PRIMARY CARE AROUND THE WORLD

Vocational training: work in a developing country and British general practice

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SUMMARY. I present evidence from my personal experience of vocational training followed by 18 months' work in an African hospital, to show that:

- 1. By extending and reinforcing vocational training, my time abroad was relevant to my future career as a British general practitioner.
- 2. Vocational training is a good preparation for any doctor intent on spending a limited time working in a developing country.

Introduction

MOST people would agree that developing countries benefit from Western doctors working in suitable primary health care schemes (King, 1966; Morley, 1973). However, is the experience worth while or relevant from the doctor's viewpoint if he or she eventually wishes to become a British general practitioner? Savage (1979), from her experience in Transkei, prefers 'BTAf' (Been To Africa) to 'BTA' (Been To America) because it provides a more practical experience for any doctor, particularly for future consultants. In the ensuing correspondence, Manning (1979) argued that the experience is "of great value to any potential general practitioner in this country" and suggested that a period abroad might be accepted as part of training towards general practice.

I have recently returned from 18 months' working in a West African hospital, to which I went immediately after completing my vocational training in Exeter. The evidence I present is based on my own experiences in Exeter and in Sierra Leone. From talking to many vocational trainees and to many doctors returning from similar work abroad, I believe that both my experiences are fairly typical.

The hospital and environs

Situated in rural Sierra Leone over 200 miles from the

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capital Freetown, the Nixon Memorial Hospital, Segbwema, serves a population of over 50,000 and many patients have to travel 50 miles or more over the rough laterite roads. Its 195 beds make it the second largest hospital in the country. Like all progressive hospitals in developing countries it emphasizes preventive medicine (Contact, 1979), particularly for antenatal patients and the under-fives. Static and mobile clinics in the surrounding villages are integral parts of this work. The hospital has an ophthalmic unit (run in conjunction with the Royal Commonwealth Society for the Blind) and is the main clinical centre for the American-based Lassa Fever Research Programme. It also runs the only nurse and midwifery training schools outside the capital.

Most of the indigenous population are subsistence farmers (rice and cassava) and belong to the Mende tribe. Their traditional culture, animist beliefs and ways of life are largely untouched by Western civilization. Because there is no infrastructure, the development of rural Sierra Leone will be slow.

I was appointed senior medical officer, the full complement of 'general' doctors being four. During most of this time the hospital was very short staffed—usually there was only myself and one other doctor—and there was always a severe shortage of administrative staff.

The relevance of work in developing countries to training for British general practice

Extending vocational training

Clinical

My time in Africa filled gaps in my clinical experience in two ways. Firstly, by necessity I was a generalist, in the widest sense of the word, so that I managed a wide variety of illnesses right across the spectrum of specialties; for example, in a single day I might see patients with hypertension, a strangulated hernia, obstructed labour, malaria, malnutrition, ectopic pregnancy, and so on. Now, nearly all the vocational training programmes consist of two years in hospital, divided between four to six specialties, and a trainee year. It is

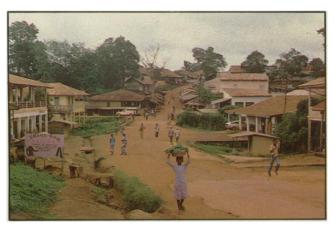


Figure 1. View of Segbwema.

Figure 2. Car trouble on a bridge.



impossible to rotate through all relevant hospital jobs in this time. My own scheme, for instance, had no obstetrics or gynaecology but this gap was more than adequately filled in Africa. Secondly, because of the large number of patients and the increased morbidity rate, I saw many diseases which are important in British medicine but which I had rarely seen before, for example, bacterial meningitis, ectopic pregnancy, cervical carcinoma, syphilis, pulmonary tuberculosis, tetanus, measles and scabies.

