The Model Construction and Connotation Analysis of China’s Medical Consortium

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Abstract. As an approach for the optimization of health care resource allocation and a new exploration of health care reform, Medical consortium has provided an effective method for the construction of a well-ordered and rationalized medical & health structure. In order to expand market share and improve the efficiency of resource utilization, medical care institutions in different levels, functions and sizes have sought for combination, merger and acquisition based on the division of labor, to achieve mutual benefits and sharing of resources, and effectively promote medical service level. This article shall shed some light on the development status, contents, characteristics and significance of Chinese Medical Consortia.

In the 21st century, Chinese government has actively promoted the model construction of medical consortium (hereinafter referred to as MC), to optimize health care resource allocation, and promote healthy and rapid development of medical and health services.¹ In the wake of the government’s policy initiatives, and substantial input of social capital into the health care industry, MC enters into a rapid development age. Shanghai Ruijin Hospital Group, Daqing Oilfield General Hospital Group, Maanshan Municipal Medical Group, Beijing Millennium Monument Hospital Medical Consortium successively established; Medical health care institutions in Shandong, Jiangsu, Hebei, Shaanxi, Hainan and other provinces also established Medical Consortia (hereinafter referred to as MCs) jointly. In addition, promoted by national policy, some private hospitals also take advantages of their financial resources and mechanisms to establish MCs in succession. This model has become quite popular in practice.

Development Characteristics of Chinese MC Model

Chinese MC model has played an active role in reducing the waste of resources, improving operational efficiency, and exploring new medical reform, it has he following features in its development process.

The Main Organizational Form of MC is Non-compact

The main organizational form of Chinese MC is non-compact. In the non-compact MC, the administrative relationship of the hospitals, the hospital level, the nature of ownership, the form of financial accounting, asset ownership, personnel management authority, service charges and other contents are unchanged.

All the integrated units remain their independent legal person status, each bears corresponding civil liability. Its member units are mainly tied with each other by technical collaboration and technical guidance, not involving changes of property relations. MCs established by asset-restructuring are relatively few.²
Government Guidance in the Establishment of MCs

At present, the construction of MCs is mostly arranged by the government departments. The government played an active leading role in promoting the construction of MC through administrative approaches.

For instance, the establishment of Qingdao Haici Medical Group was under the guidance and arrangement of Qindao Municipal party committee and municipal government; Ma'anshan Municipal Medical Group is also successful formed under the government’s guidance; Zhengzhou municipal government organized the construction of Zhenzhou People’s Hospital Medical Group, taking it as the headquarter, the People's Hospital of Zhengzhou’s Yihe hospital and Yiju health City Hospital as east and west wings, and the Ninth People's Hospital, Dental hospital, and other medical and health institutions as member units.[3]

Policies and Regulations on MC are Still Not Perfect

The integration of medical and health institutions involves different interests of the government, shareholders, members & staff etc. Therefore in the construction process of MC, the coverage and rationality of relevant policies and regulations is largely decided by the coordination of the interests and relationships of all parties, and the regulation of the behaviors of the parties. At present, China's legislation on the construction of MC is not yet completed, the lack of such supportive policies and regulations has greatly hindered MC construction and operation. Policies and regulations on MC need further improvement[4].

The Direction of MC Development is From Loose to Intense

Although non-compact MC is the mainstream in China, such MC has problems and shortcomings in management, operation and role play, which are not conducive to long-term development and efficient operation. Therefore, some MCs have tried to develop tightly-knitted forms. In 2000, the integration of Shanghai Sixth People's Hospital with four secondary hospitals belongs to non-compact model, in 2005, two of which developed in the form of trusteeship and moved towards a more tightly knitted direction[5].

MC has Diversified Business Model

According to different business models, MC can be divided into four types as contract type, trustee type, joint-venture type and merger type. The main difference of the various types lies in ownership and management rights. In merger MC, the independent legal entity and independent status of the original medical institutions disappear, and a new independent legal entity is constructed with unified model to achieve effective integration of people, finance, material, and give full play to the overall advantages. This model is a concrete manifestation of medical and health institutions’ integration from inside or outside, it is the most intensive MC model.

As a special form of medical health services, MC has its unique contents, its formation and development has initially taken shape. Its construction is of great significance and value for improving the health conditions of service, improving service levels of medical and health institutions, and promoting healthy development of China's medical and health undertakings[5].

