

An Overview of Undergraduate and Postgraduate Medical Education in Nepal and Elsewhere.

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Abstract

Though Health Sciences education started in the country as far back as 1934, it was only in 1978 that the MBBS course was started. The first postgraduate (PG) course, which was started, was the MD in general practice, which was started in 1982. It is over the course of the last 22 years, and more specifically after 1993, that there has been a spurt in postgraduate (PG) education. The rapid increase of medical schools / colleges within the country during the last decade, has been the main reason for fulfilling the demand of doctors with postgraduate degrees required for different faculty positions at the newly established medical colleges.

This article also looks at the role of foreign qualifications vis-à-vis the local degree for the development of PG programmes within the country.

Key words: Postgraduate degree, diplomas, Nepal Medical Council.

Beginning of Medical Education Programmes

The Civil Medical School was started in 1934 for the training of compounders and dressers. Nursing education began in 1956 under the Ministry of Health (MoH). With the advent of the New Education System Plan, a number of Human Resources for Health training programmes for basic level workers such as Community Medicine Auxiliary (CMA), Assistant Nurse Midwives (ANM), Auxiliary Ayurved Worker (AAW) were transferred from MoH to the Ministry of Education (MoE). Then during the course of the seventies, Tribhuvan University (TU), Institute of Medicine (IoM) started certificate level of programmes in Nursing, General Medicine, Health Laboratory, Pharmacy, Radiotherapy, Physiotherapy, Health Education and Sanitation for the training of such assistants. Some of these programmes were suspended after a few years, as the manpower produced could not get jobs. Diploma level PG programmes in DA (1984), DGO (1986), DLO (1987), DCH (1987) and DMRD (1988) were also started at IoM in the eighties. Initially DLO and DMRD programmes were dropped and subsequently all the others followed suit as preference by undergraduates was for degree courses (1).

Undergraduate Medical Education

The credit of starting MBBS programme for the first time in the Kingdom of Nepal in 1978 goes to TU. Initially, the admission criteria consisted of School Leaving Certificate (SLC) together with a Certificate of Medical Sciences of 2½ or 3 years duration.

Subsequently the eligibility criteria became Intermediate Science (ISc.) Higher Secondary Education (10+2), A-level or equivalent educational background.

Presently TU, Kathmandu University (KU) and BP Koirala Institute of Health Sciences (BPKIHS) are running the MBBS programme. Besides its own School of Medicine, five other medical colleges are affiliated to KU. Tribhuvan University besides its own IoM has so far given affiliation to three medical colleges. BPKIHS, being a deemed university conducts its own programmes only and has not given affiliation to other institutions. There are quite a few other medical colleges on the pipeline. His Majesty's Government of Nepal (HMG-N) does not seem to have formulated any national policy for starting medical colleges in Nepal, and in its absence the letter of intent granted to open a medical college appears more for personal gain rather than for national need. If the number of medical colleges goes on increasing in Nepal, some of the existing medical colleges may collapse in the near future and consequently ruin the career of many medical students who are not only Nepali but also those from different parts of the world.

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Teaching Facilities

A medical college has 13 clinical and 7 basic medical science subjects. It is obligatory to have a department of Medical Education also. Nepalese faculties in clinical subjects are available in the capital but not outside Kathmandu valley. There is a great shortage of teachers in the basic sciences. A medical college for an annual intake of 100, needs about 40 basic science teachers. Presently, almost all of them come from India after retirement and are usually over 65 years. Concerned authority should give serious thought regarding the production of basic science teachers in the country. A good number of such manpower can easily be produced from candidates with non-medical background. Nearly 300 young graduates may get job opportunity. In some Universities of the United Kingdom (UK), almost 100% of basic science teachers are from non-medical background. We do not understand why the Nepal Medical Council (NMC) and our universities insist on having basic science teachers of medical background, who are very scarce commodity both in Nepal and neighbouring countries. This insistence may be because of the British colonial influence but, though the British have changed and have allowed physicians and surgeons to teach basic sciences, the Medical Council of India (MCI) continues as before and still influences NMC, by outdated concepts.

