Medical Education in India – Problems and Prospects

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The state of medical education in India presents a scenario marked by rhetoric and wishful thinking rather than concrete steps in right direction. The search for a need-based curriculum is not new. It has been felt for ages, but the curriculum has not really changed. It is an oft-repeated criticism that our medical colleges are producing graduates who are not well equipped to tackle the health care needs of the society1.

What is the reason behind this notion?

While the graduates generally possess reasonably-sound knowledge of medical science, they are often found deficient in the performance of clinical skills and problem-solving which form the core of clinical competence2. There is growing level of mistrust among the public for the medical profession as one hears of cases of negligence, misconduct, and unethical practices leading to legal suits. There is increasing public demand for the accountability, transparency and quality assurance among the health professionals. While the commercialisation of medical profession is cited as a common reason for the dilution of quality, doubts have been raised regarding the quality of training. Are the graduate doctors well trained to perform their clinical responsibilities? Are they aware of their ethical, moral and legal responsibilities?

Let us look at the curriculum. The medical colleges in India have traditionally followed a curriculum stuffed with a large body of knowledge pertaining to basic science and clinical disciplines. Once qualified, students are expected to synthesise this information and apply it to the care of the patients. With the expanding body of knowledge, there is over-burdening of the student with the content information. In order to grapple with this problem, it is essential to define the core content which every student ‘must learn’, things that are ‘useful to learn’ and ‘nice to learn’ but do not need the same emphasis3.

There are areas in the curriculum, viz., medical ethics, behavioral science, communication skills, managerial skills which do not receive due attention in the existing curriculum as they should do2,3.

Following MCI guidelines, medical colleges in India have adopted a pattern of one year of basic sciences, 1 1/2 years of para-clinical sciences and 2 years devoted entirely to clinical subjects4. In most of the colleges, the subjects are taught in isolation with little or no attempt to integrate the basic sciences with the clinical disciplines. An integrated curriculum provides a meaningful learning experience as learning takes place in a context (contextual learning). It also promotes a holistic approach to patients and their problems. The MCI has recommended both horizontal (e.g., anatomy-physiology-biochemistry) and vertical integration (e.g., anatomy with surgery) to be introduced throughout the curriculum5. A move towards integrated teaching is likely to reduce the fragmentation of the medical course, and motivate students for better learning. Close to the concept of integration is the philosophy of problem based learning (PBL), introduced in many medical schools outside India6. PBL approach has been found to be a useful and effective educational strategy to produce graduates who are good problem solvers. This approach also underlines ‘learning how to learn’ and stimulates self-directed learning as a central, pervasive objective of the teaching-learning process in undergraduate (UG) medical education. Every medical graduate should appreciate that learning
is a continuous process and one should periodically update one’s knowledge. Acquisition of learning skills for self-directed learning is critical to medical students and this is promoted by the PBL approach.

In the traditional curricula, the stress has been laid on the acquisition of knowledge as against the development of skills. More attention needs to be given to the development of various skills, viz., problem-solving skills, psychomotor or performance skills, attitudinal and communication skills. The graduates should develop an ability to gather information with sensitivity and insight, to make sound judgement on the basis of probabilities. With the advancement in medical sciences, investigative medicine has largely taken over and it is not unusual to see inappropriate use of investigative procedures, some of which may increase the cost of medical care substantially and may even pose a risk to the patients. This is often associated with inadequacy to make a sound clinical judgement.

It is essential that the traditional clinical bedside skills of history taking, physical examination, formulation of differential diagnosis, and planning a diagnostic and management plan for various problems be inculcated in every medical student. The other skills that need thrust during the training are the basic skills in human resource management, leadership qualities (ability to lead a health care team) and providing cost effective care in rural/non-hospital settings. The development of these skills needs to be strengthened by introducing a clinical clerkship (where students actively take part in the management of patients) and reinforced during the internship. It is commonly observed that the period of internship is not effectively utilised to develop and refine these skills. This period is more often utilised for preparation of postgraduate (PG) entrance examinations. This can be overcome by changing the schedule of PG entrance examinations and making them more suitable to testing higher level of knowledge and skills rather than mere recall of facts.

It is a well-known fact that the way students learn is largely driven by the way they are assessed. Assessment system in medical education, therefore largely determines its product. Though the mastery of practical skills and problem solving ability are important, their assessment generally leaves a lot to be desired. It is essential to move away from the knowledge dominated examinations to more skill oriented examinations. There is a need to rationalize the examination system by giving due emphasis on the ‘formative’ or internal assessment, introduction of logbooks, and supplementing the traditional long/short case examination with more valid and reliable instruments for assessment of clinical skills like objective structured clinical examination (OSCE). The assessment should predominantly be based on the core curriculum and should be criterion-referenced, i.e., the performance of students is assessed against a standard criterion and not just in comparison to others. The concept of criterion reference test implies that there is a corpus of knowledge or the standard of skill performance that the student must possess in order to qualify. In practice, most of the examinations in medicine are norm-referenced or peer-referenced because no clear criteria are laid down beforehand. A formal assessment at the end of internship can ensure proper utilisation of this period for development of skills. Feedback to students at every stage, throughout the training is important to help them improve their deficiencies.

Another issue which should draw attention is the issue of selection of students. The selection of students for medical courses has been based on the marks obtained by students on an MCQs test whose validity is highly doubtful and which are usually directed towards testing of mere recall of facts. The humanistic approach, attitudes, and communication skills which form essential traits of any health professional are hardly assessed. This issue was recently deliberated by the MCI. It was recommended that merit in the board examinations or competitive tests should be combined with an aptitude test so as to form the criteria for selection tests. However, because of non-availability of appropriate objective instruments for
testing aptitude in large number of students, this could be tried-out in some selected medical colleges before large-scale implementation.

The teacher is the corner-stone for any system of education. Appropriate method of selection and adequate training in the techniques of teaching would go a long way in improving the quality of teaching. Unfortunately, teacher training is perhaps the most vulnerable of issues in medical education. The teacher’s performance is taken for granted and his or her competence in teaching is never questioned.

With the phenomenal changes in educational and information technology, the role of teacher has undergone dramatic changes. He/she is expected to possess skills and abilities to plan the curriculum, make rational use of the media technology and design an assessment strategy. This is possible only through a systematic approach to faculty development. As suggested by MCI, the development of medical education units in all medical colleges will go a long way in the development of teaching skills amongst their faculty. In most of our medical colleges, although junior and senior resident doctors are required to undergo teaching experience as part of their academic work, seldom does any formal training accompany this experience. While training forms an essential requirement, it is also necessary to provide academic recognition to the teachers for their contribution to teaching. Otherwise, teaching will be overtaken by the priorities of research and patient care. It is important to encourage and reward teachers who show a flair for teaching and adopt innovative teaching methods.

The role of patient care in teaching hospitals needs to be emphasised. The teaching medical faculty can set an example of dedicated public service which can be imbibed by and would have a lasting effect on impressionable undergraduates. The accountability and monitoring of the teaching faculty towards fulfillment of their teaching responsibilities is a sensitive but very important issue. In the West, teachers are not only accountable to the Institutes but to the students as well. The students are encouraged to evaluate the performance of their teachers and provide useful feedback to the latter for improvement.

The issue of capitation fees and privatisation of medical education needs mention. Private medical colleges have come up throughout the country and measures are required to ensure their proper regulation by the medical council. It is a well-known fact that the doctor-population ratio has already exceeded that required by the country and there is mal-distribution of their services. The menace posed by the growing merchandisation of medical education has to be warded off and efforts should be made to ensure maintenance of standards and check the unplanned growth of sub-standard medical colleges.

References