

Textual Analysis of Documents on Public Hospital Management Professionalism in China

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Abstract: The professionalism of hospital management is an important issue in deepening the reform of the medical system in China. This study conducted a textual analysis of 56 documents related to the professionalism in public hospital management at the national level in China. The analysis revealed that the use of environmental instruments is predominant, with supply-side instruments in a moderate position and demand-side instruments lagging behind. The findings highlight an imbalance in the application of multiple instruments, suggesting the need for a more balanced approach to enhance the internal structure of the documents system.

Keywords: Public Hospital; Management; Professionalism; Textual Analysis; Healthcare Reform

1. Introduction

The professionalism of hospital management has become a critical component in deepening the reform of China's medical and healthcare system [1]. With the current drive for high-quality economic and social development, there is an increasing demand for the professional management and high-quality development of public hospitals. Professionalism of hospital management refers to the full-time involvement in hospital management by individuals who have undergone relevant professional training and have been evaluated by national statutory bodies [2]. However, the current state of Chinese public hospital management is still largely staffed by medical personnel, and the level of management professionalism is suboptimal. There is a growing endogenous demand for improved management professionalism [3]. While existing research by Chinese scholars has mainly focused on team building, the current status of development,

and ways to promote professionalism in hospital management, there is a lack of literature that examines the policies related to hospital management professionalism through the lens of policy instruments. To address this gap, this paper undertakes a comprehensive analysis of the 56 national-level policy documents issued between 1997 and 2022. The aim is to identify the strengths and weaknesses of the existing policy framework for hospital management professionalism in China, thereby providing insights for the future refinement and improvement of these policies.

2. Information and Methods

2.1 Source of Information

We conducted a comprehensive search for policy documents using keywords such as "hospital management professionalism", "hospital professional management", "professional hospital management" on authoritative platforms. The scope of our search included a variety of policy instruments, ranging from policy opinions and communications to strategic plans, laws, and regulations.

2.2 Inclusion and Exclusion Criteria

Inclusion criteria: national policy documents on hospital management professionalism. **Exclusion criteria:** (1) policy documents that are not strongly related to hospital management professionalism; (2) exclusion of interpretative reports on policies; (3) exclusion of local policies and regulations that promote and guide hospital management professionalism; (4) duplication of content and policy documents containing only keywords but no substantive content. Using these criteria, an initial pool of 67 policy documents was identified. After a thorough review, 11 documents with a weak connection to the topic of hospital management professionalism were

excluded, leaving 56 documents for analysis.

2.3 Research Method

A two-dimensional analytical framework was developed to categorize and evaluate the policy texts. This framework consists of two axes. Dimension X (Basic Policy Tool Dimension) categorizes the policy instruments used in the documents, which may include regulatory measures, financial incentives, or other mechanisms. Dimension Y (Professional Development Dimension) assesses the extent to which the policy texts address the development of professional competences within hospital management, including training, assessment, and recognition of professional skills. The study then proceeds to a detailed discussion of the policy texts, using this framework to identify patterns, trends, and areas for potential improvement in the area of hospital management professionalism.

3 Policy Analysis Framework Design

3.1 Policy Tool Selection

Dimension X: Basic Policy Tool Dimension

Policy instruments are the diverse mechanisms exploited by policymakers to advance and implement policy objectives. They embody the underlying values and principles of public policy. The scientific and judicious selection of policy instruments is essential for maximizing their impact and achieving the desired policy outcomes ^[4]. This study adopts Rothwell and

Zegveld's method of classifying policy instruments into three types of supply-based, demand-based and environment-based according to the different points of focus ^[5]. Supply-based policy instruments refer to the government's measures to provide support and motivation for the sustained development of the hospital management professionalism by strengthening information support, financial input, talent support and resource allocation. The instrument can promote the implementation and development of hospital management professionalism from the supply side. Demand-based policy instruments refer to the government's measures to reduce external environmental influences through pilot projects, third-party supervision and evaluation, and international exchanges, so as to pull the implementation and development of hospital management professionalism from the demand side. Environment-based policy instruments refer to the government's efforts to optimize the environment for the development of hospital management professionalism through target planning, regulatory control, assessment standards, organizing implementation, publicity and promotion, institutional mechanism, institutional optimization, and supervision and regulation. The goal is to cultivate a favorable external environment that indirectly influences the execution and evolution of professional management in hospitals. (see Figure 1).

