HOW TO ENHANCE THE QUALITY OF MEDICAL DOCTORS IN PUBLIC HEALTHCARE INSTITUTIONS? A CASE STUDY OF HUE UNIVERSITY OF MEDICINE AND PHARMACY HOSPITAL

LÀM THẾ NÀO ĐỂ NÂNG CAO CHẤT LƯỢNG BÁC SĨ TẠI ĐƠN VỊ SỰ NGHIỆP Y TẾ CÔNG LẬP? NGHIÊN CỨU TRƯỜNG HỢP BỆNH VIỆN TRƯỜNG ĐẠI HỌC Y - DƯỢC HUẾ

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(Received: July 05, 2026; Revised: August 12, 2026; Accepted: September 07, 2026)

DOI: 10.31130/ud-jst.2026.24(10).468E

Abstract - This study evaluates the quality of medical doctors in public healthcare institutions through a three-pillar analytical framework comprising physical, intellectual, and psychological capacities, using a case study at Hue University of Medicine and Pharmacy Hospital. Utilizing a mixed-methods approach that integrates a quantitative survey of 200 patients with in-depth interviews of 13 subjects-including hospital administrators and medical doctors-the results indicate that the institution's medical doctors possess professional competence and occupational ethics well-suited to practical requirements. However, under the structural strain of the "University - Hospital" model, the system remains constrained by a high dual-role (concurrent appointment) rate exceeding 84%, a performance-detached compensation mechanism, and limitations in technological infrastructure. The paper proposes strategic solutions toward 2030, emphasizing the overhaul of competency-based evaluation mechanisms, the realignment of workload standards, and the optimization of the workplace environment to facilitate the sustainable development of high-quality healthcare human resources in the public sector.

Key words - Quality of medical doctors; Public healthcare institutions; Healthcare human resource management; University - Hospital model; Physical - Intellectual - Psychological capacity

Tóm tắt - Nghiên cứu đánh giá chất lượng đội ngũ bác sĩ tại các đơn vị sự nghiệp y tế công lập thông qua khung phân tích ba trụ cột: thể lực, trí lực và tâm lực, với nghiên cứu điển hình tại Bệnh viện Trường Đại học Y - Dược Huế. Bằng phương pháp hỗn hợp, kết hợp khảo sát định lượng 200 người bệnh và phỏng vấn sâu 13 đối tượng gồm cán bộ quản lý và bác sĩ, kết quả cho thấy đội ngũ bác sĩ tại đơn vị đã đạt trình độ chuyên môn và đạo đức nghề nghiệp phù hợp với yêu cầu thực tế. Tuy nhiên, dưới áp lực của mô hình "Trường - Viện", tỷ lệ kiêm nhiệm cao (trên 84%), cơ chế đãi ngộ chưa gắn với hiệu suất cùng các hạn chế về hạ tầng kỹ thuật. Bài báo đề xuất các giải pháp chiến lược đến năm 2030, trọng tâm là đổi mới cơ chế đánh giá theo năng lực thực tiễn, điều chỉnh định mức lao động và cải thiện môi trường làm việc nhằm phát triển bền vững nguồn nhân lực y tế chất lượng cao trong khu vực công.

Từ khóa - Chất lượng bác sĩ; Đơn vị sự nghiệp y tế công lập; Quản trị nhân lực y tế; Mô hình Trường - Viện; Thể lực - Trí lực - Tâm lực

1. Introduction

Within the healthcare service delivery system, medical doctors are recognized as the central element determining the effectiveness of diagnosis, treatment, and the operational quality of healthcare facilities [1]. From the perspective of modern public management, the efficiency of a public healthcare institution depends not only on infrastructure but primarily on the professional competence and dedication of its human resources [2]. Building and developing a team of medical doctors with in-depth expertise, solid professional skills, and public service ethics is a strategic task to ensure the sustainable development of the healthcare system in the context of globalization [3].

