

Discussion on the Participation of Social Capital in the Reform of Secondary Public Hospitals under IOT Mode--a Case of Hospital J in Hangzhou

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Abstract: With hospital J in Hangzhou as the research object, this paper tries to put forward some suggestions by analyzing the difficulties and problems in the process of social capital participation in hospital reform, cooperation, and operation of hospital J and provide a reference for social capital to participate in the exploration and practice of medical health industry.

1. Introduction

It is mentioned in the *Opinions on Promoting the Sustainable and Healthy Development of Socially-Run Hospitals* that public medical institutions should work in cooperate with social medical institutions in the division of labor and explore various cooperation modes of medical institutions. Therefore, joint capital, reform, PPP, and other investment modes are constantly being created and improved. Hospital J, a secondary public hospital in Hangzhou, participated in the reform of public hospitals in 2017, implemented by the local government and a large state-owned enterprise. This cooperation is the epitome of public hospital reform joint by social capitals. In the process of hospital reform, there are also some difficulties and problems worth to be considered.

2. Research Background and Significance

From a policy point of view, the *Opinions on Deepening the Reform of Medical and Health System in 2009* and the *Opinion on Promoting the Sustainable and Healthy Development of Socially-Run Hospital* in 2019 reflect that the state has always encouraged social capital to actively participate in the reform of the medical system and join the medical industry. Under the guidance of a series of policies and measures, medical resources are constantly being vertically or horizontally integrated.

Socially-run medical service is an important part of the domestic medical service system. Encouraging and guiding social capital to develop medical and public health and forming a medical system with diversified investment subjects and ways are the basic principle as well as the important content of deepening the reform of the medical and health system. It is conducive to increasing the efficient supply of medical and public health service resources and meeting the public's multi-level, diversified, and multi-aspect demand for health services.

By taking Hospital J, a secondary public hospital in Hangzhou, as an example, this paper tries to advance a kind of way to solving the current development dilemma, find out the universal problems existing in the current mode of socially-run medical services, and provide a certain reference for social capital to participate in medical reform through the analysis of problems found while social capital participating in the reform of hospital J.

3. Theoretical Basis

Public-Private-Partnership (PPP) refers to a kind of financing and management mechanism adopted to provide the public with better services on the cooperation between the public sector and the private sector. In essence, this is designed to give full play to both advantages. Generally, social capital means the capital of the private sector in abroad, while the scope of social capital is not clearly defined in China. On May 19, 2015, Notice of the general office of the State Council about The guidelines of the Ministry of finance, the development and Reform Commission and the people's Bank of China on promoting the cooperation mode between government and social capital in the field of public services specifies that “encouraging various types of enterprises to actively participate in the provision of public services, including state-owned enterprises, private enterprises, mixed-ownership enterprises, etc”. Since then, as social capital, state-owned enterprises gradually changed from “forbidden” to “allowance” and began to play their role in government-enterprise cooperation.

Investment-Operation-Transfer (IOT) is an expansion and supplement to Building-Operate-Transfer (BOT) under PPP mode. “I” refers to social investment, which can not only build new hospitals but also invest in hospital equipment and improve the hospital environment; “O” refers to operation by social capital; “T” refers to the transfer of hospital management power to the government after the expiration of the contract. In the whole process, the nature of the public hospital is unchanged. IOT mode will not change the ownership and non-profit nature of the main body.

4. Case Study

4.1 Reform Background

Hospital J was formed from the merger of two district hospitals with the consent of the local government. To further satisfy the primary medical needs of the masses in the jurisdiction and promote the development of the district compound hospital in this region, the local government started up the construction of hospital J and regarded it as one of the key practical projects for people’s livelihood. However, hospital J is subject to multiple factors in daily development.

4.1.1 Lack of Financial Support

In 2019, the local government achieved a GDP of RMB 94.94 billion. Among them, fiscal expenditure on health and family planning is RMB 390 million, accounting for 0.41% of it, which is a long way from the standard of national health investment (6.2% of the GDP) in 2017. The government’s investment in medical and health is relevantly insufficient in this region. As a balance institution, hospital J is relevantly limited in financial allocation. The financial department is only responsible for part of the budget according to the proportion of the difference. The rest is paid by the unit before tax. Excepting the cost of personnel, the hospital is mainly self-supporting.

