A liberal education: teaching, learning and research in general practice

ROGER JONES

Introduction

IT is a considerable honour to be asked to deliver the William Pickles lecture. I am grateful for this opportunity to record and review some of the recent successes of general practice and to look ahead at the challenges and opportunities facing us. It is a particular pleasure to give this lecture in this part of Wales, where I was a frequent visitor during my school days.

William Pickles, along with McKenzie,[1] Fry,[2] Morrell,[3] Howie[4] and others (some of whom have delivered this lecture), was a landmark figure in the development of academic general practice. *Epidemiology in country practice*,[5] published almost 60 years ago, remains fresh, relevant, and an inspiration. No less inspiring is John Pemberton's biography of Pickles, *'Will Pickles of Wensleydale: the life of a country doctor'*,[6] with its account of those extraordinary days. Pickles was born in 1885, and his life spanned some of the key developments in British medicine. It is particularly appropriate today to recognize the enormous impact of the National Health Insurance Act, introduced by David Lloyd George's liberal government in 1911, and the National Health Service (NHS) Act of 1948, brought to fruition by another silver-tongued Welshman, Aneurin Bevan. At a time of unprecedented change and uncertainty in our health system, we can only hope that today's leaders act with as much wisdom, altruism and vision as their predecessors.

Last year's William Pickles lecture was given by Ian McWhinney, who urged, in his concluding comments, that:

> To realise our potential, however, we have other work to do. Thinking in the way I have described may be natural for us, but it is still difficult, for we are all, to some extent, prisoners of an unreformed clinical method and the language of linear causation and mind/body dualism. The fault line runs through the affect-denying clinical method which dominates the modern medical school.[7]

I would like to take McWhinney's remarks as a starting point for my description of the way in which teaching, learning and research in general practice are contributing to the creation of a truly liberal and liberating education for undergraduate medical students, trainees, and experienced general practitioners (GPs), and to contrast some of the events of Pickles' life with more recent developments in general practice.

Tomorrow's doctors

The General Medical Council (GMC) has produced three important working party reports on reforming medical education; the first two were largely ignored, but the most recent, *Tomorrow's doctors*, published in 1993, has had a profound effect in stimulating curriculum reform in medical schools in the United Kingdom (UK).[8] Among other recommendations is a strong message to increase the contact that undergraduate medical students have with primary and community care settings, to emphasize the theme of public health medicine, to encourage a style of teaching and learning that depends on curiosity, not on acquisition of knowledge by rote, and to foster the teaching and assessment of communication skills and the inculcation of attitudes and values appropriate to the profession of medicine. In the last century, Thomas Huxley had warned that the load of factual knowledge placed on medical students was so great that it was in danger of breaking their intellectual backs.[9] We are now working hard to identify the essential core of knowledge, skills and attitudes required by a graduating medical student. We are also wondering about the implications of an undergraduate core of learning for postgraduate training.

When William Pickles entered the Medical School of the Yorkshire College, later to become part of the University of Leeds, students encountered rather less difficulty than today in securing admission, which at the time depended largely on their parents' ability to pay the fees. Nowadays, competition for medical school entry is fierce, and my own school receives over 2000 applications a year. High academic achievement is the norm, and this has to be supplemented by maturity, commitment, interpersonal skills and well-developed extra-curricular activities. Medical schools face the challenge of providing an adequate education for their qualifying students while keeping alive a spirit of enquiry and a sense of empathy and humanity. Key features of the emerging undergraduate curricula include early contact with patients during the traditional pre-clinical period; the identification of a core curriculum of knowledge, skills, and attitudes, with options and special study modules undertaken in specific areas; attention to the teaching and assessment of communication skills; the integration of basic science and clinical teaching; appropriate methods of assessment; and a preparedness to evaluate and modify teaching method and content, based at least in part on student feedback.[10]

At the time of William Pickles, the main contact between medical students and the community took place during the obstetric attachment, which provided Pickles with

> his first opportunity to observe at first hand the mean and sordid conditions under which so many people in Leeds were born and lived. Instruction in obstetrics was indifferent and no one bothered to find out whether Will had even seen a baby born before he delivered his first. As it happened, when he arrived he found to his great relief that the child had already been born. Later on he became more effective, and learned to spread out the brown paper on the

R H Jones, MA, DM, FRCP, FRCGP, MFPHM, Wolfson Professor of General Practice, UMDS (Guy's and St Thomas's) London. The text is based on the 1997 William Pickles Lecture, which was delivered at the Spring Symposium of the Royal College of General Practitioners in Swansea on 6 April 1997.