Medical graduates interested to make surgical career can teach anatomy even now in UK. Nepal Medical Council and universities responsible in conducting medical teaching programmes should agree to introduce similar system in our medical colleges. This will help to solve the problem of acute shortage of teachers in anatomy to some extent (2). Furthermore it will provide intradepartmental support for the implementation of integrated teaching which is one of the concepts envisaged in the undergraduate medical education programme in Nepal.

Training programme

The curriculum is the most important document, which directs both the medical students and faculties in matters related to training of the undergraduate medical students. All the universities with MBBS programme in Nepal should have a similar core curriculum so that the teaching programme becomes uniform in the country. Though there is room for innovation, entirely different system of medical education for the undergraduate students should not be entertained.

Presently, the evaluation system of undergraduate medical students differs from institution to institution. This is not desirable. All the universities and institutions with MBBS programme should organize a workshop and come up with a common evaluation

and training system. Instruments of evaluation should also be uniform. The MBBS curriculum of all the universities expect too much from a medical graduate within a limited period of four and a half years. The result is that the student finds difficulty in mastering the core curriculum. The present day medical students are required to know many topics and subjects, which may not be relevant at the undergraduate level. Compared to Western countries, our medical students have to face too many examinations in too many subjects. As a result of this, most of the medical students are in great tension all the time. These days most of the sub-specialized subjects are even included either in general medicine or general surgery in the West. Our excessive stress of providing too much information to medical students limits their chances of deep learning in medicine and acquiring skills, which are considered as essential qualities of a good doctor.

Postgraduate Programme at IoM

The first-degree course to be started by Tribhuvan University, IoM at MD level was in General Practice in 1982. Postgraduate degree programme in ophthalmology started in 1987. Besides these two-degree programmes a number of other postgraduate degree courses were subsequently started at IoM over the years.

Birth of Post graduate Education in the Nineties

Many of our colleagues of medical profession were very keen to start additional postgraduate degree programmes in Nepal some ten years ago. At that time, though all of us were interested in starting postgraduate programme we had very little experience in conducting these.

Dr Rambaran Yadav, the then health minister, arranged a meeting of senior doctors. Dr S.K. Kakkar from All India Institute of Medical Sciences, (AIIMS), New Delhi was invited to advise HMG in starting PG programmes. Kakkar also attended a brainstorming meeting arranged by the MoH and subsequently the ministry formed a task force as given below. At the end of three months, medical educationist and WHO adviser Dr. PT Jayawickramarajah helped this task force in producing an important document. This document was then submitted to the MoH for approval.

This is how Post Graduate Medical Education Co-ordination Committee (PGMECC) was established at Bir Hospital in 2050 BS. A task force had also to study the future direction of postgraduate degree programmes in Nepal (3). Dr Rambaran Yadav gave the responsibility to Dr DB Karki for the starting of PG programmes.

The first postgraduate medical education coordination committee was formed on 9th Jan. 1993 by the MoH in consultation with Tribhuvan University with then Dean of IoM, Dr PC Karmacharya as its Chairman and Dr D.B. Karki as member secretary. Then MoH formed subject committees in 9 subjects. PGMECC organized regular workshops and finalized the entry criteria, training programmes and evaluation systems. These criteria are still followed by TU. PGMECC office was formally established on 9th Jan. 1993 but the postgraduate medical education programme under its umbrella started in mid – April 1994 in Medicine, Surgery and Obstetrics & Gynaecology. PG programmes in ENT, Pathology and Anaesthesiology began in mid-April 1996. PG Orthopaedics programme started in mid-April 1999. Five hospitals inside Kathmandu valley were involved in the PG programmes. By 2003 a total of 208 students had been admitted into the postgraduate programmes.

National Academy of Medical Sciences (NAMS)

NAMS was established at Bir Hospital by a ministerial level decision of MoH 2059/10/3.on and consequently the existence of PGMECC came to an end. It is interesting to note that the credit of starting NAMS and merging PGMECC with it goes to another health minister Prof. Dr. UP Devkota. NAMS has been taking PG students from 14th April 2003.