4.1.2 Decrease of Hospital Business

Hospital J used to have one headquarters and three hospital districts. Among them, two districts were similar to the outpatient department with limited business development excluding district H. During the year of 2016 and 2017, district H were pulled down, which means a decrease of nearly 50% in business income. Then, the demolition of several communities near the hospital headquarters led to a decrease in population mobility. As a result, the hospital business income has dropped sharply again. At the same time, the rapid expansion of a tertiary hospital has a huge siphon effect on health resources, patients, talents, and medical expenses. Thanks to favorable policies such as medical insurance, the primary community health service center can orderly promote “six-in-one” service (integrating community prevention, health-care, medical treatment, rehabilitation, health education, and family planning technical guidance together) and comprehensively solve the basic public health and medical service demands of the general population. However, the secondary public hospital J already in an internal and external disadvantage.

4.1.3 Slow Construction of a New Hospital

From 2015 to 2017, the construction of a new hospital J was slow and once stagnant since the approval of the construction permit. On the one hand, there was a limited investment. On the other hand, the construction party and the design party lacked certain medical professional knowledge, and the design scheme needed to be further improved. Hence, the construction progress was slowed down.

Because of various factors, the development of hospital J was stagnant on the whole. The local government began to seek for a new prospect of hospital development.

4.2 Cooperation Mode

After negotiation and communication with various parties, the local government determined to sign a cooperation agreement with health company W, a subsidiary of a provincial state-owned enterprise to promote the development of hospital J through cooperation. It's a practice of PPP mode in the medical industry. First of all, strong social capital was introduced to support medical services and effectively relieve the pressure of the government's financial input; meanwhile, the participation of social capital in medical reform will improve the level of medical service and breakthrough the mechanism disadvantages of traditional public hospitals. In short, PPP mode can play a significant role in hospital reform, which is the value of it.

There are many specific forms of PPP cooperation mode. Hospital J adopts IOT mode, that is, to keep the nature of the hospital unchanged, and keep the ownership and non-profit nature of the subject unchanged.

4.3 Running Mechanism

4.3.1 Government

The government transferred the right to host hospital J to company W. At the same time, hospital J was required to continue to undertake government public welfare and mandatory tasks as well as play the role of regional basic medical service provider and technical supporter of community health service center. The government would pay the service fee to hospital J in a way of purchasing public health services. Besides, the government formulated detailed rules for later assessment. The result of this assessment is directly related to the final payment amount of the service fee.

4.3.2 Enterprises

By investing in hospital J, company W can have 50 years of hospital management and operation rights, supply of drugs, equipment, and consumables, and other related rights to perfect the medical facilities and service level of hospital J. In the meantime, the relevant investment and operation team was dispatched to the new hospital J, responsible for the management of the construction project of the new hospital.

4.3.3 Hospital

The hospital adopted the director responsibility system authorized by the Council and under the leadership of the Party committee. The legal representative was the president. The Council was composed of Company W, local government, hospital, and external experts to discuss major decisions of this hospital. To stabilize the medical team, it was clearly stated in the agreement that the theme, personal identity, non-profit medical institutions, and public welfare service principle, as well as the treatment for retired staff and workers, will remain unchanged. In addition, the government will approve the filing to attract professionals for hospital J.

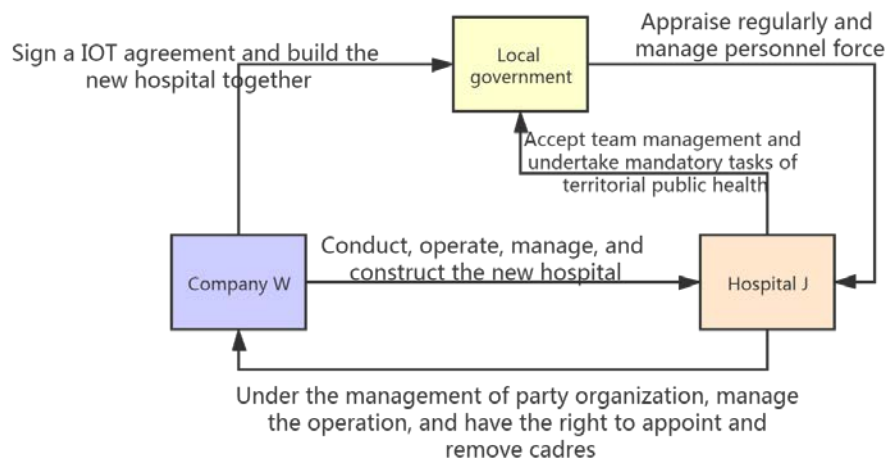


Fig.1 Operation Mechanism of Hospital J

5. Difficulties and Dilemmas of Social Capital Participating in Reform

The final purpose of social capital participating in reform is to maximize the interest. The public hospital takes public health as the ultimate aim and pursues public welfare and non-profit. The cooperation between the two will eventually lead to problems due to different purposes. For example, the difficulties in a continuous investment of social capital, and instability in the later stage of the project. Thus, there will be still some difficulties in the reform.

