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ORIGINAL

Professional management competence of chinese hospital executives: an analysis

Competencia de gestión profesional de los directivos de hospitales chinos: un análisis

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ABSTRACT

Over the past few decades, China's healthcare industry has seen tremendous alterations. The position of hospital executives, who play a crucial role in directing the course of healthcare organizations, is central to these shifts. This study offers a thorough investigation of Chinese hospital executives' professional management proficiency. The study explores several aspects of this competency, including planning ability, control ability, and problem-solving ability, by using a mixed-method approach. These factors are essential for guaranteeing better patient outcomes and efficient hospital administration. The study also finds several outside variables that affect these competencies, including leadership dynamics, policy ambiguity, and training programmes. This study provides a thorough understanding of the management environment among Chinese hospital executives by in-depth examinations of the literature, interviews, and a questionnaire survey. The research's conclusions not only provide important context for China's hospital management procedures, but they also pave the way for more studies in this area. The study emphasizes the significance of improving hospital executives' professional competencies and the demand for focused interventions in this area. Hospital CEOs' roles will become ever more important as China's healthcare system develops. The present study makes a substantial contribution to the current corpus of information by illuminating the abilities necessary for efficient hospital administration in China.

Keywords: Chinese Hospital Executives; Frameworks and Hypotheses; Management Competence.

RESUMEN

En las últimas décadas, el sector sanitario chino ha experimentado enormes alteraciones. La posición de los directivos hospitalarios, que desempeñan un papel crucial en la dirección del rumbo de las organizaciones sanitarias, es fundamental en estos cambios. Este estudio ofrece una investigación exhaustiva de la competencia profesional en gestión de los ejecutivos hospitalarios chinos. El estudio explora varios aspectos de esta competencia, como la capacidad de planificación, la capacidad de control y la capacidad de resolución de problemas, mediante un enfoque de métodos mixtos. Estos factores son esenciales para garantizar mejores resultados para los pacientes y una administración hospitalaria eficiente. El estudio también descubre varias variables externas que afectan a estas competencias, como la dinámica de liderazgo, la ambigüedad de las políticas y los programas de formación. Este estudio proporciona un conocimiento exhaustivo del entorno de gestión entre los directivos de hospitales chinos mediante un examen en profundidad de la bibliografía, entrevistas y una encuesta por cuestionario. Las conclusiones de la investigación no sólo aportan un contexto

importante para los procedimientos de gestión de los hospitales chinos, sino que también allanan el camino para realizar más estudios en este ámbito. El estudio subraya la importancia de mejorar las competencias profesionales de los directivos de hospitales y la demanda de intervenciones específicas en este ámbito. El papel de los directores generales de hospital será cada vez más importante a medida que se desarrolle el sistema sanitario chino. El presente estudio aporta una contribución sustancial al corpus actual de información al iluminar las capacidades necesarias para una administración hospitalaria eficiente en China.

Palabras clave: Directivos de Hospitales Chinos; Marcos e hipótesis; Competencias de Gestión.

INTRODUCTION

Hospital executives are the strategic decision-makers of hospitals in China. Their professional management is a key factor influencing hospital performance.⁽¹⁾ The professionalization of Chinese hospital executives began in the 1990s, and their role has been a topic of significant interest in China's medical and healthcare system.⁽²⁾

The healthcare landscape in China has undergone rapid transformations over the past few decades. With increasing urbanization, advancements in medical technology, and evolving patient needs, the role of hospital executives has become even more crucial.⁽³⁾ Their ability to adapt to these changes, make informed decisions, and lead their teams effectively can significantly impact the overall performance and reputation of their respective hospitals.⁽⁴⁾

The professional management of hospital executives has always been a hot topic in China's medical and healthcare system. The professionalization of Chinese hospital executives has experienced slow progress over the past 20 plus years.⁽⁵⁾ The concept of professional management competence has been extensively studied.⁽⁶⁾ In the context of healthcare, planning, decision-making, innovation, comprehensive analysis, and leadership quality are essential.⁽⁷⁾ The role of external factors, such as policy changes and leadership dynamics, in shaping management competencies cannot be understated.⁽⁸⁾

Moreover, with the government's push towards improving healthcare standards and ensuring patient satisfaction, the pressure on hospital executives to deliver has intensified.⁽⁹⁾ This has led to an increased focus on their professional competencies, training, and development.⁽¹⁰⁾ The evolving nature of their role, coupled with external challenges such as policy changes and technological advancements, makes it imperative to understand their professional management competence in depth.

