

The Medical-care-integrated Aged Care Model in China Under The Background of Healthy Aging: A Literature Review

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Abstract

The aging problem brought by aging has become a great challenge for all countries in the world, and since the 20th century, all modern countries in the world have taken coping with population aging as a basic national policy. Population aging is the global population trend development. For a considerable duration, it will remain a fundamental characteristic of China. The issue of ageing is no longer a problem that the elderly and their families need to face. However, this is not only a problem or difficulty that individuals may tackle alone, but rather a matter that requires the collective engagement of the entire society. Communities across the world and specifically China are experiencing major difficulties in the transition in the medical-care-integrated aged care model. This study aims to examine the existing literature on the implementation and effectiveness of the medical-care-integrated aged care model in both China and other countries. Offering a citation for the establishment of the medical-care-integrated aged care paradigm in China. The commonly used the medical-care-integrated aged care model in Chinese include setting up a nursing home in a hospital, setting up a hospital at a long-term care facility for elderly individuals, contractual cooperation between a hospital and a nursing home, and hospital-community-family cooperation model, and conducting a literature review on the research of these four the medical-care-integrated aged care model. By analyzing the medical-care-integrated aged care models in China and other countries, Chinese policies, and the characteristics of the four medical-care-integrated aged care models in China, it is found that many MECM studies in China are More immediate research, lack of sustainable development research ideas; many specific issues are discussed, but few comprehensive research results, this may be related to the fact that there are more pilot studies in China; scattered disciplinary perspectives and lack of innovation in research perspectives. Despite its limitations, this systematic review can make a contribution to the advancement of the medical-care-integrated aged care model for the benefit of practitioners in related fields and pave the way for future research.

Keywords: Medical-Care-Integrated Aged Care Model, Healthy Aging, Policy Research, Long-Term Care, Medical-Care-Integrated Elderly Care Services

Introduction

During the mid-20th century, The phenomenon of population aging first emerged in developed countries, including the United States, Japan and Western Europe (Population Division, Department of Economics and Social Affairs, United Nations, 2018). And although the aging process in developing countries is slower, the number of older people is growing rapidly, such as China (Moncatar et al., 2020). As per the World Health Organization's definition of a "aging society," the proportion of individuals aged 60 and above in the total population is 10%, while the proportion of individuals aged 65 and above is 7%. The figures from China's seventh census released In the year 2021 shows that the country's population is 1417.8 million, of which 264.02 million (18.70%) are aged 60 years and above, of which 190.64 million (13.50%) are aged 65 years and above. The current proportion of the population aged 60 and over is 5.44% greater than the proportion recorded in the sixth population census in 2010 (National Health Council of China, 2022). China will continue to face the pressure of long-term Demographic aging development in the future, and the population is rapidly entering an aging society. Communities across the world and specifically China are experiencing major difficulties in the transition in the medical-care-integrated aged care model (MECM).

In China, older people spend more on health care, accounting for 2.5 times the proportion of healthcare expenses compared to the population (Yan & Yue, 2021). chronic diseases are the largest disease burden in China, and chronic diseases increase the economic strain associated with healthcare expenses for elderly individuals. Long-term expenditures are still increasing, and within the coming few years, the number is expected to double. In the past three years, the Chinese economy has had an average yearly growth rate of 4.5%, which is notably greater than the global average (China News Network, 2023). However, the population is ageing more severely and society is characterised by a faster process of ageing before it gets rich (Liu, 2021). The prevalence of chronic diseases and disability among the elderly in China also increases rapidly with age, and with the load of functional decline and the progression of disease conditions, older people with chronic diseases may experience varying degrees of disability. To preserve the physiological functions of older individuals and enhance their quality of life, we need to shift from a specialist, fragmented and compartmentalised treatment model to an individualised, continuous and integrated medical model. The establishment of MECM has shown unique advantages in terms of breaking geographical restrictions, redistribution of resources and optimisation of resources, especially for medical development in areas where medical resources are already scarce or geographically remote. In 2017, the Chinese National Health and Family Planning Commissioners, with 13 other government departments, established a definition for "healthy ageing." They defined it as a set of comprehensive and systematic interventions that address all factors influencing health throughout a person's entire life. The goal is to create a social support system and living environment that promote the health of older individuals, thereby extending their healthy life expectancy, maintaining their healthy functioning, and improving their overall health (National Health and Family Planning Commission of the People's Republic of China, 2017). The World Health Organisation and China have essentially the same definition of healthy ageing, both agreeing that healthy ageing entails maintaining the healthy functioning of older people. It is defined in China more broadly than by the World Health Organisation as an

intervention on health impact factors. MECM aims to establish a robust framework for collaboration between medical and health institutions and elderly care institutions. It supports elderly care institutions in providing medical services and promotes the expansion of medical and health services to communities and families. Additionally, it encourages the establishment of medical and health institutions by social forces and the integration of medical and health institutions with elderly care services.

This paper systematically summarizes the MECM of developed countries, and policy development of MECM in China, taking into account developed countries early entry into an aging society and their extensive research in this field. It also analyzes the differences between China's MECM and that of developed countries, aiming to provide valuable reference experience for the development of China's own MECM.