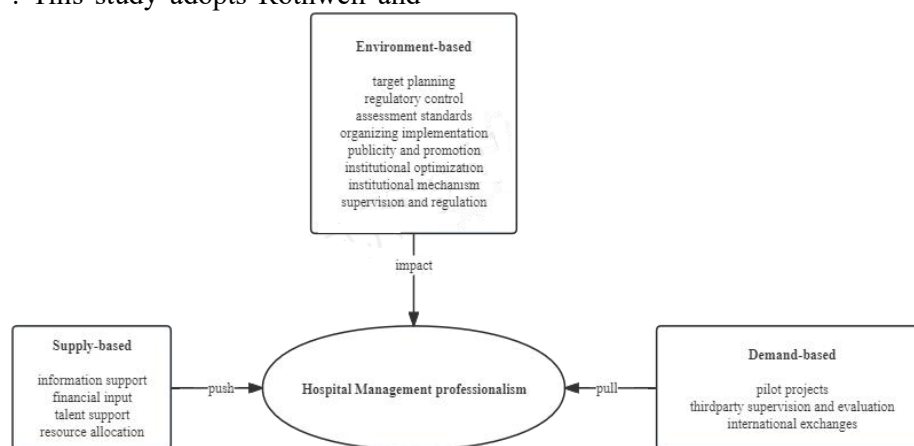


Figure 1. The Impact of Policy Instruments on Enhancing Hospital Management Professionalism

Dimension Y: Professional Development Dimension

According to the content of the policy text on the hospital management professionalism and the development objectives, this dimension is

divided into seven specific indicators, including team building, capacity building, selection and appointment, assessment and evaluation, protection and incentives, system building, and task implementation.

3.2 Constructing a Two-dimensional Analytical Framework

In summary, this study has formed a two-dimensional analytical framework of the

basic policy tool dimension and the professional development dimension for analyzing the policy text on hospital management professionalism (refer to Figure 2).

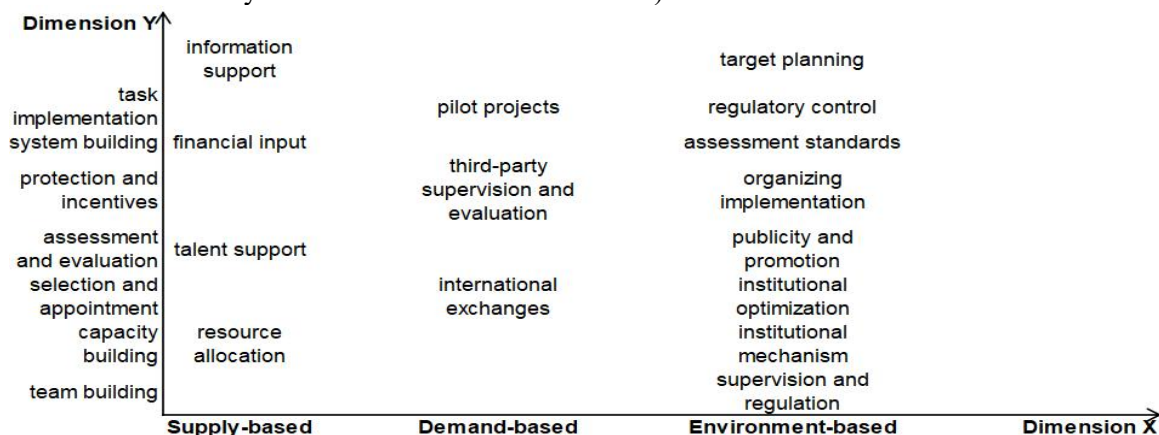


Figure 2. Framework for Analyzing the Policy on Professionalism of Hospital Management

4. Analysis of Professionalism of Hospital Management Policies

The policy texts were systematically coded using a "policy number - section - article" format for consistency. Where a policy contained several instruments, each was counted separately. The coded data were then analyzed using Excel 2022 (refer to Figure 3).

4.1 Coding and Categorization of Policy Instruments

Figure 3. Coding of the Textual Content of Hospital Management Professionalism Policies

Note: Due to space constraints, only 1 policy number is listed within each tool; “-” indicates that it is not available.

4.2 Results of the Statistical Analysis of Policy Instruments

4.2.1 Results of the statistical analysis of the Dimension X

The use of basic policy instruments is dominated by environment-based instruments with 56.75%, supply-based with 34.66% and demand-based with a minimum of 8.59%. Within the environment-based category, organizing implementation is the most

common (23.13%), while regulation and control is least used (2.33%). For supply-based instruments, human resource support is most prevalent (64.85%), followed by financial support (16.89%), information support (10.35%), and resource allocation (7.90%). In terms of demand-based instruments, pilot projects are most frequently utilized (73.63%), followed by third-party monitoring and evaluation (17.58%) and international exchange (8.79%). (refer to Table 1)

