Medical Teachers: Are we on Right Track?

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A teacher who is attempting to teach without inspiring the pupil with a desire to learn is hammering on cold iron

Horace Mann

Globally, the largest medical education system is in India. In the year 2017, there are 460 medical colleges in India, where qualifications are recognized by the Medical Council of India; these medical schools have a combined capacity to provide medical education for 63,985 students.[1] The Medical Council of India’s motto is to provide quality medical care to all Indians through promotion and maintenance of excellence in medical education. More than 40,000 faculty are estimated to be working in various medical colleges based on the MCI norms.[2]

Medical teaching is the most complex skill and art in which a teacher must impart theoretical as well as practical knowledge about various dimensions and determinants governing health and diseases. It focusses on imparting best clinical and communication skills. Medical teaching requires self-interest, self-discipline, hard work, practice, experience and effective feedback. Medical teachers should be trained enough to provide skills and competencies to our future doctors.

Medical education: changing dynamics

Previously, medical teachers were sharing their extensive knowledge acquired through their years of experience and expertise. They used to study from various texts, books, reading material and medical newspapers. After that they used to teach the students through blackboard with chalk, notes etc. In some advanced medical colleges, the facility of power point presentations was available. They used to teach clinical skills during their ward rounds, operation theatres, indoor and outdoor duty hours. And students also unanimously believed and agreed with their teachers. In that era, the role of the teacher was like an information provider. The goal of medical education was to make a competent doctor by providing clinical skills.

But now, the scenario has changed in this digital world. Today, With the revolution in the field of education and technology, previous medical education practices have been challenged and compromised. Now, most of the medical information can be obtained from a lot of resources like TV, internet, android mobile phones etc., which are easily accessible for all. Likewise, there has been a vast development in the field of medical education. Value system has changed. Expectation of patients from health has also changed. Ethical and legal issues are major concerns. Similarly expectations of new generations doctors have changed. All teaching aids and assessment tools have been modified and updated. The place of blackboards and chalks has been replaced by Digital boards, audio-visual systems, laptops and several electronic gadgets. Many assessment tools like objective structured clinical examination (OSCE), Objective structured practical examination (OSPE), Mini-Clinical Evaluation Exercise (m-CEX) and many others have been put forward. Now, the role of teacher is not only as an information provider but also a facilitator, a guide, a mentor and a creator. Medical students should be prepared in such a way that they have the skills of clinical expertise, a good communicator, having higher cognitive abilities, a manager with high ethical values.

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For achieving these goals, are we well equipped with all teaching tools & technologies? It is a high time to re-think our position and role so that we can prove ourselves as an excellent guide to our students. Are we on right track?

Way forward

Medical education should be focused on teaching-learning cycle. A good persistent learner can only become an expert teacher. Modern teachers should be well acquainted with all the advanced teaching aids and tools. E-learning should be used by all teachers to update their knowledge. Most commonly used e-learning tools are YouTube, google docs, skype, Wikipedia, kindle, blogs etc. Reading material can be read online as well as offline mode. National as well as international information, all reference materials and important books in pdf format are easily available on internet sites.

Another effecting way of teaching is problem-based learning (PBL) and case-based learning (CBL). PBL refers to that type of learning, which can be obtained in the context of the problem. It means problem is posed first then students identify learning areas later. It enhances the cognitive skills of the students to find the solutions through active learning. It is basically student oriented and students must play an active role in this process. The role of teacher is only to facilitate their learning skills through their expert guidance.

One of the innovative methods of teaching is use of simulations. Simulations are used to train students in variety of clinical skills. Simulations means creating the medical realities in virtual space. It will enhance cognitive, psychomotor as well as affective skills of the students. In medical field, some skills cannot be taught in real life so we use simulations to give an idea of those skills. Simulation patients are also used now a days in most of the educational settings. They are specially trained individuals to simulate certain activities. Many areas such as communication skills, physical examinations, noninvasive procedures etc. can be strengthened by use of simulations. It is a high time that students should be trained not only at the tertiary care centres but they should be moved to primary and secondary health centres. Their knowledge should not be limited to only clinics, but it should be about the community. Information, education, communication (IEC) health services should be focused and practices by medical students at all level of health system.

In medical education, there are 18 subjects to be read during undergraduate period.\(^3\) In every year of MBBS period, new subjects are introduced, and students have to learn all these subjects in subsequent years. In conventional subject based teaching, students get isolated bits of information in each subject but generally no effort is made to build connections between these pieces. But the crux of the problem is all these subjects are interlinked and the concept of one subject is used in other and vice-versa. But in current era, this integration has not been practiced by medical teachers. It brings the concept of “integrated teaching”. It means that all subjects should be taught in integration with each other so that students can connect the knowledge of one subject into practice of other subject. It will result into deep learning, meaningful learning and interdisciplinary working. The great researcher, Harden has given integration ladder model which conceptualizes integration at 11 levels.\(^4\) This should be practiced at all health institutions for the wholesome knowledge of our students.

Another way of improving teaching is “microteaching”. It involves teaching in a small group and getting feedback and then work upon to improve teaching style and method. In effect, it means breaking the teaching skills into sub-skills and then trying to improve them individually. The term “micro” itself reflects a small portion of study topic, needs less time for preparation, to be taught in a small group for a small period of time, i.e.5-7 minutes. In this cycle, feedback plays an important role. If a teacher works upon the feedbacks which he got during microteaching then he/she can enhance their teaching skills and deliver the knowledge more effectively.

The concept of teachers training has been realized by Medical Council of India (1999). MCI has given its recommendation that every medical college should have a medical education unit (2010) and it is mandatory for every teacher to undergo at least the basic level training.\(^5\) Now a days, many recruitment interviews also inquire about this type of training before their selection procedure. Regular refresher training should also be conducted in every medical college. Many useful books and reference material on medical education are also available for medial teachers. Some of these books are Medical education: principles and practice (NTTC group, JIPMER, Puducherry, India,1995), Assessment in Medical education: trends and tools (CMET, AIIMS, New Delhi,1995), The Art of teaching medical students (MET Cell of Seth GS Medical College, Mumbai, Maharashtra, India), Principles of Medical education (Tejinder Singh et al., Indian Academy of Pediatrics Education Centre,1997), Trainer’s manual by NTTC, Puducherry (1997, India) etc.\(^6\) These books are the valuable resource material for all the medical teachers to enhance their teaching and learning skills.

Conclusion

Today, the role of teacher is not only limited to teaching, but it has expanded to mentoring, to guiding and to facilitating the students. But for these activities, a medical teacher should be well acquainted with the modern teaching techniques and tools. And teaching-learning cycle should be continued for every teacher so that they can provide best skills to their future doctors. Many books and resource
materials are available on the medical education. One must go through these reading materials to build the cognitive, affective, psychomotor skills into medical students apart from clinical skills.

References

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