Although international literature widely documents that multitasking in medical environments generally increases the risk of occupational strain and burnout [4], [5], its specific manifestation within the unique dual-role framework of Vietnamese university - affiliated hospitals remains underexplored. Examining how structural pressures translate into localized health and operational outcomes at Hue University of Medicine and Pharmacy Hospital thus forms a critical empirical objective of this study.

Despite the growing recognition of healthcare human resources in Vietnam [6], [7], in-depth analyses focusing specifically on the multifunctional characteristics and governance of university-affiliated hospitals remain remarkably scarce. This study aims to fill this gap by addressing the research question: What is the current quality of medical doctors at Hue University of Medicine and Pharmacy Hospital under a multidimensional analytical framework (physical, intellectual, and psychological capacities), and what are the strategic solutions to remove barriers, aiming for high-quality human resource development by 2030?

While drawing upon foundational empirical data from recent institutional research on the same setting [8], this

paper significantly advances prior work by condensing, restructuring, and applying a rigorous multidimensional analytical framework (Physical - Intellectual - Psychological capacities) integrated with contemporary public management theories (Resource - Based View (RBV), Institutional Theory, and Resource Dependence Theory) to derive targeted governance implications for university hospitals.

Specifically, this study aims to: (1) comprehensively evaluate the quality of medical doctors at Hue University of Medicine and Pharmacy Hospital through the three-pillar framework (Physical, Intellectual, and Psychological capacities); (2) identify systemic bottlenecks in human resource management within the multifunctional 'University-Hospital' model; and (3) propose strategic policy implications toward 2030. The study contributes theoretically by introducing a multidimensional diagnostic framework for public healthcare human resources and practically by providing actionable governance solutions for university-affiliated hospitals.

2. Theoretical Framework

2.1. Medical Human Resources and the "University - Hospital" Model

In human resource management theory, medical personnel are defined as strategic assets that determine the efficiency of public service systems [9]. Within the "University - Hospital" model, medical doctors assume multiple roles, requiring a harmonious combination of clinical practice, medical education, and scientific research. According to the learning organization theory, this intersection not only enhances individual professional competence but also promotes the organization's adaptability to the rapid changes in medical technology [10]. However, operating under this model also creates challenges regarding role conflict and work pressure, necessitating specific human resource management frameworks to optimize performance [11].

2.2. Analytical Framework: Physical - Intellectual - Psychological Capacities

In this study, the “quality of medical doctors” is conceptualized as an integrated composite of professional competencies, physical endurance, and public service ethos required to perform multifunctional roles within a university-hospital environment. Rather than serving as a newly validated psychometric scale, the three-pillar framework-comprising Physical, Intellectual, and Psychological capacities- is operationalized as a multidimensional diagnostic tool synthesized from established theoretical streams, including human capital theory, occupational health perspectives, and Public Service Motivation (PSM). Grounded in these theoretical foundations, the three pillars are structured and evaluated as follows:

(i) Physical Capacity: Based on occupational health perspectives, physical fitness and endurance are considered the foundation of labor productivity. In high-intensity medical environments, physical well-being is a necessary condition for maintaining alertness and precision in clinical decision-making, where physiological exhaustion directly undermines physical capacity [12].

(ii) Intellectual Capacity: Based on human capital theory, intellectual capacity encompasses professional knowledge, practical skills, and self-learning capabilities [13]. In public healthcare institutions, the intellectual capacity of medical doctors is not limited to academic degrees but also includes the ability to apply advanced technology and handle complex situations in a multitasking environment.

(iii) Psychological Capacity: Understood through the lens of PSM, psychological capacity reflects commitment, professional ethics, and a spirit of community service. PSM is a crucial variable in explaining the engagement of medical staff in the public sector, where financial factors may not be the sole motivator [14].