Table 1. Summary Statistics of Policy Instruments by Dimension

Y	team building		capacity building		selection and appointment		assessment and evaluation		protection and incentives		system building		task implementation		sum	
	N	ratio (%)	N	ratio (%)	N	ratio (%)	N	ratio (%)	N	ratio (%)	N	ratio (%)	N	ratio (%)	N	ratio (%)
Supply-based	51	63.75	75	58.14	51	45.95	36	30.51	54	34.18	61	23.64	39	19.02	367	34.66
information support	0	0.00	8	10.67	0	0.00	12	33.33	1	1.85	8	13.11	9	23.08	38	10.35
financial input	4	7.84	2	2.67	0	0.00	5	13.89	23	42.59	10	16.39	18	46.15	62	16.89
talent support	39	76.47	62	82.67	47	92.16	19	52.78	25	46.30	38	62.30	8	20.51	238	64.85

resource allocation	8	15.69	3	4.00	4	7.84	0	0.00	5	9.26	5	8.20	4	10.26	29	7.90
Demand-based	2	2.50	6	4.65	5	4.50	24	20.34	14	8.86	19	7.36	21	10.24	91	8.59
pilot projects	1	50.00	5	83.33	5	100.00	11	45.83	13	92.86	17	89.47	15	71.43	67	73.63
third-party supervision and evaluation	0	0.00	0	0.00	0	0.00	13	54.17	0	0.00	1	5.26	2	9.52	16	17.58
international exchanges	1	50.00	1	16.67	0	0.00	0	0.00	1	7.14	1	5.26	4	19.05	8	8.79
Environment-based	27	33.75	48	37.21	55	49.55	58	49.15	90	56.96	178	68.99	145	70.73	601	56.75
target planning	14	51.85	11	22.92	1	1.82	4	6.90	5	5.56	18	10.11	5	3.45	58	9.65
regulatory control	1	3.70	4	8.33	0	0.00	1	1.72	1	1.11	4	2.25	3	2.07	14	2.33
assessment standards	0	0.00	3	6.25	2	3.64	4	6.90	15	16.67	36	20.22	9	6.21	69	11.48
organizing implementation	5	18.52	4	8.33	5	9.09	12	20.69	14	15.56	31	17.42	68	46.90	139	23.13
publicity promotion	2	7.41	7	14.58	0	0.00	1	1.72	2	2.22	3	1.69	31	21.38	46	7.65
institutional optimization	0	0.00	4	8.33	28	50.91	10	17.24	22	24.44	24	13.48	6	4.14	94	15.64
institutional mechanism	2	7.41	9	18.75	18	32.73	20	34.48	27	30.00	38	21.35	8	5.52	122	20.30
supervision and regulation	3	11.11	6	12.50	1	1.82	6	10.34	4	4.44	24	13.48	15	10.34	59	9.82
total	80	7.55	129	12.18	111	10.48	118	11.14	158	14.92	258	24.36	205	19.36	1059	100.00

4.2.2 Results of statistical analysis of Dimension Y

Government policy instruments in the professional development of hospital management mainly emphasize system building (24.36%) and task implementation (19.36%). Other areas include guarantee incentives (14.92%), quality/capacity building (12.18%), assessment and evaluation (11.14%), and selection and appointment (10.48%), with team building receiving the least attention (7.55%). In system building, environmental policy instruments are most prevalent (68.99%), particularly institutional mechanisms (21.35%) and assessment standards (20.22%). The implementation of tasks also favors environmental instruments (70.73%), with organizational implementation being the most used (46.90%). Guarantees and incentives are largely supported by environmental instruments (56.96%), followed by institutional mechanisms (30.00%) and system optimization (24.44%). Quality/capacity building is mainly addressed by supply-based instruments (58.14%), in particular talent support (82.67%). Assessment and evaluation, which uses fewer policy instruments overall, tends towards environmental instruments (49.15%), focusing on institutional mechanisms (34.48%) and organizational implementation (20.69%). Selection and appointment show a close use of demand (4.50%), environmental (49.55%), and supply (45.95%) policy instruments. Team building, with the least policy tool usage, favors supply-type instruments (63.75%), especially talent support (76.47%). (refer to Table 1)

5 Discussion and Recommendations

5.1 Optimizing the Combination of the Use of Basic Policy Instruments

The study shows that environmental policy

instruments are most frequently utilized, particularly to organize implementation, while regulatory control is the least used. To strengthen the professionalism of hospital management, it's crucial to enhance regulatory control to ensure the effectiveness of policy beyond mere formality. Although supply-based instruments are less common than environment-based ones, they are essential for directly promoting the development of hospital management professionalism. The current emphasis on talent support is positive, but the lack of resource allocation hinders balanced development of the health sector, particularly in rural areas. Demand-based instruments, which are least utilized, have the potential to stabilize the development of the sector, but are often limited to pilot projects, neglecting the benefits of international exchanges.

