

The Relevance of Medical Education for Overall Health care

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A systematic approach to planning and management of innovative educational program should take into account the changing needs of the society and the student community, the emerging educational technology besides governance and leadership issues to tackle resource mobilization. This paper examines the current deficiencies in the curriculum and offers some general guidelines to adopt innovative approaches to the teaching and assessment of students in medical education. It is argued that curricular reforms must be accompanied by proper faculty development mechanisms and production of learning resources which are vital for sustaining changes.

Curriculum – Some concerns:

Medical education has been patterned after the traditional British System with a strong disciplinary structure. Training in medicine takes place in a tertiary care hospital, alienated from the hard realities of rural life. The curriculum has been

stuffed with the information about rare diseases, esoteric syndromes, not in tune with the common health problems of the community. The development of skills – communication skills, managerial skills, and ethical aspects of patient care have taken a back seat. How to develop and assess the full range of professional competence has been a question mark. The instruction in medical colleges has been didactic and largely “teacher centered”. This has killed the initiative on part of the learners to pursue self-directed learning, ability to think, analyze facts, interpret data, and solve problems. Assessment system has been a major culprit as it lacked validity, reliability and objectivity.

Staff development in medical colleges is inadequate if not absent. A medical teacher is inadequately prepared for teaching. The main criteria for the selection or promotion are based on research publication. There is also a felt need for institutionalizing staff development activities at various levels.

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Directions of change:

There has been a paradigm shift in the emphasis from tertiary care to the primary care; from disease orientation to a community orientation; from disciplinary structures to integrated structures; and from acquisition of information to the solving of problems. This has resulted in far reaching implications on the content as well as the methodology of teaching-learning. Problem based learning (PBL) has emerged as an alternate pathway to the disciplinary set up. But competency based learning, objective assessment and the application of educational technology can be harnessed effectively.

Mechanisms need to be installed to ensure development of essential skills and provide opportunities for self directed learning and self assessment. It is therefore necessary to think of a two tiered curriculum which consist of a) core curriculum which constitutes the essential knowledge and skills which must be mastered by all learners and b) optional modules which should be accessible to all students for pursuing self learning at their pace. The core curriculum should form the focus of evaluation, while the optional modules and assessment systems should be accessible to all learners.

Approach to instruction:

Criticism against traditional didactic teaching has led to more emphasis on participatory interactive techniques. The exploding body of scientific knowledge cannot be handled by traditional approach especially in the backdrop of increase in the enrollment. Information and communication technology (ICT) is likely to have far

reaching implications. A medical teacher of 21st century is expected to move away from the role of the subject expert to a facilitator of learning. He is expected to utilize the whole range of participatory methods of learning including small group discussion, case study field work, role play, simulated patient management problem, and computer assisted learning.

Role of ICT:

Thanks to the revolutionary developments in the field of ICT, the educational media have heralded a new era in which students can access information and engage in self directed learning. The application of digital techniques, video, computers, multimedia, internet, teleconferencing and tele-medicine have promised unlimited possibilities in terms of providing exciting learning environments and opportunities, in class rooms, laboratories, and field. It is possible to utilize tele-conferencing methods, for bringing together all innovative techniques, which will help in conserving resources, avoiding duplication and make optimum utilization of limited resources. For example, the EDUSAT launched by the Government of India, may be utilized for reaching out to the target group. The production of learning resources in various media, viz. print form, electronic form etc., are challenging, but once created, they can be beneficial to the whole country.

Beginning with the use of overhead projectors, slides and video, and going on to computers, multimedia and internet, we have traveled a long way in harnessing the use of educational media. Due to the availability of high speed computers, networking, satellite communications, CD-

ROM technology and interactive CDs, instantaneous access to information from any part of the world has become a real possibility. Multimedia presentations and computer simulations are very effective for presenting bio-medical information in an illustrative manner.

The field of telemedicine too has opened up unlimited possibilities in terms of delivery of health care and the exchange of health care information across distances using telecommunication technology. It is used for the transfer of basic patient information, the transfer of images such as radiographs, CT scans, MRIs, Ultrasound studies, pathology images, video images of endoscopic or other procedures, patient interview and examinations, consultation with medical specialists and health care educational activities. Tele medicine is of tremendous advantage in providing consultation facility from centres of expertise to remote areas in matters such as diagnosis, treatment and prognosis besides, providing health education to the rural community or any other target audience in a phased manner.

Rational assessment strategy:

Any attempt to reform education must begin with a reform in assessment strategy. Because, assessment determines the style of learning and gives credibility to the system. Traditionally, the examinations have witnessed predominance of essay type questions in theory and long cases in clinical examinations. They need to be supplemented with problems based questions of various types in theory and modalities such as objective structured clinical examinations and structured viva examinations

for a comprehensive assessment of students learning.

Faculty development and role of medical education units:

Faculty development is the corner stone for ensuring quality of training. At present opportunities for training teachers are limited. It is necessary to strengthen the existing centers to organize faculty development, besides opening medical education unit (MEU) in each college, for providing leadership in medical education at the institutional level. The unit can organize activities in the form of in-house workshops, and facilitate changes in the curriculum. Such a unit would have interdisciplinary faculty, supported by technical staff, equipment and resources.