2.3. Factors Affecting the Quality of Medical Human Resources

Internal factors play a pivotal role as key drivers determining the performance and engagement of medical doctors in public healthcare institutions. Based on the RBV, human resources are not merely operational costs but strategic assets that create organizational competitive advantage [9]. Within the hospital environment, human resource management policies, organizational culture, and compensation mechanisms constitute an ecosystem that determines the execution capability of medical doctors. Particularly in the public sector, the concept of PSM asserts that medical doctors are not only driven by traditional economic factors but are also guided by a sense of community service [14]. Therefore, an effective internal management system requires a harmonious integration of financial and non-financial tools to maintain long-term commitment and optimize professional capabilities within a multitasking work environment.

Concurrently, external factors establish the legal framework and environmental pressures, compelling healthcare institutions to continuously adjust human resource quality standards. According to Institutional Theory, healthcare organizations are strongly influenced by regulations, professional standards, and societal pressure to adhere to modern healthcare norms [15]. Changes in state financial autonomy policies and the global shift in medical technology serve as variables directly impacting the training and skill development requirements for medical doctors. Furthermore, Resource Dependence Theory emphasizes that a hospital’s adaptability to requirements from regulatory bodies and the practical needs of patients is a decisive measure of the sustainability of medical human resources in the long term [16].

To synthesize these theoretical streams, explicit linkages are established between the external/ internal governance theories (Section 2.3) and the three-pillar capacity framework (Section 2.2). Specifically, the RBV posits that internal resources-manifested through the staff's physical and intellectual capacities-form the core competitive advantage of the institution. Institutional Theory explains how external normative pressures shape and constrain the psychological capacity (such as medical

ethics and service norms). Meanwhile, Resource Dependence Theory elucidates how external autonomy and infrastructural constraints directly dictate the institutional environment needed to deploy staff intellectual and physical capacities effectively.

Rather than testing statistical hypotheses (H1, H2), this study adopts a diagnostic exploratory approach guided by theoretical propositions derived from the integration of RBV, Institutional Theory, and Resource Dependence Theory. These propositions direct the empirical diagnosis toward examining how internal resource strains, institutional pressures, and external dependencies manifest within the multifunctional university-hospital environment.

While these organizational theories originated predominantly within Western management contexts, their application to Vietnam's transitional public healthcare sector provides vital analytical lenses. In Vietnam, public healthcare institutions operate under unique institutional constraints, balancing state administrative regulations, financial autonomy mandates, and the dual demands of clinical service and higher education within the "University-Hospital" model.

3. Methodology

3.1. Research Design

The study employs a case study design combined with mixed methods to conduct an in-depth analysis of human resource management within the specific context of the "University-Hospital" model. Selecting this design allows the researcher to leverage data from diverse sources, ensuring the comprehensiveness and reliability of the results through methodological triangulation [17]. Hue University of Medicine and Pharmacy Hospital was selected as a representative case study due to its full convergence of characteristics regarding multifunctional healthcare management, including clinical care, education, and scientific research. This approach provides a robust theoretical foundation for identifying human resource management challenges within public healthcare institutions in the current context.

3.2. Data Collection Methods

The data collection process combined secondary and primary data sources. Secondary data encompassed legally binding normative documents issued by the state and the Ministry of Health (such as regulations on public healthcare autonomy and workforce norms), internal human resource management regulations and periodic health screening records (2023–2025) provided by the Personnel and Administrative Department of Hue University of Medicine and Pharmacy Hospital, as well as the hospital's annual operational summary reports and strategic development plans toward 2030 [18].

Primary data were collected through two main channels. First, a quantitative patient survey was conducted directly via paper-based forms (face-to-face field survey, not online) across outpatient and major inpatient departments (including internal medicine, surgery, and pediatrics) of Hue University of Medicine and Pharmacy Hospital between September 14 and September 20, 2025. Questionnaires were distributed directly to patients or their primary caregivers by trained research assistants during discharge or post-examination intervals. Out of approximately 220 distributed questionnaires, 200 valid responses were retained after screening out incomplete forms (yielding an effective response rate of ~90.9%), with a minimal refusal rate handled through direct explanation of the survey's academic purpose. The survey utilized a structured questionnaire based on a 5-point Likert scale (ranging from 1 = Very dissatisfied/Poor to 5 = Very satisfied/Excellent). The measurement constructs were adapted from standard healthcare service quality evaluation frameworks and Ministry of Health regulations on medical ethics (comprising items measuring perceived professional competence and psychological/ethical conduct). Due to journal space constraints, the detailed questionnaire structure is available from the corresponding author upon request.

