

## Postgraduate Medical Training in Pakistan: Observations and Recommendations

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### ABSTRACT

An appraisal of postgraduate training under the aegis of the Higher Education Commission in 2006-2007 showed strong input of supervisors and enthusiasm of trainees. Problems were evident however, beginning with the virtual absence of training for family doctors. Early moves in provision of this training are applauded. Greater undergraduate contact with primary care may help to raise its status but a trained workforce is necessary to make student placements practicable. Some uncertainties about specialist qualifications need to be resolved. Trainees' concerns focussed on the absence of stipend for many; inadequate supervision due in part to insufficient faculty; the poor condition and maintenance of some teaching hospitals; difficulties with aspects of College of Physicians and Surgeons processes; and the lack of career paths. All trainees should receive payment for their clinical duties and responsibilities; there should be a national review of faculty numbers; the management and suitability of hospital facilities should be examined. It is pleasing to know that problems at the College are being addressed; and the provision of career paths including post-fellowship experience should be a priority matter. Medical workforce planning is addressed and a call made for better data. Overcoming deficiencies will mean an increased budget for health, presently among the lowest in the region.

**Key words:** *Postgraduate medical training, Pakistan.*

### INTRODUCTION AND METHODS

Postgraduate training of doctors in Pakistan has a remarkable record. The seven medical specialists in 1947 have become eighteen thousand in 2007,<sup>1</sup> increasingly through training and qualification within the country. The structure of postgraduate medical training is undergoing revision in many countries, notably in the United Kingdom,<sup>2,3</sup> prompting assessment of current practice in others, especially those based on British systems. The scale of medical migration worldwide adds to the interest in review. An invitation by the Pakistan Higher Education Commission (HEC) gave the opportunity for appraisal of postgraduate medical training and this was undertaken over 3 months in 2006-2007. This paper describes the findings and conclusions drawn and suggests steps that might be taken following the question asked at medical colleges, hospitals and institutions, and especially of trainees: Are there ways in which training could be improved?

The survey called on the past experience of the author as hospital and university consultant, dean of a medical school in Australia, dean of postgraduate medicine in the East of England and administrator in general practice training. The evaluation was overseen by the HEC and arranged locally by universities of health

science and medical colleges. Visits were made to postgraduate training institutions in and around Lahore, Rawalpindi, Islamabad, Peshawar, Abbottabad, Karachi and Jamshoro/ Hyderabad, meeting senior staff, training supervisors and trainees.

Visits by appointment were made to the Pakistan Medical and Dental Council (PMDC) and the College of Physicians and Surgeons Pakistan (CPSP). A report with recommendations was submitted to the HEC in February 2007.

### PRINCIPAL FINDINGS: STUDENTS PREPARATION FOR POSTGRADUATE TRAINING

Visits were made to medical colleges to answer a question related to the main one: Could the preparation for postgraduate training be improved? The choice of medical career is often based on experience gained in the medical course<sup>4,5</sup> and attention has been given in many countries to providing students with as wide an exposure as possible. From talks with students and staff, it seems there is a dearth of exposure of students to medicine outside teaching hospitals and only a few examples of attachment to rural hospitals were found. The value to students of training in rural areas has been shown in other countries<sup>6,7</sup> and is likely to apply in Pakistan. Only one college - Aga Khan University Medical College (AKU) - was seen to send students to family medicine clinics or practices; the arrangements at AKU were exemplary and more such programmes are needed. In Australia and the United Kingdom (UK), all students attend family/general practices. They are thus

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introduced to quality family care at an early stage and given an understanding of its importance in a healthcare system. As below, there is a need for emphasis on family medicine in Pakistan, but it is evident that the virtual absence of a specialist family physician pathway will make undergraduate placements in primary care difficult.

### **FAMILY MEDICINE TRAINING**

A senior doctor in Pakistan informed early in the evaluation: Doctors go into family practice straight from house jobs with no training, no resources, no facilities, and they go on providing sub-standard care. This was a daunting introduction to family medicine and reports were found bearing some of it out.<sup>8-10</sup> The undergraduate teaching at AKU leads on to a postgraduate family medicine programme of international standard but there are few of its graduates outside Karachi. Continuing medical education program for family doctors was developed at Fatima Memorial System in Lahore in conjunction with the Pakistan Academy of Family Physicians and the Royal College of General Practitioners. A similar programme of lectures, recorded material and exams was conducted in Karachi in 2006. No other formal training for family practice was found in the rest of the places. A meeting of 70 family physicians at the University of Health Sciences in Lahore, early in 2007, showed keen interest and support in promotion of postgraduate family medicine training.

