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Challenges and Optimization Pathways for the Development of Community Health Services in China: Postprint

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Abstract

As residents' health needs continue to rise in the new era, how community health services can adapt to these evolving demands through comprehensive transformation urgently requires addressing. This article examines the developmental trajectory of community health services in China, identifying issues of functional deficiency; synthesizes the challenges confronting this development, noting that population health needs are undergoing structural transformations; and finally proposes developmental pathways for community health services in China from perspectives including shifting operational priorities, enhancing the sense of value among contracted physicians and the sense of gain among residents, constructing a synergistic and complementary community health service network, and establishing a demand-oriented health information platform.

Full Text

Challenges and Optimization Paths for the Development of Community Health Service in China

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Abstract

In the new era, the health needs of residents are constantly increasing, and how community health services can adapt to the needs of the times and achieve comprehensive transformation urgently needs to be answered. Firstly, the article reviewed the development process of community health service (CHS) in China and found that it is functionally defective. Secondly, the article summarized the challenges faced by the development of CHS in China and pointed out that the current health needs of the population are undergoing structural changes. Finally, the article proposed the development paths of CHS in China in terms of changing the focus of work, improving the sense of value for contracted doctors and the sense of achievement for residents, building a collaborative and complementary CHS network, and establishing a demand-oriented health information platform.

Keywords: Community health service; Development history; Challenges; Optimization paths; Comment

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Community health service is a form of primary healthcare in urban areas that centers on human health, takes the family as the unit and the community as the scope, and is demand-oriented to address major community health problems and meet basic health service needs [1]. It differs fundamentally from hospital-based medical services in terms of service targets and positioning [2-3]. The former serves all populations, with a focus on environmental monitoring, health assessment, and health interventions, using general medical means to maintain and promote individual and population health [4]. The latter serves patient populations, with a focus on using specialized technical means to accurately diagnose diseases, identify causes, and apply targeted medical interventions to prevent disease deterioration and promote recovery. Numerous studies have shown that a community health service-oriented health system can better improve health outcomes, enhance service quality, and increase service efficiency [5]. As society enters a new era of development, with persistently high medical costs and continuously rising health demands, community health services urgently need to achieve comprehensive transformation to meet the needs of the times. This article reviews the development history and existing problems of community health services in China, summarizes the challenges facing their development, and proposes targeted development paths to support the improvement of quality and efficiency in community health services.

1. Development History of Community Health Services: Functional Deficiency

China's community health services began in the late 1980s. With continuous improvements in economic development and social progress demanding higher standards for health undertakings, the Central Committee of the Communist Party of China and the State Council issued the "Decision on Health Reform and Development" in 1997 [6], making a strategic decision to reform the urban health service system and actively develop community health services. In 1999, the Ministry of Health and nine other ministries issued "Several Opinions on Developing Urban Community Health Services" [7], identifying the main work content as "six-in-one" primary healthcare services comprising prevention, medical care, health protection, rehabilitation, health education, and family planning technical services, while emphasizing the principle of prevention first and combining prevention with treatment. By the end of 2000, the former Ministry of Health formulated and released the "Guiding Principles for Establishing Urban Community Health Service Institutions" [8] and a series of other documents, further clarifying and standardizing the content and functions of community health services. Since then, domestic community health service institutions have developed rapidly, with the number of community health service centers increasing from 692 in 2002 to 10,122 in 2021, and the average number of health technicians per center rising from 29.2 in 2002 to 47.0 in 2021, continuously improving both coverage and quality [9].

However, community health services have not achieved comprehensive and synchronized development, but rather a deficient development. Although community health service institutions were entrusted with the "six-in-one" mission from their inception, their starting foundation was medical services [10]. Against the backdrop of unmet medical service demands from residents, this determined the priority development of medical functions in community health services. On the other hand, insufficient government investment in primary-level health services also forced community health service institutions to rely on medical services as the foundation for their operation and survival. After the SARS outbreak in 2003, the government began to attach importance to public health investment and construction, but its impact on the development of community public health services was limited. On one hand, the financing methods and management systems of community health service institutions did not fundamentally change, with "treatment" remaining at the core of their work. On the other hand, the breadth and depth of public health investment were insufficient, leading to inadequate content and quality of public health services, low sense of value and achievement among community medical staff, and poor service enthusiasm. Since 2009, reducing medical costs and implementing tiered diagnosis and treatment and two-way referral have become core objectives of medical reform. As the foundation of the medical service system and the cornerstone of the tiered diagnosis and treatment system, primary-level medical and health institutions have attracted much attention. Extensive discussions in academic

circles and society about whether these institutions possess sufficient medical service capabilities and how to enhance them have gradually caused the status of primary-level medical and health institutions in the health service system (distinct from the medical service system) and their public health service functions to be neglected and diluted by the public and even by the institutions themselves.

