Integrating hospital and family practice posts in vocational training for family medicine

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SUMMARY. Postgraduate training programmes for family medicine are developing simultaneously in many different parts of the world. In the UK continuity of care is highly valued but vocational training schemes have not been able to provide continuity of care for patients throughout a three-year training course.

In Puerto Rico a vocational training scheme exists in which residents are enabled to integrate their hospital and family practice work throughout a three-year course. This arrangement is described and compared and contrasted with vocational training in the UK.

Introduction

IN April 1977, I was invited to visit the Centre of Family Medicine in Caguas, Puerto Rico. This centre is attached to the School of Medicine at San Juan, the capital of Puerto Rico, and is responsible for the first and, at present, only family practice training programme. In a separate programme it provides experience in family medicine for undergraduates.

Puerto Rico is the smallest island in the Greater Antilles, lying between the Atlantic Ocean and the Caribbean Sea. It is about 160 km (100 miles) long and 56 km (35 miles) wide. It has a population of 3·5 million and is a commonwealth of the USA. In terms of status, this means that the island is halfway between full federal statehood and colonial rule with some features of independence. Puerto Ricans do not pay federal income tax but do benefit from the Federal Aid Programme.

The town of Caguas is about 32 km (20 miles) south of San Juan near the centre of the island. It has a population of 109,000. There is a new regional hospital which is comparable to a district general hospital in the UK.

Primary care in Puerto Rico follows the American pattern, but there is a much higher proportion of medically indigent (appendix) in the population of the island than in the USA generally. The aid programme underwrites the cost of this medical care.

Since it was intended that residents attached to the programme should look after families living in the town, the goodwill of the private family physicians was necessary to allow the establishment of the programme.

The family medicine programme provides an integrated training for about 20 medical graduates preparing for family practice. The residents retain contact with and identify with their own patients throughout the three-year course, even when they are undertaking hospital attachments.

Vocational training in the UK

In the UK, vocational training schemes usually last for three years, and trainees may enter the scheme at any time after the completion of their pre-registration hospital year, that is, 12 months after initial qualification as a doctor. Of the three years, two are spent in hospital posts whilst only one year is spent in general practice, apart from one experimental scheme in Dartford, and a second in Glasgow.

The hospital posts although 'acceptable for vocational training for general practice' are usually strung together without any co-ordinated link and function as separate units of experience.

Many vocational training schemes still do not offer a day release course during the two hospital years. Some trainees construct their own programmes which may provide them with no continuity at all, and involve travelling to different parts of the country. Consequently there is often no link between individual parts of the programme.

Where vocational training schemes include a continuing three-year day release course, this may co-

ordinate the training period. Many schemes offer a placement for the trainee with a general practitioner trainer for a few months at the beginning of the course. At present, the maximum amount of integration which it is possible to achieve in British training schemes depends upon close co-operation between those acting as course organizers, general practitioner trainers, and hospital consultants. Where this exists, it is possible for the trainees to experience most integration.

Nevertheless, trainees often report that they feel cut off from general practice during the two hospital years and isolated from their fellow trainees in general practice (Exeter trainees, personal communications). Some trainees have asked for release to general practice surgeries during their hospital appointments, but service commitments in the hospital post often make such arrangements difficult.

Training programme at Caguas

Entry to the programme

After qualifying from a medical school, doctors are able to apply for acceptance on the training programme. Some doctors may already have completed a rotating internship. Since there is considerable medical unemployment in Puerto Rico, there is competition for places at Caguas and the standard of medical graduate applicants has been very high, with about three applicants for each vacancy.

Most of the candidates choosing family medicine as a career have good or excellent evaluations in their undergraduate rotations, and a large proportion have passed the National Board of Medical Examiners' test. The resident commits himself to a three-year integrated programme during which he will gain experience in looking after families and in individual specialties within the hospital. His care of families starts on entry to the programme and continues throughout the three years, even when he is acting as a resident in one of the specialties.

The Centre of Family Medicine

The purpose-built centre is linked by a covered way to the hospital. It is like a health centre with an attached teaching unit. By British standards the atmosphere is clinical. There is a reception office, a medical records office, and secretarial offices as well as consulting and examination rooms, a treatment room, and a small dispensary. There is also a small dental unit and the social worker responsible for the centre's patients also has her office in the building.