One argument against working in Africa is that time is wasted in treating tropical diseases. In my experience, however, with the exception of malaria and intestinal infestations, the tropical diseases constituted only a small part of my work-load. Of 200 consecutive outpatient prescriptions which I wrote, only 51 were for tropical diseases, including 20 for malaria and 25 for infestation. In any case, with the increasing incidence of such diseases in the United Kingdom—there were over 2,000 cases of malaria in 1979 (*British Medical Journal*, 1980)—it is important to be aware of them. Indeed, I diagnosed my first case of malaria, not in Sierra Leone, but in Exeter shortly before my departure.

Administration

The only professional responsibility I had in England was caring for patients as a junior doctor (SHO or

trainee), so that to be in charge of a large hospital was a novel, and at times stressful, experience. I had many dealings with cabinet ministers, the Chief Medical Officer of Health, and senior church officials, which greatly heightened my political awareness. British general practice can only benefit if more doctors are aware of the political aspects of health care. I was also deeply involved in applying to various agencies for special project funding, and in the day-to-day running of the hospital, including ordering supplies, bookkeeping and personnel management. Although highly relevant to practice management, those subjects were barely covered in my vocational training (Jones et al., 1979).

Experience

There is no substitute for experience of medicine and life, particularly experience of living and working in a different situation and culture. I now feel much better equipped to deal with the problems of immigrants, having been an expatriate living in another culture myself. I have also been privileged to observe at first hand a culture with many positive attributes, the absence of which in our own society causes concern (Yellowlees, 1979), for example, physical fitness and lack of obesity, unrefined diets, organic farming and extended families. The other side of that coin is that on returning to Britain I see with greater clarity the overdependence of patients on doctors and drugs and the markedly different disease patterns.

Reinforcing vocational training

Did my 18 months in Sierra Leone in any way continue my vocational training? I was still practising the primary care for which I had been trained, although there is a world of difference between Exeter and Segbwema. One of the reasons I believe that my African experience continued my vocational training is that I found it relevant to 14 of the 16 aims of the Exeter scheme (Gray, 1979), and I present the following as examples.

Uncertainty (Aim 12)

I had to learn to tolerate a degree of uncertainty unimaginable in English medicine and to place greater reliance on my, much sharpened, clinical diagnostic skills. Our laboratory, good by African standards, was excellent at microscopy of urine, stools, cerebrospinal fluid and blood, and could competently cross-match blood, but was unable to perform any bacteriology, histology or biochemistry. Furthermore the x-ray machine was not working. I learned it was possible to monitor the treatment of severe diabetic ketoacidosis with Clinitest tablets as the only supplement to clinical skills. Every week I diagnosed and instigated treatment of new cases of pulmonary tuberculosis on clinical grounds alone.

Education and research (Aims 4, 5, 6 and 16)

I enjoyed the challenge and stimulation of exploring the



Figure 3. A baby welfare clinic.

Sierra Leone experience with 12 medical students from England, Germany, France and Canada, who spent their elective periods at the hospital. I found myself concentrating on their attitudes—only one had had any experience of primary care—as I felt this was the key to understanding the problems and how we were facing them. I encouraged them to perform small projects, and as a result several glimpsed the enjoyment and frustration of research, although no publications resulted.

I prospectively studied the major surgery I performed during my first year, discussing the problems from the point of view of a surgically inexperienced general practitioner (Peppiatt, in press). I had to learn quickly how to fill the large gaps in my knowledge and skills; having the attitude of a generalist rather than specialist made this easier.

Medicine and society (Aims 8, 10, 13 and 15)

The most important determinants of health in Sierra Leone are social. The only way of beginning to understand what I saw in the hospital wards and outpatients was to observe the people in their villages and homes. I saw that there was no sanitation, that everybody, including young children, drank polluted water, that the women had an incredibly hard existence in a polygamous and totally male-dominated society, that child-hood feeding was controlled by grandmother with her archaic cultural views (US Office of Nutrition, 1978) and that all illnesses were first taken to the native healer who dispensed traditional, often dangerous, remedies (I saw several patients blinded by toxic eye preparations).