Literature Review

Research Progress of the medical-care-integrated in Developed Countries

Developed countries are the first to enter an ageing society and have made many useful explorations into MECM. There is no MECM statement abroad, it is more in terms of long-term care research for the elderly, which is actually the same concept as MECM in China. In the study of foreign pension systems, there is a consensus among scholars that the government has an unshirkable responsibility in the construction of social pension systems. Son, Lee, & Chung argues that the government plays an important role in addressing ageing, especially in terms of equity of services (Son et al., 2016). Ambrey argues that the role of government depends on the specific design of the system of old-age services (Ambrey et al., 2018). Geoffrey & McNicoll points out the competition for power between government workers and professionals, which naturally results in maximising government power backed by institutions rather than solving ageing problems, breaks down the holistic system of multiple provision of elderly services (Geoffrey & McNicoll, 2017). Elderly care services are primarily implemented in residential settings, community and institutional settings, and To ensure that service quality received by older people is kept on the same track as the cost of provision, the Western societies have meticulously established the standards for aged care services. One of the benefits of community care is that community resources can be mobilised to provide more adequate care, and community care provides greater social support than institutional care. The United States and Japan are more representative of MECM. As the pace of ageing in the United States accelerated, began to explore community-based models of care. The Program of All-Inclusive Care for the Elderly (PACE) is widely regarded as the most significant operational model in the United States. Launched in San Francisco in 1973, The program currently operates 233 PACE centers in 32 states throughout the United States, offering comprehensive and coordinated social, health, and care services to approximately 40,000 low-income people in the community who are disabled, semi-disabled and in need of medical care over the age of 55 (Mason, 2017). The costs of community care are much lower than those of institutional care, both in terms of government payments and in terms of considering both formal and informal care costs, and that even when the time and labour of informal caregivers is measured in monetary terms, the costs of community care are still lower than those of institutional care. The configuration and operation of a family have a substantial influence on the manner in which older individuals receive long-term care, and family members are the mainstay of informal care, Assuming accountability for providing ongoing assistance to elderly individuals when they require it due to their senior age or incapacity.

Culture and attitudes have an insidious influence on the choice of Extended healthcare models for the elderly, and in comparison, cultural and attitudinal differences between Asia and Europe have led to different outcomes in decisions about care over an extended period of time. In a study of European preferences for care for older people, It found that older people's choice of MECM is influenced by their attitudes towards family and government. In Asian countries, informal family care is traditionally preferred to address geriatric care who are disabled or elderly, which most scholars believe is influenced by Confucianism and the culture of 'filial piety', such as the widespread Chinese concept of raising old age. Family care is regarded by Western researchers as a type of informal care, and it is this cultural tradition that has made family care the prevailing form geriatric care in Asian countries. In Japan, medical services for the elderly are covered by long-term care insurance and universal health insurance, mainly by law, and carers pay only a small proportion of the cost of services. The operational framework relies on family care, bolstered by governmental welfare and social services and includes day care centres, nursing homes, elderly welfare centres, flats and home services. The nursing homes are mainly for the disabled elderly and consist of a system of medical care by a doctor, a nurse, a nurse's aide (carer) and a welfare worker (coordinator). Although most Japanese institutions do not have a medical centre, the medical needs of elderly people with serious illnesses can be met because of the good relationship between the institution and the surrounding hospitals, and because many general hospitals have geriatric specialties; for elderly people with non-serious illnesses, the institutions have their own medical staff to treat them; for elderly people who are unable to remain in the hospital for an extended period of time due to the restricted number of hospitalization days, institutions have allocated nursing beds to compensate for the shortage. Additionally, the community is equipped with medical and health facilities such as tiny hospitals, clinics, or nursing stations. thus providing as much coverage as possible for elderly people in the community (Arai et al., 2015). Y. Moriyama argues that institutional care norms focus on ensuring the well-being and protection of older individuals, particularly the code of conduct for caregivers of the elderly, and has established a guardianship of the elderly reporting system to report regularly to institutions on the status of care for the elderly, ensuring the legal rights of senior citizens (Moriyama et al., 2018). Japanese medical philosophy places particular emphasis on the parallel between mind and body, i.e. not only on the treatment of physical illnesses, but also on the management of the psychological state of elderly patients (Honjo et al., 2018). The health status of older patients requires holistic and multidimensional care, and improving communication with family members, maintaining social networks and participating in community or group activities are all important factors in promoting the mental health of older patients (Hartzler et al., 2018). In Japan, older patients are encouraged to communicate with their families and focus on group activities (Hayashi et al., 2018). for healthcare professionals, respecting age or cultural differences and meeting individualized spiritual needs are required, especially for older patients living alone, to prevent the risk of psychological disorders such as depression. With reference to the Japanese model of medical care for elderly patients, In China, it is crucial to prioritize the professionalism of medical and nursing care in order to maintain the quality of medical services. Additionally, it is important to address the social and psychological issues faced by elderly patients and enhance humanistic care.

In conclusion, the MECM in foreign countries has a long history of development and has formed a relatively perfect institutional framework, And scholars have conducted a lot of research on MECM, which has laid the theoretical foundation for the design and arrangement

of MECM. It can be said that foreign research results on population ageing are richer, and their knowledge and understanding of the system of services for the elderly is more extensive, which provides useful reference for China's research on the MECM.