This research aims to shed light on the various dimensions of professional management competence among Chinese hospital executives, the factors influencing them, and their impact on hospital performance. Through a comprehensive analysis, the study seeks to offer valuable insights and recommendations for enhancing the professional competencies of hospital executives in China.

METHODOLOGY

The study utilized a mixed-method approach, incorporating both qualitative and quantitative research methods. Initially, a literature review was conducted to establish a theoretical foundation and identify gaps in existing research. This was followed by interviews with hospital executives to gain in-depth insights into the practical aspects of professional management competence. The qualitative phase involved ten representative executives selected based on the integrity of the interview content, ensuring a broad spectrum of experiences and perspectives were captured.⁽¹¹⁾

For the quantitative phase, a questionnaire survey was meticulously designed and distributed to collect empirical data. The sample selection was strategic, targeting hospitals of a certain size, specifically those with more than 500 beds, encompassing both Grade III and Grade II hospitals. This included a mix of public and non-public hospitals to ensure a diverse and representative sample. The respondents held various executive positions, including executive, party secretary, deputy executive, deputy secretary, chief accountant, and executive's assistants, all of whom had leadership and management responsibilities.

The sample size was determined based on a ratio of indicators to sample size, with the study refining 104 indicators and obtaining an effective sample size of 343. The hospitals were not limited to a single region; instead, they were distributed across eastern regions around Shanghai, including Zhejiang, Jiangsu, and western regions around Xi'an, including Shaanxi province. This geographical diversity aimed to make the results more representative of the national landscape.

The data collection was executed through two formats: paper and electronic questionnaires. A total of 780 questionnaires were distributed in three batches, with a final collection of 343 valid questionnaires, representing a 43,9 % collection rate. The data was then analyzed using descriptive statistical analysis, scale reliability and validity tests, and regression analyses to test the research frameworks and hypotheses. The robustness of the findings was ensured by testing the reliability and construct validity of the measures.

Analysis

The study employed a rigorous methodology using SPSS 26 for data analysis to ensure the integrity and reliability of the findings. The initial step in the data analysis process was a descriptive analysis of the sample hospitals and the basic characteristics of the sample. This provided a foundational understanding of the dataset's composition, including the range of hospital grades and types represented in the study.

A critical aspect of the analysis was ensuring the reliability of the data collected. The study utilized the Cronbach Alpha coefficient as a measure of internal consistency. According to the research findings, an alpha coefficient above 0,8 is considered optimal, indicating high reliability. However, a coefficient in the range of 0,6 to 0,8 is also acceptable, suggesting sufficient reliability for research purposes. The study's reliability analysis was thorough, with separate analyses conducted for each variable to ascertain the consistency of the responses.

In terms of validity, the study aimed to confirm that the questionnaire effectively measured the variables of the research model. This was achieved through exploratory factor analysis, where the suitability of the data for this analysis was determined using the Kaiser-Meyer-Olkin (KMO) statistics and Bartlett's sphericity test. The KMO values obtained in the study were well above the acceptable threshold of 0,6, and the Bartlett's test results were significant ($p < 0,05$), indicating the data was appropriate for factor analysis. The factor loading coefficients were used to judge the correspondence between the questions and the factors, with values higher than 0,4 indicating a better effect.

Correlation analysis was then conducted to understand the relationships between variables. The study utilized the Pearson correlation coefficient to measure the strength and direction of the association between variables. A coefficient greater than 0,6 indicated a strong positive correlation, while a coefficient greater than 0,4 indicated a moderate correlation. This analysis was crucial in revealing the nature of the relationships between variables, such as the weak correlation between training and professional management competence and the moderate correlation between policy uncertainty and role pressure.

Finally, regression analysis was used to test the hypotheses presented in the study. This statistical method allowed the researchers to examine the effects of various independent variables on the dependent variable, thereby validating the research framework. The comprehensive use of these statistical tools and methods provided a deep and nuanced understanding of the professional management competencies among Chinese hospital executives and the factors influencing them, which in turn affect hospital performance. Shown in table 1 Background information of the interviewees' hospitals and Characteristics of the respondents' hospitals shown in table 2.

