MEDICAL PRACTICE

Contemporary Themes

The value of a university department of general practice*

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I am proud to be an academic, a value judgement that I hope in some measure to substantiate in this paper, but I have no illusions about the continuing need to re-examine the case for medicine as a university subject. Especially now the credentials for clinical medical education remaining within the university system need to be reaffirmed, so let me briefly mention some views of the purpose of higher education.

Purpose of university education

Over a century ago Cardinal Newman argued the case for a non-vocational institution of learning¹; he likened the university to a mental gymnasium, in which, unhampered by practical considerations, the powers of the mind should be generally developed and, thus equipped with principles, be able to tackle problems of the future. Just 20 years ago in a notable essay on the university and medicine Himsworth² opined that higher education was principally concerned with developing the power to form judgements. He argued that, whereas technological training aims to develop competence in the application of existing specialist knowledge and procedures, university education aims to equip people to deal with problems and situations as yet undefined. He added that, as the unknown cannot be particularised, this higher education must necessarily be broad and representative. A third view is that of Livingstone, the educationist, whose philosophy of the first rate strongly

appeals to me. He suggested that there is a universal need for standards of value and judgement in all areas of human life,³ and went on:

"I would prefer to say that an educated man knows, and an uneducated man does not know, what is first rate and that the best educated man is he who knows the first-rate in the most important human activities. Our education should train our youth to desire, recognise, and pursue the first-rate."

If I may try to incorporate these views in a single germane statement, I believe that the central aim of university clinical education is to guide student learning of the knowledge (of principles and facts), of the techniques, and of the attitudes that are necessary for the development of the power to form first-class medical judgments on a representative sample of patients. Implicit in that statement are four principles: (1) Whatever the clinical subject, the laws of evidence are similar. (2) Learning includes understanding (and appropriate action). (3) Quality of knowledge can be discriminated only by critical testing. (4) Neither a nihilist nor an empiricist be (judgement exercises choice).

If these statements are acceptable—that is, given broad agreement on the aims of the undergraduate clinical years—we may now proceed to the really critical question: when a claim is made that a certain body of knowledge merits the status of an independent academic subject what criteria should be used in judgment?

Criteria of admission

I shall try to answer the question in terms that are applicable not only to academic general practice but also to such present academic distinctions as medicine and therapeutics, bacteriology and microbiology, surgery and surgical science, and obstetrics and human reproduction.

Criteria are perhaps not as easily come by as once was so. When surgery was always a matter of the knife and the anaesthetic it could be differentiated without question. But now that physicians carry

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out endoscopy and surgeons treat sepsis with antibiotics, when rheumatologists and orthopaedists both use intra-articular injections for arthritis; when haemorrhoids seem to be as well treated by anal dilatation, rubber bands, injection, or extirpation I think most observers would agree that clinical boundaries are blurred. There are, however, at least four criteria that we can use today.

Firstly, there is the kind of *morbidity* covered by the prospective clinical entrant to the academic family; if this area of knowledge of disease (or health) is substantial, distinct, and not duplicated, surely the student's learning will be unrepresentative without it. Secondly, comes *technique*: does the subject require for definition and solution of its problems skills that are different in at least some important respects? Thirdly, is there a point of view, a *philosophy*, characteristic of the discipline? And fourthly, can the subject support active *research*, and does it show evidence of critical self-analysis, experimental thinking, and active progressive development?

Does general medical practice qualify?

By these criteria does general practice qualify for inclusion as an independent university discipline?

Distinctive morbidity—It may confidently be stated that general practice does embrace the prevention, diagnosis, and management of illnesses and diseases not covered by other medical specialties. The well-documented fact that no more than 15% of patients are referred to hospital and the detailed analysis of the remaining 85% that is now available clearly indicate that the general practitioner is dealing daily with patients whose complaints are quite unknown to specialists. Moreover, since almost all of the 15% passed on to hospital are first seen by their general practitioner, often at a very early undifferentiated stage of disease, this must also be reckoned a distinctive feature of morbidity. The prevalence of non-hospital illness will not alone suffice as an argument for including general practice in the student's experience; the severity of the illnesses must obviously (but not exclusively) be considered. Nevertheless, any illness that inconveniences, discomforts, or dismays patients must be given due educational weight along with those that threaten life, limb, organ, or sanity. I hope these views will convince all but the incorrigibly prejudiced that on this criterion of distinctive morbidity general practice qualifies for a substantial teaching place in the university clinical division.

