

**Editorial****TEACHING OF HUMAN ANATOMY: THE INDIAN PERSPECTIVE.  
MISSING THE WOODS FOR THE TREES?****Namita Sharma***Bharati Vidyapeeth Deemed University Dental College and Hospital, Pune, India*

Appreciating the marvels of human architecture in all its varied aspects is, in totality, a truly inspiring experience; providing the learner who possesses the aptitude for this particular brand of knowledge, the maturity to appreciate the miracle of human form and last, but probably the most important, time to imbibe so much of information. In India, an aspiring medical professional gains entry in a medical school only after qualifying in an extremely stringent evaluation. Thus, as may be expected, it is the academic cream that one encounters in these colleges, most of whom, more often than not, are diligent and focused; important prerequisites for the medical career.

This eligibility for entrance is immediately after the candidate's higher secondary school examination as against a number of countries wherein such eligibility is gained beyond graduation. The apparent advantage of the former system is acceptably an early start along one's preferred professional path, but comes with the obvious tag of being burdened 'too young' with 'too much'. The maturity gained by completion of graduation is measurable not only in terms of age but a greater assurance of one's propensity.

The Indian mode of teaching anatomy is still largely traditional which has, no doubt, its own merits. Cadaveric dissection is an essential part of the curriculum and provides a 'hands on' experience for the student. Virtual dissection of the human body parts, though unarguably very modern and effective, cannot offer the same flavor to the learner as an actual dissection well done. Moreover, a positive scenario prevalent in India is the presence of a sizeable number of medical professionals who have specialized in the subject and are anatomists by career. They are thus not only better equipped to impart anatomical knowledge to the learner but also, given their medical background, to explain the clinical bases of various disorders based on the body structure.

Learning by rote without a clue as to the application of the facts and figures thrust temporarily into one's memory is a quandary that plagues the Indian system of education right from the infant days of the student. Unfortunately,

despite the well intentioned endeavors of the medical educators within the country, this habit has found its way into the method of teaching/learning in medical schools. The assessment of the students involves response to mostly descriptive type of questions. Scoring, in any exam, is obviously paramount. The educators as well as the learners thus, unwittingly, fall prey to respectively providing and imbibing an assortment of facts, which when penned down on an answer sheet would undoubtedly fetch the required marks and result in a euphoric sense of knowledge gain. Analytical thinking and nurturing a questioning spirit, which are imperative in any educative process, take a back seat.

Unfortunately, few realize, accumulation of disjointed jigsaw pieces is ineffectual unless pieced together to evolve a complete picture.

Where the existing manner of teaching human anatomy in India may be considered wanting is in the lack of an integrated vertical approach to the subject. The need of the hour is to grow beyond treating the study of human anatomy as a stand-alone subject. Anatomical knowledge, as required by a medical student, should be viewed as adjunct to the clinical sciences and, to achieve this, it is imperative to refrain from providing (and expecting while assessing the student) unnecessary details. It would be desirable then for the educator to sift through the maze of facts and provide only such information to the learner which would be of relevance when confronted by actual clinical cases. It has been my personal experience while teaching the subject, and I am sure of many others too, of witnessing intense curiosity amongst the students when any patient based problems are introduced. More importantly, the students tend to retain that segment of clinical related anatomical knowledge better when quizzed about it at a later stage. In an emerging world where boundaries are diminishing every day, the educators need to ensure that knowledge evokes curiosity and retains interest rather than merely being a store house of facts.

Compounding the problem over the last few years is the fact that the time allocated to the basic sciences has been reduced and the current scenario provides less than a year's exposure before the student is required to appear for the University examination. Moreover, the differences in the academics of higher secondary education and the first year in a professional school are vast and difficult to bridge. Grappling with the change engages the initial segment of the learner's time and mental energies with the result the actual period at hand for the basic sciences per se is not more than a few months. Beyond the evaluating examination and post successful

results, many students admit to a sense of relief of having earned the credit of being able to 'wash their hands off' a volatile set of anatomical facts. The very purpose of learning anatomy thus is defeated.

Keeping all this in mind, the student should be initiated into the subject by providing a basic knowledge of the subject. Supplementation, by the process of 'self study' to expand on the same, should be encouraged. Further, interaction between the educator and the learner could be better utilized for discussing the clinical relevance of the particular region under study by means of posing clinical problems. An ideal scenario would include, wherever possible, brief exposure to actual patients by collaborating with the clinical sciences. Unfortunately, time restraints preclude such activities. Most importantly, prior to such changes, the mode of evaluation needs the necessary modifications. The examiner must revamp his expectations from the student. Till the motives of the assessor are not defogged, the assessee will have to toe the line at the cost of a more lasting and useful knowledge of the subject. In India, an essential inclusion of training the educators in the technology of medical education as per the ruling by the Medical Council of India is attempting to address these problems and improve the quality of medical education in general.

With special reference to anatomy, in order to achieve uniformity in the system, the creation and marketing of capsules which would explain the basics of the anatomy of each part of the human body right from its embryogenesis, pertinent points of its gross and microscopic structure and peppered with clinical problems relevant to that region would not come amiss. Minutiae, which are impossible to commit to lasting memory, could be ignored.

It would be a legitimate and very achievable objective that teaching of anatomy be in continuum and spill over into the final year of the student's medical schooling. Complementing patient exposure and teaching of the clinical subjects, revision of relevant portions of the basic sciences would aid in a conceptual understanding of the disorder. It is the need of the hour to teach anatomy as a 'science of the living' rather than a 'pure science'.

The problems outlined above are relevant to, I suspect, many other nations as well. Conversely, there are possibly equally vexing problems of different natures afflicting other systems of education. It is common knowledge that today, there are large populations of migrant medical professionals. Thus, global uniformity in the method of teaching the basic sciences as well as in the prescribed syllabus would be welcome.

Subsequently, clinical accents can be built on this knowledge as per the requirements of the particular region or population including diseases which are endemic to that area. Thus, Anatomical

Societies the world over today need to confer and reach a consensus on a common minimum objective while teaching clinically applicable human anatomy.