

QUALITY ASSURANCE IN MEDICAL EDUCATION AT THE FACULTY OF MEDICINE, AL-BALQA APPLIED UNIVERSITY: CASE STUDY

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Abstract

Quality management in medical education is not limited to teaching and learning but also includes providing services to students. Many international, regional, and national organizations adopt global standards to improve quality in medical schools. Therefore, accreditation is a tool to reach these global standards for continuous improvement in medical institutions' performance, and it is implemented by accreditation organizations depending on specific standards (national, regional, or global standards). It is a certificate that proves quality for a specified period and guarantees the quality of graduates of medical schools that have a good reputation. However, the adoption of quality unit in medical education is one of the contemporary challenges that still face many obstacles and challenges.

Keywords: Quality; Accreditation; Medical education, medical schools

INTRODUCTION

Quality can be applied to many aspects of the educational program as it includes quality improvement, quality assurance, quality control, standards, and accreditation (7). Quality assessments, comparison of data with standards, making changes, and re-evaluation form the bases of the "quality cycle" (31). Continuing professional development programs aim to promote lifelong learning based on continuous assessments by self or others (3) and improve or maintain professional skills in areas such as clinical fields (4), leadership, management, and education (5). External standards are developed and published by organizers, and accrediting bodies in medical schools and graduate studies. External accreditation agencies are also keen to ensure that appropriate assessment processes are in place and are acted upon, and are confident that if the processes are implemented and followed, areas requiring reform will be identified (31).

Quality in medical education

Quality in medical education is used to ensure that education is more relevant to the social (6) and economic needs of the community compared to other medical educational institutions. Quality management is not only applied to the teaching and learning process such as teaching and research (7) (8) but should also apply to the provision of services to students, which are divided into academic - such as library - and administrative services.

Here, the implementation of quality principles in a medical educational institution must include management, service, and every subsidiary entity in the institution, such as the

university hospital (7) (10). It is worth noting that quality management means continuous improvement (11) (12), administrative commitment, results that reflect the requirements and needs of the client, and mutual interdependence between teamwork based on competition and work control to solve problems (13). Thus, quality management is a package of comprehensive management practices capable of creating an organizational culture (68) that enables everyone to contribute to the work and achieve the quality of service or final product to achieve long-term benefits for all members of the organization and society on the basis of customer satisfaction (2) (37).

However, the adoption of quality management in medical education institutions (18) is one of the contemporary challenges that still face many obstacles that reduce academia's enthusiasm to apply quality management. These obstacles include the absence of a common vision and participation in decision-making, and ineffective communication within institutions (7) (62).

Quality assurance in medical education has an impact on the health care of individuals (6) and is not only an indicator of the economic situation and management system but also reflects the quality of the personnel involved, such as doctors and nurses. In addition, the outputs of medical education are responsible for the quality of medical graduates (23), so any improvement in medical education will be indirectly reflected on human health in the long term (37). In this sense, there is a need to apply the highest scientific and ethical standards in medical education (18) that rely on innovative teaching methods (4) and creative learning techniques (40). From this perspective, many international, regional, and national organizations have begun to adopt international standards to improve quality in medical schools. For instance, the World Federation for Medical Education (WFME) has launched international standards for quality improvement in medical education that cover different stages of medical education including continuing professional development as well as basic medical education. These standards are an accreditation tool for medical schools to secure world-class, applicable doctor competencies for easy access to better healthcare.

In the same context, the standards of the Regional Accreditation System for the Eastern Mediterranean are regional standards for accreditation in health professions education. Therefore, the Regional Office for the Eastern Mediterranean of the World Health Organization was established (36).

World Federation for Medical Education (WFME)

Arguably, the WFME project on international standards in medical education, which has been approved by the World Health Organization (WHO) and the World Medical Association (WMA), has three main objectives (36):

- Motivating medical schools to formulate their plans for change and quality improvement per international medical recommendations.
- Creating a national and/or international assessment system and accreditation for medical schools to ensure minimum quality standards for medical school programs (73).