RESULTS AND DISCUSSION

Table 1. Background information of the interviewees' hospitals

Project	Executive A	Executive B	Executive E	Executive J
Grade	Grade III A	Grade III A	Grade III A	Grade III A
Amount of beds	1000	1000	1350	600
Employees	2500	1300	2260	300
Medical care (10,000 people)	2000	750	1700	226
Outpatients (10,000 people)	170	70	178	36
Income (RMB 100 million)	8	1,2	9,5	1,5

Table 2. Characteristics of the respondents' hospitals

Variable name	Description	Freq.	Percentage (%)
Hospital level	Grade III B	18	5,2 %
	Grade III A	96	28 %
	Grade II B	46	13,4 %
	Grade II A	96	28 %
Hospital category	Other	73	21,3 %
Hospital type	Teaching Hospital	174	50,7 %
	Non-teaching hospitals	154	44,9 %
Hospital nature	Public	262	76,4 %
	Private	69	20,1 %
Hospital affiliate	Other (please note)	37	10,8 %
	University Hospital	126	36,7 %
	Independent Hospital	160	46,6 %

Professional Management Competence Includes Three Dimensions: Strategic Planning Ability, Control Ability, and Problem-solving Ability

Professional management competence is a multifaceted construct that encapsulates the essential abilities hospital executives must possess to navigate the complex landscape of healthcare management. Strategic planning ability is the cornerstone of this competence, enabling executives to chart long-term development strategies and plans that align with the hospital's mission and the dynamic healthcare environment. This ability is not just about setting future goals but also involves a deep analysis of the hospital's strengths and weaknesses in relation to external opportunities and threats. Control ability, on the other hand, is about maintaining a steady hand on the organization's pulse, ensuring that strategic plans are implemented effectively and that the hospital can quickly adapt to changes and mitigate risks. Problem-solving ability is the third dimension, critical for addressing the inevitable challenges that arise in hospital operations. This ability allows executives to navigate complex issues, make informed decisions, and implement solutions that are both innovative and practical. The study's regression analysis underscores the impact of these competencies on organizational performance and job satisfaction, suggesting that deficiencies in management ability not only hinder hospital performance but also slow the development of executives' professional management skills.⁽¹²⁻¹⁴⁾

Training Initiatives, Policy Uncertainty, and Leadership Dynamics Play Pivotal Roles in Shaping these Competencies

The development of professional management competencies in Chinese hospital executives is significantly influenced by training initiatives, policy uncertainty, and leadership dynamics. Training tailored to the demands of hospital management can systematically impart management knowledge, combining academic learning with practical training. This approach equips executives with the necessary skills to handle strategic and operational challenges effectively. Policy uncertainty emerges as a factor that can both hinder and shape competencies. Executives must navigate a landscape where policies can change rapidly, requiring a flexible and adaptive management style. Leadership dynamics also play a crucial role; the style and quality of leadership can either foster the growth of these competencies or stifle them. Leaders who demonstrate a clear vision and support for professional development can inspire their teams to higher levels of performance and satisfaction.^(15,16)

The Professionalization of Chinese Hospital Executives has Experienced Challenges Over the Years, with Slow Progress Observed

The journey toward professionalization for Chinese hospital executives has been fraught with challenges, marked by a gradual pace of progress. These challenges stem from a complex interplay of cultural, systemic, and policy-related factors. Cultural expectations of leadership within hospitals often emphasize clinical expertise over managerial acumen, leading to a gap in management competencies. Systemic issues, such as the lack of standardized criteria for assessing and developing executive competencies, further complicate the professionalization process. The slow progress can also be attributed to policy-related factors, where there is a disconnect between the government's regulatory approach and the actual needs and career aspirations of hospital executives. This misalignment has led to role conflicts and a lack of clarity in the professional roles expected of hospital executives.⁽¹⁷⁾

The Government's Approach to Regulating the Professional Role of Executives has Faced Challenges, Leading to Conflicts and Challenges in Hospital Operation

The government's regulatory approach to shaping the professional roles of hospital executives has encountered several obstacles, resulting in conflicts that affect hospital operations. Executives are often caught between complying with government mandates and addressing the operational realities of their hospitals. For example, when policies are introduced without a clear understanding of the hospital's context, executives may find themselves in a bind, having to reconcile these policies with the hospital's strategic goals and day-to-day management. Such conflicts not only create operational inefficiencies but also lead to role ambiguity and overload for the executives, which can diminish job satisfaction and hinder the overall performance of the hospital.^(18,19)

The Executive's Management Ability Plays a Crucial Role in the Professional Management of Hospitals

The pivotal role of an executive's management ability in the professional management of hospitals cannot be overstated. An executive's ability to strategically plan, control, and solve problems is integral to steering the hospital towards its strategic objectives while ensuring operational excellence. The study highlights that planning and problem-solving abilities positively affect organizational performance, whereas control ability, although essential, does not have a direct impact on performance metrics. This nuanced understanding of management abilities suggests that while control is necessary for risk mitigation and process adherence, it is the forward-looking and innovative aspects of planning and problem-solving that drive a hospital's success.