Present Position

Presently TU, KU, BPKIHS and NAMS are conducting postgraduate degree programmes in various subjects. Entry criteria, academic programme and evaluation systems vary in these institutions. Tools of evaluation also differ in the criteria laid down by Universities and NMC regarding postgraduate programmes.

A historical fact that one has to keep in mind in all this is that at the advent of the private medical college in Nepal in the nineties, it was realized that there would be a shortage of teaching faculty in both basic and clinical sciences. There was thus a clause that Manipal authorities would make provision to train a certain number of postgraduates who would then be able to function as faculty. With the problems of setting up the college at Pokhara during the course of the last decade this did not take place and the possibility of doing so in Nepal seemed slim. Consequently, under a special arrangement between Kathmandu University (KU) and Manipal Academic of Higher Education (MAHE), a number of Nepali doctors and dental surgeons are training in South

India. This is however a crash programme and will last for only five years. In this context it may be recalled that at the time of the establishment of Tribhuvan University Teaching Hospital the Japanese government had made such an arrangement. The Indian government in the case of BP Koirala Institute of Health Sciences has made a similar provision.

Those involved in postgraduate programme should be directed by the national interest rather than of their own. As in the case of undergraduate programmes run by different universities in Nepal, recommendations would also be to come together and develop common consensus to standardise entry level, academic programmes and evaluation tools to favour quality postgraduate medical education in Nepal.

Postgraduate Programmes of Some Foreign Countries

Lessons on how to conduct PG programmes can be learnt from Sri Lanka Postgraduate Medical Education (4). Unlike Nepal, Sri Lanka has the experience of nearly 100 years of imparting undergraduate medical education. Sri Lanka's postgraduate medical education is influenced by United Kingdom. In the past, Sri Lanka used to offer specialist posts only to doctors with postgraduate qualification from the UK. However many doctors who went to UK from Sri Lanka for training never returned. Because of this Sri Lanka government stopped sending specialists for training to UK and made a rule that doctors with local degrees could be approved in specialist and academic posts. Since 1980, specialists with foreign qualifications have been unable to be employed on a permanent basis in Sri Lanka but can only work on contractual basis. This strategy was taken by the government of Sri Lanka to discourage specialists to leave the country and settle in affluent Western countries. Even at the present moment, many medical graduates are keen to obtain Membership and Fellowship of the Royal College of Physicians and Surgeons of United Kingdom and settle permanently in UK.

As we also have PG programmes in our own country, we should think very seriously whether the examinations of Royal College of United Kingdom in different subjects should be encouraged.

Fellowship examinations of Colleges of Physicians and Surgeons of Pakistan and Thailand are becoming popular in Nepal since last five years. Nepali Diploma holders with 3 months training in Bangkok have cent percent chances of getting Fellowship of Royal College of Thailand.

Quite a few hospitals in the Kingdom of Nepal are training doctors for FCPS of College of Physicians of

Pakistan. If universities of Nepal give blanket recognition to such foreign degrees, our own postgraduate degree programmes will have no future. To encourage our own national degrees and to maintain a minimum standard of postgraduate medical education in our country, it is high time for HMG-N to discourage foreign degrees. This is done as routine in many countries of the world. Only doctors with national postgraduate degrees can get permanent position in countries such as Australia, Singapore, Pakistan, Sri Lanka and India. We do not see any reason why Nepal should be an exception and not institute such a regulation too.

We would go to the extent of advising HMG-Nepal to make national postgraduate degree as a minimum criterion of getting government specialist and academic positions. Nepal Medical Council could form a Board of related specialists and introduce evaluation system of specialist with foreign qualification as it is done in many countries of the world.