- Protecting medical practice and the use of the medical workforce through specific international standards for medical education (68).

The project on international standards in medical education was expanded by the Executive Council of the World Federation for Medical Education (WFME) in December 1998 by an international team consisting of the team and the International Advisory Committee, charged with defining international standards for educational programs in basic medical education (undergraduate). The team's first meeting was held in Copenhagen in October 1999 (73). In its report, the team identified a set of international standards in basic medical education designed to enable medical schools at different stages of development and under different educational, social, economic, and cultural conditions to use the standards system at the appropriate level for them. The focus was on standards that act as a tool for change and reform.

The second meeting of the WFME team in Barcelona in March 2001 revised the document entitled International Standards in Basic Medical Education in light of comments received from the international advisory group and from several conferences around the world at which the draft document was prepared. In addition, the team developed guidelines for implementing the standards after the WFME Executive Board approved the final document, and the standards were published in 2003.

It was, therefore, expected that the WFME would formulate standards that could be used not only for reforms but also for accreditation purposes (73). The WFME's three global standards for quality improvement cover basic medical education, postgraduate medical education, and continuing professional development for doctors (36).

International standards that generally apply to basic medical education can be identified as they consider differences between countries in medical education due to differences in teaching practices (53), culture, socioeconomic conditions, health and diseases, and healthcare delivery systems.

These differences can also occur within countries. The scientific basis for medicine is universal, but the mission of medical education (5) everywhere is to provide healthcare. The WFME World Standards are not compulsory. Despite the differences, there is a high degree of parity in the structure, process, and outcomes of medical schools worldwide, and the universal standards for medical education should not be equated with the universal core curriculum (62). The core of the medical curriculum consists of basic medical theory and practice (11), specifically basic biomedical sciences, behavioral and social sciences, general clinical skills (52), clinical decision skills (7)(35), communication abilities and medical ethics, and must be addressed by all medical schools that aim to produce quality medical practitioners (28).

These elements impact international standards in medical education, but they do not address the details of content and quantity. Desirable practices in basic medical education (28), which include recognized and well-accepted principles of learning (49), along with the institutional conditions for educational activities, should form the basis for international standards (55). Moreover, international standards should be modified or

supplemented by regional standards according to national and institutional needs and priorities (2).

As the WFME clearly asserted, there could be no benefit in promoting the standardization of educational programs. Furthermore, quality assurance of medical school programs should emphasize improvement and provide guidance for achieving it to avoid understanding the standards as a lower level of quality among institutions (40). The existence of standards is essential in the first place for educational institutions as a basis for internal evaluation and quality improvement, as it is a necessary tool when conducting external evaluation (56) and recognition and accreditation of medical schools. Furthermore, the criteria can be better used in quality assessment studies for medical schools by combining institutional self-evaluation and peer review.

The accreditation upgrades programs and performance in medical colleges by evaluating program qualification activities. This assessment is done by applying specific criteria based on achieving the required quality standards in the medical school. Also, accreditation covers many institutional academic activities, such as educational programs (4), research and scientific activities (6), and community participation. It is a supervisory, legal, and collective process based on self-assessment and peer evaluation (20). Accreditation evaluates the quality of the institution and the academic program for further improvement, certifying that this program meets the required standards and thus can produce highly qualified graduates (23), including the adequacy of resources (14), provision of academic services (40), curricula (11), student achievement (15), and administrative policies and procedures (21).

On the other hand, program accreditation includes programs, departments, or schools, such as medicine or pharmacy programs, as part of the institution. Thus, the institution's institutional accreditation ensures its quality for program accreditation, which takes place as a second step (73).

The World Federation of Medical Education (WFME) emphasized that the main objective of this evaluation process is to make radical changes and innovations in the structure and process of medical education at all levels and that this reconstruction is necessary for (36):

- Preparing physicians for the needs and expectations of the community (56).
- Dealing with the explosion in medical scientific knowledge and technology.
- Enhancing physicians' capacity for lifelong learning.
- Ensuring training on new information technologies (56).
- Adapting medical education to the changing healthcare delivery system (57).

