Editorial

Towards the preparation of highest quality medical professionals

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Background

Training of medical professionals being carried out since centuries, where quality of physician depends upon the quality and accreditation of the training system in place. Quality is the means through which an institution can guarantee, with confidence and certainty that the standards of its educational objectives maintained and enhanced. Quality in higher education is a dynamic process which is the outcome of interaction of multiple factors that determine the state of equilibrium reached at various levels. These include, inter alia, leadership, quality of faculty, quality of students, infrastructure, facilities, research and learning environment, governance, strategic planning, assessment procedures, market forces and several other factors depending upon the type, nature and level of educational processes.[1] Quality Medical Education is a comprehensive concept, which consists of a number of ideas and systematic processes. The basic requirements of Quality Medical Education include a well-planned system of education aimed at achieving the goals and objectives set for it and a comprehensive quality infrastructure for the productive implementation and systematic evaluation of that system. In essence Medical Education has to be of the highest quality to produce doctors capable of giving the highest quality of medical care by not only satisfying the consumers i.e. patients, their families, community and employers but offering a service better than their expectations. Such education will need to adopt more than what is called al Quality culture in the institution.

Keywords: Quality control, quality assurance, medical education, accreditation, Ihsan.

How quality and standards are different?

Quality control in medical education and training comprises activities at different levels of the curriculum of medical schools, residency programs and postgraduate education. In Islamic theology quality arises from inner motivation and emanates from *ihsan* (excellence) which is the reatest achievement in Islamic work after Islam and *iman*. Quality culture is an indigenous product of Islamic civilization. Islam sets quality work and excellent performance in all spheres of life including education. Quality and its controlling mechanisms must permeate all activities. The Islamic concept of performance of a job is to achieve excellence. The Prophet said that Allah loves *ihsan* in everything and advised Muslims to perfect every work that they undertake.

In Western societies the concept of quality and Total Quality Management (TQM) was introduced in higher educational institutions not very long ago. However, it has rapidly permeated the thinking of many higher education managers during the past several years. It was basically introduced, developed and applied in the industrial environment where it not only gained high acceptance, but also has become a symbol of quality. Institutions have always held academic.[2]

Quality demands in Medical Education

In 1988 the World Federation of Medical Education held a conference at Edinburgh and laid down an organizational structure at six regions linked with WHO, UNICEF, UNESCO, UNDP and WORLD BANK to support and sustain Quality Medical

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Education. In its first policy statement, called Edinburgh Declaration, it laid down twelve principles for reforming Medical Education. Those principles are:

1) Relevant Educational settings, 2) A curriculum based on national health needs, 3) Emphasis on disease prevention and health promotion, 4) Life long active learning, 5) Competency based learning, 6) Teacher's training as educators, 7) Integration of science with clinical practice, 8) Selection of entrants for non-cognitive as well as intellectual attributes, 9) co-ordination of medical education with health care system, 10) Balance production of types of doctors, 11) Multi-professional training and 12) Continuing Medical Education. Subsequently WHO proposed to medical colleges the world over to produce 5-Star Doctors, who can: * assess and improve the quality of health care, * make optimal use of new technologies, * promote healthy life styles, * reconcile individual and community health requirements and * work efficiently in teams.

Excellence and high quality as the highest goals

Achieving these goals was easier in a time of abundant resources and favorable demographics. The environment has changed. Institutions are facing decreasing enrolments and revenues while costs and competition for students are increasing. Quality assurance and quality management have become an essential part of the managerial skills in higher education. Quality assurance and quality culture, though an old prerequisite for academic and business attraction, has generated immense interest recently with the increased competition in medical education and market requirements. At present, it is addressed in numerous academic and trade publications, by the media, and in training seminars. It is perhaps the most frequently repeated mantra among managers and executives in contemporary institutions of

higher studies and excellence. The main idea of its application in medical education is persistence and continuous quality improvement, consistency of quality, staff (and student) participation, meeting customer needs, coordination, and management procedures which detect poor quality and stimulate good, all have a significant contribution to make to the development of efficient and effective mass higher education systems.[3] We must not forget that every effort to achieve the quality in Western systems was a market demand rather than inner motivation of believers as we see in Islamic way of life. *"Who has created death and life that He may test you which of you is best in deed And He is the All-Mighty, the Oft-Forgiving".*[4] The purpose of the creation of the human being is to achieve excellence in all his deeds irrespective of one's profession, status, education or any other gain. It is clearly stated in the Qur'an: *"Is there any reward for excellence other than excellence?"*[5] These and many other verses in the Qur'an clearly emphasize the quality concept and its mechanism in all fields including education.

