Speaking for Ourselves

The teacher and the taught: Medical education in India at the crossroads

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ABSTRACT

In a good medical teacher we would like to see a good doctor, a good teacher, a good orator and, overall, a good human being. Many teachers of yesteryears may not have had all these qualities but they had the ability to instil in the student's mind a sense of respect and a desire to learn. We now have more of the science and less of the art of teaching. We have failed to live by example. Modern-day consumerism and a single-minded approach to money, coaching classes, destruction of proper medical training by effectively removing internship and housemanship have made students apathetic with no desire to learn. We suggest that there are several ways by which the situation can be remedied including a system of mentoring, incentives and feedback.

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INTRODUCTION

Medical education is an area where a close interaction between the teacher and the student is essential. What is required is not just information to be learned by rote but a behavioural transformation of the student so that when she finishes her education, there is a changed persona imbibing all the good qualities of the teacher. Today, when we see unrest among patients, we are forced to ask ourselves, 'Have we failed as medical teachers in our country?' or 'Is this the order of the time as was the case in seventeenth, eighteenth century England?'.[1] Three or four decades ago, we had teachers who illuminated our lives through their behaviour and by their exemplary conduct.

A teacher is the singular element in medical teachings, who lives by example and becomes a role model to be followed by his/her students. Medical colleges present a unique opportunity to train students about relationships between research, patient care, teaching and above all how to maintain high standards of ethics and morality.

Teaching, patient care and research can be conceptually thought of as an equilateral triangle with all 3 features providing equal support. The model should not be an obelisk, raised on a narrow teaching base to the greater glory of research and patient care. As McGhee Harvey said: 'Each of us should strive to raise ourselves above the routines of daily ward rounds and see every patient as an opportunity to serve mankind in the best traditions of medical experience, and to add the store of medical knowledge.'[2]

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THE ROLE OF A MEDICAL TEACHER

In modern medical curricula, there is a virtual information explosion in the areas of genetics, biochemistry, immunology, cell biology, molecular biology, molecular diagnostics, imaging technology to name a few, while the old subjects also have not lost their relevance. However, the time for medical teaching remains a constraint. Increasingly, students and residents find it difficult to involve themselves in long history-taking and clinical examination sessions—two exceedingly important activities that need to be emphasized by medical teachers. In India, the Medical Council of India (MCI) regulates medical teaching and selection of medical students to undergraduate and postgraduate courses. This involves intense competition and the selection process is based on objective-type questions, which primarily assess the theoretical knowledge of the prospective student or resident. Whether such assessment selects students with the right attitude to study medicine has been debated.[3]

Teachers in medical education may have to play several roles. All roles, however, need to be represented in an organization or teaching institution. Harden and Crossby[4] envisaged 12 roles for medical teachers (Table I). Broadly, these roles are (i) information provider, (ii) resource developer, (iii) planner, (iv) assessor, (v) facilitator and (vi) role model. While individual teachers may be best suited for one or a few of these roles, in reality these functions are often interconnected.

ATTRIBUTES OF A GOOD MEDICAL TEACHER

Can we define a good teacher only on the basis of checklists of the 12 items given in Table I or is there something more to the ideal medical teacher in addition to possessing the different skills required for the different roles of a medical teacher?[5] A good medical teacher, in addition to having many of the above-mentioned skills, has an (i) inherent desire to be a good teacher, (ii) does not seek recognition or compensation, (iii) is student-centric, (iv) is knowledgeable, (v) has humility, (vi) is enthusiastic, (vii) innovative and (viii) a motivator.

Table I. Roles of a medical teacher

1. Information provider	Theoretical lectures
	Practical/clinical
2. Resource developer	Study guide developer
	Resource material creator
3. Planner	Of the curriculum
	Of the course
4. Assessor	Of the curriculum
	Of the student
5. Facilitator	As a mentor
	For learning
6. Role model	As a teacher
	As a doctor and human being

Finally, a good medical teacher influences a student by her/his own life as an example so that emotionally the students see her/him as a role model worth emulating. This attribute is intangible and a complex of a teacher's value system, ethical code, moral vision, personality, empathy and ability to impart knowledge irrespective of a student's capability. Such teachers quickly understand a particular student's difficulty in understanding a complex concept and are capable of presenting that concept in an easy, alternative manner.