Research Progress of the Medical-care-integrated in China

Previously, China's elderly care services have been mainly family-oriented informal care. Compared to the relatively well-developed long-term care systems and service systems in foreign countries, China's MECM are still in their infancy. The research on the MECM for the elderly in China was relatively scarce before 2010, and there were relatively fragmented research questions and low quality publications, but with the deepening of the problem of population ageing in China, the MECM for the elderly has become the focus of attention of the government and society, and with the recent piloting of the MECM in various provinces, this issue has also become the focus of academic circles.

Since 2013, when the State Council initially put up the Opinions on Accelerating the Development of the Elderly Service Industry to promote the development of the MECS, the Chinese government has issued policies on the MECS one after another, repeatedly proposing to accelerate the MECM. The government work report in 2019, proposed for the first time to reform and improve the policy on the MECM, putting forward new prerequisites for the creation of the MECS in China. Currently, the MECS has been implemented to different extents in institutional care, community care, and home care services. As a result, the majority of elderly institutions and hospitals have successfully enhanced the quality of elderly care services through continuous and in-depth cooperation.

Policy research on the medical-care-integrated elderly care service model

The aging population in China has prompted the government to prioritize the establishment and enhancement of a comprehensive senior service system and the advancement of the country's aging industry. To address this problem, the State Council has implemented various policies related to the MECS.

MECM germination phase.

The General Office of the National Health and Family Planning Commission issued a notice on March 14, 2014, *regarding the establishment of the Leading Group on Health and Family Planning Work for the Elderly*. The notice proposed the creation of a Leading Group within the National Health and Family Planning Commission to oversee health and family planning initiatives for the elderly. As a result, China's medical and healthcare services for the elderly have been effectively organized and secured. The Opinions of the National Health and Family Planning Commission on *Promoting Telemedicine Services in Medical Institutions* were issued on August 21, 2014. These opinions established the methods and strategies for integrating medical care and nursing care, providing practical guidance and feasibility. The General Office of the State Council issued a notice on January 20, 2015, *providing guidance on integrating medical and health care with elderly services*. This notice outlined the development goals, important tasks, and necessary safeguards for the MECS. It offered significant guidance for the advancement of medical and nursing care in China, and marked the initial establishment of a framework for the construction of MECS in the country. To further the promotion of the MECS in many sectors, the Ministry of Civil Affairs and the National Health and Family Planning Commission organized a national conference on the integration of medical care on 4 December 2015. During the conference, several important problems were discussed. The seminar elucidated the correlation between geriatric services and medical services. The

meeting highlighted the importance of enhancing policy integration, particularly in the development of systems. There was a specific emphasis on integrating policies related to community-based elderly care services and primary health care. Additionally, the meeting emphasized the need to provide policy concessions to medical and nursing institutions to strengthen their support. During the National Conference on Health and Wellness on 19 August 2016, General Secretary Xi Jinping formally introduced the idea of "Greater Health, Greater Hygiene."

Stages of MECM development.

On May 5, 2017, the General Office of the State Council released a notice outlining the main objectives for advancing the reform of the medical and health system in 2017. The notice emphasized the need to further develop national-level pilot projects focused on integrating medical and healthcare services, as well as promoting the integration of these services at the community and home levels. Initiate the project on Chinese medicine to promote healthy ageing. Facilitate the comprehensive advancement of health and associated sectors, and foster the establishment of exemplary hubs for health and medical tourism. On 16 June 2017, the General Office of the State Council issued a statement regarding the advancement and implementation of care services for the elderly. The statement emphasized the need to accelerate the integration of medical and health care, promote the merging and growth of medical and health institutions with elderly care services, establish and enhance collaborative mechanisms between medical institutions and elderly care facilities, support the establishment of medical and health care integration institutions by non-governmental organizations, and encourage hospitals to provide beds for disabled elderly individuals in the community and establish a system for visiting clinics. The General Office of the State Council issued a set of opinions on 4 July 2017, aiming to expedite the growth of commercial pension insurance. These opinions also highlighted the need to gradually establish comprehensive pension protection schemes, including long-term care for the elderly, integration of recreation and health care, and enhancement of service protection systems for the elderly, rehabilitation, nursing care, and medical care. The General Office of the State Council issued a notice on July 13, 2017, regarding the National Nutrition Plan (2017-2030). The notice suggests implementing specific feeding standards for the elderly population and providing guidance to hospitals, community canteens, medical and health care institutions, and elderly institutions on how to prepare nutritionally balanced meals. Implement a comprehensive system for managing and providing care for the nutritional health of the aged population. Establish a multi-sectoral collaboration system to ensure a seamless connection between nutrition and the content of integrated medical and health care services. The Guidance of the State Council of the Central Committee of the Communist Party of China issued on 5 September 2017, emphasized the need to enhance the quality of elderly care services. The guidance specifically called for the development of a comprehensive and technologically advanced system that focuses on providing care for the elderly at home, with support from the community, supplemented by institutions, and integrated with medical services. On August 26, 2018, the General Office of the State Council released a notice outlining the important objectives for the second half of 2018 in order to further advance the reform of the medical and health system. The notice also included a proposal to develop guidelines for the services and management of institutions that integrate medical and nursing care. The State Council's Opinions on the Implementation of Health China Action, issued on 15 July 2019, advocated for enhancing the health service system for the elderly, refining the policy

