

Reflection and Analysis on the Construction of a High-Quality Employment Evaluation System for Chinese Medical Students

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ABSTRACT: *Against the backdrop of the transformation in the medical industry driven by new-quality productivity, high-quality employment for medical students is confronted with challenges such as the transformation of skill structures and the imbalance between supply and demand. This paper constructs an evaluation framework from four dimensions: personal qualities, educational training, market demand, and policy support. By integrating the latest trends, including grassroots medical policies, academic competitiveness, core indicators of employment quality, and career planning pathways, the analysis identifies new-quality productivity-oriented core employment elements such as digitalization of clinical capabilities, innovative scientific research thinking, and adaptability to grassroots services. The paper proposes a "three-dimensional synergy" response strategy, encompassing the reshaping of individual competitiveness, the reconstruction of the educational system, and the innovation of policy-market linkage mechanisms, providing theoretical support and practical pathways for resolving the structural contradictions in medical students' employment.*

Key words: *Quality of production, The level of innovation in medical education, The quality of employment of medical students, The upgrading of grassroots healthcare.*

1. Introduction

With the in-depth application of new-quality productivity in the medical field, medical education models and employment patterns are undergoing profound transformations. Technological innovations have spurred the digital transformation of diagnosis and treatment models, the extension of health service chains, and breakthrough changes in scientific research paradigms. Meanwhile, the optimized allocation of medical resources has triggered shifts in the employment structure. Against this backdrop, the establishment of a scientific and reasonable evaluation system for high-quality employment of medical students is of great significance for guiding medical education reforms, optimizing talent resource allocation, and enhancing the level of medical services.

2. The Restructuring Effects of New-Quality Productivity on Medical Employment Patterns

2.1. Technological Innovations Spur New Standards for Employability

Driven by new-quality productivity, technological breakthroughs are changing the standards for medical employability. The accelerated process of digital transformation in diagnostic and treatment models the coupled



with the wide scapable application soft echnologies such as telemedicine and AI-assisted diagnosis, necessitates that medical students have the ability to analyze medical large data and operation intelligent medical devices proficiently to adapt to digital diagnostic environments. Meanwhile, the extension of the health service chain from disease treatment to encompass prevention and rehabilitation throughout the entire process has given rise to emerging roles such as health managers and medical big data engineers, requiring medical students to possess cross-disciplinary knowledge reserves and skills. Furthermore, breakthrough changes in scientific research paradigms, with the flourishing of Cutting-Edge Fields Such as Gene Editing and Immunotherapy, Have Imposed Higher Requirements on Medical Students' Interdisciplinary Scientific Research Thinking and Capability For 成果转化 (achievement Transformation, Could Also Be Translated as " Commercialization of Research Findings " Depending on Context) , Prompting Medical Education to Cultured Compount^[1].

2.2. Optimized Allocation of Medical Resources Triggers Changes in Employment Structure

The optimized allocation of medical resources triggers profound changes in the medical employment structure^[2]. Digital empowerment has led to the restructuring of the value of primary healthcare, with primary hospitals enhancing their capacity to handle complex cases, thereby generating substantial demand for "technically applicable" roles and offering new employment directions for medical graduates. Concurrently, clinical research positions in tertiary hospitals generally require doctoral degrees, driving medical education towards an elitist direction and intensifying competition in medical talent cultivation. Additionally, the rapid rise of emerging fields such as pharmaceutical and medical device research and development, and medical AI product development, with their innovative nature and high added value, have become new growth points for absorbing high-quality medical talents, providing medical graduates with broader employment opportunities.

3. A Multi-Dimensional Analytical Framework for Evaluating High-Quality Employment of Medical Students

In the complex context of medical student employment in contemporary China, constructing a scientific and reasonable multi-dimensional analytical framework for evaluating high-quality employment is of utmost importance^[3].

3.1. Individual Competence Dimension

In terms of individual competence, with respect to clinical abilities, as intelligent devices become increasingly prevalent in the medical field, medical students need to possess the ability to collaborate in diagnosis and treatment with these devices; however, traditional training models are relatively weak in this practical training. Regarding scientific research literacy, interdisciplinary innovation and transformation Capabilities are Crucial, Yet the Current Conversion Rate of Scientific Research Achievements Remains to Be Improved. for 基层适应性 (Grassroots Adaptability, Could Also Be Translated as " Adaptability to Primary Healthcare Settings "), Competencies in General Practice and the Application of Digital Tools are Indensable, But Medical Stude Sings and and New.

3.2. Educational Training Dimension

Numerous issues exist within the educational training dimension. In terms of the curriculum system, existing medical education does not comprehensively cover emerging fields such as digital healthcare and health economics. Regarding practical platforms, there is a lack of standardized construction of primary healthcare internship bases, and competition for internship resources in tertiary hospitals is exceptionally fierce. In terms of faculty structure, the proportion of dual-qualified teachers with industry experience is low, making it difficult to meet the needs of practical teaching.