The treatment room is equipped for minor surgery and serves not only the centre's patients but also minor casualties attending the hospital. Hence, the family medicine residents fulfil a casualty service for the city hospital. It appears that this arrangement helps relationships within the hospital complex and integrates the centre's residents with the medical fraternity.

The teaching unit consists of two seminar rooms, a consulting room with a one-way mirror, and offices for the staff of the unit. It functions as an integral part of the building. A large lecture room is available for occasional use in the main hospital complex.

The primary care component of the programme

As in most other parts of the USA, very little home visiting is done by primary care physicians. Various reasons for the wholly office-orientated medical practice are given by doctors in the programme and these are discussed elsewhere.

Each resident starts with one consulting session each week, increasing the number of sessions as his list of patients builds up. Patients make appointments to see their own doctor and in the case of urgent medical need, one of the residents runs an emergency surgery each day but refers back the patients he sees to their own family doctors.

In parallel with these office consultations, the resident has other responsibilities either in the hospital or some other part of the programme. This means that the resident who is in the obstetric and gynaecology rotation, and working elsewhere in the hospital, is still responsible for his family practice patients. He will thus arrange to see patients by appointment in the centre, at times which fit in with his commitments elsewhere. For part of the three-year programme, the resident may expect to work in a small rural hospital, and during this time his patients will be the responsibility of one of the other residents. Thus, the residents work as partners in a large group practice, each covering the other for off-duty, holidays, and leave to study in other units.

Families attached to the residents

Families within the vicinity of Caguas may apply to the centre for medical care. This is the closest a patient in Puerto Rico comes to 'registration'. The families complete a socio-economic medical questionnaire which is filled in by the centre's social worker. After a waiting period, they receive a complete initial evaluation by a senior medical student under supervision and then they are assigned to a resident. Only families are accepted, though these may be from one individual living alone to a family of seven or eight. The families thus requesting care are told that the Centro de Medicina de Familia is a training unit for young family doctors. Few programmes in the USA operate in this way. Most give medical care to anyone who comes to the clinic, and many rely on university students and staff to provide the patients.

Before they are accepted as patients by the centre, it is explained that patients have both rights and responsibilities. The rights include full medical care for the whole family, charges being levied only upon those who are insured (and consequently do not themselves pay) or those who can afford the basic consultation fee (on a

sliding scale of one to three dollars, according to means). Their responsibilities are that the family must always seek its primary medical care from the centre and rely upon the family doctor to advise them on whether or not specialist referral is indicated. If patients do not follow these rules, they may be removed from the list of the centre.

Once accepted, the families are allotted to one of the residents. For the rest of his time with the training programme, that resident acts as the family doctor, other residents seeing those patients only for emergency care or whilst he is on holiday. Continuity of care of families by each resident throughout his years of training is an essential feature of the programme.

When the resident starts in the training programme, he clearly has no families under his care. However, in the first year he collects between 10 and 15 families, by the second year he will have gained 50 families, and by the end of the training programme he should be responsible for 100 families. The average family size is 4·7 and so the average list size of the resident at the end of his three years is nearly 500 patients.

The family nature of the medical care is emphasized by the use of family record folders. Good records appeared to be kept, usually in English. English is the language of medical recording even though Spanish is the general language of conversation. Amongst the medically indigent many patients have only poor knowledge of English. I was not able to determine how history-taking was affected by conversion from spoken Spanish to written English, but this system appeared general throughout the island.

It may appear that patients have little choice in their family doctor; they either accept completely the training programme, and the resident who is allotted to them, or they change to other medical services in the city. In the short time I was there, I saw little evidence of discontent by patients with the system and found many of the residents felt they had a secure and good family doctor/patient relationship. They also appeared to feel fully responsible for their patients in much the same way that a British general practitioner does.

The director of the unit and his assistant are available to the residents as supervisors. In addition, the American system encourages the newer residents to consult with a senior resident whenever difficulties are encountered or advice needed.

The hospital component of the training programme

Since there appears to be complete integration of the resident in the Centro de Medicina de Familia and the adjoining hospital, it is difficult to know exactly where the responsibility of the centre ended and the hospital began.