The World Health Organization also called for the need for change in medical education and proposed a series of activities aimed at meeting the current and future requirements of society (36), especially emphasizing the importance of understanding doctors' responsibility in society and the need for continuing education and cooperation between professionals (21).

Therefore, a new strategic partnership was established between WHO and WFME to pursue a long-term action plan to decisively influence medical education in particular and health professions education in general (42) (3). Partnership activities will be based on collaboration with national and regional authorities, WHO regional offices, regional associations of WFME, other international organizations, and medical education institutions.

The planned activities for this initiative are (36):

1. Creating a common database for medical schools, including information on quality improvement processes.
2. Promoting twinning between advanced medical schools and low-quality schools - especially in developing countries - to promote reform.
3. Developing means to modernize the administration of medical schools (59).
4. Identifying and analyzing educational innovations.
5. Assisting national or regional institutions, organizations, and agencies in developing and implementing reform programs and establishing recognition and accreditation systems.

Although accreditation is seen as the gold standard in evaluating the quality of medical education programs (12), only a minority of the more than 2,000 medical institutions worldwide undergo external evaluation and accreditation procedures. Such omission causes significant concern when the imperative of reform is adequately documented. There has been a rapid increase in the number of new medical colleges in the past decades, many of which were established on unacceptable grounds (for example, some private medical schools (for-profit). Thus, an essential part of the WFME's strategy is to prioritize setting international standards and guidelines for medical education (43), including its educational institutions and programs. Adopting international standards will constitute a new framework for medical schools to measure themselves. Moreover, internationally accepted standards can be used as a basis for national and regional recognition and accreditation of educational programs for medical schools (57).

Self-assessment (5) is a tool used to describe and evaluate the educational program. It is a systematic and comprehensive examination of the components of the educational program based on its mission. On the other hand, this evaluation is a self-assessment to identify the program's strengths and weaknesses and determine the extent to which the program has succeeded in achieving its objectives. Moreover, self-assessment is a practical way of institutional definition of reforming the institutional strategy based on the mission of this institution. It identifies the practical steps needed to correct any limitations in the program based on careful evaluation of the outputs obtained from the respective teamwork. It is a method for change (40), not a reform procedure for the status quo. It also allows for building an institutional strategic plan based on valuable analysis of objectives, resources (14), students, and achievements. Therefore, self-assessment is a useful tool for accreditation because it reveals institutional strengths and shortcomings while identifying opportunities to achieve the targeted goals of the medical school. In

addition, it meets accreditation requirements (12) while achieving institutional productivity outputs by overcoming problems (73).

The standards must acknowledge the dynamic nature of program development and should be formulated as a tool that medical schools can use as a basis and model for developing their institutions and programs (33). The standards aim to define minimum requirements and encourage quality development beyond specified levels (28). Further, the standards must include, in addition to the basic requirements, directions for quality development and must be developed further through broad international discussions and regional and local meetings.

The value of the standards must be tested in evaluation studies in all regions, and such projects must be based on a combination of voluntary institutional self-evaluation and peer review. Norms are not a matter of "either/or", but rather specific behaviour and planning. Moreover, some schools may develop a unique quality that exceeds the standards achieved by most medical schools (51). In the long term, these traits may serve as examples for setting new goals in medical schools. Here the criteria must be clearly defined, meaningful, appropriate, relevant, measurable, achievable, and acceptable to users. It must also have implications for practice, recognizing diversity (10), and promoting appropriate development. Evaluation based on generally accepted standards is also an important stimulus for improving and raising the quality of medical education when pursuing reorientation and reform (62) and promoting continuous improvement and development (12). Adopting internationally accepted standards has the potential to provide a basis for a national evaluation of medical schools and wider recognition.

