

Construction of a Quality Assurance System for Higher Medical Education in China

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Abstract: The medical education sector is deeply responsible for training talented clinical staff who can provide healthcare services. There is an urgent need to establish a complete, scientific, and effective quality assurance system for medical education programs to satisfy the “Healthy China” strategy’s development needs, alleviate the shortage of medical professionals, and improve the quality of practitioners produced by higher medical education institutions. Such a system will help to reform and develop medical education programs that will gradually improve the quality of personnel training. This study analyzes the main problems that exist within the present quality assurance system for higher medical education in China and proposes targeted countermeasures and suggestions, as well as provides references to further explore and construct a multi-level, scientific, reliable quality assurance system that suits China’s current medical education situation.

Keywords: higher education; medical education; education quality assurance system; teaching evaluation

1 Introduction

The *Undergraduate Medical Education Standards—Clinical Medicine (Trial)* issued in 2008 by the Ministry of Education and the former Ministry of Health stipulated the basic requirements and specific standards for medical education in China. In 2011, the *Opinions on the Evaluation of Undergraduate Teaching in Ordinary Higher Education Institutions* served as the basis to effectively promote the evaluation of undergraduate teaching. A new “five-in-one” undergraduate teaching evaluation system was established that included self-assessment, institutional evaluation, professional certification and assessment, status data normality testing, and international assessment. This was a top-level redesign of this evaluation system so that it was no longer a one-time, one-way process. Using this document as a guide, the teaching quality supervision department was gradually established. In 2012, medical colleges in China established and perfected their own internal quality assurance systems based on the *Opinions on Further Deepening Undergraduate Education Reform to Improve Teaching Quality* (Teaching [2012] No. 2) and *Opinions on Comprehensive Improvement of Higher Education* (Teaching [2012] No. 4).

Since the end of the 20th century, China has begun to expand enrollment in higher education. The infrastructure of medical colleges has continuously improved, including enhancements to the provided software and hardware. The education quality assurance system is vital for cultivating highly skilled practitioners in higher medical colleges, as it fosters coordination between social demands for medical talents and the colleges’ operational directions. It also helps to meet the challenges faced by universities when training high-quality practitioners. However, its implementation plan needs further clarification [1]. As China’s higher medical education system has been established and improved, both the teaching team and teaching quality have been continuously enhanced in addition to the evaluation system. However, there are still many problems with the current system. This paper analyzes these existing problems and proposes countermeasures and solutions.

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2 The connotation of quality assurance system in higher medical education

The quality assurance system should be understood and analyzed from different angles. In higher education, this system refers to the relevant departments (e.g., government, society, and universities) that promote the gradual increase in higher education quality through quality management, quality supervision, quality control, quality audits, quality certification, and quality assessment methods [2]. The internal assurance system is the cornerstone, while the external assurance system plays a key and decisive role [3]. The internal quality assurance system refers to a series of guarantee systems established within the university to ensure the teaching quality, including the teaching operation system and teaching evaluations. The external quality assurance system refers to the national and government control of higher education, and includes at least three basic components: the evaluation system, the information feedback system, and the standards system.

3 The problems faced by China's medical education quality assurance system

3.1 China's medical evaluation is far from comprehensive

Over the past 40 years, undergraduate teaching evaluations have focused on past work, whether it was from a first round of assessments, a conformity assessment, or a review and evaluation. This approach is somewhat insufficient for guiding future education development [4]. Practice is an important educational process in higher medical education [5]. However, while current medical education quality evaluations place value on the professor's teaching and summative evaluations, the importance of other aspects such as experiment evaluations, practical teaching, evaluations from students, and formative evaluations, is underestimated [6]. In the current assessment system, more attention is paid to the quality assurance process while the hidden factors are ignored. This leads to an incomplete evaluation of these systems in local medical institutions. As a result, different aspects of medical education quality are not effectively monitored. In terms of external quality assurance, the assessments and certifications that were once implemented in China were limited to specific medical colleges and short-lived [7]. In addition, due to its special nature, medical colleges face great challenges in the process of reforming medical education. For example, since basic medical knowledge is taught over the first three years and clinical skills are practiced over the final two years, quality control is often problematic. Because of changes in teaching locations, supervision in internship hospitals is less effective, which indirectly weakens the connection between medical basics and clinical skills. Hence, quality control is not well monitored and teaching is also difficult to evaluate, making it hard to obtain an objective evaluation.

3.2 Not all parts of the education quality assurance system are systematic

Presently, it is generally believed that the internal quality assurance systems in colleges and universities are not sufficiently systemic, integral, or scientific. There are still many ideological misconceptions [8]. The education quality assurance system itself is closely connected; however, it is isolated in China. The internal and external assurance systems are not connected, and the input and output systems as well as the accountability system are not closely connected. There is no coordination between them. Therefore, we should vigorously promote curriculum integration and teaching input at the disciplinary level, strengthen the evaluation of students' learning effects, expand services and support for students, and gradually improve the internal quality assurance system to cooperate with the external quality assurance system. This "external promotion, internal compensation" will then play a functional role in local universities.

3.3 The university system has a defect with developing its own quality assurance system

At present, the promotion of an internal quality assurance system in colleges and universities mainly relies on the government, and the enthusiasm and creativity of colleges and universities is not being fully exerted. Some universities are unaware of their quality issues and unable to conduct their own quality assurance evaluations [8]. In addition, as China's higher education programs become more popular, they also become more diversified, specialized, marketed, and automated. Higher education management still faces a series of challenges. The government has made great strides concerning the quality assurance systems in colleges and universities. However, as those who truly benefit from and evaluate higher education quality, the marketplace and society have not put forth sufficient effort with regard to market selection and social supervision.