One of the floors of the hospital is run entirely by the centre and the 21-bed unit was used in much the same way that British general practitioners use their cottage hospital. This is apparently an unusual arrangement in Puerto Rico. It was much appreciated by the doctors associated with the programme. Residents took turns working for a month at a time as the doctor in charge of the 21 beds, and during this time he was released from most other duties in the centre, though he would, where possible, continue to see his own patients.

Table 1. A resident's rotation.

First year	Paediatrics — 3 months
	Internal medicine — 3 months
	Obstetrics and gynaecology — 2 months
	Surgery — 2 months
	Floor intern (to the centre's beds) — 1 month
	Plus one half-day consulting session each week in the centre
Second year	ENT — 1 month
	Acute paediatrics — 1 month
	Minor surgery plus VD — 1 month
	Coronary care unit — 1 month
	Dermatology — 1 month
	Psychiatry (family therapy and emergency admissions) — 2 months
	Orthopaedics — 1 month
	Electives — 3 months
	Plus three half-day consulting sessions each week in the centre
Third year	Includes several electives, 2 months in an isolated small emergency hospital as a resident, and one month to write a paper
	Plus five half-day consulting sessions each week in the centre

The specialist units in the hospital would discharge the centre's patients from their wards to the centre's wards. Indeed, patients were often admitted directly to the centre's ward for major surgery and returned directly to the care of the duty resident from the operating theatre.

This close contact between the residents and the hospital clearly helped in the matter of referral for specialist advice. Since the residents were accepted junior staff of the hospital, they were well known to most of the senior staff and could refer patients with ease. A typical resident's rotation is shown in Table 1.

All these residencies were carefully orientated towards training and by British standards the USA junior hospital doctor receives a great deal more supervision and in-service training.

One popular part of the programme was an attachment of the resident for one or two months to a small country hospital at Castaner. This hospital had 33

beds and was run entirely by a staff of family physicians. The staff were prepared to manage most emergency surgery themselves as well as general medical inpatient care. During this attachment, the resident had to give up the care of his families at Caguas.

The educational design of the course

Educational objectives for the whole training programme were being prepared. Such objectives already exist for some parts. The obstetric and gynaecology rotation, for example, had completed educational objectives designed to give a resident experience to conduct an emergency caesarian section in a part lasting only two to four months.

Individual trainees are subject to continuous assessment. A written assessment which classifies 16 aspects of clinical knowledge and attitudes from one to five is available to the director and the trainee after each rotation. It gives the trainee an opportunity to check his chief's opinion of his ability and attitudes.

All residents take the 'Core Content Review' in the first year and again in their third year. This is a test prepared by the Ohio and Connecticut Academies of Family Physicians, which provides a form of pre-course and post-course assessment.

The final assessment might be considered the Board Examination of the American Board of Family Practice (which should not be confused with the American Academy of Family Physicians). From 1 July 1978 only those who complete a three-year residency will qualify to take the examination. The training programme at Caguas is recognized by the liaison committee on graduate medical education of this Board for accreditation purposes. It is not obligatory for a doctor in the USA to obtain a specialty Board Certification but an increasing number are doing so. The Board issues a 'Diplomate' in Family Practice which is valid for a limited period only; currently recertification is necessary every six years throughout the USA.

Like many vocational training schemes in the UK, the educational design is incomplete, though evaluation of individual trainees is more thorough than in the average British scheme. I did not see much evidence of such evaluation being used as feedback to the teaching staff.

Teaching arrangements

Teaching in the centre takes place mainly in small discussion groups, all residents meeting each day (except Mondays) at 16.00 hours for an hour's tutorial. This is led either by the director or his assistant, with the help of an established family doctor from the capital, San Juan.

The family doctors who help in the teaching programme act much in the same way as the British trainer. Teaching appeared to be mainly by random case discussion and in one of the sessions which I attended we talked about the management of ingrowing toenails,

sinus bradycardia, hypertension, diabetes, and vaginal discharge. There were no case discussions involving shared patients since each doctor teacher or resident sees his own patients. This is unlike the British system where the trainer and trainee work in close association and patients seen by the trainee, although temporarily in his care, remain patients of the training doctor. The background knowledge which the British trainer has of patients presented by his trainee is a valuable component of this form of tutorial and is absent in the Puerto Rican system.