Approval of the Governor of the Punjab has been given for development of a university postgraduate course in the Province and similar plans are in process of formation in Karachi and Jamshoro. These developments are to be commended.

In both Australia and the UK, completion of a course of at least 3 years, including a large part of supervised practice, is mandatory for a license as a general family practitioner, a situation made easier by government involvement in funding of family practice. In view of the dependence upon family medicine by a large part of the Pakistani population, development of training is an urgent matter.

### **POSTGRADUATE TRAINING: ENTRY AND ALTERNATIVE PROGRAMMES**

Postgraduate medical training is generally based on supervised apprenticeship in a teaching hospital, mostly under the guidance of College of Physicians and Surgeons Pakistan (CPSP), leading to Fellowship of the College (FCPS). Entry to a College programme of training requires passing the Part I exam, usually undertaken in the year after completing a house job. The College had 9,036 applicants for the Part I in 2006.<sup>11</sup> The exam is demanding and pass rates in 2006 were an average of 20%.<sup>11</sup> Trainees talked about their preparation for the exam, sometimes without a hospital

post at the time, and the cost of fees for repeated attempts. An opinion I put to many postgraduate supervisors was that an exam with such a low pass rate needs review. Either the exam is wrongly structured, or those sitting are poorly prepared for the task. A different view put to me was that the tight exam limited the number of trainees to the places available. Since the exam assesses the knowledge of candidates in basic medical science, applying this to clinical situations<sup>13</sup>, the high failure rate may be due to it being taken before sufficient clinical acumen has developed. Have candidates' experience and maturity at the second postgraduate year allowed a career choice to be confirmed? Despite the problems outlined, the College entrance exam is transparent and the reliability of every question was determined with precision before scores were completed. My conclusion still remains that the Part I exam should be reviewed.

In recent times, some medical colleges have acquired Medical University status<sup>14</sup> and added to the existing number of alternative postgraduate qualifications of Master of Surgery (MS) and Doctor of Medicine (MD). There were hospital departments where most of the trainees were training for CPSP Fellowships, where many others were aiming for MDs or MSs.

It was assured by trainees and supervisors that the training programmes were identical and the research requirements leading to a dissertation were the same. The selection processes were quite different. An entry test at one medical university comprised 25 questions based on the undergraduate curriculum; applicants who scored better than 60% were interviewed by the specialty head to choose the appointees. Others described more intensive selection systems while yet others had selection that seemed to be on a purely personal basis. Final assessment included international assessors in some cases; in others the judgement seemed to be local. The contrast between CPSP and some of the university arrangements is sharp. There were found widely different opinions on the various qualifications: some believed the nationally established Fellowship had higher recognition and status than a locally awarded MD or MS. Others believed competitive systems would promote higher quality of training. The uncertainties will be settled in the employment market, both within and outside Pakistan. HEC was urged to undertake a national review of postgraduate medical qualifications.

### **POSTGRADUATE TRAINING: THE COMMENTS OF TRAINEES**

In visits to 56 training departments, I met enthusiastic and committed supervisors and other clinical staff. I found institutions where trainees were vocal in support of their supervision and training, and some outstanding training units and programmes. Training was assessed first in meetings with professors and other supervisors,

and some times a contrast was presented between staff that were eager to promote training, despite difficulties, and those who seemed overburdened by problems. The most useful information, however, came from trainees, at meetings after supervisors and others had left, when the principal question was put: Are there ways in which training could be improved? There was often a tumult of replies.

The matters raised fell mostly under five headings: payment for services; problems of supervision; hospital facilities; the College (CPSP); and career paths and prospects.

**(i) Payment for services.** Payment of trainees, or the lack of it, came up in nearly every hospital, and in some units only half the trainees received any stipend at all. Some said that after passing the CPSP Part I exam, and thus being qualified for specialist training, they felt driven to get training even without recompense. Some professors stated that they were glad to take eager men and women for whom there were no funds: How could I refuse? Others said that many such trainees had night jobs in private hospitals with the result of being too tired for their hospital work, and failing examinations. Surgical trainees, it was said, work more than 80 hours a week. In some of the hospitals, there were few nurses and much of the care of patients devolves upon trainees. The responsibility trainees carry for patient care is significant and the need to address the matter of payment for services is urgent. CPSP has said it would disaccredit hospitals that failed to pay trainees, and has done so in the past.<sup>15</sup> Little pressure could be applied to government hospitals and the unsatisfactory situation largely remains. The principle that a workman is worthy of his hire remains and it was recommended to HEC that payment of trainees be reviewed nationally.