on ageing in place and in the community, facilitating the integration of medical and nursing care, investigating the long-term care insurance system, establishing a conducive environment for the elderly, and achieving healthy ageing. In November 2019, the State Council of the Central Committee of the Communist Party of China released the National Medium and Long-term Plan for Proactively Addressing Population Aging, which explicitly put forward Establishing an exemplary supply chain for delivering top-notch services and products to the older population. The objective is to enhance a comprehensive aged care system that encompasses home-based, community-based, and institutional care, while also integrating medical services. This will involve expanding the availability of elderly-friendly products and services through various channels and regions, with the ultimate goal of improving the overall quality of these offerings. In China, the primary bodies of MECS are classified into four distinct categories: Government entities, business entities, social entities, families, and individuals (Table 1).

Table 1

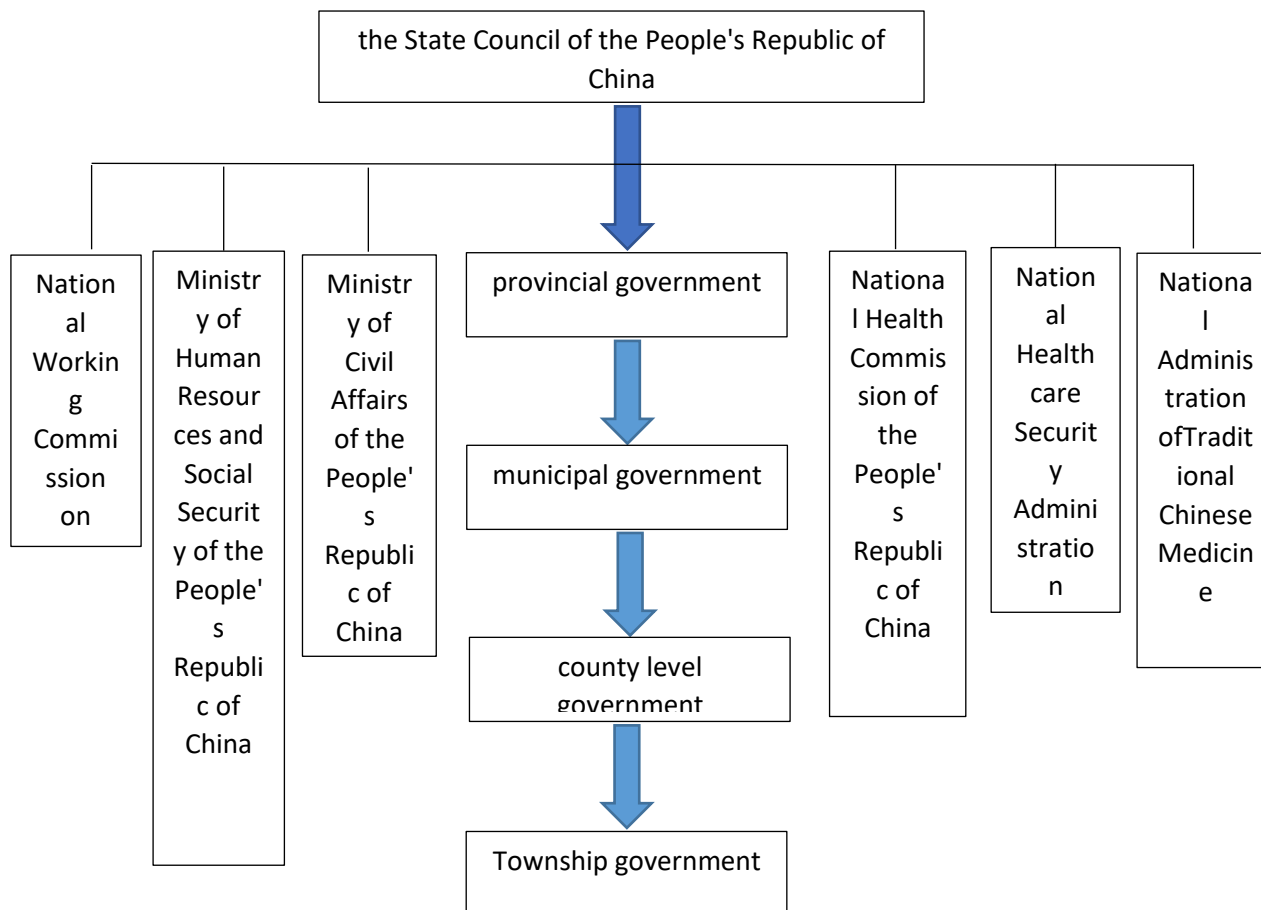
The primary entities of the medical-care-integrated elderly care services in China

government organizations	private organizations	social organizations	Families and individuals
Direct supply from state and local governments; indirect supply such as tax incentives	Services of for-profit organizations	Services of non-profit organizations	Informal assistance from family, friends, community

(Data source: Tu (2021). demand-oriented MECS, research on the integrated governance of supply fragmentation considered. Changchun: Jilin University Press.)

The Civil Affairs Department approves and manages ordinary elderly care institutions, while the Office for the Aged organizes and implements community home care. The Health Department identifies and manages health care, and health insurance reimbursement is governed by the social security department. Government organizations encompass both the hierarchical structure of government at various levels and the different departments that operate inside the government. (Figure 1).