To improve, the government should increase international health cooperation and learn from global management practices. It should also introduce third-party supervision and evaluation, possibly integrating European standard evaluation frameworks, to enforce management professionalism. Moreover, construct a performance evaluation index system for public hospitals based on the CFA model to ensure accountability and quality [6]. Furthermore, the high-quality development of public hospitals should make use of modern information technology, such as big data, to provide objective and accurate databases for human resource management and leadership decision-making, thereby improving management efficiency [7,8].

5.2 Ensuring Balanced and Coordinated Development of Professionalism

The government's strategic policies have outlined key areas for advancing hospital management professionalism, with a focus on system building and task implementation. However, there is a disproportionate emphasis

on these areas compared to team building, indicating the need for a more balanced approach. Addressing the inadequacy of existing institutional mechanisms is paramount and requires the establishment of clear norms that support and reinforce professional standards within hospital management.

First of all, the traditional methods of selection and appointment need to evolve, with a shift towards scientific assessment techniques that identify top management talent aligned with specific role requirements. Internal promotion strategies should be used to cultivate leadership teams that embody the collective competence of the organization [9]. Secondly, the performance appraisal system should be continuously improved. This system should take into account the level of risk associated with different positions, the technical challenges they present, and the extent to which individuals contribute to the overall mission of the hospital. Linking these evaluations to a dynamic reward system will further incentivize high performance, with a focus on aligning salary structures with both individual performance and career progression [7]. Investing in training and development is crucial for strengthening the hospital management team. This includes refining the content and methods of training programs, as well as the systems for assessment and evaluation. Establishing a clear path for career advancement will not only enhance the professionalism of the team, but also encourage a commitment to continuous learning and improvement [10]. Lastly, management training should be tailored to the specific needs of hospital managers, using a variety of teaching methods including experience sharing, case analysis, and lectures. This diverse approach to training will effectively develop competencies in critical areas such as hospital operations, strategic management, leadership, and human resource management, ultimately equipping hospital managers with the skills necessary to lead their institutions towards excellence.[11].

5.3 Emphasize the Synergy Between Professional Development and Core Policy Instruments

To achieve the policy objectives for the professional development of hospital management, environmental policy

instruments are mainly used, especially for task implementation and system construction. Both supply-based and demand-based policy instruments play a significant role in capacity building and team development. There is a clear alignment between the use of policy instruments and the objectives of different professionalism dimensions. For instance, demand-based instruments bolster team building through talent support, and environmental instruments facilitate task implementation through organizational measures. However, there are notable gaps in the application of certain key policy instruments within the professional development dimension. These include deficiencies in information support, third-party supervision and evaluation, assessment standards, and promotional activities within team building. Additionally, there is also a lack of pilot projects in the area of protection and incentives. Addressing these gaps is essential to ensure a comprehensive and effective approach to the professional development of hospital management.

To maximize the effectiveness of policies, the alignment of policy instruments with the policy environment and objectives is essential. The government should use modern information technology to support team building and improve the academic and continuing education of health management professionals. Regular assessments and monitoring by relevant social groups and regulatory bodies can ensure the continuous development of hospital management teams. Expanding the scope of professional training for hospital managers is essential. This includes implementing pre-service and on-the-job training programs for health management personnel. Selecting and sponsoring talented managers to study at foreign universities, research institutes, or health institutions can expose them to cutting-edge management practices. The outcomes of such training can be independently evaluated by third-party organizations to ensure the quality and relevance of the skills and knowledge acquired [12]. Legislation should establish a rigorous entry and competition mechanism, with third-party institutions assessing the recruitment process for its scientific validity, fairness, equity and openness [13]. In addition,

the government should initiate pilot projects to provide incentives for hospital management roles, establish a reward and punishment mechanism, and recognize managers with appropriate honors based on their performance and tenure, thereby fulfilling their spiritual needs ^[14]. Based on the Sanming medical reform, efforts could be made to introduce an annual salary system. This will enhance the professionalism and information management level of public hospitals, and integrate the deepening reform of the medical and health system with the high-quality development of public hospitals ^[15,16].

6. Conclusion

In summary, since the professionalism of hospital management was proposed, China has issued a series of normative documents to guide and promote the development of hospital management professionalism. Based on the coding analysis of the policy instruments in these documents, this study found that policymakers have a clear preference for environment-based policy instruments and ignore other types of instruments to varying degrees. In the future, the scope of the study can be extended vertically to include both national and local level policies. Comparative analyses at different levels can be conducted to explore the differences in policy formulation and implementation between the national and local levels.

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