5.1 Lack of Guidance of Standardized Laws and Regulations

Despite of a series of suggestions and some laws and regulations made by the state or local government to promote the development of social medicine and encourage social capital to enter into medical and health industry, there is a lack of detailed laws and regulations for contract management, risk aversion, and cooperation mode of the cooperation of social capital

and government. Moreover, it's a lack of specific guidance document to guide and manage the cooperation of social capital in public hospital reform. Generally, the two sides of cooperation are the enterprise and the government when integrating social capital into public hospital reform. The investor (the enterprise) can obtain part of the management right of the hospital by signing an agreement. The collaborator (the government) can make cooperation ineffective through policy changes and other ways. Taking IOT mode as a case, the investor owns the management right of the hospital; the non-profit nature of the hospital remains unchanged; the overall operation is carried out by the investor, but there is a lack of some laws and regulations to restrict the bottom line of social capital operation. Usually, a cooperation project will involve a lot of people. Coordination difficulties are likely to arise in daily operations. Besides, it's hard to determine the applicable law, which affects the smooth progress of cooperation to a great extent. For instance, when conducting procurement bidding for daily materials of the hospital, as an operator, hospital J fails to select the required standard between “government procurement act” and “enterprise bidding law”.

5.2 Lack of Professional Team Management

In view of the particularity of the medical industry, the social capital should set up a professional core management team before managing the hospital and take the hospital positioning, talent team, professional characteristics, and other aspects into consideration. A core management team shall master various abilities to contribute to the development and construction of the hospital. From the perspective of government, the operator needs to guide daily work from the macro-level of the government; from the perspective of socially-run medical services, the manager has to master the ability of marketing operation and project management; from the perspective of hospital, the manager also needs to know the professional management ability of medical and health well. In actual cooperation, general administrative staff belong to managers in the original system who are short of enterprise operation ability or simple enterprise managers who are insufficient with the implementation of the non-profit nature of the hospital industry. Furthermore, the enterprise was originally a new health company in a trade-based group, lacking related operation experience in the health industry.

5.3 Lack of Flexible Facilities and Equipment Approval

According to *Technical Evaluation Standard for Configuration of Class B Large Medical Equipment in Zhejiang* (2018) (Trial), *Approval for Establishment of Medical Institutions* is needed to be provided by the newly established social medical institutions when applying for configuration of non-high-end class B large medical equipment (64-row CT, 1.5T MRI, non-volume intensity-modulated LA). The approval is applicable to the newly-built social general hospitals, traditional Chinese medicine hospitals (Integrated Traditional Chinese and Western medicine hospitals) and specialized hospitals invested in the construction of secondary or higher standards. The comprehensive hospital approved the construction of more than 500 beds, the specialized hospital approved more than 250 beds, with the corresponding disciplines. In line with the medical cooperation agreement, hospital J submitted an application of 64-row CT but it was rejected by the National Health Commission of the People's Republic of China. The National Health Commission held the view that hospital J was still a public hospital and cannot purchase 64-row CT according to the number of existing beds. However, the local government has already transferred hospital J out. In many examinations and approvals, it's treated as the nature of socially-run medical service. This contradiction restricted the development of the hospital to a certain extent.

5.4 Lack of Standardized Government Industry Supervision

Before the cooperation, the start-up funds of hospital J was more than RMB 20 million, while it turned to be more than RMB 2 million after the transfer of assets. The operating costs, income, and other investments were devalued in the whole negotiation process because it was impossible to predict the future development prospects. This may underestimate the value of IOT cooperation projects, resulting in the loss of national assets. In cooperation, the three parties (the government, the hospital, and the enterprise) sent representatives together and established a hospital Council for the supervision of cooperation. Meanwhile, experts from provincial top three hospitals were invited to be a part of this Council and jointly determine the major issues in the development of the hospital. In actual operation, the Council failed to play its roles and some major issues were determined by the enterprise and the government in the process of communication. The Council was only told afterward. Successful replicable models are rare in the medical field no matter in IOT mode or PPP mode. In the cooperation process, the government only supervised and assessed the regular year-end assessment while lacking all-round supervision on the cooperation project.