I was involved in organizing the hospital's community health programme (whose annual budget is less than the cost of one British heart transplant), which takes responsibility for health education and prevention for the whole population of the surrounding chiefdom (25,000 people), not just the traditional hospital population of inpatients and outpatients. Its basic aim is to change attitudes. I was fascinated to find that learning in groups is accepted as the most powerful educational method (Vandy, 1979). Often an enlightened village member discusses a specific illness with other villagers,



Figure 4. Mother and child with kwashiorkor.

and they 'discover' that drinking contaminated water causes gastro-enteritis and feeding protein to children prevents kwashiorkor. I learned that it is pointless building latrines unless the people are convinced of their benefit and will use them.

Many of the principles of health education and prevention which I had discussed during my training became a reality, and indeed a priority in Sierra Leone, and I am convinced of their importance in a British setting (DHSS, 1976).

Finally, my own illnesses—fevers, malaria, dysentery—helped me to know afresh what it feels like to be a patient! (Aim 1).

The relevance of vocational training to work in developing countries

Attitudes

My vocational training explicitly tried to change my attitudes. I found the following attitudes particularly valuable in Sierra Leone.

Since I was a generalist, I was prepared to tackle any problem in my area, whether it was clinical, teaching or administrative. Some of my colleagues with a narrower specialist training were frustrated because they were unwilling to accept responsibilities for which they had not been trained. The capacity to think critically also helped me to cope with the volume and breadth of decision-making and responsibilities with which I was faced.

The behavioural aspects of the Exeter group teaching

sessions made me more aware of my own personality and behaviour, and I was better able to cope with the staff, both Sierra Leonian and expatriate, with their wide variety of problems. In particular the ability to listen enabled me to solve problems efficiently because I could define the trouble from the start and build up sound personal relationships.

Caring for expatriates

I was the doctor whom about 30 expatriates in the immediate vicinity (missionaries, volunteers) and many others in surrounding chiefdoms chose to consult. I needed all the skills I had learned during my training, together with a certain expertise in tropical medicine, surgery and obstetrics, to help them with their problems. As well as the greater incidence of physical illness (Sierra Leone still lives up to its former name—the 'white man's grave'), psychological problems were very significant, and all were exacerbated by the climate, insects, 'cultural shock', lack of communication, difficulty of transport and what I called 'compounditis'-living and working closely together for long periods. The 140 episodes of illness among expatriates included gastro-enteritis, dysentery and infestations (70), malaria (50) and psychosocial problems (6). Repatriation was necessary for only two patients.

Most doctors in a rural post abroad will have expatriate patients, and they may find their care the most stressful responsibility of all (the elective caesarian section I performed on a German doctor's wife worried me more than any other single incident).

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Self-evaluation by residents in family medicine

Accurate self-evaluation is central to a family physician's professional growth both during and after the residency training period. Self-evaluations of residents' interviewing skills, as demonstrated in videotaped interviews with simulated patients, were compared to multiple faculty evaluations as part of an annual assessment. Means for residents' self-evaluations were lower and showed greater variations than faculty ratings but correlated significantly in several areas. Inter-rater reliability coefficients were highest when criteria were most specific. Residents benefited from the opportunity to compare and discuss their perceptions with those of objective and competent raters.

Source: Stuart, M. R., Goldstein, H. S. & Snope, F. C. (1980). Self-evaluation by residents in family medicine. *Journal of Family Practice*, 10, 639-642.

Hyperglycaemia and plasma lipid levels

The relation of plasma lipid levels to the degree of blood glucose control was explored in young, insulindependent diabetic patients. Lipid levels were also measured in 74 non-diabetic siblings. Increasingly poor control of diabetes was associated with statistically significant increases in total cholesterol, total triglyceride and lipoprotein subfractions except for high-density lipoprotein cholesterol. Diabetic patients in best control had lipid levels similar to those in their non-diabetic siblings. These data on the relation of plasma lipid levels to diabetic control lend credence to the hypothesis that poor control of blood glucose is conductive to accelerated atherosclerosis in diabetes mellitus.

Source: Sosenko, J. M. et al. (1980). New England Journal of Medicine, 302, 650-654.