Figure 1 Relevant government departments of healthcare integration in China



(Data source: Tu (2021). demand-oriented MECS, research on the integrated governance of supply fragmentation considered. Changchun: Jilin University Press.)

Due to institutional reasons, industry differences, administrative division, financial division, and other factors, civil affairs, health, aging, and social security departments are involved in the combination of healthcare services for older people. Although each department has its division of responsibilities, there is still a situation of overlapping responsibilities, leading to a waste of human and material resources of the management department and the nursing institutions. Simultaneously, the transformation of ordinary geriatric care institutions into combined medical and nursing institutions can obtain the government's one-time construction financial and operating subsidies. Still, transforming medical institutions directly into collaborative medical and nursing institutions still needs to receive donations. This situation of "multiple management" or "multiple disregards" makes it challenging to achieve coherence and horizontal integration in the understanding, adjusting, and implementing various support policies by multiple departments.

MECM is gradually moving towards the maturity stage after the pilot.

These policy aim to improve the well-being of elderly individuals, promote their health and well-being, and ensure that they receive appropriate medical and social support in their old age. These pilot experiences can help Governments formulate more comprehensive and efficient strategies to tackle the difficulties associated with the process of aging (Table 2).

Table 2

Content of the policy medical-care-integrated elderly care services in China

Item	Content
Health insurance system policy	To guarantee elderly individuals have access to healthcare services, it is necessary to broaden the range of health insurance coverage. This includes providing primary health insurance to both urban and rural populations, as well as offering major disease insurance.
Long-term care policy	Formulating a long-term care policy to provide home care, community care and nursing home services for older persons, which includes the provision of day-care centres for older persons and long-term care beds.
Health management for older persons	Promoting health management for the elderly, including regular health check-ups, chronic disease management and health education.
Social old-age insurance	Establishing a social elderly insurance system to provide retirement pensions and benefits for the elderly.
Home-based Services for the elderly	Providing in-home care, living assistance and social support
Construction of elderly homes	The government encouraging and regulating the construction and management of old-age homes to deliver exceptional residential and nursing care services of superior quality.
Protection of the rights and interests of the elderly	Enhancing the safeguarding of the rights and welfare of the elderly, including opposing elder abuse and discrimination and ensuring the dignity and safety of the elderly.
Geriatric mental health	Paying attention to the mental health of senior citizens and providing psychological counselling and support services
Skills training for the elderly and cultural activities for the elderly	It aims to enhance the overall well-being of elderly individuals..
The MECS Communities Pilot	It aims to incorporate MECS.
The In-Home Elderly Care Pilot	It helps older people receive better care at home.
The Social Assisted Meals Pilot	It provides older people with healthy meals, along with health check-ups and social interaction.
	A number of nursing homes and healthcare organizations carry out pilot reforms to provide one-stop MECS.

The MECS Institutional Reform Pilot It uses Internet technologies such as online doctor consultation, remote monitoring and medication delivery

Internet medical care for the elderly pilots It promotes co-operation between community-based elderly care providers, healthcare institutions and social organizations to provide integrated elderly care.

community-based elderly care co-operation pilots

(Source: The authors collected Chinese government websites, government departments' websites, and research reports from relevant research institutes.)

The General Office of the State Council issued a notice on 23 July 2020 outlining the important tasks for the second half of 2020 to further advance the reform of the medical and health system. The notice suggests the development of guidelines for managing institutions that integrate medical and health care, as well as the implementation of a project to enhance the integration of community medical and health care services. On December 31, 2020, the General Office of the State Council released guidelines to promote the growth of elderly care services. The guidelines emphasized the need to further integrate medical and health care services and make efficient use of community health service institutions, township health hospitals, and other local medical resources. They also called for actions to enhance the integration of community medical and nursing capabilities. The General Office of the State Council issued a notice on 17 June 2021 outlining the important tasks for 2021 to further advance the reform of the medical and health system. These tasks include enhancing the development of a health service system specifically designed for the elderly and expanding the availability of comprehensive medical and health services. The State Council issued a circular on 27 September 2021 regarding the Outline for the Development of Chinese Women and the Outline for the Development of Chinese Children. The circular emphasized the need to ensure women's access to basic elderly care services. Additionally, the State Council called for the expedited establishment of an integrated elderly care service system that encompasses home and community institutions, combining medical care, health and recreation. Furthermore, there was a strong emphasis on the development of inclusive elderly care services. The State Council released the 14th Five-Year Plan for the Development of the National Ageing Career and the Elderly Service System on 21 February 2022. The plan explicitly aims to encourage private organizations to establish large-scale elderly institutions that excel in integrating medical and nursing care. These institutions are expected to take a leading role in enhancing standards and regulations for long-term care services and training professional caregivers. Exhibition and prominent position. Facilitate collaborative partnerships between aged facilities and nearby medical and health institutions, enhancing the practicality of the collaboration mechanism and its scope. By 2025, most old facilities will possess the capability to incorporate medical treatment. An initiative to establish a localized registration system for physicians will be put into effect, with the aim of incentivizing medical personnel to work at medical and nursing facilities. Simultaneously, the document promotes the establishment of medical and health facilities within large or elderly institutions that primarily cater to disabled elderly individuals. It also advocates for the integration of medical

and health facilities within elderly institutions into the management of medical associations. Furthermore, it suggests the appropriate allocation of medical insurance quotas for medical facilities organized by elderly institutions based on the specific needs of the elderly population they serve. Lastly, it emphasizes the enhancement of the standard specification system for the integration of medical and health care. The implementation of a set of policies and the organization of a national conference on the integration of medical and health care services have successfully directed the progress of integrating medical and health care services throughout China.