The WFME believes that applying standards can enhance discussion and stimulate the development of consensus around goals and will help medical schools formulate the foundations of their educational programs and define the core of medical education (22). The standards will also expand opportunities for educational research and development³⁰ and promote discussion and collaboration across departments and other boundaries. Having standards will empower teachers in their efforts to bring about change (25) and guide medical students' choices. For curriculum planners, acceptance of standards will save time and resources. Adoption of standards for quality assessment will provide valuable guidance to funders, politicians, and society, and the development of medical education based on common international standards will facilitate the exchange of medical students and, with this, the admission of physicians in countries other than those in which they are trained. As a result, the burden of judging the competencies of physicians who have been educated in medical schools in different countries will diminish, and finally, substandard medical schools can be improved through the use of an evaluation and accreditation system based on internationally accepted standards. Thus, this will improve healthcare quality at national and international levels (43).

The use of basic (university) medical education standards for many years in national systems for the evaluation and accreditation of medical education, as the methods used differ from one country to another. WFME see that the international standards presented can be used globally to ensure quality and develop basic medical education. This can be done in various ways, such as the self-evaluation of the medical institution and its

program, as the primary goal of the WFME in providing standards is to provide a framework upon which medical schools can assess themselves in the voluntary self-evaluation and self-improvement of the program (43). External evaluation or peer review enables the process described to be developed further by incorporating assessment and advice from external peer review groups. WFME considers the combination of the institution and program self-assessment and external peer review to be the most valuable and effective method (58).

The analytical SWOT standard is part of the self-assessment (5) as it must include strengths that represent answers to questions, such as 'What is the organization doing well? What are the unique resources of the organization? What are the competitive advantages of the enterprise? What weaknesses should be expressed, such as lack of expertise and specific resources, staff inconsistency (38), misallocation of resources, lack of access to technology, and lack of coordination?' It should also mention the available opportunities that arise from the real resources of the institution. The SWOT analysis of the standard should also include expected threats that may present obstacles and problems in the future. Finally, an action plan should be developed for each standard based on the priorities that identify the people responsible for each action, the timeline, and the resources needed. It means the internal quality assurance of self-assessment, while external quality assurance means accreditation. Accreditation confirms that the institution has a distinct personality and identity, as it acknowledges that the measure taken to improve quality was successful.

The WFME international standards include (11) standards from which (36) sub-standards are derived. Domains are defined as broad components in the structure, process, and outcomes of medical education, which are (73):

1. The mission and outcomes.
2. The educational program (40).
3. Student evaluation (15).
4. Students (34).
5. Academic staff.
6. Educational resources (54).
7. Evaluation of the program (54).
8. Governance and management (40).
9. Continuous renewal (58).

Fifth standard: academic staff.

5.1 Academic Staff Creation Policy

5.2 Performance and Behaviour of Academic Staff

Faculty of Medicine, Al-Balqa Applied University: a case study

The Faculty of Medicine must have a staff appointment policy that defines the type and responsibilities of each employee, with a balance between the faculty members required to provide the appropriate academic curricula and the medical and non-medical academic staff, and between full-time and part-time employees (5). The development of quality makes it imperative for the faculty to choose and develop an appropriate policy for selecting staff (38), including scientific, educational, and clinical merits (55), the relationship to the mission of the institution, economic considerations, and issues of local importance (74). The balance will include faculty members with shared responsibilities in basic and clinical sciences (59) in healthcare facilities and the university and instructors with dual appointments.

Here merit can be measured through academic qualifications, professional experience, research output, and teaching experience. The medical school should also have a personnel policy that establishes a balance of teaching ability (5) and research service functions, and ensures recognition of meritorious academic activities, with appropriate emphasis on both research achievement and teaching qualifications (74). The personnel policy should also include teacher training, development and evaluation (26), and teacher and student evaluations (16) related to the various components of the curriculum. Further, teacher representation in relevant bodies should be taken into consideration. Service functions would include clinical duties (7)(35) in the health care system and administrative and leadership positions. Recognition of meritorious academic activities would be through rewards and promotion (3) and faculty development programs should include all teachers, not just new teachers (26). Personnel policy should ensure that there are sufficient high-level academic experts to deliver the curricula and high-quality researchers in the relevant disciplines.