Tools of Quality management

Quality control in higher education has become an essential part of the educational process at all levels. Most of the educational objectives can be quantified and standardized using quality assurance mechanisms. Market forces and globalization' are the reasons for the increasing emphasis on the concept of quality and its impact on the providers of education programs. There is increasing need to understand quality assurance and different modalities of quality control. In higher education, hybridization of two or three quality control models is required to address the most important issues of learning. Quality control demands the crisp application of tools which must assess and quantify all three basic domains of learning i.e. cognitive, psychomotor and effective

domains. Based on these studies a quality management strategy is designed for every program. Based on quality management studies, a quality assurance process is designed which is a continuous process and is frequently modified according to the emerging situations. A quality culture needs to assure quality control mechanisms at all levels. It must address the requirements of infrastructure, services, human resources, selection of students, curriculum, instructional strategies, assessment system, research quality, graduates' as well as alumni's performance, student reporting system, academic counsel and faculty development. Benchmarks have become essential tools to improve the overall look of the institution. Islamic perspectives and concepts of excellence *(ihsan)* have been greatly emphasized in the Qur'an and the tradition (*Sunnah*) of Prophet Muhammad (PBUH). Work ethics, responsibility, accountability, sense of being answerable, not only in this life, but also in the hereafter and rewards of proper performance with utmost effort and best manners makes a believer strives for the best*.* Responsibilities need to be bestowed according to the best available abilities to achieve the best possible results. On the basis of Qur'anic teachings and the traditions of the Prophet (PBUH), certain criteria are deduced which every Muslim medical educationist must acquire to achieve and maintain the required quality assurance in medical education. *Some of the existing tools for quality control are:*

 1. Total Quality Management (TQM) is a concept was introduced in higher educational institutions not very long ago. How ever it has rapidly permeated thinking of many higher education managers during the past five years. **Quality** refers to the standards that must be met to achieve specified purposes to the satisfaction of customers .Quality in higher education is a multidimensional concept, which encompasses all its functions, and

activities: teaching ,academic programmes, research, staffing, students, buildings, faculties, equipment, services to the community and the academic environment.[6,7]

Strategies for the administrative part in an Educational Institution:
- International Standards Organization (IS0) 9001
- Total Quality Management (TQM)

Strategies for the Learning part in an Educational Institution:
- Transformative model
- Engagement Model of Program Quality
- University of Learning Model
- A model for responsive University

In my view, the best strategy for better provision of quality would be a set of "TQM" and "University of Learning Model".

"TQM" is an appropriate model for the services to the student body from academic and general administrative functions and "University of Learning Model" is suitable for the teaching and learning functions relating to both education and research.[8]

2. University of Learning Model:
Model is a mind work of Bowden and Morton. It gives careful attention to the fundamental issue of the University's fundamental purpose and methods.

Basic Ideology: Although the primary functions of the University are most frequently captured under the categories of teaching, research, and service, Bowden and Morton argue that these are the means, not the aims, of the University system. Ultimately the object of the University system is to prepare the individual, the community, and society to face future problems and opportunities based on current knowledge. Thus the essential goal that underlies the multiple and diverse elements that today comprise any single

university and that unite universities everywhere is learning or knowledge formation.[9]

The benefits of acquiring this model are:

Teaching, research and service at appropriate level
Teaching, research, and service are distinguished only by the duration and level at which learning' takes place: teaching serves to facilitate learning at the level of the individual student; service involves learning at the local level; and research contributes to knowledge formation on a society-wide basis.

