Review Article

Quality Assurance Scheme of Undergraduate Medical Education in Medical Colleges of Bangladesh: Past, Present and Future

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ABSTRACT

Improving quality of medical education is a key contributing factor to improving the quality of healthcare. The rapid increase in number of medical colleges in Bangladesh, especially in the private sector, makes its vital to have effective quality assurance system in place. Quality assurance resembles a state in which medical colleges take on challenges to address different aspects of quality in undergraduate medical education through check and balance in a methodical approach. In 1998, the World Health Organization (WHO) supported the Center for Medical Education (CME) and the Directorate General of Health Service (DGHS) to develop and publish the National Guidelines & Tools for the Quality Assurance Scheme (QAS) for medical colleges in Bangladesh. Since then that guideline has been serving as resource material and guide for institutionalization of the QAS based on the three principles of accountability, self-evaluation, and external peer review, with the latest revision done in 2012. At the institutional level, the scheme was proposed to be managed by the Academic Council, Academic Coordination Committee, the four (previously three) Phase Coordination Groups, Subject Coordinators, and Faculty Review & Development Committee. The operational framework is based on course appraisal, faculty development and review scheme and external review. A model of "pair of medical colleges" was also proposed as to oversee the QAS activities of each other and report to the National Quality Assurance Body (NQAB). This review paper aims to highlight the history of QAS in our medical colleges, their achievements to date and challenges as well as scopes for future improvement to enhance the quality of medical education in Bangladesh.

Keywords: *Quality assurance, medical education, MBBS programme, Bangladesh*

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INTRODUCTION

Quality has been part of the healthcare and policy discourse for nearly half a century. Improving quality in healthcare is a complex endeavour; in modern medicine quality care means "safe, timely, effective, efficient, equitable and patient-centred" measures taken by a healthcare institution to its consumers.[1] Improving quality of medical education is a key contributing factor to improving the quality of health care.[2,3] Undergraduate medical education system in

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Bangladesh inherited the typical features of British colonial education, which is still in very much on that traditional pattern. The Bachelor of Medicine and Bachelor of Surgery (MBBS) degree is a 5-year programme followed by a 1-year compulsory logbook-based internship training.[4,5] At present, there are total 113 recognized medical colleges in Bangladesh, 37 of which are public and 70 private. 6 medical colleges are run by the Bangladesh Armed Forces and are under the Ministry of Defence.[6]

Quality assurance resembles a state in which medical colleges take on challenges to address different aspects of quality through check and balance in a methodical approach.[7] Depending on the perspective of a stakeholder, educational quality can be understood as fitness for purpose (educating capable future physicians), value for money (a return on investment in education), perfection (focusing on zero defects), exceptional (standing out as the best program), or transformative (focusing on the educational learning effect).[2,7-9] In the UK perspective, quality assurance is defined as "the totality of systems, resources, and information devoted to maintaining and improving the quality and standards of teaching, scholarship, and research and of students' learning experience".[10] Moreover, it involves "the systematic monitoring and evaluation of learning and teaching, and the processes that support them, to make sure that the standards of academic awards meet the Expectations set out in the Quality Code, and that the quality of the student learning experience is being safeguarded and improved."[11] The Quality Assurance Scheme (QAS) in medical education review the way how a medical college implements its MBBS programme ensuring its optimum quality and standard. Several authors emphasized on the need to manage the ever increasing medical knowledge domains and increased recognition of the importance of imparting students with independent learning skills, and demonstrate the application of knowledge, skills, and attitudes in the ever changing local and global scenarios,[3,4,12-15] which are inherent in the practice of medicine. Many of our short comings in those aspects have been experienced since the beginning of the COVID-19 pandemics, which signify gaps in quality of medical education and training in the country. Besides, from an accreditation standpoint, many researchers have emphasized on lifelong learning opportunities for the students, as well as cultural and social competencies required for the doctors of tomorrow which can be achieved by demonstrating continuous review of the curriculum.[2,4,12-15] Thus, quality assurance has become an integral part of medical education all over the world and Bangladesh is also not an exception to it. This review paper aims to highlight the history of QAS in our medical colleges, their achievements to date and challenges as well as scopes for future improvement to enhance the quality of medical education in Bangladesh.