> iron bedstead which had been trundled into the stone floored kitchen. He learned to calm the frightened woman who paced about in her day clothes, and who from time to time gripped the back of the kitchen chair as the pains of labour recurred. At first impatient with the old handy-women, with their morbid prognostications and filthy appearance, who came to help on these occasions, Will came ultimately to tolerate and even respect them for the real comfort and practical help they gave in the dismal watches of the night. When the labour was obstructed or delayed he would send a messenger to the hospital to ask the Resident Obstetric Officer to come quickly. This calm and superior being would then apply the forceps while Will administered chloroform.[6]

Today the contacts with the community that we arrange for our students are rather better-planned than this, although a number of schools now take the opportunity of introducing pre-clinical students to women in their final trimester for them to obtain experience about normal pregnancy, childbirth, and the effects of a new baby in a family.[10]

Communication skills teaching is now an important component of the pre-clinical as well as clinical phases of undergraduate medical education. We use video, role play, and actors, as well as observing consultations between students and patients, to teach the fundamentals of interpersonal communication, consultation skills and respect for patients and their particular worlds[11] — a contrast from Pickles' day when on one occasion, while he was having a friendly talk with a patient, the ward sister rebuked him in a loud voice saying 'Mr Pickles, don't you think its time you stopped gossiping with this patient?'

In Pickles' day too, the scientific knowledge underpinning medicine was scarce, and successful diagnosis depended upon long experience rather than knowledge; departments of pathology had only just been set up, and the use of biochemical and other tests, or of X-rays and other imaging techniques, was at that time undreamt of. As well as integrating the traditional basic sciences of anatomy, physiology and biochemistry throughout today's undergraduate curriculum, we are at last redefining the scope of the basic sciences, so that they now include the important contributions of epidemiology, sociology and psychology.

Just as teaching by humiliation has given way to a more student-centred model of medical education, so our methods of assessment have evolved. When Pickles was examined in clinical surgery, which he failed during his examinations for the licence of the Society of Apothecaries, one examiner uttered words that Pickles never forgot or forgave: 'What the hell did you say that for, Sir?' [RJ: Might readers like to know what Pickles had said?!] Our assessment methods have become more humane and more appropriate. As well as examining students' knowledge, the use of the objective structured clinical examination (OSCE) is becoming widespread as a means of testing both clinical and communication skills throughout the medical course and at the time of the final qualifying examinations.[12]

The recommendations of the GMC should, if interpreted and followed appropriately, lead to new medical curricula in which factual overload is avoided, curiosity and empathy are nurtured, and attitudes appropriate to the practice of medicine in the twenty-first century inculcated and sustained. Many of these developments and curriculum reforms have been led by academic departments of general practice, who can share much of the credit for moving towards a more liberal medical education.[10]

Academic general practice

Pickles was interviewed shortly after his 80th birthday, in 1965, by *Medical News*.[6] The passage from the interview recorded by Pemberton remains relevant more than 30 years later:

> *Interviewer:* For a number of reasons there is much apathy — almost despair — among GPs today. Can you offer any advice for improving the situation?
>
> *Pickles:* I know what you mean and cannot suggest much for some of the causes. But I think that some GPs might be happier if they thought more of their opportunities.
>
> *Interviewer:* Are there any?
>
> *Pickles:* Well, I meant from the point of view of studying mankind. Each one of us has the chance of adding a little to the sum of human knowledge, and most GPs consider that this would be nonsense. But nothing is further from the truth. Our observations are direct and the contact is human and we can often supply facts which no other members of the profession can. We see disease in its early stages — very rarely a chance of a specialist — and we can follow it through from the beginning to the end of the illness.
>
> *Interviewer:* What is your attitude to GPs having higher degrees — do you think they are better doctors for them?
>
> *Pickles:* I don't think the letters count. What is important is working for degrees and diplomas because it keeps you active and up to date.