Functions and Significance of MC Model

MC model construction is an important means to achieve the goal of effective health development, and a new way for healthcare management reform. In order to expand market share and improve resource utilization efficiency, medical and health institutions in different levels, functions and scale, make alliances, mergers or acquisitions to achieve win-win interests, the sharing of resources in accordance with the different division of labor. It effectively promoted health service level, it has important practical significance and value for scientific development of China's medical and health undertaking.
To Ease the Pressure Arising from the Inadequate Government Investment Through Co-construction and Win-win Form

China has made remarkable achievement in economic and social development, which provides an important financial security for new health care reform. But it is not enough to rely solely on government's financial investment to address the low accessibility for hospital visits and hospitalization, and improve the efficiency of health services. In order to ease the pressure arising from the inadequate government investment in health resources, medical and health institutions can build MCs to achieve integration and sharing of resources, cost containment with mutual benefits, and to improve health care resource utilization efficiency and service efficiency (6-8).

Achieve Integration and Sharing of Quality Resources, Reduce Hospital Operating Costs. The overall objective of the hospital management is patient-centered, with high quality, high efficiency and low consumption. To achieve this goal, we must comprehensively and effectively manage hospital staff, finance, material, time and other information. Hospital logistics management and security services are important parts and premises of hospital system. Appropriate mechanisms shall be established for unified bidding, procurement and delivery of medical equipment, medicines bidding management, urgently needed medicines, disposable materials, reagents, for maintenance, examination and repair of instruments and equipment, to ensure rational human and material arrangements for consistency of logistics services.

Grade Three Class A (III-A for short) hospitals can reduce social costs, reduce financial burden of patients through reorganization and merger of other hospitals, based on large services network, the headquarter can perform unified bidding, procurement and distribution of medical equipment, medicines, reagents etc., by competitive bidding of manufacturers. At the same time, MC costs shall be reduced by resource sharing of rare, difficult and miscellaneous diseases consultation centers; treatment centers; drug distribution centers; disposable materials, reagents and other clinical testing and quality control centers; and large laboratories. The union of two hospitals in different levels can improve the level of the lower hospital’s management and medical technology, so that patients can enjoy some III-A hospitals service in primary hospital charges, with lower financial burden and better service, thereby the hospital’s operational efficiency can be improved by attracting more patients.

Effective Implementation of Two-way Referral System, Reducing Patient’s Medical Costs. Two-way referral system is an embodiment of comprehensive and continuity of community health services, it is a process based on the health needs of the people to transfer patients between the upper and lower hospital, between general hospitals and specialized hospitals for diagnosis and treatment. Two or more of the hospitals can act in collaboration, construct partnership with clearly defined own functions for resource reallocation and complementary advantages. Through two-way referral, higher level hospitals can reduce pressure of sick bed occupation and improve effective admissions, lower level hospitals can improve bed occupancy rate and the number of patients can increase, so both sides are willing to implement the two-way referral system, the economic interests conflicts between these hospitals can be fundamentally intimidated. MC can not only improve the overall utilization efficiency of health care resources, reduce total expenditure of health care, but also relieve the patients in corresponding areas of the inconvenience to travel long distances to large hospital for treatment, it can effectively reduce the financial burden with lower medical costs.

Implement the Concept of Universal Health Care, to Meet the People’s Needs for Comprehensive Health Protection. Comprehensive, reliable, convenient, fast, efficient, and affordable healthcare shall be a future trend. MC can achieve the interoperability of medical information and resource sharing among the various members of the medical and health institutions, mutual recognition of medical test results and medical records can facilitate patient visits in member institutions of the MC, it can effectively meet the patients’ demand for integrated disease prevention, care, diagnosis & treatment, rehabilitation and other services. The construction of MC can effectively change local people’s habit of going to large urban hospitals as soon as they feel sick. For diagnosis & treatment of some minor illness and chronic diseases, and daily health care,
the patient can choose the nearest health institutions to save both the costs and time for medical treatment, and get safe and efficient treatment timely from MC. Patients with complicated and critical diseases can go directly to the big hospitals in the MC for expert service, this is an effective solution for equitable enjoyment of health care resources.

**MC Vitalized the Existing Resources, Improved Efficiency in the Use of Medical and Health Resources**

Reasonable medical and health service system should be multi-level to meet the different needs of different members of society. Although the vast majority of units providing medical and health services are organized by government and public enterprises, a holistic and overall layout has not been formed for a long time. The city center neighborhoods gathered most of the medical resources, while remote and rural areas are often in lack of medical services and medicine, as well as medical services in compliance with the quality standards. Uneven distribution of health resources resulted in seriously unreasonable patient flow: many patients flock into large urban hospitals which become overcrowded, calling for more talents and equipment to meet the needs of patients, whereas health resource allocation and service capabilities of Grade I and II hospitals, township hospitals, and community health service centers shrank gradually, and resulting in idle waste of resources (9).