This study provides an overview of the official national policies on MECS from 2013 to 2023, and summarizes the main thrust of the current national policies on the MECS: Firstly, vigorously advocate for the integration of medical and health care with elderly care services, and support the cohesive development of medical and health care. Secondly, establish and enhance the collaborative framework between medical institutions and elderly care institutions; thirdly, Encourage the piloting of MECM models such as support the establishment of medical beds and medical facilities by qualified medical institutions; Finally, promote the MECS, and develop institutions with Chinese medicine characteristics. It can be seen that the state and the government have a very positive attitude towards the MECS in the macro policy; in the micro level, the MECM in China will also be enriched and developed in multiple dimensions.

On the whole, the construction of the MECM system has positively responded to the problem of medical care during the significant growth of the elderly population in China, using institutional means to organically combine nursing care resources with medical resources, innovating the link between the MECS policies, and initially solving the medical problems arising from ageing. The MECM is a newly emerged model of geriatric care services in China, and there is a lack of comprehensive operational foundation for safeguarding the rights and interests of the elderly during the service process. While the Law on the Protection of the Rights and Interests of the Elderly includes provisions for the healthcare of older individuals, the legal provisions are macroscopic and principled, and the regulations on the MECM need to be made concrete and operational, which requires local governments to formulate complementary laws and regulations to provide specific and operational regulations for the MECS, and there are some aspects of China's MECS that have an imperfect institutional system. At present, most of the MECM are carried out by relying on elderly care institutions. While urban health care institutions enjoy government subsidies and preferential treatment in terms of land and service hardware, there is no clear policy basis for the implementation of resources for regarding the provision of comprehensive healthcare services in rural regions, making it difficult to implement preferential policies for healthcare integration in rural regions where resources for elderly care are not sufficient.

Research Progress the Medical-care-integrated Care Service Models

The Guidance on Promoting the Integration of Medical and Health Care with Elderly Care Services, issued in 2015, outlines the fundamental principle of the MECS. This principle is to ensure the essential health and elderly care requirements of the elderly as the central focus. It emphasizes the utilization of elderly care institutions to cater to the needs of disabled and semi-disabled elderly individuals, while also enhancing rehabilitation and nursing services. Additionally, it aims to provide long-term care for elderly individuals facing specific challenges. Most senior individuals would primarily experience the aging process within their community and at their own residence. The fairness and accessibility of fundamental

healthcare and elderly care services will be enhanced by integrating various medical and elderly care approaches. Currently, there exist four categories of MECM in China: The model of medical institutions with built-in elderly care facilities; The model of medical institutions within nursing homes; The model of cooperation between medical institutions and elderly care institutions; The hospital-community-family cooperation model (Table 3).

Table 3

Content of medical-care-integrated aged care model in China

model	Content
The model of medical institutions with built-in elderly care facilities	One is that medical institutions are led or transformed into elderly care homes or nursing homes. The other is to open geriatric wards in hospitals above the second level that are in a position to do so, set up old rehabilitation beds and nursing beds.
The model of medical institutions within nursing homes	Medical institutions within Separate infirmaries, health clinics, geriatric beds, nursing homes etc., set up within nursing homes to provide older people with the necessary medical services.
The model of cooperation between medical institutions and elderly care institutions	It is mainly a contractual model and entrusted management, in which the two parties reach a cooperation agreement, which is government-led and market-driven, with division of labor and two-way referral as the main features.
The hospital-community-family cooperation model.	Health management services are provided to the elderly living at home in the community through cooperation between community health service centers and community centers for the elderly who reside in their own homes or directly to the elderly living at home.

(Data source: Wang (2019). Research on the Construction of the Elderly Service System in the New Era, Beijing: People's Publishing House)

The model of medical institutions with built-in geriatric care facilities is derived from the existing strengths of medical institutions to determine the direction of MECS development. Large and medium-sized medical institutions have the quality human resources, technology and hardware facilities to fulfill the healthcare needs of the aging population, and through the establishment of additional service facilities such as geriatric specialties and elderly wards, they can take into account nursing care, elderly care, rehabilitation, health education, hospice care and other services (Yan, 2015). Promote the evolution of MECS in the direction of comprehensive and quality services. Smaller secondary hospitals and primary health care institutions can utilize to its maximum potential

their unused medical resources to expand their elderly care services and gradually transform into rehabilitation hospitals, nursing hospitals or geriatric hospitals (Wang et al., 2019). In