Over the past 30 years, academic departments of general practice have grown enormously in size and influence. There is a chair of general practice in every medical school in the UK. Academic departments of general practice are typically multidisciplinary, with clinicians working closely with sociologists, psychologists, statisticians, information technologists, anthropologists, and others to answer the increasingly complex questions involved in the evaluation of the delivery of primary health care at the end of the twentieth century.

The Association of University Departments of General Practice (AUDGP), the academic and representative organization in the UK, now has a membership of well over 400; many of the members of the AUDGP are non-clinical researchers, reflecting the increasing importance of the above disciplines to research in primary care. The AUDGP has been active in publishing surveys of the research activities of the university departments of general practice, in proposing career structures for academic GPs working in undergraduate and postgraduate departments, and in attempting to map the future pattern of undergraduate teaching in the community as the imperative to teach more of the curriculum outside medical schools becomes increasingly strong.[11,13]

The AUDGP has been involved in negotiations on a number of important topics. For many years we have sought to secure appropriate funding for GPs teaching undergraduates in their surgeries. These negotiations culminated in 1994 in the Winyard report,[14] which proposed mechanisms for allowing the service increment for teaching (SIFT) to flow from the teaching hospital trusts into general practices, working with the university departments of general practice and in contract with the regional health authority. Following publication of the Culyer report,[15] which suggested means of supporting research and development in the NHS, we have contributed to the National Review Group on Research and Development in Primary Care's report to the Department of Health, due to be published shortly. AUDGP members have also had important input into the recent topic review of research in primary care conducted by the Medical Research Council, and have provided evidence for the House of Lords' Select Committee report on research in the NHS, which has led to the setting up of the working party on clinical academic careers, currently being chaired by Sir Rex Richards.

Interfaces

Academic departments of general practice are still regarded by many NHS GPs as ivory towers, pursuing activities of little relevance to day-to-day clinical work in general practice. While I do

not believe that this is true any longer, it is a perception that requires attention. Clearly, some activities (often relating to survival within our university system, such as the four-yearly Higher Education Funding Council (HEFCE) Research Assessment Exercise) are of no direct concern to NHS practice, but much of our energies are spent on work of direct relevance to teaching, training, and service development in general practice. Indeed, if the academic departments are not explicitly linked in productive collaboration and cooperation with NHS practice, then much of their *raison d'être* will disappear. There are, I believe, a number of key interfaces between academic and service practice that I would like to examine using examples from activities in my own and other departments of general practice in London.

Training

Although traditionally and historically separated by financial and administrative arrangements, postgraduate training and undergraduate teaching in general practice are becoming linked more and more closely. In at least one Scottish university a joint department now exists, and there are close working relationships between undergraduate departments and the postgraduate networks in many other centres. In London, as part of the London Implementation Zone Educational Incentives (LIZEI) programme, set up to improve recruitment and retention of GPs in inner London, we are involved in a number of innovations related to vocational training.[16] As well as contributing to teaching on the traditional vocational training scheme programme, including modules on research methods and evidence-based medicine, we are participating in the London Academic Trainee scheme, in which GP registrars undertake a fourth year of their training programme in an academic department, where a reduced clinical commitment is combined with the opportunity to develop skills in teaching and research. Now approaching the end of its second year, this has proved a popular and successful scheme, attracting high-calibre registrars to the academic departments in London, many of whom are making career plans to remain in the inner city. Academic departments have also contributed to the vocational trainees associate scheme, in which recently trained doctors, not wishing to make an immediate commitment to principalship, are supported in working in inner-city practices where recruitment has traditionally been difficult.

Many academic departments offer Masters courses in general practice, and a register of these is now held at the Royal College of General Practitioners. These are generally day-release courses, extending over one or two years and usually incorporating a research project; they would also cover other topics including medical sociology, ethics, critical appraisal, personal and professional development issues, and clinical skills.[17] Higher degree supervision is also an important part of our work, and many of our MD students are pursuing their research in practices outside the university departments.