Active participation is often linked with the question of recognition and incentives to the faculty who contribute to the reform and similarly authority to bring to book those who are incompetent or unwilling to change. A good leader anticipates these potential obstacles and creates a healthy environment.

The resource allocation is a vital component for the success. It should be done in a fair way considering the relevance quality, equity and cost effectiveness.

Governance and academic leadership

Good governance implies, clear vision, setting up goals, allocation of resources, and organize strategies for effective implementation. Delegation and decentralization is highly desirable in a vast country like India. Resistance to changes is inherent in any organization. Leadership

and communication are vital tools for introducing changes. The leader must build teams, take everyone into confidence, including students community before introducing the changes. A lot of inter-departmental coordination is required horizontally (communication should flow across departments) and vertically (from top to bottom) and vice versa. The leader should be a role model, whose integrity and honesty are beyond doubt. He should be transparent and accountable to the stakeholders.

The positive changes in the methodology of teaching have however, remained confined to a few elite centers of learning. A majority of the medical colleges suffer from a chronic shortage of resources, infrastructure, equipment and what is of critical importance – an adequately trained and qualified faculty support. Though the Medical Council of India has stressed upon the need for introducing both horizontal and vertical integration, attempts to introduce an integrated curriculum have not really succeeded. Instead of the encouragement of a participatory, interactive process, teaching remains didactic. Lectures still dominate instruction, hence curbing the initiative on part of the students to pursue self directed learning, critical analysis of facts, interpretation of data and problem solving. The 3 Cs, which are of utmost importance to the development of a humanistic approach to patient care – communication skills, compassion, and care – have unfortunately remained at the periphery of classroom learning. The public-private dichotomy and divide can be seen in the financial constraints being faced by the public sector medical colleges and

the commercialization of private medical colleges.

Providing a high quality of medical education has been an important national agenda, but though India has over 170 medical colleges, there is a perceptible lack of well defined standards, and absence of a strategy to link quality assurance with faculty development. Quality assurance is a holistic concept which includes accountability, development of standards, providing facilities, institutional self evaluation and peer evaluation, besides faculty development as an ongoing activity. One of the foremost requirement for quality assurance is the setting up of a national Quality Assurance Body which would primarily be responsible for providing quality assurance by commissioning visits by review teams and accreditation of programs/ institutions for a specifically defined period. The new health policy 2002 envisages the setting up of a medical grants commission to reduce the problem on account of uneven standards and proliferation of medical and dental colleges in various parts of the country.

Radical changes in medical education are possible but only if there is a change in the role of various stakeholders, namely the central and state governments, private sector, non-governmental organizations and other institutions of civil society. The new national health policy 2002 identified the need to modify the medical curriculum to make it need based and skill – oriented in order to enable fresh graduates to contribute to primary health services. The policy also talks about the need to introduce post graduate courses in family medicine. This indeed is a welcome change! Having

more specialists in public health and family medicine is a long forgotten agenda. Though over the past few decades public health has emerged as a speciality in the developed world, it has remained neglected in India. At present the study of public health is limited to the curriculum of community medicine. The scope needs to be broadened to incorporate areas of current importance such as epidemiology, health policy analysis, gender studies and environmental sciences.

Networking and sharing of knowledge and resources

Modern technologies have capabilities to establish networking of individuals and institutions for sharing information and resources. This will enhance cost effectiveness and provides opportunities for introducing changes on a large scale. Universities and centres of higher learning should come together and come out with proposals for networking educational efforts. The responsibility of coordination should be entrusted to a reputed institution with resource allocation.

There is a need for the under graduate to understand the epidemiological and demographic transition that this country is going through, while we are still far from having wiped out the twin curse of infectious diseases and nutritional deficiencies, we are fast heading towards having the largest number of patients

having life style diseases such as diabetes, coronary heart disease and degenerative diseases. The information that has become relevant to the medical graduate has expanded further due to a double revolution that medicine is going through. One part of this revolution is the post genomic stimulus to gene therapy and predictive medicine. The other part of the revolution is at the holistic level. Realizing the role of mental stress in disease, and that of mental peace in self healing and finding scientific support for mind body relationship in psychoneuro-immunology, there has been a tendency to turn to ancient wisdom. Ancient disciplines, such as yoga, and Ayurveda have evinced keen interest. With ancient disciplines on their way to becoming part of mainstream scientific medicine, the range of subjects which a doctor will have to know is indeed mind boggling while medical curricula are not likely to be affected by these futuristic trends very soon, a doctor graduating today may well be practicing medicine 50 years from today. Therefore, it has become all the more important to remember that Sri Aurobindo called the first principle of teaching, that nothing can be taught! The student learns only what he wants to learn, not what the teacher teaches. So just create in the student the desire to learn, the capacity to learn, and the ability to judge what area of medical knowledge he wishes to concentrate on.