Curriculum according to the needs of the students
For students to be able to cope with the unknown future on graduation, the curriculum would need to be designed so that students experienced variation and developed the capabilities to look at the situation, discern the relevant aspects, and address them simultaneously

Proper Assessment is the key to motivate learning
It follows that assessment methods, in turn, should contribute to and reflect learning objectives and assessment tools should discriminate between students who demonstrate mastery over the concepts and skills the course seeks to promote. Assessment should measure not only what students have learned but also the quality of their 'learning' since this, they argue, is the most reliable measure of their future effectiveness
The shift from an input-oriented educational approach to a learning-focused approach requires not only that academics develop new approaches and skills but also requires Universities to reorganize themselves

Network Model of Organization for Universities

Bowden and Morton promote a network model of organization for the University in which members of a variety of departments interact in program teams' to offer students the combination of programmatic differentiation and integration that will better prepare them for the unpredictable challenges future. The network model of organization offers particular advantages to the 'learning' university, they maintain, because unlike the other models, "networks include multiple links between units in the organization and the communication is content-related, i.e. it is about the work that people carry out together with mutual support" including students, faculty, the administration, and presumably the larger community as well.

Adaptation of curriculum to meet the national and international goals and objectives of Medical Education particularly by curtailing the content of Basic Medical Sciences to their relevant applied aspects and bringing about integration between Basic Medical Sciences and Clinical subjects:

Establish a partnership between health educators and health care providers in order to produce health manpower, in quantity and quality, according to needs of the community and enlarge the scope of medical training from Tertiary care hospitals to Secondary and Primary health care hospitals and rural health units as well as to Public Health set ups, Preventive programs and other facilities under the control of the Government Health Department and others departments who are supporting health care;[10] Make medical training comprehensive and competency-based, making it both Multidisciplinary and multi-professional. Replace passive learning by active learning and shift from system based-education to problem-based education emphasizing not only curative solutions but also prevention of diseases, health promotion and rehabilitation. Design an objective-directed

System of evaluation, which is objective, valid, reliable and problem posing. Include in the system both Internal Evaluations at frequent intervals as well as terminal External Evaluation. Use evaluation intensively for feedback to students, teachers, administrators, parents/guardians and the community. Give greater share to internal evaluation in the overall evaluation of students' performance. Expand and modernize learning resources for use of students. Provide in-service training in pedagogy to all members of the faculty, encourage medical teacher to attend conferences for continuing education and engage in research involving medical students. Make provision for elective work by students in areas of their special interest, within and outside the country to provide them chance of in-depth study, critical enquiry and research. Ensure adequate number of quality teachers and supporting staff, quality students and adequate quality infrastructure.

Quality Assurance is an Islamic concept of Ihsan (Excellence) in the Qur'an

Islam enjoined perfection in all domains of human endeavors. The Prophet (PBUH) laid the foundation for quality assurance when he said: "Verily, Allah loves that whenever any one of you performs any kind of work, he should perfect it"[11]. The Qur'an and *Sunnah*, describe a concept which is pivotal in the work culture and ethics of any individual organization, society and nation, this is the concept of *Ihsan*. Ihsan is a supreme and superlative concept of excellence based on purity of intent, sincerity, righteousness and true love and obedience to the Creator, in pursuit of His pleasure in every sphere of life, including seeking the best interests of His creation. The Qur'an describes this quality as the basic reason for the creation of human beings and the blessings of divine rewards for the pursuit of excellent deeds: *"Who has created death and life that He may test who of you is the best in deeds"*[12]. *"Is there any reward for ihsan*