Teaching

The involvement of NHS GPs in undergraduate teaching is perhaps the most significant of the interfaces between academic and service practice. Because of the increasing amount of community-based teaching in the undergraduate curricula across the country, more and more GPs are becoming involved in surgery-based teaching. Faced with an intake of over 200 students each year, and the necessity to place them all in the community at the same time during their pre-clinical teaching, we now have a network of nearly 100 GP tutors in South East London to whom our students travel for surgery based teaching. As well as providing an important introduction to patients in their home and community environments, this experience balances the predominantly laboratory and hospital-based work of the remainder of the curriculum, is an important shop window for general practice, and (perhaps most relevantly to medical education) offers a unique opportunity for one-to-one teaching, where interpersonal and clinical skills can be taught and honed in response to learners' needs. The provision of support for our teachers, with workshops, study days, training courses and outreach visits, is a further key responsibility of the university departments.

No less important is the seminar teaching provided in the departments of general practice for undergraduates, to which NHS GPs also contribute. As the notion of academic practices develops, so departments are identifying sites in the community where students can be based for much of their general practice attachment, and where opportunities for video-recorded consultations, role play, seminar work, and project work exist, in addition to the surgery teaching that forms the core of the undergraduate attachments. These practices are often also involved in research, and one vision is to bring SIFT and Culyer funds together to support these community resources.

Other innovations, creating links between academic and service practice, are taking place. We are about to open a primary care skills centre, adjacent to our department, in which information technology and computing training, communication skills training, and clinical skills teaching will be available for all members of the primary care team. We will be able to teach receptionists and practice staff, practice nurses and nurse practitioners, GPs, trainees, and medical students, using leading-edge technology and modern teaching and assessment methods. Establishing a centre of this kind requires close cooperation between the university, grant-giving bodies, the health authority, and colleagues in postgraduate general practice, and we hope it will lead to closer working relationships between the various professional groups who will use it.

Pastoral

General practitioners working in NHS practice are also playing an increasing role in the pastoral care of undergraduate medical students. Faced with the complexities of living in an often hostile urban environment, and a course that may be taught on several sites, continuity of pastoral support is increasingly important. It is possible to take advantage of the trend towards longer-term attachments in the community in order to supplement the pastoral care provided by medical schools' personal tutor systems. In a number of schools, students have intermittent contact with the same general practice or GP over a period, often of years, providing an element of continuity that may not be easily available elsewhere. Students may also find it easier to discuss academic and personal problems with a professional whom they know, and who is not clearly identified with the medical school hierarchy.

Research

Supporting GPs wishing to undertake research projects has always been a key aim of the academic departments of general practice, and most of us have tried to make access to the skills of our departmental members as easy as possible. Until fairly recently this has simply meant informal research contacts and networks around academic departments, often depending on personal relationships and enthusiasms. More recently, however, links between academic departments and NHS practices have become more formalized, and research networks have developed in many parts of the country.

An early example of these was NoReN in the north-east of England, centred on the department of general practice at Newcastle upon Tyne. This was closely followed by WReN, the

Wessex research network, and others have now been set up in the Midlands, Trent, and elsewhere. In South Thames, STaRNeT, the South Thames research network, was inaugurated in 1996. STaRNet is funded by the South Thames Research and Development directorate, and is coordinated across the region by the three university departments of general practice at St George's, King's, and UMDS (Guy's and St Thomas's, London). We are still putting the final touches to the network, which will eventually include 15 'core' STaRNet practices, contracted for two years with the medical schools, each of which will link with five further practices interested in research, development, dissemination and implementation, so that a total of 90 practices across South Thames will eventually be involved. As well as providing a framework in which individual practices can develop their own research proposals, STaRNet provides a powerful mechanism for multi-practice studies and for the evaluation of health service developments, including clinical guidelines.