Second, primary qualitative data were collected through semi-structured in-depth interviews with 13 key subjects conducted in November 2025 at the hospital's meeting rooms. The interviewed group was purposely selected to ensure comprehensive institutional representation, comprising:

(i) Group 1 (Senior Administrators): 3 subjects including the Hospital Director (who also serves as the Vice Principal of Hue University of Medicine and Pharmacy), and leaders of the Personnel and Administrative Department and Quality Management Department.

(ii) Group 2 (Clinicians): 10 medical doctors currently working across various clinical departments. Each interview lasted between 60 and 90 minutes, focusing on governance mechanisms, systemic barriers, workload pressures, dual-role dynamics, and professional motivations.

This method helped explore aspects of governance, systemic barriers, and professional motivation that pure quantitative data cannot fully describe [19].

3.3. Sample Size and Sampling Method

The study employs non-probability sampling for both datasets to ensure representativeness for key stakeholders within the healthcare ecosystem. The sample size includes 200 patients selected via convenience sampling to achieve basic statistical reliability, and 13 subjects for in-depth interviews selected via purposive sampling to achieve theoretical saturation in qualitative research [19]. The sample selection process strictly adhered to criteria regarding professional seniority, occupational position, and understanding of the institution's management mechanisms. This combination of sample sizes allows the study to achieve a methodological balance between quantitative descriptive insights and qualitative depth. Recognizing that the quantitative sample of 200 patients from a single institutional site limits broad statistical generalizability, the findings are intended to provide

analytical depth and contextual transferability rather than universal population inference.

3.4. Data Analysis Methods

Data analysis was performed using a parallel process, separating quantitative and qualitative data streams. For quantitative data, the results from the 200 surveys were processed using descriptive statistical tools to determine frequencies and mean scores regarding satisfaction levels. For qualitative data, the content from the 13 in-depth interviews was recorded, transcribed, and thematically coded through a three-step process: open coding to identify concepts, axial coding to connect themes, and selective coding to construct interpretations of systemic barriers [20].

To ensure the comprehensive measurement of the three analytical pillars, a multi-source data triangulation approach was employed. Specifically, quantitative patient surveys primarily captured service-based facets of 'psychological capacity' (e.g., medical ethics, communication) and perceived 'intellectual capacity' through the clarity and effectiveness of clinical explanations experienced during treatment. Concurrently, qualitative in-depth interviews with administrators and institutional secondary records (such as periodic health screening reports and personnel qualification databases) supplied objective metrics for 'physical capacity' and formal 'intellectual capacity' (e.g., academic ranks, degrees, and foreign language proficiencies). The final results from both streams were synthesized and cross-referenced to create a robust evidentiary basis for the research findings.

4. Findings

4.1. Assessing the Quality of Medical Doctors via the Three-Pillar Framework

The quality of medical doctors at Hue University of Medicine and Pharmacy Hospital during the 2023–2025 period was comprehensively assessed across three pillars: physical, intellectual, and psychological capacities, with stable development reflecting the institution's human resource management efforts.