6. Countermeasures and Suggestions

6.1 Strengthen the Guidance of Standardization Laws and Regulations

It can learn from the experience of medical reform at home and abroad when social capital invests in the public hospital or in the medical industry, such as publishing a series of policies and regulations, regulating tax, standardized contract, income, and investment loan, clearly defining the nature, function allocation, rights and responsibilities of both parties and even three parties of some project cooperation modes such as IOT, PPP, and BOT. After the formulation of *Opinions on Promoting the Sustainable and Healthy Development of Socially-run Hospitals*, the local government can further refine it to ensure the feasibility and implementation of the policy. Based on the encouragement of policies and constant practices, it's suggested to make relevant supporting laws, such as regulations on the financing of the cooperative projects. The greatest difficulty faced by PPP mode in the medical industry is implementation. General medical projects have the following characteristics, such as great investment, small returns, long return cycle, and different financial situation of local government and medical needs in various places. Therefore, we should bring the subjective initiative of the government and the medical sector into full play, and actively make suggestions for the formulation of standard laws and regulations, to form guidance documents with strong feasibility.

6.2 Enhance the Personnel Management of Training Professional Team

After the cooperation, the brain drain of hospital J was serious. Within one year after the cooperation, the number of resignations is greater than the total number of resignations in the previous three years. An excellent management team can effectively shorten the break-in period and make a smooth transition to the harmonious period in which people identify, trust, and get along well with each other. In addition, an excellent management team and leadership can effectively reduce the resistance of public hospital reform, as well as the conflicts on values, work, humanistic ideas, sense of responsibility, and other aspects^[4]. As an asset in the cooperation project, human resources is regarded as a crucial part of the hospital. Firstly, it can speed up the process of cultivating interdisciplinary talents with professional medical

knowledge, management, operation, innovation, and other abilities to break the framework and the barriers of the system and actively play the innovative thinking of management. In the meantime, it is necessary to perfect talent guarantee, focus on the interests of hospital staff and workers, fully arouse the enthusiasm of medical personnel, and reduce the work risks.

6.3 Quicken the Examination and Approval of High-Quality Facilities and Equipment

The development construction of public hospitals, especially for those primary hospitals, there is limit support of state finances. In general, the state gives priority to policy support. “the drug zero-profit” eliminates the phenomenon of “sustaining medicine with drugs”. It’s urgent to bring public hospital reform into force and find out vast kinds of cooperation mode. When social capital involves in public hospital reform, it can introduce advanced management experience through large-scale capital investment. It will be meaningless to adopt PPP model for reform according to the standards and regulations of public hospitals. It is suggested to deeply promote the reform of “streamlining administration, delegating powers, and improving regulation and services”, abide by the principle of “comprehensive evaluation, dynamic adjustment, and classified management”, positively break the related provisions in the system, flexibly approve and audit, accelerate the differentiated development of cooperation hospital reform, thus to greatly improve cooperation efficiency and provide residents with high-quality and high-level medical services.

6.4 Strengthen the Industry Supervision of the Standardized Government

It is suggested to (1) produce a marked effect of the government in the supervision of cooperation projects, improve supervision framework, and further play the decision-making and supervision role of the main responsible department; (2) establish and perfect the comprehensive evaluation system, strengthen work in the inspection, acceptance, and evaluation of initial achievements of cooperation projects from multiple perspectives, supervise the hospital to provide better medical services with the core of non-profit; (3) set up a specialized department or institution to be responsible for the guidance, quality training, supervision and assessment of cooperation projects, ensuring that these projects are running within the system framework and avoiding the legitimate rights and interests of multiple parties being violated; (4) implement localized management and carry out unified supervision by local health administration department regardless the nature of medical institutions. The medical and health institution shall bear the main responsibilities of relevant business and functions. The person in charge is the person of chief responsibility. The medical and health institution shall establish and improve service quality, ensure service security, enhance the internal management mechanism of human resources, financial assets, performance assessment, etc. Last but not least, it shall make a constitution and set up a relevant management mechanism of decision-making, implementation, and supervision that coordinates, restricts, and promotes each other.

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