The excessive emphasis on medical functions and medical service capabilities has transformed the service target of community health services from all populations to patients, and the relationship between community health service institutions and hospitals has shifted from functional complementarity to business competition, creating increasing survival pressure. More importantly, the gap in medical resources and service capabilities between community health service institutions and hospitals is naturally existent and cannot be eliminated. Overemphasizing the medical functions of community health services cannot eliminate residents' stereotypical impression of insufficient capacity and potential risks in community health service institutions, making it difficult to change residents' behavior of seeking higher-level medical care.

Furthermore, this deficient development contradicts the principle of "prevention first, combining prevention with treatment," causing community health service institutions to focus more on diseases than health, more on individuals than populations, more on static health than dynamic health observation, and more on passive services that address existing problems than active services that proactively identify health issues in individuals or populations and provide corresponding professional support. They can only stick to existing service content and fail to dynamically adjust their business according to changing population service demands.

2. Challenges in Community Health Service Development: Structural Changes in Population Health Needs

2.1 Gradual Release of Demand for Comprehensive Health Services

Comprehensive health services include health level assessment, identification of health risk factors, and health life planning, covering not only individual health but also population health. They represent a service approach of preventing disease before it occurs and preventing deterioration after disease onset. Both the "Healthy China 2030" Planning Outline and the Healthy China Action (2019-2030) have identified promoting healthy lifestyles and improving health literacy as major actions in Healthy China construction [11-12]. In this context, comprehensive health services will play an increasingly important role in residents' lives and receive greater attention from them. Statistics show that the proportion of urban residents' per capita health care expenditure in per capita consumption expenditure has risen from 6.15% in 2013 to 8.8% in 2021 [13], with a continuous upward trend, indicating that urban residents' health awareness is continuously improving and they are increasingly focusing on health investment.

2.2 Growing Demand for Rehabilitation and Nursing Services

According to statistics, the number of chronic disease patients in China has reached approximately 300 million [14]. The universalization and 年轻化 (younger age trends) of disease incidence, the prolonged course of diseases with persistent conditions, and the decline in mortality rates brought about by medical progress will all contribute to the continuous expansion of the chronic disease population. On one hand, chronic diseases require long-term care and treatment [15], which will consume enormous medical resources, making sole reliance on inpatient services unrealistic. On the other hand, although chronic diseases cause persistent functional impairment and require high-level comprehensive treatment during acute episodes, their triggers are relatively clear. During stable disease periods, rehabilitation and nursing services such as traditional Chinese medicine can slow disease progression, reduce acute episodes, and improve patients' quality of life [16]. Consequently, the demand for rehabilitation services for chronic disease populations will become increasingly prominent in the future.

2.3 Increasing Demand for Integrated Medical and Elderly Care

By the end of 2021, China's population aged 60 and above reached 267 million, accounting for 18.9% of the total population. Faced with the "aging before affluence" situation, healthy aging and integrated medical and elderly care are effective measures to cope with population pressure [17]. On one hand, the elderly population has the highest prevalence of chronic diseases and substantial health service needs. Through integrated medical and elderly care, health management levels for the elderly can be effectively improved and enhanced, reducing their demand for health resources. On the other hand, with improved economic levels and increased population mobility, residents' concern for the health of the elderly has become more prominent, and the integrated medical-elderly care model has gained increasing recognition [18].

2.4 Growing Popularity of Remote Health Services

Remote health services use the internet to shorten the physical distance between service providers and users, greatly reducing human, economic, and time costs in service provision and utilization, expanding service depth and breadth, and improving service coverage and accessibility [19]. Consequently, remote health services are favored by both providers and users. Currently, remote imaging, remote diagnosis, and remote consultation have been widely practiced in China with certain results achieved. With the promotion and widespread application of 5G information technology, remote health services will offer richer content and play a more important role in service provision.

2.5 Increasing Demand for Healthcare Service Value

The concept of healthcare service value was first proposed by Michael Porter [20], referring to health outcomes per unit cost. Once introduced, this concept

received widespread attention from all sectors of society, making how to improve healthcare service value one of the core tasks of China's current medical reform. In fact, with rising economic levels, improved health literacy, and accelerated life pace, residents' demand for high-value health services has become strongest [21]. On one hand, residents increasingly need to solve their health problems with minimal time and economic costs. On the other hand, the medical service process and quality increasingly influence residents' medical choices. This requires medical and health institutions to continuously optimize service processes, enrich service content, enhance service capabilities, and strengthen inter-institutional collaboration to quickly identify residents' health needs and match them with appropriate medical resources, maximizing residents' sense of achievement in seeking medical care.