(excellence) other than ihsan"[13]. Based on these noble and pristine values, a Muslim educationist strives diligently to acquire the best possible abilities and capabilities to train and educate new generations of professionals who will continue to maintain and perpetuate the highest moral values and quality of human care and they would undertake this task with utmost sincerity, genuine interest and unparalleled zeal guided by the benchmark ethics and gold standards of human behavior. Islam enjoins and sets rewards for pursuit of knowledge: *"Allah will exalt in degree those of you who believe, and those who have been granted knowledge"*[14]. "Allah makes the way to Jannah (Paradise) easy to him who treads the path in search of knowledge"[15]. A very high sense of responsibility and accountability is a moral value that Islamic teachings imbues in the hearts and minds of Muslims. There is no better quality control mechanism compared to Qur'anic and Prophetic guidance which inspires the best forms of behavior in the believers, giving the most comprehensive and perfect model of quality assurance of the highest forms: *"And pursue not that of which thouhast no knowledge, for every act of hearing or of seeing or of (feeling in) the heart will be enquired into (on the Day of Reckoning"*[16]. *"Then shall anyone who has done an atom's weight of good, see it! And anyone who has done an atom's weight of evil, shall see it"*[17]. Thus, a Qur'anic model of quality assurance in learning and education provides the most efficient and ideal mechanism of quality control at all levels and every step of the educational process. Not only it controls the phenotypic quality assurance, but every follower of this system has the genotype correction as well, which is a deep stimulant to remain upright and truthful in every walk of life.

Quality Assurance Process

Quality management is the responsibility of the top management. The top management should lead by example. In

order to achieve the above, in addition to patience, participatory management among well-trained and educated partners is crucial to the success of TQM and University of Learning model in education; everyone involved must understand and believe in principles.

Continuous progress and ongoing process of Quality Management

The work done within the organization must be seen as an ongoing process. Quality speaks to working on the system, which must be examined to identify and eliminate the flawed processes that allow its participants to fail. Since systems are made up of processes, the improvements made in the quality of those processes largely determine the quality of the resulting product. Continuous research, evaluation audit and audit of audit will make the quality assurance system more competent and more reliable.

Quality Assurance and Quality Culture in Medical Education

Medical education has become a more global phenomenon than merely an educational process. The competitors are global and are no longer confined within national boundaries. Winners of the competition are those with the highest quality in terms of products and services. Quality assurance programs have been set up by the states and medical professional bodies. Accreditation and recognition of degree programs depends upon quality culture in the respective university at all levels and is being monitored by the respective bodies.

Human resources

Teaching facility and academic staff must be appropriately qualified, trained and experienced. Appointment and Promotion of academic staff should depend only on academic merit, suitability and character. Good staff means high quality.

A Muslim Educationist is a life long learner and continuously improves his knowledge and skills. This is considered continuous performance of righteous deeds: Allah's Messenger (PBUH) said: "The best loved deeds to Allah are the ones that are continuous even if they are not very many."[18] The best of deeds are the most consistent of them."[19]

Pedagogical tools and curricula

Well-documented and holistic curricula that must reflect a stated underlying vision and mission of the faculty is required. All basic domains of education including knowledge, skills, and attitudes should be adequately covered in these medical curricula with full integration both vertically and horizontally.

Evaluation of the system

Admitting good students means high quality. Only the best should be admitted. Besides the academic grades, consideration should be given to character and motivation to study medicine.

Quality control in research at all levels

The quality culture can never be embedded in teaching and learning until it is fully supported and enhanced by continuous research and innovation process in the university or faculty. The university must allocate funds for research. Academic staff must be given incentives for good research. They must be given time for research. This requires careful balancing of teaching and research which may be difficult when there is a shortage of teaching staff.

In the Islamic reference, research is an integral part of life of every Muslim, irrespective of his/ her profession or job: "*Verily! In the creation of the heavens and the earth, and in the alternation of night and day, there are indeed signs for men of understanding. Those who remember Allah (always, and in prayers) standing, sitting, and lying down on their sides, and think deeply about the creation of the heavens*

and the earth, (saying): "Our Lord! You have not created (all) this without purpose, glory to You! (Exalted are You above all that they associate with You as partners). Give us salvation from the torment of the Fire[27]. In other verses it has been emphasized why it is essential for Muslim scholars to indulge into research. Those who are knowledgeable and those who do not acquire knowledge are never equal according to Qur'an. *"If you don't know ask those who know"*[28]. *"For every news there is a reality and you will come to know"*[29]

Other important tools to maintain a quality culture are -
Graduate-Alumni follow up programmes, Students and staff exchange programs, Annual reports of staff and students. Academic council & faculty board and Regular review of benchmarking.

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