Postgraduate Medical Education in India

The Indian Universities conduct a number of postgraduate degree and diploma programmes. Each unit with 3 full time postgraduate teachers can admit not more than 3 postgraduate students. In addition to this, a maximum of 6 students per year can be admitted to diploma courses the duration of which is 12 months. The student teacher ratio is maintained at 1:1. Duration of postgraduate degree course is 3 years whereas duration of super-specialties is 2 years. Prior requirement for super specialization is MD/MS or MRCP/FRCS. In clinical subjects PhD can be done after MD/MS or MRCP/FRCS in 2 years time. The training period for MSc (Med) is 3 years. PhD is also allowed to medical graduates with MBBS degree but the duration of training is 4 years (5).

Foreign medical graduates need temporary registration for the duration of the PG training must be allowed to work only in the medical college and its attached institution to which he / she is admitted for PG studies. Such a graduate must be registered in his own country and his / her degree must also be recognised by the National medical council or concerned authority.

Post Graduate Medical Education in Bangladesh

In Bangladesh, the medical graduates are directly admitted to super specialized postgraduate degree programme. Such an arrangement is out of step with what is happening in South Asian Association for Regional Cooperation (SAARC) and has created problems of equivalence. Such training programmes

need to be looked at in terms of equivalence with similar degrees of the region.

Post Graduate Medical Education in Pakistan

Immediately after independence in 1947, when there was a requirement for a large number of basic sciences faculty, the requirement was met by sending junior teachers for 2-year MSc courses (6). Later years have seen this number grow. From 1962 the College of Physicians and Surgeons of Pakistan (CPSP) in collaboration with the Royal Colleges of UK and the Speciality Boards in US modelled two tiers of qualifications viz the Membership and Fellowship in certain subjects e.g. Medicine, Surgery, Obs/Gynae, Anaesthesia and Pathology. The Diploma and MD/MS are awarded by universities in a limited numbers of subjects.

Nepali Doctors with PG from Peoples Republic of China and Japan

Some Nepali medical doctors going to the PR China are coming back with super specialization degree prior to doing a specialization in that area in the manner of what is being done in Bangladesh. Similarly many IoM graduates have gone to Japan and come back with PhD degrees in clinical subjects in which more stress has been given to research than clinical work.

Postgraduate Medicine in Russia

According to Prof. M.P. Konchalorsky, one may be a poor writer, a bad painter or a bad actor but a doctor cannot afford to be bad. Russia had 17 medical academies, 11 medical universities and 19 medicinal institutions. Nearly 50% of them were recognized by Tribhuvan University. The Russian Academy of Advanced Medical Studies was founded on 1st December 1930. Any foreign candidates wishing to study medicine in Russia must learn local language. The entry point is after 11 years of high school but one year is spent on PCB subjects and Russian language prior to the medical course. Local students enter medical institutes directly from high school rather than obtaining a college education first. The duration of training for doctor of medicine in Russia is 6 years. This sixth year is also known as Subordinatura After this the students must pass final examination. It is the obligation of the graduating doctor to spend at least one year of internship and 3 years of practice at an assigned place as payment for their free medical education (7).

The duration of Diploma course (clinical ordinatura) is said to vary from 2 to 4 years, and is usually done in a large city or capital after which the doctor is considered a specialist in his field (8). The degree

course (clinical aspirantura) is fixed at 3 years in Russia. Another category is the one favoured by young investigators viz the aspirantura also of 3 years of research accompanied by a thesis, which must be defended in front of an accredited scientific council. If successful, the individual is granted title of "Candidate of Medical Science", which is like a PhD of the Western world. It will be interesting to know their evaluation system. It is noteworthy that whilst TU has recognized the ordinatura as a PG degree, the Nepal Medical Council has not done the same so far.

Postgraduation in America

After passing the USMLE, quite a number of Nepali doctors have gone to the States and done the residency training in various areas. Many however have not returned and the few that have done so have come to work as specialists. What must be taken into account is the fact that medical education in the USA starts after 4 years of a Bachelor degree course. Then there is the four years medical course itself following which the newly qualified doctor is fit for the Residency programme in a hospital setting. In comparison, our young Nepali doctors are generally of 23/24 years and are in a position to set up practice after a total of 4.5 years plus one year of internship training. As far as graduates in the States are concerned, it is only after a training of 4 plus 3 years and generally at an age of 26/27 years that independent practice is allowed, albeit after taking adequate insurance for protection in the event of lawsuits.