HISTORY

The World Health Organization (WHO) has been actively advocating reform and improved medical education to meet the changing needs of healthcare over decades.[3] In response to the increasing health workforce needs of the country, the number of government and private medical colleges have increased in recent years. The rapid increase in number of medical colleges in Bangladesh, especially in the private sector, makes its vital to have effective quality assurance system in place.[5,16] Towards that end, the WHO Bangladesh office started to support the Center for Medical Education (CME) and the Directorate General of Health Service (DGHS) to develop and publish the National Guidelines & Tools for the Quality Assurance Scheme (QAS) for medical colleges in Bangladesh in 1998 looking at the future of medical education in a low resource setting. Since then, the above-mentioned published guideline has been serving as resource material and guide for institutionalization of the QAS based on the three principles of accountability, self-evaluation, and external peer review.[4,5,16,17] The scheme has both national and institutional organizational framework. The National Quality Assurance Body (NQAB) is chaired by the Director General, DGHS and the Director for Center for Medical Education (CME) is the Member Secretary.[5,17,18] At the institutional level, the scheme was proposed to be managed by the Academic Council, Academic Coordination Committee, the four (previously three) Phase Coordination Groups, Subject Coordinators, and Faculty Review & Development Committee. The academic coordinator is supposed to act as an honorary member of Faculty of Medicine of the respective universities as per approval and consent of the Dean of the Faculty of Medicine of the university governing the Professional MBBS Examinations.[5,16,18] Proposed model of "pair of medical colleges" will be selected for each college to oversee the QAS activities

of each other and report to the NQAB. The operational framework is based on course appraisal, faculty development and review scheme and external review.[5,16,18] Besides, the student evaluation will be conducted phase wise rather than subject wise,[5,16-18] as it was previously implemented through three phases (Phase I, II, III)[19] and currently undergraduate medical education is of four phases (Phase I, II, III, IV).[20,21] The curriculum, teaching and learning, assessment and evaluation as well as reporting procedure are following that guideline to date. Addressing the necessity of quality medical education, a National Quality Assurance Scheme (NQAS) was established in 1998 in Bangladesh. National guidelines and tools for quality assurance were revised and published in 2012 with support from the World Health Organization (WHO).[22] Subsequently, the Government urged all medical colleges in Bangladesh to follow and practice NQAS framework and guidelines in their respective institutions (Fig.1).

Fig. 1: *Conceptual Framework of Quality Assurance and Accreditation in Medical Education in Bangladesh*

ACHIEVEMENTS

Since 1998 different medical colleges have been practicing QAS for the improvement of medical education in Bangladesh; however, to date one time pilot Quality Assessment & Audit Review (QAAR) has been done in three government medical colleges (i.e., Dhaka Medical College, Chittagong Medical College, Rangpur Medical College) under the leadership of national quality assurance body (NQAB) in 2010.[5] Therefore, we feel that there is a lack of annual formal auditing of QA activities, the informal yearly reporting on QA activities by the medical colleges are in place though. A latest publication from the World Health Organization (WHO) has described an overview of the NQAS and the assessment of its implementation in medical colleges in Bangladesh in 2017.[22] Despite limited resources and manpower and expertise in the field, all government and most of the private medical colleges have come out with the success of creating quality assurance bodies in the respective institutions. The QAS bodies have succeeded in functioning in the following areas:[5,15,16,22]

1. Making academic calendar to run academic activities and achieve phase wise target of teaching and assessment to reach completion of syllabus much ahead of the Professional Examination conducted under the Faculty of Medicine of different Universities of the country;
2. Regular Meetings of the Subject Coordination Committee, Phase Coordination Committee, Academic Coordination Committee, Academic Council and Faculty Development & Review Committee;
3. Arrangement of central seminars (fortnightly) and conferences locally and if possible, by inviting international faculties and experts in different disciplines;
4. Provision of Phase wise evaluation and feedback by the students to evaluate course works and faculties involved to enhance overall teaching-learning experience as well as the entire environment of medical colleges;
5. Provision of evaluation and feedback by the faculty members through the prescribed personal review form to adopt policies on continuous professional development (CPD) activities;
6. Arrangement of workshops and training on teaching methodology, assessment and evaluation, research methodology, quality improvement, scientific writing etc. under faculty development scheme;
7. Meetings among pair medical colleges (or regional meeting), as per convenience [for an example, meetings have been arranged participated by the representatives from Shaheed Ziaur Rahman Medical College (SZMC), TMSS Medical College and Army Medical College, Bogura];

8. Formation of Counseling Committee (academic support) to counsels the irregular and low performance students and address stress and mental health issues among students; and
9. Formation of Examination Review Committee to evaluate both internal and external (Professional MBBS Examinations) examinations.

