

Opinion

Three decades of medical school: Journey from a student to an educator

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The town of Thrissur (or to use its official name, Thrissivaperur) is widely regarded as the cultural capital of the southern Indian state of Kerala. The Government Medical College is situated on the sprawling grounds of the erstwhile TB sanatorium at Mulangunnathukavu (a real mouthful of a name). We were following a traditional undergraduate medical curriculum with the three basic science subjects of anatomy, biochemistry and physiology banded together as the preclinical sciences, being taught during the first 18 months. Anatomy dominated the preclinical years. Dissections, osteology sessions, histology labs were the order of the day.

As a medical educator looking back with the benefit of hindsight, I am not sure whether the heavy emphasis on Anatomy was fully justified. In those days the emphasis on competencies and on the curriculum was limited. Teaching-learning aids in the classroom were limited to the blackboard and an overhead projector. The anatomy department had an artist who invested much

time and effort in creating beautiful specimens.

Government Medical College, Thrissur, India:

The paramedical sciences of pathology, microbiology and pharmacology were taught during second MBBS (the undergraduate medical course) with clinical postings in the morning. Most clinical departments had a heavy patient load and our bedside clinics were really effective. We learned mostly on 'underprivileged patients' and hence advocating for the underprivileged is an important life mission for me. As an educator I believe teaching-learning at the patient's bedside is powerful. Student learning is focused toward understanding and coming to terms with the patient's problem. Our teachers were dedicated and most of our sessions were held on schedule. Comparing notes with students educated in government schools in other Indian states I came to know that sessions in their schools were often canceled or allotted to postgraduates.

Thrissur has a rich cultural heritage and we had plenty of extracurricular events in the campus. Film nights, cultural festivals, drama shows, and quiz competitions were among the many activities held. The town of Thrissur was a thirty minute bus ride away from the campus. The town had an excellent public library. Thrissur was built around the Swaraj round and the Vadakunnathan temple. The region has 'arguably' the most beautiful girls in Kerala.

Though our curriculum was completely subject-based and our exams were conducted according to the 'old school', as we progressed through the course we did learn a lot. As students were/are selected through a competitive entrance exam, academic standards were high and most were able to integrate the disparate pieces of information learned. As we did not have postgraduate students at that point in time, we were able to learn many skills and strengthen our practical knowledge during the final year and house surgery. These days the period is used by students exclusively for preparing for postgraduate entrance exams. They are missing out on a wonderful learning experience.

PGIMER, Chandigarh, India:

Chandigarh, the first planned city in India was designed by the famous French architect, Le Corbusier. The Postgraduate Institute for Medical Education and Research (PGIMER), is an institution of national importance. The pharmacology department occupies an entire floor of research block B and had been involved in some important research but by the late 1990s faced significant challenges. Chandigarh was not an important center for the Indian pharmaceutical industry and the department faced challenges in developing

and sustaining working relationships with clinicians working in the institute's Nehru hospital. My thesis work was on the antiplatelet actions of the medicines, amlodipine and enalapril. My guide was Dr Bhargava and one of my co-guides was Dr Grover. Dr Bhargava was always approachable and had the ability to understand the student perspective. He constantly encouraged me to publish and when I look back at my publication list today, Prof. Bhargava played a very important motivational role. Dr Grover was a committed scientist and clinician. I learned so much from him. I was struggling with statistics and resolved to learn enough statistics to be able to analyze and interpret research data.

PGIMER had different clinical and other meetings scheduled every working day from 8 to 9 am. The best thing about PGIMER was the value given to time. The meeting began sharp at 8 am. The institute organized a cultural week every year. Residents and students from the school of nursing and paramedical streams participated. The standards were good but I felt the programs and performances put up during my undergraduate days in Thrissur were more creative. Kerala has a rich artistic tradition and undergraduates had more time and energy to devote to their artistic pursuits compared to sleep deprived residents.

MCOMS, Pokhara, Nepal:

Pokhara, Nepal has a 'magical' location at the foothills of the magnificent Annapurna Himals. Many in India often confuse the city with Pokhran, the site of India's nuclear tests. The views of the Himals on a clear day from Pokhara are magnificent. Manipal College of Medical Sciences (MCOMS) is one of the older medical schools in Nepal. The Deep campus is

situated in a wooded and scenic area. The cottages and single storied buildings have their charm though after over two decades of constant use, they may require greater maintenance. Having been immersed in the strong research traditions of PGIMER, my first thought at MCOMS was whether I would be able to continue to do research. We had none of the traditional resources. In those days research was its infancy at the institution. Some faculty and administrators have an opinion that research is important only if there are postgraduate students. This is a wrong concept and for me and some of my colleagues, research is an integral part of academic life. Without research you cannot improve teaching-learning.

