Medical education

The Heinz fellowships 1960-80

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This paper celebrates a 25th birthday, a record of learning and teaching across the Commonwealth. It began in 1959, when Philip Evans (secretary, British Paediatric Association 1954-59) and Reginald Lightwood (Head of University Department of Paediatrics, St Mary's Medical School, London), convinced that paediatric teaching exchanges would improve child health within the Commonwealth, sought the support of the Heinz Company in achieving them. The Company welcomed their proposals, accepted the concept of two way teaching fellowships, joined with the British Paediatric Association (BPA) in their design, and made generous financial provision.

Effective implementation was assured when the Nuffield Foundation agreed to administer the exchanges. Good administration depends on the experience and commitment of the people involved. Throughout the first 21 years the fellowships were sustained by J C Graham, Chief Medical Officer of Heinz, and administered by David Yonge, a senior member of the Foundation, working closely with the President and Secretary of the BPA.

The fellowships

The objective was to achieve better child health through better child health teaching. Achievement would come through creating three types of visiting fellowship: A fellowships, in which senior teachers holding established academic posts would spend up to three months in appropriate paediatric departments in Britain; B fellowships where, for a year, young teachers would study relevant aspects of paediatrics in British departments; C fellowships,

which would enable young British paediatricians to visit Commonwealth countries for up to three months to carry out research and show research methods.

Applications and awards

The three types of fellowship were advertised each February in the *British Medical Journal*, *The Lancet*, and the *Archives of Disease in Childhood* and commended by letter to professors of paediatrics, secretaries of paediatric societies, and directors of medical services throughout the Commonwealth. Over the 21 years there were 530 applications and 83 awards; their distribution among the three types of fellowship is shown in Table 1.

The exercise was timed so that fellows would arrive in Britain in time to attend the annual meeting of the BPA. On arrival in London they were welcomed by the President and Officers of the BPA and, remembering that good hospitality sweetens learning, dined by the Heinz directors. With their academic programmes reviewed and adapted by the Secretary of the Overseas Committee of the BPA and arrangements for travel and accommodation explained by the Nuffield Foundation, fellows knew where they were expected and who would be their guide and friend during their stay.

Geography

The distribution of the fellows was world wide. Of those coming to Britain, India provided 25; Nigeria eight; Singapore five; New Zealand four; Hong

Table 1 Applications made (Ap) and awards given (Aw) 1960-80

Type of fellowship	1960-64		1965-69		1970-74		1975-79		1980	
	Ap	Aw	Ap	Aw	Ap	Aw	Ap	Aw	Ap	Aw
A	50	12	62	6	59	13	66	14	18	2
B	54	3	11	6	47	6	40	5	0	0
C	3	1	3	0	4	2	15	11	3	1

Kong four; Kenya three; Malaysia, Tanzania, Uganda, Zimbabwe, and Australia two each; and Malta, Zambia, Guyana, Lesotho, Ghana, Pakistan, Tonga, Jamaica, and Canada one each. The fifteen from Britain went to India, Kenya, Malaysia, Jamaica, Tanzania, Ghana, St Helena, and, beyond the Commonwealth, to Indonesia, South Korea, and Papua New Guinea. The distribution may seem capricious; each year, however, the appointing committee sought the best balance of fellowships that the qualities of the applicants and the available funds would allow.

Pattern of study

The main areas of study are shown in Table 2.

In professional visits of this kind there is always an element of academic prospecting, and fellows found additional experience down the inviting sideroads of departmental life. The senior A fellows were more involved with paediatric specialties—particularly surgery, gastroenterology, virology, immunology, haematology, neurology, mental handicap, nephrology, and endocrinology.

B fellows, in Britain for a year, sought active involvement mainly in clinical and social paediatrics and the care of the newborn. They shared in the teaching of the departments to which they were attached, and both undergraduates and junior staff found academic and personal contact with them rewarding. One fellow made special reference to this in his report: 'The enthusiasm and insight with which British students discussed paediatric practice and problems in developing countries strongly suggests a genuine desire to participate in the solution of these problems. It is therefore desirable that deliberate provision be made for fellows to meet medical students during their fellowships in order to foster this interest'.