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3.3. Market Demand Dimension

Contradictions are prominent in the market demand dimension. There is a severe mismatch between supply and demand, with the contradiction between the doctoral degree requirements of tertiary hospitals and the scale of medical master's degree cultivation becoming increasingly prominent. Emerging fields such as medical big data and AI healthcare positions are experiencing rapid growth in demand, but talent cultivation is relatively lagging. Primary healthcare faces difficulties, with low remuneration and narrow promotion spaces leading to a talent attrition rate exceeding 40%.

3.4. Policy and Institutional Dimension

The policy and institutional dimension requires improvement. In terms of incentive mechanisms, there are regional variations in the implementation intensity of policies such as subsidies for primary healthcare employment and preferential policies for professional titles. Regarding the standardized training system, the connection mechanism between standardized resident training and employment needs to be improved. In terms of the evaluation system, the paper-oriented professional title evaluation criteria overlook the value of clinical practice, which is not conducive to the comprehensive development of medical students^[4].

4. Latest Trials and Core Indications of High-Quality Health Yield for Medical Students

4.1. Policy-Driven Opportunity and Grassroots Healthcare Prospects

In the broader landscape of medical student employment in China, policy-driven initiatives and grassroots healthcare opportunities are paving new paths for medical students. National targeted training policies, propelled by strong governmental support, with the central finance providing substantial backing for rural order-based targeted training in central and western regions, not only cover tuition and accommodation fees but also ensure graduates are directly assigned to permanent positions in township healthcenters, laying a solid foundation for medical students to take root in grassroots healthcare^[5]. Additionally, grassroots healthcare institutions are opening up positions with permanent employment for undergraduate students, with some regions even extending eligibility to those with associate degrees, attracting numerous medical students to contribute to grassroots healthcare endeavors.

4.2. Educational Background and Competitiveness

In terms of educational background and competitiveness, the phenomenon of academic inflation is becoming increasingly prominent. The recruitment threshold for tertiary hospitals has generally risen to a master's degree, with undergraduates predominantly flowing into county-level hospitals or private institutions. Standardized residency training, as a mandatory phase for medical practice, despite its modest income during the training period, lays a solid foundation for professional title promotion, prompting medical students to accumulate experience and enhance their capabilities during the training.

4.3. Core Indicators of Employment Quality

Core indicators of employment quality are pivotal in assessing the employment status of medical students^[6]. In terms of salary levels, there is a coexistence of short-term difficulties and long-term returns. The annual salary of attending physicians in tertiary hospitals can reach 200,000-300,000 yuan, but the initial accumulation process is lengthy. Regarding professional alignment, the alignment rate for medical graduates exceeds 92%, yet some special ties experience higher turnover rates due to factors such as working environment and development prospects. In terms of career planning, diversified paths offer possibilities for medical students to break free from the constraints of academic inflation. Deepening roots in grassroots healthcare can accumulate rich clinical experience, cross-sectoral development can broaden career horizons, and lifelong learning is an inevitable requirement for adapting to the rapid development of medicine. Medical students need to weigh their own actual situations, considering policy guidance, educational background enhancement, salary considerations, professional matching, and career planning, to achieve high-quality employment and contribute to the development of the medical and healthcare sector.



5. Strategies for Enhancing Employment Quality Guided by New Productive Forces

Against the backdrop of rapid technological advancements and the continuous emergence of new productive forces in today's era, Chinese medical students are facing new opportunities and challenges in employment. To improve the employment quality of medical students, it is necessary to focus on three aspects: reshaping individual competitiveness, reforming the supply-side of medical education, and establishing a linkage mechanism between policy and the market, thereby creating a "medical talent-medical technology-industrial demand" linkage prediction model.

5.1. Individual Competitiveness Reshaping Plan

An individual competitiveness reshaping plan is imperative. In terms of clinical capability upgrading, actively promoting "5G+smart healthcare" practical training will enable medical students to proficiently master cutting-edge skills such as remote monitoring and AI diagnostic collaboration, adapting to the development trend of digital healthcare. For scientific research thinking transformation, a "dual-mentor system" should be established, with clinical doctors and engineers jointly guiding medical students to cultivate translational medicine thinking and facilitate the transformation of scientific research achievements into clinical applications. Career planning education requires the introduction of "grassroots healthcare innovation" courses to showcase new opportunities in AI-assisted grassroots healthcare development and guide medical students in establishing correct employment concepts.

5.2. Supply-Side Reform of Medical Education

Supply-side reform of medical education is urgent. The curriculum system should be reconstructed by setting up interdisciplinary modules such as "digital medical technology" and "health management innovation," and developing a "virtual surgery+AI" integrated practical training platform to cultivate medical students' comprehensive literacy and innovative capabilities. The practical model needs innovation by establishing rotation bases in "tertiary hospitals-community hospitals-smart healthcare enterprises" and implementing "grassroots service innovation" special practices, allowing medical students to accumulate experience in different environments and enhance their ability to solve practical problems.

5.3. Policy and Market Linkage Mechanism

The policy and market linkage mechanism is an important guarantee for improving employment quality. On the demand-side guidance, a special plan for "grassroots digital healthcare talents" should be formulated, and an "AI healthcare positions" certification system should be established to guide medical students towards employment in grassroots and emerging fields. On the supply-side optimization, "order-based" training should be implemented, joint colleges should be established with medical AI enterprises, and a "standardized residency training-employment" through train should be established to achieve precise alignment between talent cultivation and market demand.