3. Development Paths for Community Health Services

3.1 Shifting Focus: From Healthcare to Health

The era of "lack of medical care and medicine" has passed, and residents' demands for health service quality and content are gradually increasing. Therefore, community health services should shift their work focus from "healthcare" to "health," including not only individual health but also family and community health [22]. This shift does not weaken medical functions but rather adds health services beyond existing functions, with the most important being community health and health needs assessment [23-24]. Based on community health and health needs assessments, the main health demands of community residents can be understood macroscopically, allowing for judgment on what services the community should provide, what health service providers it should have, and which community health-related departments should be involved. Using limited community resources to address major community health problems, community health service planning and development strategies can be formulated to gradually improve service levels.

3.2 Strengthening Contracts: Improving Doctors' Sense of Value and Residents' Sense of Achievement

Family doctors are core participants in implementing community health services. However, current phenomena of "unwillingness to sign contracts" and "signing without actual engagement" constrain the development of community health services. The root cause of these problems lies in the low sense of value for doctors in contract signing and low sense of achievement for residents. Family doctors are responsible for both residents' subjective health demands and objective health needs. The former is their responsibility as "doctors," while the latter is a characteristic they should possess as "family doctors." The primary task of family doctors is to have a clear understanding of the health status and family situations of contracted individuals [25]. Based on this foundation, they should proactively provide health guidance and health service recommendations for individuals and their families, and seek family or community-level

health support for individuals [26]. Through these approaches, the advantages of contract signing can be highlighted, driving proactive engagement, improving contracted individuals' sense of achievement and compliance, and encouraging them to prioritize contacting their contracted doctors when health problems arise, thereby enhancing family doctors' sense of honor and value.

3.3 Joint Construction and Sharing: Building a Collaborative and Complementary Community Health Service Network

Community health services are rich in content and broad in coverage, making it difficult for a single entity to possess the capacity to provide all services [27]. Building a community health service network that integrates primary-level health human resources and enables all health service providers to participate in community health service provision is an international common practice for achieving comprehensive, full-population, and full-lifecycle coverage of community health services [28]. Community health service centers should play a leading role, take community health as the core, jointly build collaborative service networks with other health service providers in the community, use family doctor teams as the link, establish extensive business cooperation, fully explore community health service needs, scientifically guide community health service utilization, and thereby enhance the depth and breadth of community health services [29].

3.4 Community-Oriented: Establishing a Demand-Oriented Health Information Platform

First, various platforms should be integrated to share health information. Currently, multiple health information platforms exist at the community level, with different platforms used for different business management purposes. However, these platforms cannot yet achieve interconnectivity and information exchange, creating unnecessary workload for community health service centers and reducing service efficiency. Starting from residents' health needs, different health information platforms should be integrated into one, enabling all residents' health information to be stored on a single platform. Different information modules should then be designed so that different businesses can extract needed information from the health information platform, achieving a state where all businesses share the same information platform and all health information [30].

Second, platform coverage should be expanded to aggregate health information. Multiple health service providers and health-related entities exist in communities, such as community health service centers (stations), pharmacies, and neighborhood committees. Individual, family, and community health information is also distributed among different service providers. Using health information from a single provider to conduct health assessment and management for individuals, families, and communities will undoubtedly introduce errors and risks. Therefore, on the basis of establishing an integrated community health information platform, it is necessary to achieve coverage of this platform across all

health service providers and health-related entities [31], enabling aggregation of health information from different sources. This can not only improve the quality of community health management but also facilitate communication, exchange, and business collaboration among various entities.

The international community generally believes that community health services should adjust according to changes in population health needs. By reviewing the development history of community health services in China, analyzing existing problems, and considering current characteristics of residents' health demands, this article proposes development directions for community health services: focusing on health assessment, enhancing contract value, building service networks, and integrating health information. Based on these foundations, this can help promote qualitative transformation of community health services and improvement of primary-level health service standards in China.

Author Contributions: WU Yueping was responsible for conceptualization and design, data collection and analysis, and manuscript writing. NIU Yadong was responsible for manuscript revision, quality control, and overall supervision. ZHANG Liang, ZHANG Xiang, WU Jian, and MIAO Yudong were responsible for quality control and manuscript review.

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