What is however worth emulating in our system is that Health Institutions whether, private or public, are accredited for training purposes. The resident doctors are provided the logistics and the training facilities and after an appropriate period are pronounced fit to sit for the State or National Board Speciality examination as the case may be. In contrast the system here is more rigorous in that so many classes given by designated faculty must be attended and attendance verified before one can contemplate sitting for the examination. Whether the skills required for the job have been learnt or not is another matter!

PG Training in the European Union

In the context of free movement of physicians and surgeons in the different countries of the European Union, the concerned authorities are involved in the process of formal organization of specialist training. There are specific detailed training curricula for speciality training and certain standards have been laid down.

As far as we in SAARC are concerned, some meetings have been held by existing Medical Councils under the aegis of the WHO. There has been talk too of recognizing the different undergraduate and postgraduate programmes in the different countries of the region.

Universities and Medical Councils.

The minimum qualification to be a preceptor and guide for postgraduate student has been fixed at 8 years teaching experience by the NMC (9). The University criteria of a preceptor demands position of associate professor and professor in the related subject. According to University rules it is not necessary to have 8 years teaching experience to be an associate professor. This means that an associate professor, who can be a preceptor of postgraduate student according to university rules, is not eligible for the same position in accordance with the NMC regulations. Such rules between Universities and NMC is not going to be practicable to anybody involved in postgraduate programme of our country. Our strong advise to universities and NMC is to have good understanding and come up with the common norms and standards of postgraduate medical education. NMC too, should in turn respect the norms and standards of postgraduate education that the universities have laid down.

Current and Future Plan

One problem resulting from the variety of undergraduate level doctors being produced in the country, or coming from outside has been their varying standards of training. Whilst the NMC has been rigorously examining the local colleges, it has had to turn a blind eye or plead ignorance about the training of many outside of Nepal. Previously, except for the diploma / degrees that these foreign trained Nepali doctors come back with, there was no yardstick by which to assess the quality of training that they had obtained outside the country. A recent survey 2911 of NMC registered or NMA member doctors showed that 38% had trained in India, 22 % in USSR, 22% in Nepal, 10% in Bangladesh, 3.7% in China and rest of the world and 2.5 % in Pakistan (10). It is therefore fortunate that more by chance than design, that the NMC has instituted a licensing examination for all doctors wanting to practice in Nepal.

A small country like Nepal should ideally have postgraduate programmes of certain uniform standard. All the institutions with postgraduate programmes could award certificates of their own, but they should have a common basic curriculum, which will direct the faculty members and postgraduate students in all matters related to postgraduate study.

Common Entrance and Final Examinations

The minimum criteria of admission to PG medical education programmes should be an entrance examination consisting of two theory papers namely basic sciences and MBBS course. Besides this one year's practical experience in the speciality chosen is desirable. Sixty questions in one paper could be answered in 2 hours. Best single response multiple-choice questions should be the instrument of evaluation of the candidates. A panel of experts in preparing questions should be identified by the University. Ideally the difficulty and discriminating index of the questions asked to the candidates should be calculated and recorded.

Common final examinations will also help in maintaining a uniform standard of postgraduate medical education in our country. Formative evaluation should be used to provide feedback to PG students and help them to acquire knowledge and skill. It should not be added to summative evaluation as it is presently done in some institutions in Nepal. A combined common office to conduct and supervise the postgraduate study in medical science could be established. This common office could have different technical and administrative committees to run the programme. Alternatively such activities could be carried out in turns by the different institutions involved in PG programmes. This system will also be expected to reduce the cost of the postgraduate programmes. It remains to be seen whether the institutions involved in conducting PG degree programmes will be willing to work together in future. It is high time for the MoH and MoE to give serious thoughts before it is too late.

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