order to meet the needs of the elderly population for general medical services, a certain number of beds are set up in nursing homes with good infrastructure, in accordance with national hospital standards, and professional medical and nursing teams and medical facilities and equipment are deployed to provide targeted and personalised service plans based on the health requirements of older individuals in terms of diagnosis and treatment of diseases, spiritual comfort and health management (Si et al., 2020). Some of the public institutions for the elderly and high-end, large-scale private institutions for the elderly have been improving their medical treatment and rehabilitation mechanisms and strengthening their medical protection capacity to provide to the specific medical requirements of older inhabitants, including disease treatment and rehabilitation care. The model of cooperation between medical institutions and elderly care institutions is based on A collaborative partnership between hospitals and aged care institutions to enhance and incorporate medical and care technologies (Li, 2018). Medical institutions offer training, supervision, and teaching on medical care and nursing skills to older institutions using technical expertise. This ensures that the basic health needs of the elderly are met through professional health management. For elderly people with serious illnesses that exceed the service provision capacity of elderly care institutions, a green channel will be activated to transfer them to medical institutions according to the agreement reached between the two parties. In the area of "care", health information is exchanged amongst senior care institutes and medical institutions to make up for the shortcomings of medical institutions that emphasise medical care over care. For elderly people whose conditions have been cured, improved, stabilised or rehabilitated, they are transferred back to elderly care institutions to continue their rehabilitation, thus forming a two-way care model. The hospital-community-family cooperation model is based on the community, with home care as the mainstay, to achieve a integration of healthcare services, family care and community care . The medical institution and community family model is a model in which primary health care institutions cooperate with elderly families through a "contract service" model, setting up health files for elderly people with special difficulties, such as those who are disabled, living alone or elderly, and providing services such as chronic disease management, health guidance and home visits. It also makes use of various information technology tools such as information platforms and smart senior citizens' platforms to bring integrated medical and health care services into thousands of households (Yu et al., 2019).

Analysis of Review

In general, research has been performed by the academic community on the construction of MECS from different disciplines, and these studies have been enlightening and have provided theoretical references for this study. At the same time, it should also be noted that there is still much room for research on the construction of MECS in China.

More immediate research, lack of sustainable development research ideas. There are many studies focusing on the microscopic MECS in a certain historical period, but few studies on the macroscopic systemic combing over a long period of time. The existing research results on MECM mainly focus on solving the problems faced by the current MECS, but few institutionalize the MECS, lacking the historical combing and experience summary of the MECS construction.

Many specific issues are discussed, but few comprehensive research results. This may be related to the fact that there are more pilot studies of MECM in China. The existing research results on China's integrated healthcare services, including some historical research results,

are often focused on the specific issues of China's integrated healthcare services. The research results devoted to the construction of the institutional system of MECS are relatively rare, and there is a lack of overall grasp of the development of the institutionalization of MECS. Scattered disciplinary perspectives and lack of innovation in research perspectives. At present, the research focuses on the construction of MECS from the perspective of sociology, social security, gerontology, economics, medicine, psychology and other disciplines, but few scholars have studied the construction of MECS under the background of healthy aging. The study of the construction of MECS needs to be placed Under The Background Of Healthy Aging, based on an eye on macro history, transforming the past bias towards short periods of time, single, scattered research, combining the ephemeral and common time, and conducting a macro panoramic perspective on the construction of medical and nursing care services.

Conclusions

The research systematically compares the relevant domestic and international literature on MECM. By analyzing found that many MECM studies in China are More immediate research, lack of sustainable development research ideas; many specific issues are discussed, but few comprehensive research results, this may be related to the fact that there are more pilot studies in China; scattered disciplinary perspectives and lack of innovation in research perspectives. There are some limitations in this study because most of the studies focus mainly on policy research and theoretical studies. Therefore, this review does not mention MECM empirical studies. This limitation undoubtedly provides new opportunities for future research, especially in combining theoretical and empirical studies, and further analyses and explorations in this area can be considered in the future. Despite its limitations, this systematic review can make a contribution to MECM research, benefit practitioners in related fields, and pave the way for future research. The implementation of MECM not only overcomes the shortcomings of the traditional model of aging, but also provides a more promising direction for research on aging in healthy aging. In addition, this paper fills the knowledge gap in policy research on MECM 2013-2023, which is of great significance in realizing China's MECM sustainable development goals.

References

- Ambrey, C. L., Bosman, C., & Ballard, A. (2018). Ontological security, social connectedness and the well-being of Australia's ageing baby boomers. *Housing Studies*, 33(5), 777-812.
- Arai, H., Ouchi, Y., Toba, K., Endo, T., Shimokado, K., Tsubota, K., . . . Yokode, M. (2015). Japan as the front-runner of super-aged societies: Perspectives from medicine and medical care in Japan. *Geriatrics & gerontology international*, 15(6), 673-687.
- Barnett, K., Mercer, S. W., Norbury, M., Watt, G., Wyke, S., & Guthrie, B. (2012). Epidemiology of multimorbidity and implications for health care, research, and medical education: a cross-sectional study. *The Lancet*, 380(9836), 37-43.
- China National Health and Family Planning Commission and 13 other government departments. (2017). Notice on Printing and Distributing the "Thirteenth Five-Year Plan" for Healthy Aging (Guo Wei Jia Ting Fa [2017] No. 12). Retrieved from <http://www.nhc.gov.cn/llyjks/zcwj2/201703/86fd489301c64c46865bd98c29e217f2.shtml>
- China News Network. (2023). China's economy has grown at an average annual rate of 4.5% over the last three years, which is significantly higher than the world average. Retrieved from <https://m.gmw.cn/baijia/2023-01/18/36312289.html>