4 Countermeasures and suggestions for the construction of a medical education quality assurance system in China

4.1 Formulating and improving the internal quality assurance system

Constructing an internal quality assurance system in higher medical colleges involves more than ten major tasks, including the following: Procuring quality teachers; reforming the training model; developing professional materials and curricula; fostering honesty and integrity; formulating university regulations; and improving colleges and universities' internal administration [8]. To perfect such an internal quality assurance system requires meeting both the universities' internal needs as well external requirements for teaching evaluations. [9]. Therefore, according to the relevant national policies, systems related to education management, teachers' work, and the administration of teaching sections are formulated yet not comprehensive. The norms of any management system are inseparable from the supporting rules and regulations and must match these policies [10]. All higher medical colleges in the country should establish a teaching quality assurance system and an accountability system by carefully organizing the quality assurance work process and clarifying the responsibilities of various departments. This top-down accountability system is expected to guarantee that quality assurance is managed actively rather than passively across the entire school. All work can be performed in accordance with the law and the penalties are clear. Taking advantage of the available self-assessment process, we will gradually improve the internal quality assurance system in China's higher medical colleges.

4.2 Establishing a quality evaluation mechanism to test students' academic achievement

All colleges and universities across the country should pay attention to quality construction, thoroughly understand its connotation, and establish quality assurance institutions based on the quality assurance system. It is better that an independent department be responsible for quality assurance across the entire university. Designated people should be placed in charge of quality and reviewed by the university's administrative department so that quality is controlled from a macro perspective. In the university, the work of quality assurance officials is to be standard and routine. All sections and divisions will clearly understand their duties to ensure the quality assurance work is fair. At the same time, we should test the educational results through practices. The key point of testing is to evaluate the quality of educational achievements and ensure the educational process and results are consistent, so the evaluation results are more scientific and specific. An examination of educational stakeholders should be combined with an evaluation of students' scores to assess educational achievements. This testing method should be used as the main basis for quality control in colleges and universities.

4.3 Raising the enthusiasm, initiative, and innovation of self-assessment in higher medical colleges

Currently, China's internal quality assurance system as implemented in most universities and colleges is driven by government policies, while self-assessment in most higher medical colleges is evaluated by the Ministry of Education and is essentially top-down and passive. Universities, colleges, schools, and even teaching sections have failed to really examine their orientations, teaching purposes, and developmental direction. Therefore, it is crucial to improve how self-assessment is implemented in higher medical colleges and to recognize its importance. In the self-assessment process, the evaluation of teachers and students should be strengthened. External evaluations through third-party assessments, such as peer-reviewed universities, expert assessors, and industry assessors, should supplement the evaluations of educational authorities at all levels [11]. In addition, the principle of "promoting construction by evaluation, promoting reforms by evaluation, promoting management by evaluation, combining evaluation with construction, and focusing on construction" should be fully implemented. Colleges and universities should make self-assessment a routine process as they clarify their principal status in education and undertake the important responsibility of improving the quality of the education they provide. In the course of advancing educational reforms, colleges and universities must take actions and enthusiastically seek changes while also being aware of the basic tenets of higher education and deepening their understanding of its development. [8].

4.4 Reforming multiple evaluation methods to establish a social-intermediaries-oriented evaluation system

The opinions of employing units, relevant industry associations, and social groups are paramount to China's higher education institutions. When formulating professional training programs, universities should refer to the opinions of employing units. In the self-assessment process, universities should widely accept students'

suggestions, listen to the voices of influential professors, and allow professors and students to play different roles in maintaining the program. In addition, an evaluation system based on social intermediaries should be perfected. Most of China's professional certifications are guided by the government and the Ministry of Education, who selects experts from major universities in the corresponding field to perform related work. Social organizations and institutions are essentially not involved in professional accreditation; employing units, related industry associations, social groups, and other non-official organizations are unable to participate in professional certification. The opinions of employing units, relevant industry associations, and social groups are of great importance to China's higher institutions. Establishing and improving the evaluation system based on these social intermediaries has become an important part of China's higher education quality assurance system. Intermediary forces and private assessment institutions should be encouraged to take part in developing, improving, and gradually forming a socially diverse assessment system.

4.5 Further improving the medical professional accreditation system

The professional accreditation system plays an indelible role as one of the quality assurance methods used in higher medical education. A standardized professional accreditation and vocational training assessment system needs to be established as a bridge between professional medical education and vocational education. Compared to the professional accreditation systems in developed countries such as the United States, China's system needs to be further improved to promote the development of China's medical education assurance system and ensure the quality of medical practitioners. This system should be improved before being implemented to ensure fairness and equality, while also establishing an independent professional accreditation body. The corresponding judicial appeal procedure needs to be improved and the selection of experts for professional accreditation should be diversified. To promote the healthy development of professional accreditation, the government needs to grant universities the power and support they need to develop standards based on social needs and to actively participate in the accreditation process [12]. Implementing and developing the medical professional accreditation system, enabling different universities to explore their specialties and strengths, and improving teachers and students' enthusiasm are all important to perfecting the development of China's higher medical education assurance system.

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