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## Current state of orthopedic education in India

Sir,

We read with interest, the editorial article titled “Current state of orthopedic education in India.” We do agree with the author opinion that the current MBBS qualified doctors are not being adequately trained in orthopedic surgery.<sup>1</sup> The orthopedics subject has been neglected by the students of MBBS. They skip the orthopedic surgery posting and they say orthopedics is not a major subject. The MBBS qualified doctors available at the primary health center are not well trained to treat the musculoskeletal injuries.<sup>1</sup> It is important to note that the road traffic accidents are being increased these days due to the increase in the number of vehicles. Unfortunately, most of the roads in rural India are smaller and congested. There is no separate lane, and very few people strictly follow the traffic rules and regulations. The frequency of head injuries is higher in the two-wheeler, and the rider will not use the helmets very often.<sup>2</sup> India being a developing country lacks the specialty hospitals in each and every place. Unfortunately, 72% of India’s population lives in these rural places.<sup>3</sup> The road traffic accidents and the trauma cases in these rural areas will be first seen by the doctors at the primary health center. The radiological investigations facilities are not available in these rural sectors. The patients need to travel to cities or taluk level to consult the orthopedic surgeon. It is unfortunate that the ratio of orthopedician and the population in India is 1:62,500.<sup>1</sup> The “C” arm (image intensifier) is not available in each and every operation theaters even at the tertiary care hospital.<sup>4</sup> The “C” arm was once expensive equipment which has become basic these days. It is surprising to know that most of the orthopedicians in the rural practice

operate without “C” arm (image intensifier). Performing the surgeries without the “C” arm is going to be very hard, and the procedure will not be perfect.

With the increase in the medicolegal issues related to the field of medicine, especially in orthopedics, there is no specific single method of treatment available, for a particular fracture/injury. The basic musculoskeletal emergency protocol in primary health center is the need of the day. The primary health centers lack the basic infrastructure of adequate number of splints and skeletal traction kits. The basic knowledge of applying them in a right way at an appropriate time is also lacking, mainly while transferring the patients to the tertiary care centers. This may be critical in preventing life-threatening complications such as fat embolism, which can happen in major long bone fractures such as fracture shaft of the femur.

It is true that the interns during their clinical rotation concentrate more on reading the PG entrance examination books than learning the clinical skills at the hospital.<sup>1</sup> You are right about the PG entrance examination, which can be taken immediately after the final year MBBS results. The students will have the recent memory of the subjects which they studied in their 4½ years. This also makes the internship interesting, which has to be completed before joining the PG studies. We agree with your opinion that the orthopedics should be made a separate subject in the final year MBBS. This is just like the pediatrics subject, which was with the internal medicine earlier, now is a separate subject. Similarly, orthopedics can be made separate from the general surgery. India being a populated nation has approximately one radiologist for every one lakh people, which is very less in comparison to the North America, which has one radiologist for every ten thousand population.<sup>5</sup> It is happy to know that the number of MBBS seats have increased in the recent years, and there is increased MD/MS/

Diploma seats available as well. Hopefully, India may have an orthopedic surgeon and radiologist in each and every rural government hospital at least visiting once in 2–3 days.

In our opinion, the medical education in India can be better changed to the curriculum like in the United States. In the United States of America, there is no MBBS degree as such and the students will be given MD degree. Similarly, the medical students in India can read the basic science subjects in the beginning (like USMLE Step 1), which is followed by clinical (like USMLE Step 2). Based on the passing of these examinations, the students can opt for the residency and choose the field whatever available based on their score. This will help the student to get trained in a particular subject, in which they are going to become a consultant. This will avoid studying all the medical subjects in detail, which look unnecessary. For example, a student who is going to become an orthopedician need not read the obstetrics and gynecology subject in depth. This will also open the thinking about the superspecialties, which can be directly chosen as a residency after passing the basic subjects.

In this context, we thank and congratulate the author for giving an insight into this topic.<sup>1</sup> We feel that this editorial is very much worth literature to the medical scientific community. This topic needs lots of debates and opinions, which will improve our medical education. We thank the editorial team of “Indian Journal of Orthopedics” for publishing this wonderful stuff.

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**B V Murlimanju, P R Krishnaprasad<sup>1</sup>,  
P V Santosh Rai<sup>2</sup>, K V N Dinesh<sup>3</sup>, Latha V Prabhu**

*Departments of Anatomy, <sup>1</sup>Orthopedics and <sup>2</sup>Radiodiagnosis, Kasturba Medical College, Manipal University, Manipal. <sup>3</sup>Department of Orthopedics, Srinivas Institute of Medical Sciences and Research Centre, Mukka, Mangalore, Karnataka, India*

**Address for correspondence:** Dr. B V Murlimanju,  
Department of Anatomy, Kasturba Medical College, Manipal University,  
Mangalore - 575 004, Karnataka, India.  
E-mail: flutesnowmm@gmail.com

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