C fellows, though naturally drawn into teaching, were concerned mainly with their research and with showing research methods appropriate for the host country. Their studies concerned urban gastroenteritis, food protein intolerance in chronic diarrhoea and malnutrition, jejunal biopsy in kwashiorkor and hookworm anaemia, malnutrition in older children,

immunofluorescent antibody techniques in virus diagnosis, gestational age and birth weight, plasma proteins in neonatal oedema, developmental review of low birthweight babies in the home, skinfold thickness and anthropomorphic measurements in mothers and infants, growth problems and family structure, incidence and character of handicap, survey of handicap services, Indian childhood cirrhosis, and paediatric teaching in a multiracial society. The success of these studies shows what can be attempted and achieved in a limited time. Brief extracts from their reports fill out this bare analysis in the fellows' own words.

'The emphasis on play and the presence of play workers in the wards was a completely new concept. And with this went the practical involvement of the family in the management of the child's illness. Despite the strong family bonds that we have in Africa we don't use parents and family in this way'.

'The project was a follow up of very low birthweight babies born between 1969 and 1973. The population was known to be mobile, and it was clear that tracing the children after such an interval would be difficult. All the computer cards with data concerning the mothers and babies were sorted according to postal area and a new print out produced. Two school leavers, one a prospective teacher and the other a prospective nurse, were assigned to help me. They were engaged in two years of compulsory social service, a practice that is common among more gifted pupils. We were surprisingly successful in finding the current address of both children and controls, and my anxiety about testing the children's development in their homes was unfounded. We succeeded in tracing two thirds of the children, and of the 70 seen, the development of 63 was considered within the normal range. This experience gave me a new insight into the background of my West Indian patients in Britain and a deeper understanding of the meaning of poverty and disadvantage in a developing country. It has also made me more tolerant of rising prices for commodities from the Third World'.

'My interest lay in the feasibility of applying the fluorescent antibody technique of virus diagnosis to respiratory infection in a developing country. I

Table 2 *No of fellows pursuing each area of paediatric study in their fellowship*

Fellows	Education	Clinical	Social and preventive	Newborn	Nutrition	Growth development handicap	Paediatric specialties
A (n=37)	7 (7)	6 (8)	4 (2)	3 (1)	1 (4)	1 (1)	15 (2)
B (n=14)	— (6)	4 (1)	4 (1)	2 (—)	— (—)	1 (—)	3 (1)
C (n=15)	3 (4)	— (1)	1 (3)	3 (—)	2 (1)	4 (—)	2 (2)

Numbers in ( )=subjects of second choice.

found no special problems in obtaining nasopharyngeal secretions. After showing the paediatric technician in the first three children how to make slides from the secretions, I left the preparation of the remaining specimens to her. The slides were stored for about two to three weeks at -20°C and then travelled back to England with me without refrigeration. From the first eight children aged from 2 weeks to 14 months, influenza A was shown in four. As far as I know this is the first time influenza A has been identified by this method in a developing country, and the possibilities for its wider application are considerable'.

'The aim was to extend my studies on oedema in the newborn. I flew to Singapore, then overland through Malaysia and Southern Thailand to Bangkok and then again by air to South Korea via Hong Kong and Japan. During the journey I visited paediatric departments in Bangkok and in Osaka and arranged for the continuation of joint studies between Chiang Mai in Northern Thailand and Oxford. I spent three months working at Il Shin Women's Hospital, the largest maternity hospital in South Korea. The first month I was in the delivery ward recording 500 consecutive deliveries and collecting specimens of cord blood. The second and third months were spent in the newborn wards teaching, through an interpreter, both doctors and midwives. I also spent time in a rural community and was impressed by the way in which the village was involved in prevention and in the sensible use of the maternity service. The return home was complicated by the difficulties of transporting 800 specimens of frozen blood from Korea to Britain. The visit was of scientific value but this was overshadowed by the overwhelming burden of illness and the urgent need for research'.

'A wide range of subjects was discussed with many people, and this has helped me to develop an overall view of social paediatrics in Britain. Taken in its broadest sense social paediatrics can be regarded as the practice of sensitive individual medicine—the concerned, courteous, caring approach that any paediatrician has, whether in hospital or community, as he views each child in his unique environment and asks, "Why does this child present to me at this time, from this family, with these symptoms?" Yet it is more than this, involving the application of epidemiological techniques to the study of environmental influences upon child health and disease—it includes the planning and application of carefully designed programmes of intervention to measure their effectiveness in circumstances of social deprivation. How can the personal and social approach come together in the interests of child, family, and society?'