Executives with a robust set of management skills are better equipped to lead their hospitals in a competitive and ever-evolving healthcare landscape, ultimately contributing to better patient outcomes and organizational growth.^(20,21)

Future scope of research and knowledge gaps

In contemplating the future scope of research and identifying knowledge gaps from the study “Professional Management Competence of Chinese Hospital Executives: A Comprehensive Analysis,” it’s essential to consider the pathways that can extend the current findings and address the unexplored territories within the domain of hospital management.

Future Scope of Research

- Exploring the Impact of Cultural Dynamics: Future research could delve into the cultural underpinnings that influence management competencies, particularly how traditional Chinese cultural values intersect with modern management practices.
- Longitudinal Studies on Training Effectiveness: There is a need for longitudinal studies to assess the long-term effectiveness of management training programs, tracking changes in competencies over time and the sustained impact on hospital performance.
- Expansion to Different Geographical Contexts: Expanding the research to include hospital executives from various regions within China and internationally could provide comparative insights and a broader understanding of management competence in diverse healthcare systems.^(22,23)
- Integration of Technology in Management Training: With the rapid advancement of technology, future studies should investigate how digital tools and platforms can enhance the training and development of hospital executives.

Knowledge Gaps

- Mismatch in Training Content and Demand: There is a gap between the current training content provided to hospital executives and the actual competencies needed in the field. This discrepancy points to a need for a tailored curriculum that addresses specific management challenges in healthcare.
- Systematic Approach to Competency Development: The research highlights a lack of a systematic approach to developing and assessing management competencies. Future studies should aim to create a standardized framework for competency development.
- Role of Policy in Executive Training: The influence of policy changes on the professional development of hospital executives remains underexplored. Understanding this relationship could inform the design of policy interventions that support executive training.
- Assessment of Role Pressure and Job Satisfaction: The study opens up questions about the relationship between role pressure, job satisfaction, and management competence. Further research is needed to dissect these relationships and develop strategies to improve job satisfaction among hospital executives.

These areas offer fertile ground for future research, promising to not only fill the current knowledge gaps but also to significantly enhance the strategic development of hospital management competencies.

CONCLUSION

The conclusion of the study “Professional Management Competence of Chinese Hospital Executives: A Comprehensive Analysis” brings to light several compelling findings that are crucial for understanding the nuances of hospital management in China. These insights are not just academic markers but also practical signposts for future action in the healthcare sector. Here are the key takeaways, woven from this study:

1. The Weight of Role Pressure:

- The study pinpoints role pressure as a pivotal influence on the professional management decisions of hospital executives. The crux of the matter lies in the tug-of-war between their governmental duties and executive responsibilities. This finding is a clarion call for a re-examination of the roles and expectations placed on these professionals.

2. The Double-Edged Sword of Role Overload:

- Interestingly, the research suggests that while being overloaded can be seen as a negative, in the context of Chinese hospital executives, it actually correlates with better organizational performance. This could imply that those who are deeply invested and feel competent are more likely to drive their hospitals to succeed.

3. Job Satisfaction Tied to Role Conflict:

- A standout revelation from the study is the negative impact of role conflict on job satisfaction. Executives who feel caught between conflicting duties often find it hard to derive satisfaction from their work. This insight is particularly poignant in a field where job fulfilment is closely linked to the well-being of others.

4. Training and Policy: A Misaligned Duo:

- The hypothesis tests from the study reveal a disconnect between the training provided to executives and the enhancement of their professional management competence. This mismatch is further exacerbated by policy uncertainty, suggesting a pressing need to realign training with the actual demands of the role.

5. Leadership's Role in Managing Stress:

- Leadership quality emerges as a key factor in shaping professional management competence and in managing the stress associated with executive roles. This finding highlights the importance of leadership development as part of executive training.

6. A Call for Strategic Development:

- The study advocates for a strategic overhaul in how executive roles are defined and developed. It underscores the necessity for strong planning and problem-solving skills to enhance both organizational performance and job satisfaction, hinting at a broader need for systemic change

In essence, the study paints a picture of a sector at a crossroads, with clear indications of where attention and resources need to be directed. It's a narrative about the human side of hospital management, where the growth and contentment of executives are intertwined with the health outcomes of the communities they serve. These findings are not just data points; they are reflections of lived experiences that call for thoughtful consideration and action.