We were able to initiate drug utilization research and also introduce newer teaching-learning methods in pharmacology. Our real breakthrough came when the United States Pharmacopeia (USP) helped in establishing a drug information and pharmacovigilance center at the teaching hospital affiliated to the college. This helped us develop stronger links with clinicians and enabled us to publish a drug information bulletin and a pharmacovigilance bulletin. After I joined a part-time educational fellowship offered by the Foundation for International Medical Education and Research (FAIMER) in 2007 at Coimbatore, India I was able to initiate a medical humanities (MH) module as a part of my curriculum innovation project. For the last ten years I have been actively involved with MH at different medical schools.

The close linkages developed by my colleagues with clinicians through the drug information center, pharmacovigilance center and being a part of ward rounds enabled us to work together and publish a number of papers. Reporting adverse drug reactions

(ADRs) has always been a challenge in Nepal but for a period of time the pharmacovigilance program at MCOMS was reasonably successful. My former colleague, Dr P Subish played an important role in creating and sustaining these linkages. Dr. Subish is a hard worker and gets things done. He also realizes the close link between health and politics and is of the opinion that politics is too important to be left to professional politicians.

KIST Medical College, Lalitpur, Nepal:

Lalitpur (also known as Patan) is an ancient city in the Kathmandu valley. KIST Medical College was established in early 2008 as a new medical college affiliated to Tribhuvan University. With the support of the management we were able to start a medication counseling center in the teaching hospital and initiate medicine information services. I was fortunate to collaborate with Dr Rano Mal Piryani, the Clinical Coordinator who was energetic, enthusiastic and a dedicated researcher. My involvement as a faculty member at the regional FAIMER Institute in Coimbatore helped me connect with health educators and stay abreast of latest developments. One of the challenges in conducting educational research in Nepal is the paucity of individuals with expertise in both medical education and statistics. Mr Shital Bhandary from the Patan Academy of Health Sciences has a deep knowledge of both and I was fortunate to have been able to collaborate with him on a few papers.

XUSOM, Aruba:

'Offshore' Caribbean medical schools have traditionally neglected research. Though changes are underway, the emphasis has been on didactic, lecture-based teaching and on preparing students to do well on their

licensing exams. I have long believed that being a researcher is an important part of being an academician and institutions of higher learning have an important social responsibility of creating new knowledge and advancing science. They also have the task of familiarizing science among the lay public. When I joined the Xavier University School of Medicine (XUSOM) at Aruba, research was still in its infancy at the institution. With the support of the Dean, Dr Dubey I was able to initiate and complete a number of research projects. Many of my former students and colleagues from Nepal were pursuing their masters and doctorates and I was associated with many of their research projects. This led to some 'strong' research publications. The MH module was offered to all first semester students and we also initiated problem-based learning sessions for students.

Collaboration with USM, Malaysia:

I was also lucky to have been able to collaborate with the Universiti Sains Malaysia (USM), especially with the Discipline of Social and Administrative Pharmacy. I have been a postgraduate examiner for many years and had the good fortune of interacting with Prof. Izham and Prof. Azmi. I look forward to strengthening my collaboration with Prof. Izham, who at present is at Qatar University. My association with Prof. Azmi has been especially productive. Prof. Azmi is a motivated researcher and a person of tremendous energy. I get a reply from him to my e-mails within an hour, whether it is day or night.

Looking back, looking forward:

Over the three decades I have been in medical school, many things have changed. There is now a greater emphasis on the curriculum and on curriculum assessment and student

learning. Today the internet and computers play an important role in learning. In the late 1980s and early 1990s we had very few audiovisual resources. Today there is a wealth of both subscription and non-subscription resources available on the internet. Class videos, animations, virtual reality makes learning more interactive and fun. Social media and audience response technology help in making classrooms interactive. The challenge for today's students may be in selecting the most appropriate learning resource from the wealth of information available.

PGIMER was/is a postgraduate research institute and did not admit undergraduate medical students. The emphasis was on patient care and research. MCOMS in those days was an undergraduate medical institution with an overarching emphasis on students. MCOMS and KIST Medical College were/are private institutions and their emphasis was on students. PGIMER and USM are autonomous institutions with a large proportion of the budget provided by the government. These two institutions have a strong emphasis on research.

What will the next three decades bring? It is hazardous to try to predict the future but there will be huge developments in virtual reality and immersive technologies. The boundaries between the real and the virtual world will increasingly blur and humans will work and interact more closely with artificial intelligence!

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