GOOD MEDICAL TEACHERS FROM THE PAST

The name of Sir William Osler comes to mind when one thinks of great medical teachers of all times. Not only did he bring about a revolution in training programmes by introducing the residency system of training, he insisted that students learn from seeing and talking to patients, bringing laboratory medicine and clinical clerking of patients together for optimum diagnosis. William Osler was also good at aphorisms:[6] 'Listen to the patient carefully, he will give you the diagnosis' or one of the most famous sayings: 'He who studies medicine without books sails an uncharted sea, but he who studies medicine without patients does not go to the sea at all.' He was widely read, apart from studying at the Universities of Toronto and McGill (Montreal), he exposed himself to a variety of teaching centres in Europe. He was an astute clinician and a keen observer; several signs and diseases are named after him.[7] He was a good mentor as evidenced in the monumental biography of Sir William Osler written by his student Harvey Cushing.[8] Osler's interest in becoming a good teacher is echoed in what he wanted to be written as his epitaph: 'I taught medical students in the wards.'

Or consider a genius such as Johannes Muller.[9] He was a professor of physiology and anatomy at Bonn and later in Berlin. He laid the foundation for experimental laboratory science in the same way as Claude Bernard established experimental medicine and the evergreen concept of maintenance of the *milieu interieur*. Muller was engaged in sorting out the grain of truth from the prevailing chaff of egoistic opinion. He founded no school and had no special doctrine of his own to propound. He taught his pupils by allowing them to observe his methods of experimental work to unravel the mysteries of medicine—a method which inspired in them a sense of systemic enquiry. He was a profound scholar with a vast reservoir of knowledge into which the student could dip his bucket of curiosity and quench his thirst for science. This is obvious from the names of those who studied under him—Schwann, Henke, Reichert, Helmholtz, Dubois, Reymond, Bruke, Lieberkuhn, Virchow, Meyer, Wagner—each a great physician in his own right, having a powerful influence on modern medicine. They all conveyed the legacy of Johannes Muller, whose thought or association stimulated their careers. There have been many such illustrious teachers.

We do not have to go far to look for examples of teachers who motivated and inspired their students. Many of us in India have had the privilege of being taught by an outstanding person. These teachers not only looked after their patients/laboratories with utmost care, they were teachers *par excellence* with an ability to kindle the thirst for knowledge and capacity for independent thinking. They were careful to see that the milk of human kindness did not dry up in their students as they passed through the deserted roads of milliequivalents and milliosmoles. These professors have left many illustrious students who presently are working all over the world. Financially, our teachers were reasonably well off but making money was not the only concern in their lives. Some teachers have supported poor students to come up in life.

MEDICAL TEACHING AND TEACHERS OF TODAY

Many posts of medical teachers lie vacant for years. This leads to unrest among students as well as a reduction of seats in postgraduate programmes. In many private medical colleges, teachers are hired only during an inspection by the MCI. When the number of teachers is reduced below a critical point, they are overworked and have no drive to teach.

Various state governments and the central government at different times since Independence have vacillated between making medical teachers totally non-practising and going back on their orders after they found such orders impractical. One negative consequence of this experiment is that good medical teachers who are often good doctors do not join medical colleges. Meanwhile, a large number of corporate hospitals provide an opportunity to earn large sums of money to qualified doctors. Many good doctors who could have become good teachers join these corporate hospitals. A number of medical colleges in India have not kept pace with advances in medicine and technology. Some medicines are expensive and poor people who mostly go to hospitals attached to medical colleges are unable to afford these medicines. One colleague lamented that he would like to treat his patients with antithymocytic globulin, bortezomib, rituximab, etc. but his patients could not afford these medicines and he remained largely ignorant about the efficacy of such therapies except for what he had read in the literature.