Techniques of analysis—Slowly but surely, documented evidence is substantiating the claim that in defining (or diagnosing) and solving the clinical problems presented to him the general practitioner more than any other specialist takes into account not only the pathology of the illness but also the psychology and sociology of his patient. Perception of abnormal feelings or signs by the patient, his decision to seek medical care, the way he offers his illness to the doctor, his acceptance of treatment all affect and are affected by the family doctor's analysis of the consultation to a much greater degree than in hospital medicine (but I make no claim to exclusiveness). Because the competent family doctor usually knows a good deal about the patient as a person and about his physical and social environment he is in the best position to observe the probable causal associations between illness, personality, and environment and to act accordingly, be it preventively or therapeutically. It is not merely incidental that independent surveys have shown the importance to most people of a trusting relationship with a personal doctor, and there can be little reasonable doubt that this doctor-patient relationship is of significant diagnostic and therapeutic value.

Philosophy—Thirdly, is there a general practitioner view of medical care—a philosophy—which is distinguishable from that of obstetrics, paediatrics, surgery, or psychiatry? To me the answer is "yes"; being the doctor of first contact, the personal and continuing responsibility, and the comprehensive nature of general practice combine to create a balance of values and judgments that I believe to be distinctive and which is so well laid out in the Royal College of General Practitioners' book *The Future General Practitioner*.⁴

Research—Lastly, can general practice claim academic admission on the grounds of good quality research into its own problems? When I entered practice 30 years ago real research outside hospital and university was so rare that I did not know a single family doctor with an MD and a paper with original observations from general practice was a mere curiosity. But how vastly different today—for example, in the last two years I have examined and sustained three MD theses on the development of an information system in a country practice, the outcome of referrals to hospital outpatient departments, and an analysis of communication in doctor-patient consultations.

In our own department active research proceeds on antibiotics in respiratory illness, prescribing behaviour, the function of general-practitioner hospitals, the measurement of medical and nursing work in primary care, and the evaluation of our undergraduate and post-graduate teaching programmes. The *Journal of the Royal College of General Practitioners* provides ample evidence of well-designed, well-executed, and well-presented original work in British general practice (as well, of course, as some research chaff). On this criterion it can be said with conviction that a university place is merited.

Any academic who accepts these criteria as valid for judging the admission of *any* new subject, and who takes a careful dispassionate look at good general practice today, will, I submit, have to agree that the case for academic general practice is now substantial. Please note, I said "good" general practice; a strong wind of change (fanned by the RCGP) is blowing through family medicine with several now well-known effects—groups, teams, vocational training, health centres, special interests, and so on. One likely outcome of these and other changes is that more doctors in general practice will be there by choice rather than necessity and this, together with proper vocational training, must mean a steady improvement in quality. A live department of general practice will accelerate these trends.

Programmes

Suppose, you may say, we do acknowledge the academic credentials of modern general practice, what kind of contribution would it make to our undergraduate course? The answer will largely depend on the resources and methods you choose to apply, but I think most teaching programmes would embrace the following.

Clinical aims are (a) to widen the student's spectrum of illness (acute/chronic, major/minor, physical/emotional); (b) to demonstrate the diagnostic and therapeutic problems and the skills peculiar to primary, personal, and continuing medical care (including prevention, early diagnosis, rehabilitation, and terminal care); and (c) to illustrate the nature and value of the doctor-patient relationship.

Sociomedical aims are (a) to let the student see how the physical, mental, and social aspects of illness interact and the consequences for family health care; and (b) to give the student some understanding of team care and of the role of other community services in prevention and management.