Regarding physical capacity, the status of the medical team remained relatively stable but faced increasing pressure due to work intensity. Specifically, the hospital's periodic health examination records classify staff health into standard categories (Type I to Type IV) following national occupational health guidelines. The proportion of doctors with Type I and Type II health status remained consistent throughout the years, specifically 56.68% in 2023, rising slightly to 58.47% in 2024, and adjusting to 56.65% in 2025. Type III health status- representing sub-optimal health conditions, mild chronic ailments, or stress-related fatigue-serves as a crucial organizational indicator of occupational strain. Although these figures represent population-level census data for the hospital's medical staff rather than sample-based inferential statistics, the upward trend in Type III status (shifting from 38.34% in 2024 to 40.51% in 2025) reflects growing physical vulnerability driven by intensifying clinical and academic workloads. Regarding Type IV health status- representing severe chronic conditions or significant health impairment-qualitative data and institutional records indicate that these doctors are not immediately separated from the workforce. Instead, within the flexible framework of the 'University-Hospital' model, personnel experiencing severe health declines are systematically supported through job reallocations. They are temporarily or permanently shifted from high-intensity clinical shifts (such as emergency and major surgeries) to academic teaching, research, or administrative advisory roles. Furthermore, the continuous decline in the proportion of Type IV health status from 3.91% (2023) to 2.85% (2025) underscores the effectiveness of the hospital's occupational health interventions and targeted rehabilitation support.

Regarding intellectual capacity, the results recorded significant advancements in professional qualifications and integration capabilities. The academic structure shifted positively toward enhancing training quality, with the proportion of postgraduate-qualified doctors increasing steadily; specifically, the group of Professors and Associate Professors rose from 13.36% (2023) to 13.92% (2025), and the group of PhD holders increased from 20.52% to 21.52%. Concurrently, the proportion of doctors with only undergraduate degrees gradually decreased from 16.94% (2023) to 15.19% (2025), indicating that the human resource standardization roadmap is effective. Foreign language proficiency also achieved a breakthrough, with the proportion attaining Level 3 proficiency increasing consistently from 40.07% (2023) to 50.63% in 2025. Notably, the specific nature of the "University-Hospital" model was affirmed, as the proportion of doctors holding dual roles remained stable at over 84% throughout the years, facilitating the integration of theoretical teaching and clinical practice.

Regarding psychological capacity. To evaluate the "psychological capacity" (medical ethics and service attitude) from the patient's perspective, a quantitative survey was administered to a valid sample of N = 200 respondents (comprising both outpatients and inpatients across major clinical departments such as Internal Medicine, Surgery, and Pediatrics). The demographic profile of the survey respondents reflects a balanced distribution in terms of gender (approx. 51% female, 49% male), age groups ranging from 18 to over 60 years old, and health insurance status (over 85% utilizing health insurance). All percentages reported in the satisfaction metrics are calculated based on the total valid denominator (N = 200), ensuring complete statistical transparency. The pillar is reflected through medical ethics and service attitude, which serve as the foundation for building patient trust in the hospital. Results from a survey of 200 patients showed that the psychological capacity of the medical team remained high and positive: 76.5% of patients were satisfied or very satisfied with the friendly communication style, and 78.5% were satisfied or very satisfied with the close attention to their health. Although the criterion regarding equal treatment (non-patronizing) had a lower satisfaction rate of 72.5%, generally, over 90% of patients

still rated their satisfaction with medical doctor services as average or above. These figures reflect the doctors' sense of responsibility and commitment despite increasing pressures, while affirming the effectiveness of communication skills and medical ethics training programs implemented by the hospital during the 2023-2025 period. While patient satisfaction is primarily a measure of service experience, it serves as a robust external behavioral reflection of the medical team's "psychological capacity" and adherence to medical ethics. In public healthcare governance, patient perceptions regarding communication style, attentive care, and equity directly mirror the practical execution of professional ethics and normative conduct mandated by health regulations. Overall, more than 90% of patients rated their satisfaction with the services provided by medical doctors as average or above, testifying to their medical ethics consciousness and professional service style.