**(ii) Problems of supervision.** Many trainees told of deficiencies in their training and assessment. Training curricula are provided by the College and some universities but trainees said these were often disregarded; training was determined by the patients available. Trainees complained of supervisors of having no time for such things, supervisor having their private work after 2 pm, the only time we have to talk to them; and the need for more faculty for the number of trainees for them to train properly. A particular concern was trainees' inability to meet with supervisors to discuss their research and dissertations. An aspect of deficient supervision seen in one institution was an excessive number of trainees for the available staff. I met with 100 in one specialty - house doctors, diploma and fellowship trainees - who said they were often on ward rounds with 25 others, of all grades. In answer to the enquiry whether this was satisfactory, there were cries of No,

No, No! The load carried by specialists is a large part of the problem - large number of patients, no administrative help, few nursing staff on whom to depend, and students as well as trainees to teach. The need was seen for a national review of staffing of teaching hospitals.

An important role of supervisors is the assessment of trainees' progress. There were few institutions with a maintained programme of formative assessment and feedback to trainees. Supervisors are required to provide annual reports to CPSP on Fellowship candidates but trainees wondered what influence these had since they saw little effect on their training. The College also asks trainees to make confidential reports on their training but again the trainees had little confidence in the usefulness of the process. In discussions at Peshawar, a trainee proposed use of a standard assessment form with questions on skills, performance and attitude, to be completed jointly by supervisor and trainee. Forms of this kind are used in other countries and development of a national assessment instrument for local use was recommended to HEC.

**(iii) Hospital facilities.** The standard of hospital facilities seemed to differ greatly. Some were excellent, some were clearly deficient. Trainees told of problems experienced in their work, of water supplies that failed in the labour wards, of electrical breakdowns. They told of difficulties in having pathology tests performed after hours.

Visits showed conditions that impact on the lives of patients and everyone working at a hospital: passages, areas between wards, and even roofs strewn with rubbish, walls stained with betel-nut saliva, inside steps so broken away as to be perilous to staff and patients. There were units where staff and others had contributed to redecoration, giving a transformation of surroundings, but the overall picture, especially in the former Civil Hospitals was distressing. The problems may lie with management but the age of some buildings militates against improvement. Circumstances like these discourage trainees from seeking a career in government hospitals and lead many to pursue careers abroad. The solution is new funding for health.

Observing conditions in rural hospitals and medical centres in several provinces highlighted the patient demand, the commitment of many doctors and the difficulties faced in attracting specialists and other staff. A charity-supported hospital in a remote area was visited, where consultant-level staff were able to be attracted and where the quality of services and facilities was high. Lessons are surely to be learned from the Sughra Shafi hospital in Narowal and its like. Such success is to be applauded - and made known.

**(iv) The College of Physicians and Surgeons.** The College has been successful in gaining recognition of its Fellowship both nationally and in countries in the region. The FCPS is eagerly sought but trainees complained of the high cost of initial registration.

It was pleasing to note that from February 2007, it will down the required fee from its previous all-inclusive sum, which is not affordable for many. Considering the monthly stipend of a junior trainee being Rs 7,000 - 15,000, depending on the Province, or no stipend at all, the reduction will be widely approved.

Fellowship training includes preparation and submission of a research dissertation, the synopsis of which must first be approved by the College. Many trainees were critical of the time limits for submission and the long delays in assessment which were said to have sometimes blocked progress in training. Of deep concern in almost every institution was difficulty in communication with departments at the College. Extraordinary efforts to get replies had been made by some trainees, to little gain. I raised these problems with departments at the College and the President in January 2007. Changes since then promise improvements for trainees in all areas. The complaints notwithstanding the assessment methods and procedures in college departments are impressive and its role in postgraduate training is effective in maintaining high training standards.

**(v) Career paths and / prospects.** An aspect of training pursued in every meeting was the future for advanced trainees: what did they see as the next step in their career? The answers were disturbing. Generally, they saw no career paths to follow, most telling that after gaining a qualification, there were few options. Salaried posts in training hospitals were said to be rare, those in rural hospitals were seen as uninviting. Many had a link to a private hospital or clinic and hoped to build on this. Others declared their intention to go abroad, either to other countries in the region or to America. Yet others had seen the apparent oversupply in their specialty and despaired of finding a job for which they were training.

An aspect of concern to surgeons was the relative inexperience of new Fellows or Masters of Surgery. A professor of orthopaedic surgery, stated to be proud of his trainees' confidence and skill when they finish training, but stressed on their needing more experience.