Vocational aims are to let the students know something about the opportunities, rewards, satisfactions, and difficulties of general practice today, how it is likely to change, and the probable pattern of training for the specialty of general practice.

Thus what a proper experience in general practice does for the student is to teach him a more representative sample of illness; show him the special skills required in a less technical, more personal kind of medicine; and help him appreciate how rapidly general practice is changing, both clinically and operationally. From the verbal and written testimony of over 700 students I can testify that these aims can be achieved.

There are many roads to Rome. Some schools have their own practice, others (such as ours) use selected service practices both to teach students and to keep patient care skills alive—I have no doubt that *all* clinical academics must have a small commitment to patient care. Ideally students should see patients in general practice from their earliest clinical years and this should culminate in a full-time attachment to a service practice (and not just a city practice). Students should be adequately prepared for this attachment by a briefing session and, equally important, they should be helped at the end to pool, sift, analyse, and critically reconstruct their experience.

Valuation

And so I come to my title—the *value* of a university department of general practice. How does one evaluate any clinical department? Output of published work, quality as well as quantity, may be a reasonable indicator of one "value"—originality. Patient care in the presence of colleagues and students is another source of assessment of clinical competence or value. But how are the content and process of learning and teaching to be measured? Will student opinion be valid, reliable, and acceptable? Let me conclude by suggesting some of the learning values that can be contributed by an active academic unit of general medical practice.

Representativeness—Students think that hospital patients are only a small and unrepresentative sample of a whole range of illness which they must see if a wise choice of career is to be made.

Continuity—Students argue that experience in general practice improves their understanding of why many patients are referred to hospital and the problems they may encounter on discharge.

Tolerance—The high proportion of patients for whom no precise diagnosis can be made, the fact that outside hospital patients are not captive and can make their own decisions, the empirical nature of much treatment—all these help students to an improved tolerance of uncertainty.

Complementarity—Even students who have decided on a hospital specialist career freely admit that a glimpse of general practice is valuable in showing how medicine inside and outside hospital differs and that there are skills peculiar to general practice that complement other specialist skills.

Empathy—The value to patient care of an extended and cumulative doctor-patient relationship is often emphasised by students and is seen by them as one of the most important skills of family medicine.

Ways of life—The insights into ways of life gained from seeing patients in their own environment and the relevance of these to management of illness and to prevention are considered by most students to be important.

By what criteria should an academic judge the value of his subject in any medical school? I am, perhaps, old-fashioned in believing, firstly, that medical schools exist to teach; secondly, that active research is desirable for sound teaching; and, thirdly, that teachers should constantly evaluate objectives and methods. So I continue to try to discover whether our aims are sound and our methods appropriate. So far, our own results and those of other medical schools leave little room for doubt that some guided learning in general medical practice is now an essential characteristic of the progressive medical school. This was certainly the view of the 1968 Royal Commission on Medical Education.⁵

"The undergraduate medical student should learn about general practice not as a preliminary to training for a career in that field but as an educational experience whose purpose is to give every student some understanding of problems which are of major importance in themselves and should not be thought of as variants or minor subdivisions of the problems raised in hospital practice. The aim of the teaching should be to afford the student some insight into the nature of the problems and opportunities in general practice."

What is meant by the term "frozen shoulder," and what is its treatment and prognosis?

"Frozen shoulder" is widely used to cover a variety of painful conditions and there is no agreed definition. Some rheumatologists restrict the term to describe a painful stiff shoulder, not precipitated by trauma, which gradually develops over 3-6 months, remains static for 3-6 months, and then gradually resolves taking 12-18 months to "unfreeze." Sometimes there is an associated medical lesion such as ischaemic heart disease, ipsilateral hemiplegia, a history of chest or breast surgery, or herpes zoster, of which the obvious common denominator is a period of immobility of the arm. Other associated conditions include diabetes and grand-mal epilepsy. Prophylaxis consists in maintaining shoulder mobility. In the first developing phase pain may be severe, preventing sleep for weeks. Any form of heat may increase the pain but ice-cold applications may help. Suppositories of phenylbutazone 250 mg at night may give relief for 24 hours. Gentle swinging exercises may maintain mobility. Heavy systemic steroid treatment and repeated stellate ganglion blocks may lessen severe pain but intra-articular injection is ineffective. The easing of night pain indicates the onset of the static phase, when the joint can be stretched more vigorously, with the hope of restoring function faster than by waiting for spontaneous resolution. The patient should do this several times daily to keep visits to a physiotherapist to a minimum. Capsulitis after trauma behaves differently, as the pain and stiffness are at a peak soon after the injury and both are often relieved by intra-articular steroid injection. Although movement usually returns spontaneously, the stiffness may persist indefinitely after more severe injury.