Faculty of Medicine - Al Balqa Applied University

The Faculty of Medicine at Al-Balqa Applied University has developed policies, instructions, and procedures related to scientific research, including conferences, seminars, and creative matters. The university and the faculty adopt a declared and documented policy to support and publish scientific research projects, which states, "Commitment to support creativity, innovation, and entrepreneurship within an integrated system for the university's access to the world through (72) comprehensive submission and continuous support for distinguished applied scientific research projects that are in line with the priorities of the national and local community in a way that leads in particular to (5):

1. Supporting creativity, innovation, and entrepreneurship.

2. Determine the university's research priorities in line with national research priorities and achieve the university's vision and mission (62).

The Faculty of Medicine approves all regulations and instructions that support scientific research in accordance with the scientific research system at Al-Balqa Applied University for the year 2000 and issued Regulation No. 69 of 2000 and its amendments. The policies and regulations supporting scientific research projects are documented and published through the Deanship of Scientific Research, the Faculty of Medicine., and various electronic and paper means. They can be found in the office of the Deanship of Scientific Research, the faculty of Medicine and the Quality Assurance Center (12) in addition to the Policy and Strategies Committee. The Deanship of Scientific Research and the Faculty of Medicine publish and announce policies and regulations to support scientific research projects by communicating with all concerned parties through e-mails (2), seminars, and workshops held by the Deanship of Scientific Research to clarify and circulate policies, regulations, and instructions in addition to publishing them on the official website of the university to ensure the knowledge of all concerned (72).

Standards and procedures for evaluating faculty member's research

Scientific research evaluation procedures begin, where the researchers submit their research in paper and electronic form through their department, the Scientific Research Committee, the Dean of the faculty of Medicine, and finally to the Deanship of Scientific Research at the university. The evaluators are addressed to evaluate the strength and quality of the research and to ensure its originality and credibility. Then the result is sent to the university for further evaluation. The council may refer the manuscript to one or more specialists within or outside the university for evaluation and recommendation as to whether it is suitable for publication in return for a fee decided by the chancellor upon the recommendation of the dean of scientific research (72). It should be noted that the scientific research database and platforms have been automated to facilitate the procedures followed by faculty members and to save effort and time. This procedure is publicized and known to all concerned given that most faculties have in-house research groups and teams, some of which are affiliated with international researchers.

The faculty of Medicine adopts a documented and declared policy for research cooperation that states, "Commitment to support creativity, innovation, and entrepreneurship within an integrated system to reach the university to the world through building sustainable relationships for research cooperation with local, regional, and international bodies. Cooperation with international research institutions maximizes the added value of all parties' participation and enhances research production to contribute to the achievement of the university's mission and strategic goals. This policy aims to:

1. Support creativity, innovation, and entrepreneurship (72).
2. Build sustainable research cooperation relationships with local, regional, and international research institutions.
3. Encourage influential research production published in international referred journals (72).

With regard to scholarships, the university and its academic faculty adopt a declared and documented policy for scholarships. It states, "Ensuring that the university is provided with competent and qualified academic staff through the fair and impartial selection of students, researchers, and trainees for scholarships in high-ranked universities (top 400 of the TIMES or QS ranking) to continue their academic achievements, and in international research centers to complete specialized scientific research, send advanced training courses to develop their capabilities and competencies, and contribute to achieving the university's mission and strategic goals that aim at:

1. Providing the university with qualified and efficient cadres (33).
2. Selection of students, researchers, and trainees fairly and impartially for scholarships and expeditions (34).
3. Sustaining the development and updating the scholarship plan (72).