CHALLENGES

Bangladesh Medical & Dental Council (BM&DC) is the sole authority for accrediting undergraduate medical and dental education in the country. It is a statutory body with the responsibility of establishing and maintaining high standards of medical education and recognition of medical qualifications in Bangladesh. For an accreditation institution like BM&DC, its responsibilities include to maintain the quality of medical education is in line with the evolving needs of the healthcare delivery system and expectations of society as well as international standards.[5,22] However, medical educators are showing increasing concerns about the nature of current BM&DC accreditation standards, the accreditation processes, lingering operations of improvement/upgradation of MBBS curriculum and the limited technical capacity to fulfill its administrative duties to ensure the quality of medical education and medical practice in the country.[5,22,23] Evidence showed that an inherent bias exists in the evaluation process between public- and private-sector institutions. Many medical colleges adopted several unethical and even illegal ad-hoc practices to get through the process of accreditation and recognition. Once their target is achieved, they fall back to their original sub-standard practices in terms of required infrastructure, faculty-student ratio, regular academic activities and social responsibility.[5,17,23] BM&DC and DGHS have already suspended the academic activities and admission process in some of the private medical colleges due to lack of required infrastructure, poor management, and violation of regulatory rules.[6,17] Surprisingly, recently founded government medical colleges have even worse conditions (in terms of shortage of medical teachers, infrastructure, teaching hospital and other essential facilities), as most of them were established in line with the political sweet will of the government.[16,17]

Moreover, we observed several limitations to the curriculum review process. It relies on the participation of a large number of faculty, students, and administrators from public and private sectors.[24-26] Although this widespread participation allows for a comprehensive review, it remains a difficult task for CME, BM&DC and other bodies to coordinate and manage. Lack of willingness, shortage of logistics and financial support have been in the list for decades. Moreover, lack of expertise in the sector to coordinate the curriculum design, evaluation, and integration process, and manage the quality assurance committees both at institutional and national level are also evident in Bangladesh, which is quite similar to other low-resource countries of South Asia.[23,26-35]

At medical college level, internal quality assurance team in all medical colleges are not equally competent and active. It is evident that politically influenced committees are not always capable enough to perform well.[5,23,26,27] Regular meetings of the Subject Coordination Committee, Phase Coordination Committee, Academic Coordination Committee, Academic Council and Faculty Development & Review Committee as well as meetings among pair medical colleges (or regional meeting) are not held years after years.[5,16,26] There is also a scarcity of reports of medical curriculum research, policy dialogue, public meeting, publication of the yearbook and formal auditing of QA activities in the country. Besides, integrated teaching, problem based learning (PBL), evidence-based medicine have been discussed widely; however, in the practical field, those are hardly practiced by the medical colleges.[16,17,26]

Individual institution committed to training future generations of physicians should recognize the importance of quality in undergraduate medical education and the need to regularly examine, reflect, and improve upon these efforts.[15,16,36-39] Both faculty members and students should come up to run academic activities smoothly and achieve phase wise target of teaching and assessment to reach completion of syllabus much ahead of the professional examination, while administration should take the role to nurture free and fair educational environment as well as monitor overall standards and strive for excellence in every aspect.[16,36-39] Besides, strengthening of the committees and monitoring of their activities are time-demanding,[22,25,38,39] which should be done by the medical college authorities internally as well as BM&DC, DGME and DGHS externally.[22,24] Last but not the least, it is worthy noticing that quality of medical education does not

solely depend on measurement instruments and tools, rather it revolves on how much quality awareness is present among medical faculty, students, and regulatory authorities.[38]

CONCLUSION

Global changes are happening in medical education in accordance and conformity with the advancement of science and technology. Besides, communities are increasingly demanding more accountability in healthcare from their public institutions including medical colleges and hospitals. We believe that a student centric, teacher guided, parent supported, community oriented and values driven medical education programme can produce competence based medical graduates capable of 'taking charge of the future'. At this stage, every medical college in the country (both public and private) must ensure its quality assurance activities through respective institutional QAS, which needs to be overviewed by the NQAB of the country. Besides, regulatory authorities like BM&DC, DGME, DGHS, Medical faculties of respective universities should strengthen their capacities to monitor and guide the medical colleges to achieve an optimum standard to build a better future in medical education, which will help build a modern, efficient, and patient-centred healthcare in the country.

ABBREVIATIONS

BM&DC: Bangladesh Medical & Dental Council
CME: Centre for Medical Education
DGHS: Directorate General of Health Services
DGME: Directorate General of Medical Education
MBBS: Bachelor of Medicine and Bachelor of Surgery
NQAB: National Quality Assurance Body
NQAS: National Quality Assurance Scheme
PBL: Problem Based Learning
QAAR: Quality Assessment & Audit Review
QAS: Quality Assurance Scheme
WHO: World Health Organization

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