There was support of many for a required period of post-fellowship appointment to allow further experience and development of confidence, and a senior trainee in Obstetrics and Gynaecology in Karachi proposed just this: New Fellows should gain additional experience by doing a mandatory 1-2 years in a District Headquarters Hospital, having the incentive of a place in a teaching

hospital for good performance. Trainees in most specialties saw this approach as a new pathway and career opportunities that were lacking. Specialist training in the Armed Forces provides an example of such a pathway where post-fellowship time in rural military hospitals leads to further training at the centre. The provision of career pathways beyond Fellowship or MD/MS is seen as an essential step in making best use of specialist resources, and it bears upon workforce planning.

## WORKFORCE PLANNING

A report on the medical workforce is provided annually by PMDC, based on registration every 5-10 years. In 2005, there were 101,101 doctors with basic medical degrees, amongst whom, 17,919 had an additional postgraduate qualification.<sup>16</sup> There are problems with the reports, including the long gap between registrations, the uncertainty of the health-care role of doctors with an additional postgraduate qualification - are they qualified medical specialists, and what is their specialty; and what is the quantum of the doctors' medical work - are they full-time, part-time or are they not currently working? In many centres, there was belief that a large number of female graduates left medical practice soon after graduation. Specialists regretted the loss, telling that 80 or 70 or 50% failed to continue after completing a house job.

The data that supported the contention was none. At medical colleges, there was no evidence of follow-up of recent graduates that would substantiate the claim, and there were no PMDC surveys that would help. The 2006 PMDC report shows that 39% of all doctors are female, as are 20% of those with an additional qualification. At Dow University of Health Sciences in 2006, females made up 60% of each medical year.<sup>16</sup> Data from CPSP for 2006 show that 41% of applicants for the Part I entry examination for specialist training were female, while 36% of those who passed the Part II final Fellowship examination were female.<sup>11</sup> The figures belie the claim that most female graduates soon leave medicine but the belief that there is a significant loss of graduates remains. Many countries depend upon detailed data on medical graduates in planning student numbers and future needs for staff in specialties and family/general practice. Annual surveys of practice, coupled with annual registration are a vital part of such planning and similar developments should be considered in Pakistan.

An aspect of medical training and career development that arose in discussions with both students and trainees was their desire to continue their careers abroad. Many future plans were about going to America. The loss to Pakistan of doctors will require consideration in planning the workforce. Recent studies have shown that 11.7% of Pakistan-trained doctors are practicing in 4 countries - UK, Canada, Australia and the USA.<sup>17</sup> If

data were available for other countries, the percentage would be higher. It was said repeatedly that only a few doctors return to work in Pakistan. Medical migration has been an issue in receiving countries, but the challenge to a donor country is to identify parts of the profession whose attractions may be enhanced and disincentives overcome.

## DISCUSSION

Health is a Provincial responsibility but there is national interest in the training of doctors since standards of health and well-being and the standards of caring have national connotations. The influence of the HEC on university standards and the responsibility of the PMDC for registration of doctors and accreditation of medical colleges demonstrates the acceptance of national roles. This paper, which draws on a formal report to the HEC, calls for national reviews of a various aspects of postgraduate medical training. The paper also recommends a number of improvements that will mean increased expenditure: training courses for family/general practice; stipends for all specialist trainees; increased numbers of faculty; refurbishment and rebuilding of hospitals. All call for current health spending to be examined. A recent World Health Organization report for Pakistan shows per capita government expenditure on health in 2004 was US\$ 2.7 per annum and money devoted to health was 1.9% of total government expenditure.<sup>18</sup> The last figure is lower than in most South Asian countries (India 2.9%, Bangladesh 5.9%, Malaysia 7.5%, Sri Lanka 8.4%, Thailand 11.2%). Only Myanmar (1.4%) spends less on health. The average expenditure of 10 European governments was 15.6%; Australia spent 18.5% of government expenditure on health. The problems seen in postgraduate training reflect the level of government spending, and as claimed by faculty country-wide, an increase should have high priority.

Family doctors are stated to provide 70% of professional health care in the nation. The need for training programmes applies in all provinces and a long-term aim should be to emulate the situation in the UK and Australia where completion of training is mandatory for family/general practitioners. In both countries, regulation of practice works because of social security support of people needing health care, and this development is perhaps a more distant development in Pakistan. Problems perceived by specialist trainees have been described and all point to the need to make medical career preparation more effective and more attractive. The talked-about loss of female graduates may then be overcome and the loss of graduates through medical migration reduced. The key to both is the provision of clear career pathways and appropriate employment opportunities.

Systems of postgraduate training in Pakistan are well-grounded and future prospects are good, especially if they serve to retain this valuable resource, well trained and highly motivated doctors.

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