Service development

Close working relationships between academic departments and health authorities has frequently led to important developments in the delivery of services, particularly in terms of encouraging an evaluative medical culture and incorporating evidence into clinical practice. In South Thames, examples include the development of an out-of-hours cooperative for GPs and clinical guidelines for the management of dyspepsia and *Helicobacter* infection, the exploration of alternatives to traditional outpatient referral, an educational and research programme on the optimization of the use of laboratory services, and a number of projects concerning the provision of care in accident and emergency departments and primary care centres.

In Greenwich we are working with the health authority to identify the barriers to the provision of a range of high-quality services in inner-city practices. A research team, working on a three-year project, and consisting of a clinical research fellow, an R&D nurse, and an administrator, are making contact with all GPs, practice nurses, and practice managers in the London Implementation Zone (LIZ) area of Greenwich and Bexley, and setting up a number of service delivery interventions aimed at improving aspects of practice management, practice nursing, and clinical performance. In north Catford, near Lewisham, an area traditionally under-provided with high-quality primary care, we are establishing an innovative primary care centre, along the lines of the resource centre in Newcastle, in which GPs with appointments in the academic department are working closely with the health authority to create a comprehensive primary care service for an under-privileged community.

Finally, the LIZEI scheme has enabled us to provide a range of mid-career opportunities for established GPs. Many of these are working with academic departments in South Thames on teaching and research projects; we are operating a clinical fellowship scheme, in which NHS GPs are funded to take one day a week out of practice and to link with our department and with trust hospital clinical directorates to acquire specific skills and training in areas such as gastroenterology, dermatology, and accident and emergency medicine. As well as contributing to the first aims of the LIZEI programme (to increase recruitment and retention of GPs in inner London), these schemes provide much-needed refreshment for hard-pressed principals.

International links

Despite problems with morale, recruitment and retention, and uncertainties about the future, general practice and primary care remain, for many of us, the jewel in the crown of the National Health Service. As well as appearing to be associated with a highly cost-effective service, this strong primary care sector offers a style of personal and continuing care that is difficult to find in most other countries around the world. Unsurprisingly, the skills of NHS and academic GPs are in demand in countries wishing to establish and develop effective systems of primary care, and academic departments around the country are playing their part in settings as diverse as South America, Bulgaria, Khazakhstan, Thailand, Malaysia, and the Gulf.

In a collaborative, European Union-funded project with the University of Nijmegen (The Netherlands) and Charles II University (Prague), we are helping to introduce a community-based component into the undergraduate curriculum in the Czech Republic, teaching GPs about undergraduate teaching, and introducing computer-assisted learning to support these developments. Working jointly with King's College School of Medicine and Dentistry we have established a Centre for Caribbean Medicine with the University of the West Indies. As well as leading to research collaboration in areas such as mental health, haemoglobinopathies, psychiatric illness, and cardiovascular risk factors, this joint venture has produced an education and training programme, an important component of which will be to establish undergraduate and postgraduate exchanges between South London and the Caribbean, and to establish a scheme whereby recently trained GPs in both settings can undertake exchange visits; this is important for South East London, which has a very large Afro-Caribbean population but very few GPs who were trained or who have practised in the Caribbean.

Conclusions

At a time of unprecedented change, opportunity, and potential threat to our health service, the liberal traditions of teaching, training, and research in general practice need to be guarded and nurtured with care. To consolidate and extend the academic base of general practice, and to cement the key links between the university departments, postgraduate general practice, and NHS practice, we now have to pay attention to a number of crucial developments. We must continue to press for appropriate levels of funding for GPs involved in undergraduate teaching, both in terms of providing 'placement' payments and of seeking 'facilities' funding for practices in which seminars, video-based teaching sessions and specific clinical skills teaching take place.

The university departments themselves require continued support if their role as research and teaching centres of excellence is to be sustained. Higher education funds are scarce, but research and teaching performance needs to be optimized to ensure continued core support for these departments. The availability of 'Culyer' funding to support research and development in primary and community care settings is welcome, but, as with SIFT, we must remember that this money is currently largely spoken for by teaching hospital trusts, and strong arguments will need to be deployed in order to shift resources from the hospital to the community. Finally, we should consider, when appropriate, the application of other NHS levies, including the non-medical education training levy and the medical and dental education levy, as a means of supporting the infrastructure of research and development, and of dissemination and implementation in primary care, particularly as our concepts and practice of teaching and training in primary care become increasingly multidisciplinary.