The more recent Merrison Report includes the following.⁶

"The aim of basic medical education ought to be to produce a graduate whose knowledge, skills, attitudes and potential are relevant to the medical needs of society. His understanding of human development, health and disease will have been developed through the acquisition of knowledge of the appropriate sciences. He will have developed an appreciation of the complex aetiology of contemporary medical problems and of the services available for their management through academic courses and work with patients. His basic skill will be in clinical method. He will recognise the limitations of his own knowledge and abilities and will be prepared for a career in medicine that is based upon continuing education. All these are, in our view rightly, general aims and reflect, first, the recognition that all doctors will need vocational training before being able to practice independently, and secondly, that the doctor must be given a sound basic training before specialising."

While strongly subscribing to these views and to the belief that general medical practice is an important contributor to undergraduate and postgraduate learning about clinical method, I am in no doubt of the urgent need for greater evaluative effort.

In conclusion, I can do no better than quote perhaps the greatest general practitioner of all time, Sir James Mackenzie; one of his favourite endings to a discourse was this sentence:

"I would earnestly ask you, not to accept my view, but to enquire whether what I have said is true."

There is now available to every medical school experience of both the theory and practice of academic family medicine. The rate of growth of this academic infant is impressive, and soon any medical school without some such development will be deemed not only incomplete but also out of date.

References

- 1 Newman, J H, *The Scope and Nature of University Education*. London, 1852.
- 2 Himsworth, H P, *Lancet*, 1951, 2, 743.
- 3 Livingstone, R, *British Medical Journal*, 1953, 2, 454.
- 4 Royal College of General Practitioners, *The Future General Practitioner*. London, BMA, 1972.
- 5 Royal Commission on Medical Education, 1965-8, *Report*, Cmnd 3569. London, HMSO, 1968.
- 6 Committee of Inquiry into the Regulation of the Medical Profession, *Report*, Cmnd 6018. London, HMSO, 1975. (Merrison Report.)

A patient's chronic asthma is controlled by one 0.5 mg betamethasone tablet weekly. Given on a long-term basis is this dosage likely to have any side effects? Another patient with asthma has developed a tendency to bruising on 0.5 mg betamethasone tablet twice daily. Could this be due to betamethasone or to nitrazepam?

Betamethasone is one of the most potent glucocorticosteroids available. It is not widely enough appreciated that it is 8-10 times as potent in anti-inflammatory activity as prednisolone on a weight-for-weight basis. Nevertheless, an intermittent token dose of one 0.5 mg tablet of betamethasone once weekly (equivalent to 3-4 mg of prednisolone) is unlikely to contribute in any way to the control of chronic asthma or to the development of any side effects. On the other hand, a regular daily dose of 1 mg daily could lead to signs of corticosteroid excess, including undue capillary fragility. An alternative and more rational approach to steroid therapy would be a careful trial of a pressurised steroid inhalant aerosol such as betamethasone valerate.

On what pharmacological basis are Sylvasun and similar preparations used and what dangers are there in employing them?

Sylvasun contains vitamin A and calcium carbonate. Vitamin A is required to maintain the integrity of epithelial cells and deficiency may occasionally lead to keratinisation and drying of the skin. Exposure to sun may result in a reduction of vitamin A levels in the skin. There is no validated evidence, however, that oral administration of vitamin A prevents sunburn. Short courses are unlikely to have harmful effects.