Announcement of scholarship Policies and Procedures:

The faculty, in cooperation with the Scholarship and Development Department and the Deanship of Scientific Research, publish and announce the policies and procedures for sending circulars and e-mails to all concerned faculty members and researchers in the faculty and hold seminars and workshops to clarify and circulate policies, regulations, and instructions for scholarships at the university (2) in addition to publishing them on the university official website to ensure that all concerned parties are informed. The university relies on issuing updated rules annually related to granting incentives and rewards to researchers, as the university takes into account the research that has been published in scientific journals classified in the Q1 and Q2 Scopus database, in addition to taking the results of the h-index for the researcher and the weighted citation coefficient.

The policy of granting incentives and rewards to researchers:

The faculty adopts a declared and documented policy for granting incentives awards to researchers, which states: "Commitment to support creativity, innovation, and entrepreneurship within an integrated system for the university's access to the world, by providing prizes and material and moral incentives for patents, original and distinguished research production, and researchers and innovators to enhance the spirit of competitiveness, maximizing achievements, and marketing the university globally." This policy aims to (72):

1. Support creativity, innovation, and entrepreneurship.
2. Enhancing the spirit of competitiveness (72).
3. Maximizing achievements by offering material and moral prizes and incentives to patent owners, creators, and researchers.
4. Marketing the university at the local, regional, and global levels (72).

Summary of conferences and workshops

Training courses and workshops have been held in the field of scientific research in order to search for solutions to the problems and challenges facing it in all steps and working

on transferring technology and localizing development in a way that is commensurate with the local environment, human guidance, and research service. The new faculty members participate in a preparatory workshop before teaching, which includes a tour to the Deanship of Scientific Research. Faculty members participate in many national and international seminars, lectures, and workshops to enrich academic and research activity (72).

Budget of Scientific research

The university, represented by the Deanship of Scientific Research, provides financial and informational support to conduct research in several forms, the most important of which are:

1. Supporting the holding of scientific conferences.
2. Supporting joint research projects.
3. Supporting publication in peer-reviewed scientific journals (72).
4. Supporting the activities of research assistants (72).
5. Supporting the purchase of scientific devices and equipment for the purposes of scientific research and the purchase of raw materials.
6. Full-time research projects (visiting professors and full-time faculty members from the university).

The obstacles, threats and fears facing the application for accreditation in the field of medical education can be summarized in the following (70):

1. Organizational resistance to change is a major obstacle.
2. Lack of awareness of continuous quality improvement (11).
3. Increasing staff workload and inadequate staff training is another obstacle on the way to accreditation.
4. Sometimes There aren't applicable accreditation standards to be used at the national level and there aren't enough assessment tools that can judge performance results (64).
5. There is no regulatory approach to compulsory participation, and rewards for participation are major threats along with funding cuts and opportunistic behaviors.
6. There are concerns about accreditation programs that may lead to regulatory changes in standardization and decision-making processes rather than actually improving quality.
7. Furthermore, there is a lack of evidence on the efficiency and effectiveness of such accreditation programs and a lack of evidence about factors that may influence successful implementation.

CONCLUSIONS

The following points that deserve focus and continuous work to achieve them are summed up below:

- Medical education is affected by a number of forces that also dominate other parts of higher education.
- Medical education faces major challenges due to globalization, including the increase in education across borders and the proliferation of new medical schools.
- The new WHO-WFME strategic partnership to improve medical education will have a central role in reform processes and promoting effective and transparent national accreditation systems around the world.
- The WHO/WFME guidelines for accreditation in basic Medical Education can be a tool in this process.
- The WFME global standards, which are widely adopted in all six WHO/WFME regions, can be used as a model for developing regional and national standards with the necessary specifications.
- The need for international recognition of medical schools and other educational institutions and their programs requires a number of initiatives, including international partnerships, cooperation, agreements, and joint directives.
- The development of a global database of medical schools, which will include qualitative information such as accreditation status, will serve as a basis for future institutions and programs and thus create a basis for international recognition of medical education.
- It is important to combine all efforts in trying to create effective and reliable tools to ensure the quality of medical education (68).

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