REFERENCES

1. The State Council. (1997). Decisions on Health Reform and Development. Beijing, China, The State Council of the People's Republic of China. In Chinese.

2. Lu X. Research on the double-core competence model of the executive of public hospitals - take the large public hospitals in Jiangsu Province as an example. Doctoral Thesis, Nanjing University. In Chinese, 2009.

3. Huang Z, Lu, X. The competency of the executives of large public hospitals. *Medicine and Society*. 2010, 023 (005): 61-63.

4. Lu X, Huang Z, Jiang J, Dai W, Zhu Y, Zhao S. Evidence-based study of the competence model of the executives of large public hospitals. *China Hospital Management Journal*. 2011; 27(1): 28-31.

5. Sun D. Research on the duties and competence standards of the executive of public hospitals in China. Doctoral Thesis, Shandong University. In Chinese. 2012.

6. Hofstede G. Cultural constraints in management theories. *The Executive*. 1993; 7(1): 81-94.

7. Schwartz RW, Pogge C. Physician leadership: essential skills in a changing environment. *The American journal of surgery*. 2000 Sep 1; 180(3): 187-192.

8. Skela Savič B, Robida A. Capacity of middle management in health-care organizations for working with people—the case of Slovenian hospitals. *Human resources for health*. 2013 Dec; 11: 18. <http://www.human-resources-health.com/content/11/1/18>

9. China Hospital Association. Survey Report on Professional Training of Chinese Hospital Directors. Beijing, China, China Hospital Association. In Chinese. 2014.

10. The State Council. Decisions on Health Reform and Development. Beijing, China, The State Council of the People's Republic of China. In Chinese. 1997.

11. Lund T. Combining qualitative and quantitative approaches: Some arguments for mixed methods research. *Scandinavian journal of educational research*. 2012 Apr 1; 56(2): 155-165.
12. Xu E, Wang Z. The development and genre of enterprise strategic management theory. *Journal of Capital University of Economics and Trade*. 1999; (01): 27-31.
13. Man TW, Lau T, Chan KF. The competitiveness of small and medium enterprises: A conceptualization with focus on entrepreneurial competencies. *Journal of business venturing*. 2002 Mar 1; 17(2): 123-42.
14. Seibert SE, Crant JM, Kraimer ML. Proactive personality and career success. *Journal of applied psychology*. 1999 Jun; 84(3): 416-427.
15. Cui D. Research on professional development strategies for the executives of public hospitals. Doctoral Thesis, Huazhong University of Science and Technology. In Chinese. 2012.
16. Kuratko DF, Hornsby JS, Naffziger DW. An Examination of Owner's Goals in Sustaining Entrepreneurship. *Journal of small business management*. 1997 Jan 1; 35(1), 24-33.
17. Yao H. Study on the professional model of the executive of China's public hospitals and their evaluation system. Doctoral Thesis, Huazhong University of Science and Technology. In Chinese. 2014.
18. Fernando R. Sustainable globalization and implications for strategic corporate and national sustainability. *Corporate Governance: The international journal of business in society*. 2012 Aug 3; 12(4): 579-89.
19. Strand R. Strategic leadership of corporate sustainability. *Journal of Business Ethics*. 2014 Sep; 123: 687-706.
20. Andreou PC, Ehrlich D, Karasamani I, Louca C. Managerial ability and firm performance: evidence from the global financial crisis. *SSRN Electronic Journal*. 2015; 63(2): 59-78.
21. Shafii M, Hosseini SM, Arab M, Asgharizadeh E, Farzianpour F. Performance analysis of hospital managers using fuzzy AHP and fuzzy TOPSIS: Iranian experience. *Global journal of health science*. 2016 Feb; 8(2): 137-155.
22. Sindhusaranya B, Yamini R, Manimekalai MAP, Geetha K. Federated Learning and Blockchain-Enabled Privacy-Preserving Healthcare 5.0 System: A Comprehensive Approach to Fraud Prevention and Security in IoMT. *Journal of Internet Services and Information Security (JISIS)*. 2023; 13(3): 199-209.
23. Jara AJ, Zamora MA, Gómez-Skarmeta AF. An Initial Approach to Support Mobility in Hospital Wireless Sensor Networks based on 6LoWPAN (HWSN6). *Journal of Wireless Mobile Networks, Ubiquitous Computing, and Dependable Applications (JOWUA)*. 2010 Sep; 1(2/3): 107-122.

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CONFLICT OF INTEREST

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