Measurement and meaning

The fellows were traced for the 21st anniversary review, and how they had fared since their fellowship was considered. This had its disappointments, but we felt modest satisfaction in making contact with 66 fellows who were still active in professional and academic life.

Two senior A fellows had died. Five who, in spite of completing successful fellowships and persistent search in 1981–82, could not be found, point out the obvious lesson that effective follow up calls for continuing contact. The Commonwealth and the surrounding world offer a wide professional network through which enterprising and temperamentally nomadic doctors can move. Ten withdrawals was disappointing, but explanation, in fact or by inference, was available. One was awarded a Commonwealth fellowship and withdrew his claim on Heinz. For two more the pressure of professional need at home would not permit their release. Two decided to stay at home in case they missed a senior appointment that they believed would arise while they were away.

The remaining five pleaded 'family circumstances'. When we encourage men and women to accept overseas fellowships of this kind there is a crucial, often hidden, fact that must be borne in mind. Professional advance for one member of a family may be possible only with sacrificial support from the others, and on their return home family repayment takes precedence over all other claims. For some the cost of a fellowship in these terms may be too heavy to accept.

The value of the fellowships

We cannot measure the value of the fellowships in terms of cost benefit or cost effectiveness. Data were sufficient, however, to record the professional advancement of the 66 fellows with whom contact was made in 1981–82.

Of 37 A fellows, 15 remained in the senior positions held at the time of the award. Twenty two were promoted, three becoming faculty deans and one director of postgraduate studies. For the 14 B fellows senior academic status still lay ahead when the awards were made. By the time of this review, four were full professors and one an associate professor, and two of these were heads of department. One was in charge of child health services for a city and another director of an Institute of Child Health. Three medical officers became consultant paediatricians, a fourth a senior lecturer, and a fifth, already a senior medical officer, was made a

lecturer. Two recently appointed fellows were still lecturers in 1982. Of the 15 C fellows, four were consultants when the award was made and five became consultants afterwards. One, a senior lecturer when appointed, remained so; one lecturer and one senior registrar became senior lecturers after their fellowships. One lecturer was still a lecturer on review, and a research fellow and a senior clinical medical officer became lecturers. None were appointed to a chair, although it must be noted that 13 of the 15 C fellowships were awarded in the last eight years of the review (1973–80).

We can only say that fellows' advancement was in the right direction and that many achieved senior and distinguished positions. The conditions for selection meant that fellows were already established in, or expected to progress towards, senior positions in academic paediatrics. And the lack of a suitable group for comparison prevents any claim that fellows were promoted more rapidly or achieved a higher proportion of senior posts than might be reasonably expected from such a group. Yet contacts in person and by letter and the language of the reports suggest that this once only stimulus had for most fellows a lasting effect. Allowing for the natural enthusiasm that follows an exciting and, for many, a novel experience at a responsive age, we sense that for most the fellowship brought increased confidence, new skills, widening horizons, and a new awareness of the immense opportunities and responsibilities of child health in their own countries and in ours.

Have the fellowships been costworthy?

It is reasonable to assume that investment in able people will have immediate, and often continuing, effects on their professional development and on the development of the health services for children for which they are responsible. Where the harvest of disease is plenteous and the labourers few an injection of well trained men and women is the surest guarantee of improvement.

For the Heinz Company the expenditure of £98 000 was considerable. And in terms of the annual contribution—£2500 for the first seven years, £3800 for the second seven years, and £7500 for the third seven years—was still generous. Allowing for the decline in the value of money during the 21 years, the value of the awards kept well in step with grants for similar purposes.

One reason for publishing this review is to show what a sustained moderate outlay year by year can achieve. Heinz fellowships have been of real academic and professional value to the individual fellows and through them, we believe, are contributing to more relevant services and to a better quality of child health in a range of countries in the Commonwealth.

The Heinz Company and the BPA value their partnership, and the seal of the Company's satisfaction is its willingness to continue funding the fellowships that bear its name. We hope their example will be followed by other socially aware and responsive companies.