- Conroy, S., Van Der Cammen, T., Schols, J., Van Balen, R., Peteroff, P., & Luxton, T. (2009). Medical services for older people in nursing homes—comparing services in England and the Netherlands. *JNHA-The Journal of Nutrition, Health and Aging*, 13, 559-563.
- Department of Population and Employment Statistics. (2018). *China population and employment statistical yearbook 2018* China Statistics Press.
- Feng, D., Feng, Z. Y., & Wang, X. (2015). Thinking on Pension Institutions which Combined with Medical Treatment. *Medicine&Philosophy*, 5, 35-67.
- Geoffrey & McNicoll. (2017). Population Aging, Fertility and Social Security. *Population& Development Review*, 2, 385.
- Hartzler, A., Osterhage, K., Demiris, G., Phelan, E., Thielke, S., & Turner, A. (2018). Understanding views on everyday use of personal health information: Insights from community dwelling older adults. *Informatics for Health and Social Care*, 43(3), 320-333.
- Hayashi, T., Kondo, K., Kanamori, S., Tsuji, T., Saito, M., Ochi, A., & Ota, S. (2018). Differences in falls between older adult participants in group exercise and those who exercise alone: a cross-sectional study using Japan Gerontological Evaluation Study (JAGES) data. *International journal of environmental research and public health*, 15(7), 1413.
- Honjo, K., Tani, Y., Saito, M., Sasaki, Y., Kondo, K., Kawachi, I., & Kondo, N. (2018). Living alone or with others and depressive symptoms, and effect modification by residential social cohesion among older adults in Japan: the JAGES longitudinal study. *Journal of epidemiology*, 28(7), 315-322.
- Li, C.Y. (2018). The comparative advantages, constraints and promotion strategies of the community home health care integration elderly care service model. 6, 161-167.
- Liu, H. L. (2021). Population ageing trends in the world and China. *Scientific Research on Ageing*, 9(12), 4.
- Mason, D. J. (2017). Long-term care: investing in models that work. *JAMA*, 318(16), 1529-1530.
- Moncatar, T. R., Nakamura, K., Siongco, K. L., Rahman, M., & Seino, K. (2020). Prevalence and determinants of self-reported injuries among community-dwelling older adults in the Philippines: a 10-year pooled analysis. *International journal of environmental research and public health*, 17(12), 4372.
- Moriyama, Y., Tamiya, N., Kawamura, A., Mayers, T. D., Noguchi, H., & Takahashi, H. (2018). Effect of short-stay service use on stay-at-home duration for elderly with certified care needs: Analysis of long-term care insurance claims data in Japan. *PLoS One*, 13(8), e0203112.
- National Health Council of China. (2022a). *2022 China Health Statistics Yearbook*. Beijing: China Union Medical University Press.
- Population Division, Department of Economics and Social Affairs, United Nations. (2018). *World population ageing 2017: highlights*. New York: United Nations.
- Son, Y.-S., Lee, K.-S., & Chung, J.-W. (2016). A study on the intention to use community care service by pre-caregivers based on dementia under the long-term care insurance system for the aged-special dementia rating (5 rates) in the focus. *Journal of Korean Clinical Health Science*, 4(3), 603-614.
- Si M.S., Jing Q., & Zhang X.Y. (2020). The current situation and factors influencing the service demand of elderly people in different health care institutions in Qingdao. *China Public Health*, 36(04), 524-528.
- The State Council the People's Republic Of China. (2016). *Healthy China 2030 Plan Outline*. Retrieved from https://www.gov.cn/zhengce/2016-10/25/content_5124174.htm

- Tu, A. X. (2021). Demand-oriented MECS, research on the integrated governance of supply fragmentation considered. Changchun: Jilin University Press.
- Wang, C. H., Wang, Z. L, & Shi, H. (2019). PEST-SWOT analysis of the primary health care institution-led model of health care integration. *Health Soft Science*, 33(11), 15-19.
- World Health Organization, W. H. (2016). Global report on ageing and health. Retrieved from http://apps.who.int/iris/bitstream/handle/10665/186463/9789245565048_chi.pdf;jsessionid=A6EFDA16F5129AFCF3FE0211F2EF667C?sequence=9
- Wu, C. P., & Jiang, X. Q. (1996). Discussion on the Strategy of "Healthy Aging". *Chinese Social Sciences*, 05.
- Yan, N. (2015). The choice of old-age care model for the empty nesters in the process of urbanization:Combination of medical and health care in urban communities. *Journal of Huazhong Agricultural University (Social Science Edition)*, 04, 22-28.
- Yan, Z. J., & Yue, Z. (2021). Medical Expenditure of the Elderly and Its Influencing Factors——An Empirical Analysis Based on Sample Selection Quantile Regression. *Xinjiang Farm Research of Science and Technology*, 10, 48-57.
- You, E., Dunt, D. R., & Doyle, C. (2013). Case managed community aged care: what is the evidence for effects on service use and costs? *Journal of Aging and Health*, 25(7), 1204-1242.
- Yu, R., Han, Y. Z., & Liu, J. J. (2019). Domestic and foreign practices and inspiration of community-based home-based combined medical and nursing care service model. *Labour Security World*, 29, 26-27.