This is a daunting agenda for the next few years. The AUDGP is unable to work alone and, through the Conference of Academic Associations of General Practice, is supported in its negotiations by the Royal College of General Practitioners, the General Medical Services Committee of the British Medical Association, the Joint Committee for Postgraduate Training in

General Practice, and the Conference of Regional Advisers. We need to encourage, at all levels, links between undergraduate, postgraduate, and service general practice. We will have to work hard to hold a shared vision of the future at a time of increasing diversity and fragmentation. We will have to work even harder to ensure that some of the matchless characteristics of NHS general practice and the present exciting opportunities for teaching, learning, and research are not lost in arguments over resources, roles, and rationing. I feel very privileged to be able to say that, after almost 20 years in general practice, I have always looked forward to the start of each new day, and I hope that the liberal education to which we all contribute will ensure that future generations of undergraduates and GPs enjoy the same opportunities that have been afforded to many of us.

I was not born when William Pickles delivered the Cutter Lecture at the Harvard School of Public Health in Boston on 12 April 1948, but an extract seems to me an appropriate way to end this Pickles lecture:

> I do hope I have been able to pass on to you a little of the atmosphere of a busy country practice in England and as I speak from 37 years personal experience it is a full and happy life. It may of course be a mere repetition of irksome tasks but this is probably the fault of the practitioner who, like Bunyan's man with the muck rake, rakes to himself the straws and sticks and dust off the floor and can look no way but downward regardless of the crown which is being held above his head.[6]

References

1. Mair A. *Sir James Mackenzie MD. General practitioner 1853-1925.* Edinburgh: Churchill Livingstone, 1973.
2. Fry J. Profiles of disease. Edinburgh and London: Churchill Livingstone, 1966.
3. Morrell DC. *The art of general practice.* Oxford: Oxford University Press, 1991.
4. Howie JGR. *Research in general practice.* 2nd edn. London: Chapman & Hall, 1989.
5. Pickles W. *Epidemiology in country practice.* London: Royal College of General Practitioners, 1984.
6. Pemberton J. *Will Pickles of Wensleydale: the life of a country doctor.* London: Royal College of General Practitioners, 1984.
7. McWhinney I. The importance of being different. *Br J Gen Pract* 1996; **46:** 433-436.
8. General Medical Council. *Tomorrow's doctors.* London: GMC, 1993.
9. Huxley T. *Address to General Medical Council on university education.* London: GMC, 1876.
10. Robinson LA, Spencer JA, Jones RH. Contribution of academic departments of general practice to undergraduate teaching, and their plans for curriculum development. *Br J Gen Pract* 1994; **44:** 489-491.
11. Doherty E, McGee HM, O'Boyle CA, *et al.* Communication skills training in undergraduate medicine: attitudes and attitude change. *Ir Med J* 1994; **85:** 104-107.
12. Elnicki DM, Shockcor WT, Morris DK, Halbritter KA. Creating an objective structured clinical examination for the internal medicine clerkship: pitfalls and benefits. *Am J Med Sci* 1993; **306:** 94-97.
13. Higgs R, Jones R. The impacts of increased general practice teaching in the undergraduate curriculum. *Education for General Practice* 1995; **6:** 218-225.
14. NHS Executive. *SIFT into the future.* Report of the Advisory Group on SIFT. London: HMSO, 1995.
15. NHS R&D Task Force. *Supporting research and development in the NHS.* London: HMSO, 1994.
16. Hilton S, Hill A, Jones R. Developing primary care through education. *Fam Pract.* [In press.]
17. Smith LF. Higher professional training in general practice: provision of master's degree courses in the United Kingdom in 1993. *BMJ* 1994, **309:** 478.

Address for correspondence

Professor RH Jones, Department of General Practice, UMDS (Guy's and St Thomas's), 5 Lambeth Walk, London SE11 6SP.