research outcomes. Chronic disease management has always been a crucial task for community health services. Providing stratified, categorized long-term care for chronic disease patients in communities can effectively address issues like large population base and shortage of quality medical resources. Therefore, future research should strengthen focus on grassroots chronic disease management.

3.4 Analysis of Trend Prediction for Chronic Disease Management Research Hotspots

Multimorbidity management shows the highest predicted trend degree value, making it the foremost frontier topic in chronic disease management. According to a large-scale epidemiological survey in China, multimorbidity accounts for

46.5% of residents with chronic diseases, rising with age to over 60% among those 65 and older. Multimorbidity has become a normal characteristic of chronic disease patients, making research on polypharmacy, management models, and community intervention programs urgently needed. Comprehensive health management, chronic disease management in specific populations, psychological status of chronic disease patients, and smart healthcare show slower trend growth. With rapid development and popularization of mobile Internet, integrating Internet technology with chronic disease management to innovate models has become a key research topic with gradually enriching outcomes. However, limitations in remote terminal devices and smart software regarding audience reach, interactivity, and compliance have somewhat slowed future development. Since the 2019 Healthy China strategy proposed the concept of “accelerating the shift from disease-centered to health-centered care,” topics like disease prevention, health promotion, and integrated prevention-treatment have gained widespread attention, though research depth and maturity remain insufficient, currently in preliminary stages but expected to develop rapidly and gradually mature.

4. Conclusion and Future Outlook

Through systematic analysis of literature from CNKI, Wanfang, and VIP databases on chronic disease management, examining annual publication volumes, journal distribution, high-frequency keywords, evolution paths of research hotspots, strategic positions of research themes, and trend degree predictions, this study comprehensively reviewed and analyzed domestic chronic disease management research findings to deeply explore hotspot distribution, evolution paths, and future development trends. Key findings include: (1) Literature in chronic disease management shows exponential growth, establishing it as a key academic research topic. (2) Research topics have evolved from embryonic and accelerated development stages to the current diversified stage, with sustained increasing research interest. (3) Multimorbidity management, chronic disease management in specific populations, psychological status of chronic disease patients, smart healthcare, TCM chronic disease management, and comprehensive health management are emerging hotspots, though research depth needs strengthening. Grassroots chronic disease management remains marginal requiring academic attention, with immature research outcomes. (4) Multimorbidity management, TCM chronic disease management, smart healthcare, and comprehensive health management will be future academic priorities.

Future directions: (1) Deeply investigate chronic disease comorbidities and develop scientific multimorbidity health management strategies. Currently, no suitable multimorbidity health management or intervention program for Chinese residents has been established. Future research should focus on polypharmacy, mental health, and quality of life perspectives, exploring multimorbidity management programs through mechanisms like multimorbidity pattern iden-

tification, disease prevention, management models, and medical insurance to reduce prevalence and disease burden among middle-aged and elderly populations and improve health and well-being. (2) Innovate integrated prevention-treatment chronic disease management models. Deep exploration should cover organizational management, financing mechanisms, service catalogs, team building, information systems, medication management, and evaluation mechanisms to create whole-population, whole-life-cycle health management solutions. (3) Continue exploring smart healthcare innovations for precision chronic disease management. With Internet technology as a driving force, Internet medicine and smart healthcare have become “new tracks” for sustained, disruptive innovation in chronic disease management practice. Future research should fully explore deep integration mechanisms of big data, cloud computing, IoT, and wearable devices with chronic disease management to innovate models and gradually achieve precision health management, improving prevention and management efficiency. (4) Strengthen TCM research to fully leverage its advantages in chronic disease management. Deep integration of TCM theory, techniques, and services with chronic disease management should be enhanced through institutional development, system building, and health management model research to construct TCM chronic disease management medical consortia and meet residents’ TCM health management service needs. (5) Prioritize chronic disease management in rural and underdeveloped areas. The health level of populations in rural and underdeveloped areas is an essential component of building a Healthy China. Future research should focus on micro-level studies constraining chronic disease management effectiveness in these regions to propose targeted management models and intervention programs.

This study retrieved and analyzed literature from major Chinese databases, yielding reliable results, but has limitations. Due to space constraints, only Chinese databases were searched, excluding foreign literature and resulting in incomplete data acquisition. Future research should include Web of Science Core Collection, Scopus, and other foreign databases for more comprehensive and objective insights into chronic disease management research progress and future trends.

Author Contributions: LI Liqing proposed the main research objectives, conceptualized and designed the study, revised the manuscript, and provided quality control and review. YANG Sule collected and organized data, performed statistical analysis, created figures and tables, and drafted the manuscript. ZENG Chuanmei was responsible for quality control and review, and supervised the article.

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