4.2. Identifying Systemic Bottlenecks in Human Resource Management

Through 13 in-depth interviews with relevant stakeholders, the study identified structural bottlenecks affecting the quality of medical doctors at Hue University of Medicine and Pharmacy Hospital:

First, pressure from workload standards within the multitasking model causes localized overloading. Although 84% of medical doctors are involved in dual roles (concurrent appointments), the proportion of core (full-time) medical doctors is only 15.8%, leading to an imbalanced allocation of time between clinical and teaching duties. The consequence is a decline in occupational health, evidenced by the proportion of medical doctors with Type III health status increasing to 40.51% in 2025.

Second, current compensation mechanisms do not accurately reflect competence and performance. In-depth interview responses emphasized that the salary and reward system remains egalitarian and lacks specific mechanisms to attract and retain talent in accordance with market standards. This creates a gap between the career development expectations of medical doctors and the institution's current human resource management policies.

Third, limitations in technical infrastructure and training approaches affect the long-term capability development roadmap. Qualitative data indicate that deteriorating facilities have restricted access to advanced medical techniques. Furthermore, training remains degree-oriented rather than focused on addressing the requirements of managing complex clinical cases, creating professional competence disparities among different groups within the hospital.

5. Discussion

The empirical findings of this study are systematically interpreted through the three core theoretical lenses established in this research: the RBV, Institutional Theory, and Resource Dependence Theory. First, the evaluation of intellectual and physical capacities aligns with RBV, demonstrating that internal human capital forms the core competitive capability of university-affiliated hospitals. Second, the structural and infrastructural pressures reflect the constraints highlighted by Resource Dependence Theory. Finally, the positive findings regarding psychological capacity and patient satisfaction illustrate normative alignment under Institutional Theory.

5.1. The Conflict Between the Multitasking Model and the Load Capacity of Human Resources

The research results reveal a paradox in the management of the "University-Hospital" model: the pressure of multitasking is pushing medical doctors to their physical and psychological endurance limits, directly threatening their physical and psychological capacities. The fact that 84% of medical doctors simultaneously perform treatment and teaching duties-while creating a competitive advantage in expertise-has led to a significant decline in occupational health (40.51% of medical doctors have Type III health status). According to Role Conflict Theory, when individuals must simultaneously meet opposing expectations without the support of a flexible management system, overall work performance is theoretically exposed to a risk of progressive decline. Applying workload standards based solely on traditional staffing norms is incompatible with the operational reality of university hospitals, where clinical and academic workloads are constantly intertwined and fluctuating. This poses an urgent requirement to develop workload standards based on job-based definitions, ensuring a balance between productivity and the occupational health of medical doctors. This dual-role pressure mirrors broader international concerns regarding physician well-being. While studies in Western contexts primarily attribute burnout to administrative burdens and high patient volumes [5], our findings highlight a distinct structural mechanism within transitional public systems: the institutional friction between clinical service delivery and academic obligations in a university-hospital model. Unlike standard hospital settings where clinicians focus solely on patient care, the 84% dual-role rate at Hue University of Medicine and Pharmacy Hospital creates a unique layer of cognitive fragmentation, compounding the occupational strain documented in broader healthcare literature.

Specifically, the dual-role commitment exceeding 84% creates a demanding institutional tension between clinical service delivery and academic obligations. While simultaneous engagement in treatment and teaching bridges theory with medical practice, the fragmentation of time and cognitive focus between intense clinical shifts (such as patient management and emergency care) and faculty responsibilities (such as lecturing, student mentoring, and academic research) exacerbates local overloading. This structural friction directly affects clinical practice outcomes-potentially heightening fatigue-related risks and reducing operational concentration-while concurrently compromising teaching quality and academic productivity, as physicians struggle to balance competing institutional demands without flexible allocation frameworks.

5.2. PSM in the Context of Inadequate Compensation Mechanisms

High patient satisfaction (over 90%) regarding the service quality of medical doctors demonstrates that the team is operating based on strong PSM [14]. However, the interview results indicate dissatisfaction with the egalitarian nature of the current compensation mechanism. According to Equity Theory in human resource management, long-term employee commitment cannot be sustained solely through non-financial values. When professional contributions and research efficacy are not adequately recognized through the salary and reward system, a decline in motivation is inevitable. The cross-sectional findings theoretically suggest that, if left unadjusted, the current management model risks inadvertently depleting the "psychological capital"-the core foundation of their psychological capacity-rather than regenerating and fostering it. To address this, the institution needs to transition from an input-based management model (seniority, academic qualifications) to an output-based management model (professional KPIs, clinical and research performance).