Consolidation and reorganization of hospitals in different levels not only creates conditions for survival and development of small hospitals and primary hospitals, but also broadens services market for large hospitals and III-A hospitals, easing the difficulty of getting medical treatment and hospitalization, enabling large hospitals and III-A hospitals to concentrate on complicated disease and difficult surgeries, to enhance the utilization efficiency of health resources fundamentally (10).

**Full Utilization of Medical Venues and Medical Facilities.** The operation of hospitals needs venues and medical facilities. III-A hospitals are mostly in the center of the city, it is difficult to expand the size of the hospital. Devices and resources are important material means for hospitals as an independent operating units to conduct scientific research, medical treatment and teaching, they are important conditions for hospital to achieve social and economic benefits. If they add equipment, they have to increase the appropriate technical personnel, then operating costs will be increased. In order to improve the fairness of cross-regional supply of medical services, the government clearly stated in the latest health care reform that the construction scale of public hospital should be strictly controlled.

On the contrary, in local primary hospitals, the lack of patient flow has resulted in low bed occupancy and idle health facilities. Large-scale medical equipments have been quite popular in these hospitals, but because of poor patient flow and insufficient utilization, in order to face the competition, medical examination costs in these hospitals drop lower and lower. Coupled with advances in technology and the constant introduction of new products and other factors, the fee for medical equipment service cannot cover their maintenance costs.

Through reorganization, III-A hospitals can bring patients to collaborative hospital, and input their brand, technology and management to the collaborative hospitals, make full use of the latters’ medical venues and equipment, train technical personnel for them, so that they can save capital and labor costs, and effectively revitalize the medical venues and facilities of MC hospitals.

MC hospitals can take advantage of technical conditions and equipment resources through cooperating with III-A hospitals and other large hospitals, and carry out medical programs they could not do in the past. The lack of equipment in primary hospitals can be addressed, and the waste of resources resulting from overlapping investment can also be avoided, thereby the maximization of resource efficiency can be achieved.

**Full Utilization of Health and Human Resources.** Human resources are the most fundamental and vital elements in health resources. Currently the allocation of health human resources is imbalanced, because patients generally decide their preference from the hospital brands and doctor's titles; while at the grassroots small hospitals, because of poor payment, external talents are reluctant to come in, with the shortage of health care personnel, these hospitals cannot keep patients, but also unable to retain talents in the long run. The construction of MC can achieve a reasonable flow of
talents, build a reasonable echelon of personnel training, so that they can make the best use of their talent. High-level medical technicians can go to the primary hospital for diagnosis, giving lectures, implementing targeted assistance to build the technicians training base for primary hospitals, to upgrade technological standard of grassroots medical technicians, and attract more patients; medical technicians in primary hospitals can regularly study and get trained in high-level hospitals, master advanced medical technology, and enhance their medical technology level, in order to better serve the medical and health development.

**Expand the Service Area and Enhance the Quality of Health Care**

Due to the limited and imbalanced allocation of health care resources, China’s high quality health care resources are concentrated in the central area of cities, it is difficult for patients in some of the remote rural areas to enjoy the fair, safe, effective and convenient health services. Through the realization of the widest range of medical technology communication, the construction of MC can add value by transferring and interaction of urban and rural medical and health resources. So the urban and rural medical and health institutions at all levels can communicate with each other and form a mutual support service network, expand health care services range, realize the goal of exchanging between large urban hospitals and primary health care institutions, complementing each other’s advantages, sharing resources and benefit, to enhance the level of primary health care services, expand the range, and more significantly, improve the quality of health services, so that patients can get real benefits. The establishment of MC can also overcome unfair competition of health care industry, and effectively improve the quality of health care.

As an approach for optimizing allocation of medical and health resource, and a new exploration of health care reform, MC provides an effective way to achieve a well-ordered and rationalized health care structure.

The construction and development of MC can produce better benefits and value for the hospitals, the patients and the government, especially, it plays a positive and important role for the optimization of health resource allocation and efficiency, the satisfaction of the People's ever growing demand for medical and health services, and the promotion of sustainable development of China's health sector.

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