The centre was well equipped with teaching aids; videotape equipment was available for filming case discussions but there was no evidence that it was being used to help teach the consultation in family practice. The room equipped with a large one-way mirror was used for observing psychiatric history-taking and counselling.

In addition to the teaching programme in the centre itself, residents were encouraged to attend the full postgraduate sessions available in the adjacent hospital.

Administration. The director of the family medicine unit and his two assistants are both employed by the School of Medicine of the University of Puerto Rico. However, the whole of the programme is specially funded by grants from the local legislature, the US Federal Government, and the Department of Health.

For 1977/78, the budget totalled 664,100 dollars (£329,170), which included the payments of the salaries of all the doctors, nurses, and secretarial staff. The budget has increased almost threefold since 1973, largely owing to the expansion of the programme.

The School of Medicine of Puerto Rico is shortly to open a Department of Family Medicine. It is believed that the new department will be mainly connected with undergraduate education and that the Caguas centre will remain as the main postgraduate training centre for family medicine.

Discussion

Continuity of care

Others have referred to the renaissance of the family doctor and the growth of vocational training programmes in the USA (Kuenssberg, 1976; Curtis, 1977) but little has been written of integrated training programmes where the resident has a continuing responsibility to his general practice patient throughout the period of his vocational training, although Beggs (1977) described impressions of training programmes in the mainland of the USA.

In Britain, doctors are being trained to become general practitioners able to give personal, primary, and continuing care to individuals, families, and a practice population irrespective of age, sex, and illness (RCGP, 1972; Leeuwenhorst Working Party, 1977). We appear to give only lip service to the continuity of care of the patients for whom the trainee is responsible. In many

training practices, the very fact of having a trainee breaks the continuity of care which the general practitioner trainer gives to his patients. There is a fine distinction to be drawn as to whether the trainer or trainee is the patient's family doctor. Some trainees may develop such good relationships with patients that they are looked upon by the patients as being their family doctor.

This might be claimed as a triumph for the training but what does the patient feel when the newly found family doctor leaves at the end of his traineeship? Since the Caguas programme started only in 1973 it may be too soon to assess this aspect. Furthermore, patients in the USA do not expect as much continuity of care as is usual in Britain. In favour of the British system is the close association of the British trainer and trainee which gives an unrivalled opportunity for teaching and learning especially since both doctors should have knowledge of the individual patients and families in their care.

Home care

British general practitioners still visit patients at home and are not totally surgery bound. They are therefore aware of their patients' lifestyle, their home background, and the community in which they live. The importance of home visits was recently discussed by Gray (1978) in the 1977 James Mackenzie Lecture.

The almost complete absence of home visiting in Puerto Rico results from the American style of office and hospital practice. Inevitably, it leads to medical care dependent on ready access to advanced technological equipment. The more doctors use such facilities, the more the expectation of the patient demands it. The American family physician may miss clues from the patient's home environment which are relevant to his health and the management of his problems.

Assessment and re-assessment

The American system requiring regular re-certification of doctors by the appropriate Specialist Board deserves consideration here in Britain (*Journal of the Royal College of General Practitioners,* 1977). The link between seniority awards for general practitioners and attendance at postgraduate courses has now been broken. How relevant now is the recommendation of the Foundation Council of the Royal College of General Practitioners that 'continuing' education was the necessary qualification for 'continuing' membership? Should the British College now reconsider the criteria for continued membership?

After the rapid expansion in vocational training programmes in Britain, perhaps we should review our methods to help achieve the goal of producing excellent family physicians. In our re-organized and allegedly integrated health service, can we give trainees a continuing link with general practice throughout the training programme? Are all the hospital appointments relevant to the ultimate goal or do they need adjusting in length, content, or area of responsibility? Most important, does the training year truly reflect the needs of the trainee?

Appendix

Definitions

American terminology	*British terminology*
Resident	Trainee
Family medicine training programme	Vocational training scheme for general practice
Programme	Scheme
Teaching programme	Half-day release course
Course director	Course organizer
Intern	House officer
Medically indigent	Unable to pay medical fees and uninsured privately, medical costs being the responsibility of the Federal Aid Programme

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