ORIGINAL RESEARCH PAPER

Medical Science

INDIAN MEDICAL STUDENT TRANSIT FROM PRE-DIGITAL TO DIGITAL ERA OF LEARNING

KEY WORDS:

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ABSTRACT

Teaching is a passion apart from being a noble profession. The passion of a teacher is the ultimate motivator and that motivation of teaching plays a key role in medical education whatever tools one may have to support the teacher. A teacher is born and not artificially created. Ultimate goal of medicine is to treat a human patient with real emotions with the knowledge taught by a human teacher. Shiksha is discipline and Gyan is knowledge. Indian Shikshak is a model for the world for India believes in its ancient wisdom and Medicine is no exception to it.

INTRODUCTION:

Advent of computers and internet has opened the flood gates of knowledge. Mobile phones have become multisource platform that with the touch of the finger information sought is flashed onto the screens.[1]

Information flow is fast, digital, reachable and reliable. In the predigital era the medical undergraduate curriculum is divided in to preclinical, paraclinical and clinical subjects. Such a classification is relevant for the day when teachers were dependent totally on text books for their teaching materials. Medical Educators have devised and designed a curriculum that embraced the preclinical, paraclinical and clinical periods of study.[2]

The student in the first year, it was thought, has to know the basics of Anatomy, physiology and Biochemistry. It was followed by paraclinical and clinical teaching.[3]

It was assumed that the basic knowledge the student gained during the first year of study provides the knowledge base for learning the clinical subjects. The psychomotor domain in the first year was taken care by practical that include cadaver dissection, hematological, amphibian and clinical experiments, biochemical reactions, estimations and interpretation. Those practical taught the students with a hands on experience on human body, blood, body fluids involving physical and chemical methods of measurements. It was felt that early grooming was necessary to prepare the student to learn paraclinical subjects that will provide the essential knowledge to study clinical subjects including patient care. In other words there was a stepwise learning process. In the predigital era the teacher centered learning had didactic lectures and practical to go hand in hand to strengthen the concepts taught in theory. The chemical reactions, qualitative and quantitative analyses including some of the practical like RBC count, WBC count made the student open up the mind to comprehend what is taught in the class room. With knowledge and comprehension the student was made to apply that knowledge to practical situations like say estimation of an Analyte and relate to a disease or blood pressure measurement to a clinical condition. The student slowly is allowed to gain confidence to take a long journey of medical education. The next stage the student was introduced to the world of microbes its science and therapy. The paraclinical subjects of microbiology, pharmacology, pathology and forensic medicine lay the foundation for the student to develop future clinical skills. Community medicine teaches the prevalence of communicable and non-communicable diseases, the concept of health including primary, secondary and tertiary care.[3]

In the pre-digital era the teacher was the prime source of knowledge for the students to learn. Standard Text Books were prescribed and the student had a chance to read the book of student's choice. Most of the Books were of international editions with very few Books of Indian authors. The slow transition to digital era seems to take the student a new world of digital learning with more emphasis on virtual images, early clinical exposure and flood of Text Books. Like the Pharmaceutical industries Book publishers churn out Text Books cut and tailored to the student's examination point of view.

The concept of Educare – to bring out and kindle curiosity of learner's mind is lost in the tailor made jungle of books, digital touch and mobile phone fed knowledge.

The present Indian student and the culture imparted to the student are lost when the student enters the medical colleges. The student witnesses shortened text books and bulkier medical education techniques to cope up. The student witnesses a rush in the teaching and learning of medical subjects. The student and the faculty are trained to teach and learn competence based education.[4-8]

Computers based learning is considered the best option to simulate some of the basic sciences practical. [1] This has resulted in eliminating many experiments that are done during the early years of learning. The other process of National Board accreditation has made the faculty in clinical laboratories and clinical departments glued to the computers to please the Assessors to get a grade that bring more admission to the colleges.[6]Specific operative procedures which are ***to be restricted to the hospital administration block*** has pervaded the corridors of diagnostic, surgical and medical wards. Everybody seems to be busy to put words into the paper at the cost of patient care.

The student in school final years learns to sharpen memory skills. Their knowledge base i.e. recall of information is assessed but the psychomotor and affective domains of the student are not assessed as part of admission procedure. personality are not assessed. A student with a recall expertise enters into the corridors of medical education. The student comes to know that cognitive skills at different levels need to be developed apart from their practical skills and affective behavior.

There the student witnesses the training of teachers to handle medical students. The teachers are given basic training in all spheres of teaching methods, group dynamics and use of audiovisual aids to handle classes. The slow introduction of western method of education like teaching the concepts to the students for a limited period of time and leaving the rest of the lecture hours for the student to learn is replacing didactic lectures. The vision is now to prepare the physician to treat the patient in a village or community. Treating the patient has become the core of medical education. [1]

Can we say "the Field of Medicine is to train the student to become a clinician to treat the patient's illness?"

Now with the digital era, virtual classes, artificial intelligence and robotics the student learning time is reduced and automated. From the days of specialized teachers of basic to para clinical subjects, there is a competency based approach to the teaching of undergraduate syllabi to the students. The clear cut demarcations of learning have given way to erasing the boundaries of learning to bring clinical studies early into the teaching of medical undergraduates.

Medical Board of Directors of Medical Commission guide medical education in India. They spell alphabets and construct the methods and scope of medical education to be imparted to a NEET based Indian student trained to memorize facts and figures.[5]

With no cadavers, 3 D image virtual Anatomy classes, case oriented with practical skill deprived student enters into virtual world of Medicine with artificial intelligence and robot to sharpen the students' practical skills to treat a patient or handle a patient in a clinical set up.

In the process Albert Schweitzer's "Reverence for Life" is lost in the digital world. Without touching a cadaver, a living blood tissue and bereft of knowledge of practical skills in the clinical laboratory a student trained in a virtual world could understand the three dimensional shape of a human being. The student may not know or understand the importance of a human touch to a patient.

There are attempts to replace human touch and interaction with "Clinical Role play in Autonomous sensory Meridian response (ASMR) videos".[6]

But Human person is the art and physician is the science of Medicine. Teaching is a passion apart from being a noble profession. The passion of a teacher is the ultimate motivator and that motivation of teaching plays a key role in medical education whatever tools one may have to support the teacher. A teacher is born and not artificially created. Ultimate goal of medicine is to treat a human patient with real emotions with the knowledge taught by a human teacher. Shiksha is discipline and Gyan is knowledge. Indian Shikshak is a model for the world for India believes in its ancient wisdom and Medicine is no exception to it.

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