Through the implementation of the above strategies, it is expected to reshape the individual competitiveness of medical students, promote supply-side reform of medical education, and improve the policy and market linkage mechanism, thereby enhancing the employment quality of medical students and cultivating more high-quality medical talents for the development of China's medical and healthcare sector.

6. Multidimensional Evaluation Index System for High-Quality Employment of Chinese Medical Students

In today's complex and ever-changing employment environment, constructing a scientific and reasonable multidimensional evaluation index system for high-quality employment of medical students is of great significance for accurately assessing the employment quality of medical students, guiding the development of medical education in China, and optimizing the allocation of healthcare talent resources.





Figure 1.
Multidimensional Evaluation Index System for High-Quality Employment of Chinese Medical Students.

6.1. Career Matching and Development Potential

Career matching and development potential are important dimensions for measuring the employment quality of medical students. In terms of professional alignment, the proportion of medical undergraduate graduates engaging in profession-related work is as high as 94%, reflecting a high degree of fit between the professionals cultivated by medical education and the job demands in the healthcare industry. Regarding career stability, the career transition rate among medical graduates within five years is only 18%, demonstrating the stability and attractiveness of the medical profession. The promotion path for professional titles is clear, progressing from resident physicians to chief physicians, providing a clear trajectory for the career development of medical students.

6.2. Employment Quality and Social Security

Employment quality and social security are also key indicators. In terms of salary levels, the average starting salary for medical undergraduate students is 5,424 yuan/month, increasing to 9,435 yuan/month after five years, showing a certain degree of growth. The welfare benefits system is comprehensive, with full coverage of social insurance, housing funds, and paid leave. Some hospitals also provide housing subsidies and child education support. Regarding working conditions and environment, tertiary hospitals are equipped with advanced equipment, and labor protection systems are gradually being improved, providing a good working environment for medical students.

6.3. Employer Satisfaction and Professional Evaluation

(MDT) your satisfaction and professional evaluation are achieved through quantification through clinical indicators like the qualification rate of medical record writing and surgical complication rates. Medical ethics assessment is included in the professional title review system, which is the evaluation of patient-doctor communication satisfaction, the rate of refusing red envelopes (gifts) records, and the medical dispute rate. Professional ethics and professional competence (professional ethics/professional competence) are emphasized. Team collaboration performance is reflected in the cooperation and communication skills of multidisciplinary team treatment (MDT).

6.4. Social Contribution and Industry Recognition

Social contribution and industry recognition reflect the social value of medical students. The proportion of medical students participating in the "Three Supports and One Assistance" plan has been increasing year by year, contributing to the development of grassroots healthcare. During the COVID-19 pandemic, over 80% of medical graduates participated in frontline work, demonstrating their sense of responsibility. In terms of academic and industry recognition, doctors in tertiary hospitals publish an average of 1.5 SCI papers per year, with 30% of them leading national-level research projects, reflecting the performance of medical students in academic research and industry influence.

6.5. Career Growth and Sustainable Development

Career growth and sustainable development aspects include a medical undergraduate enrollment rate of over 60%, with 85% of them being professional master's degree candidates, providing opportunities for further education. In terms of international perspective expansion, overseas exchange programs cover 30% of doctoral students, with a 20% annual increase in participation in international medical forums, helping medical students understand the latest trends in international medicine and enhancing their international competitiveness.

7. Conclusion and Prospects

The transformation of medical employment driven by new-quality productivity necessitates the establishment of a high-quality evaluation system for medical students' employment, ensuring the coordinated development of "education-healthcare-industry" as a trinity. In the future, three key directions should be prioritized:

Dynamic Competency Assessment: Develop a big-data-based employment quality monitoring platform to track in real time the impact of new-quality productivity on job requirements.

Policy Iteration Mechanism: Establish a linked prediction model for "medical talent-healthcare technology-industry demand" to optimize resource allocation.

International Competitiveness of Culture - To develop interdisciplinary medical talents, aligns it to the standards set by international medical AI research and development with the international view of the global level.

This paper innovatively constructs an analytical framework linking new-quality productivity and medical employment quality, proposing a "three-dimensional synergy" enhancement strategy. It establishes a multidimensional evaluation index system for high-quality employment of Chinese medical students from five aspects, including career matching and development potential, employment quality, and social security. This provides theoretical support and practical pathways to resolve structural contradictions in medical students' employment, holding practical value for advancing the modernization of medical education and the healthcare system.

Funding:

(This paper is a phased achievement of the 2025 Zhejiang Provincial Philosophy and Social Sciences Project "Research on the Evaluation System and Countermeasures for the Employment Quality of Medical Students in Zhejiang Universities" (Project No.: 25NDJC116YBMS)).

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International Journal of Educational Studies
Vol. 8, No. 3, pp. 49-54
2025

DOI: 10.53935/2641533x.v8i3.365

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