5.3. Institutional Barriers to Sustainable Professional Development

Current deficiencies in technical infrastructure and training processes constitute a double barrier, directly impeding the development and enhancement of the staff's intellectual capacity. Through the lens of Resource Dependence Theory, the hospital's lack of full autonomy in investing in equipment and technological innovation has limited medical doctors-despite their high professional qualifications-in implementing advanced medical techniques [16]. Current training remains "confined" within administrative standards, failing to create an environment that encourages innovation. Qualitative insights from in-depth interviews highlight a nuanced disparity in clinical case management capabilities between generations of doctors; this suggests that the current management system has yet to establish a continuous, mentorship-based competency development roadmap to bridge this gap. Therefore, restructuring public investment toward prioritizing high-tech centers and personalizing training pathways is not only a solution to enhance the quality of medical doctors but also a strategy to position the hospital's brand within the regional healthcare system.

6. Conclusion, Policy Implications, and Limitations of the Study

6.1. Conclusion

From an academic perspective, this study contributes to public healthcare governance literature by introducing and operationalizing a multidimensional three-pillar framework (Physical, Intellectual, and Psychological capacities) integrated with the RBV, Institutional Theory, and Resource Dependence Theory.

This study has conducted a comprehensive assessment of the quality of medical doctors at Hue University of Medicine and Pharmacy Hospital using the three-pillar analytical framework of physical, intellectual, and psychological capacities. Empirical results confirm that, during the 2023–2025 period, the institution has successfully developed a core team with high professional qualifications and strong medical ethics. However, structural strains within the multifunctional model simultaneously expose the staff to workload pressures and latent risks of psychological capital depletion if institutional mechanisms remain unadjusted.

6.2. Policy Implications

Based on the research findings, the following policy implications are proposed to optimize human resource management:

For the Hospital: It is imperative to urgently review and transition workload standards from traditional staffing norms to management based on job positions and actual performance to mitigate occupational strain. Establishing a multidimensional KPI evaluation system - integrating clinical, teaching, and research metrics - is essential to overhaul the egalitarian compensation mechanism and sustain professional motivation. Simultaneously, the hospital should prioritize regular occupational health programs to protect staff physical and psychological capacities.

For State Management Agencies: It is necessary to refine the legal framework regarding financial autonomy mechanisms for university-affiliated public healthcare institutions, allowing for flexible wage and compensation policies that reflect actual dual-role contributions. Furthermore, state authorities should prioritize targeted public funding to upgrade core clinical and technical infrastructure at university-affiliated hospitals, resolving the resource dependencies that hinder advanced medical service delivery.

6.3. Limitations of the Study

Despite achieving significant empirical findings, this study has certain limitations that should be considered in future research:

First, scope and sample limitations: Because the study focuses on the representative case of Hue University of Medicine and Pharmacy Hospital, the generalizability of the findings to all public healthcare institutions nationwide remains limited. Furthermore, the quantitative survey sample of 200 patients, while adequate for baseline descriptive analysis within this single-hospital case study, presents constraints regarding statistical power for broad inferences; thus, the quantitative metrics primarily serve as supplementary evidence for methodological triangulation.

Second, data limitations: This study utilizes cross-sectional data, which does not fully capture the fluctuations in staff quality over an extended period. Future longitudinal studies should be conducted to assess the long-term impacts of new management policies.

Third, control variable limitations: The study centers on the three pillars of Physical, Intellectual, and Psychological capacities. Future research could expand upon this by incorporating variables regarding organizational culture and information technology support to further clarify the factors influencing work performance.

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