One incentive for medical teachers to teach well was the eagerness of medical students. Students these days are overburdened with cramming the facts taught in coaching classes and school. The emphasis on objective-type questions for assessment require them to have information, but few know how to apply that information. They lack an innate desire to learn.

Ever since the MCI abolished housemanship and replaced it with a 3-year MD/MS course, students continue to learn by rote to qualify the entrance examinations for admission to MD/MS courses. Hence, in most medical colleges, a student after passing his MB,BS examination learns no practical work during internship. They only collect reports and the spare time is spent in preparing to answer objective-type questions for MD/MS entrance examinations.

The decline in quality of medical teachers in India coincides with the decline in quality of teachers in every sphere of life because society now gives primary importance to money and social status. In days gone by even a poor teacher was respected but today a medical teacher in a government medical college is a subject of derision. How can we expect good medical teachers in this dismal scenario?

CAN WE IMPROVE THE QUALITY OF TEACHERS?

Much has been said about the science of teaching but teaching is also an art. For some this quality may be inborn but for most of us this has to be inculcated. Several methods could be adopted to produce good medical teachers:

1. Mentoring: In medical colleges, the interaction between a teacher and the taught is not long-lasting. If a teacher is assigned as her/his mentor when a student enters a medical college, it is likely to improve teacher–student interaction.
2. A student of today will be a teacher tomorrow. It is necessary to instil in them a desire to learn. This could be done by recommending good books to students, especially books which are easy to read but promote independent thinking.
3. Teaching must happen in the wards with patients. Students must do clinical clerkship and present their version of the

story of a patient. Examination or assessment should have a mixture of objective and short-essay type questions to test both factual and cognitive knowledge.

4. Medical colleges should have modern facilities for treatment (there are many reasons for doing this but we state this in the context of teaching). If medical colleges remain second grade treatment centres it is unlikely that good doctors and teachers can be motivated to remain attached to them. This can be done by putting good quality private ward service (to be paid for by the patient or his insurance company) in the medical colleges. Funds obtained from the private wards can be used to cross-subsidize many activities of a hospital.
5. Transmission of facts is not the main job of a medical teacher. In spite of many teaching tools being available, a good teacher cannot be replaced. Teachers transmit many things consciously or subconsciously to their students and this process can happen only with mutual enthusiasm between the teacher and the learner.
6. A teacher needs to reflect upon what is being taught, get feedback from students and keep abreast of recent developments in the subject. Unfortunately, many medical colleges do not have a good library and many medical teachers do not have access to good medical journals to keep themselves abreast with recent developments. There should be a provision for medical teachers to regularly attend national conferences in their specialty.

In a review on teaching style of medical teachers, Mohanna *et al*.[10] analysed 1600 abstracts in the area of medial teaching skills and classified 6 teaching styles among medical teachers. However, an ideal teacher transmits to students—through some intangible qualities—a mission to learn and explore.

REFERENCES

1 Turner ES. *Call the doctor: A social history of medical men.* London:Michael Joseph; 1958.
2 Major RH. *History of medicine.* Springfield:Thomas; 1954.
3 Ratzan RM. Sounding board. On teachers. *N Engl J Med* 1982;**306:**1420–2.
4 Harden RM, Crosby J. AMEE Guide No 20: The good teacher is more than a lecturer—The twelve roles of the teacher. *Med Teach* 2000;**22:**334–7.
5 Markert RJ. What makes a good teacher? Lessons from teaching medical students. *Acad Med* 2001;**76:**809–10.
6 Osler W. *The quotable Osler.* Philadelphia:American College of Physicians; 2003.
7 Bliss M. *William Osler: A life in medicine.* Toronto:University of Toronto Press; 1999.
8 Cushing H. *The life of Sir William Osler.* Oxford:Clarendon Press; 1925.
9 Ludmerer KM. *Learning to heal: The development of American medical education.* New York:Basic Books; 1985.
10 Mohanna K, Chambers R, Wall D. Developing your teaching style: Increasing effectiveness in healthcare teaching. *Postgrad Med J* 2007;**83:**145–7.