PROBLEMS WITH ORTHOPEDIC SURGERY TRAINING IN PAKISTAN

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Pakistan has an ever-increasing population at 240 million. More than 50% of this population comprises of the young adults. With poor implementation of traffic laws the numbers of road traffic accidents have increased exponentially. Increase in life expectancy leading to an increase in geriatric population has also increased the load of degenerative conditions and fragility fractures. The healthcare system in Pakistan is ill equipped with regards to infrastructure and man power to deal with ever increasing orthopedic problems. In addition, the quality of training for orthopedic surgeon has lagged behind as well as we are failing to produce adequately trained orthopedic surgeons to tackle the ever-increasing workload.[1]

It has been noted for a while that there has been a considerable gradual decline in the standard of knowledge, particularly the basic sciences, namely anatomy, embryology, physiology, and pathology which are going to play vital role in development of specialty. In addition, the post-graduate training across most specialties in Pakistan is not comprehensive enough and most graduates may have insufficient training and experience to practice independently.[1]

Currently there are two pathways for training in orthopedic surgery in Pakistan i.e; MS and FCPS. The MS degree is awarded by various universities including University of Health Sciences (UHS), King Edward Medical university, Fatima Jinnah Medical university etc whereas FCPS is awarded by College of Physicians and Surgeons of Pakistan (CPSP). Both are 5-year programs and follow a similar pattern- Years 1 and 2 are spent in general surgery and allied specialties. Orthopedic training comprises years 3,4 and 5 with 2 rotations of 3 months each included in A&E, rehab or Pediatric orthopedics. The working hours of most hospitals in Pakistan are between 8am to 2pm, there the training can be classified as part time at best when we compare it to west ern countries. Once training is completed, the candidates are eligible to sit in the exit exams. Only passing of the exit exam makes them eligible to pr gress to consultant or senior registrar post.

Education with an 88-hour work week in most hospitals. Other Commonwealth countries follow pattern of training similar to the UK.

In our country the training is carried out at the same teaching institute with the residents only ex- posed to a handful of teachers/consultants. This limits their exposure in terms of types of procedures and sub-specialty expertise. Moreover, there is no parity in the facilities available in various teaching hospitals i.e; some hospitals are equipped to carry out modern treatment while others may only be able to cater to the most basic orthopedic conditions. In western countries the trainees rotated through regional hospitals and are exposed to a large number of teachers/consuls tents with a wide range of sub specialties being covered.There is no concept of in-house regular evaluation or revalidation. Regular assessments are not carried out as a result of which the knowledge is severely lacking in the trainees. There is an evident shortage of supervisors for both MS and FCPS programs. Resultantly one supervisor can be looking after 10-12 trainees which is practically impossible. Supervisors do not receive financial compensation for their mentorship, and there is a deficiency of persuasive impact of mentor- ship on their professional career. They even have to pay for the workshops required to become supervisors out of their own pockets. As a result, there is severe shortage of motivation to look after the training requirements of the trainees.

Logbook is an essential part of the training in developed countries and each trainee has to complete a set number of various procedures in order to be eligible to sit in the exit exam or qualify for a certification of completion of training (or equivalent). In Pakistan there is no clearly defined list of procedures that a trainee is required to complete. Moreover, one supervisor cannot ensure that each trainee is being allotted adequate and regular cutwork when there is such a significant mis- match in the number of supervisors to residents. As a result, the logbook has been reduced to a formality which is often filled just a few days before the exam.

Table comparing the salient features of orthopedic training in developed countries [2]

	UK	US	Canada	Australia
Youngest age at start of orthopedic training (years)	27 (ST3)	27-28	27	27
Shortest time from graduation to completion of training (years)	11	6-7	7-8	7
Duration of training programme (years)	6	5	5	4
Specialty examinations	**FRCS (Orth) after year 4 (Written and oral)**	**ABOS part 1 after year 5 (written); Part 2 after year 7 (oral)**	**Principles of Surgery examination after year 2; Part 2 after year 5**	**FRACS OPBS after year1; Part 2 after year 4**
Yearly assessment format	RITA interview	Orthopedic in-training examination		Audit of activity
Research component	Encouraged but not compulsory	Yes, must be published by postgraduate year 5	Yes, compulsory	Yes, compulsory to sit part 2
Average hours per week	56 maximums	66-80	60 excluding on-call	58-80
Training programme financier	Government	Hospital/University	University/Government	Government

Each trainee is required to carry out a research project during training and write down a dissertation or thesis. There is a glaring lack of research culture in Pakistan. Patients do not turn up for follow up appointments and record keeping are lacking. Moreover, most teaching hospitals particularly government owned tertiary care hospitals are overwhelmed with a huge number of patients turning up for treatment that teaching and research seems extremely difficult. There is no functional research monitoring cell in most institutes and residents receive very little support in con- ducting and writing their research topics. Moreover, residents are not sufficiently trained about various aspects of research and research writing. It is nearly impossible for the overburdened supervisors to monitor the authenticity and quality of research work.

Assessment of the candidate's progress in the UK and Australia is similar, utilizing a variety of modalities including operative experience documented in a logbook-minimal number of different surgical procedure have to be completed before a candidate is eligible for a CCST (certificate of completion of specialist training), research experience, and formal assessment of competency in various procedures. The US residency programmed employ an annual standardized national examination.[3]

Unfortunately, there is a palpable polarization amongst the Orthopaedic community in Pakistan into 2 camps MS and FCPS despite the fact that both degrees carry equal weight and importance. Politics in Orthopaedic surgery has created an unhealthy culture where training and education has taken a back seat. Exit examination of FCPS and MS focuses on spot performance on the day of exam. The FCPS exit examination is structured and fool proof however few question marks have been raised about the comprehensiveness of MS exit examination by some observers.

In the short term, we suggest that the Orthopaedic surgery curriculum should be revised and du- ration of training should be increased in accordance with other western countries as 3 years spent in Orthopedic surgery and that too part time is too short a duration for training. In addition, the log book should be standardized and implemented in letter and spirit. Lastly, regular assessments should be introduced to be carried out at the training institute yearly by third party assessors in- clouding POA and the degree awarding institutes so that it can be ensured that the knowledge and skill set of trainees is at a satisfactory level. At present our examination system does not evaluate or assess practical skills gained during the course of training e.g., the three key elements with which trainers and trainees will be judged in UK will be

the Multiple Consultant Reports (MCR), the Generic Professional Capabilities (GPCs) and the Capabilities in Practice (CiPs). Award of specialist degree should move to holistic assessment of the candidate rather that spot performance on the day of exit exam.

Longer term goals would be to increase the number of supervisors, provide the supervisors with some incentives for training the orthopedic surgeons of tomorrow, standardizing the facilities at training institutes and increasing the duration of work week in accordance with western countries.

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