

The profession has already recognized the extreme importance of providing the public with a professionally trained entry of general practitioners. Many in the past have entered general practice without any child health experience, and without the opportunity of seeing a single case of meningitis throughout their medical training. Compulsory vocational training should help to improve standards of care for patients of all ages, but will, in itself, never be enough.

The Royal College of General Practitioners decided in 1978 that the new, wider responsibilities of general practice will in future be tested in its membership examination and it is also firmly committed to improving training in child health care (Royal College of General Practitioners, 1978).

The problem of continuing education and of maintaining the competence of general practitioners, especially in the identification and early recognition of rare diseases, now needs urgent attention.

The doctor in the front line of medicine never knows what he is going to see next—any patient can have anything. For every case of meningitis there are a dozen with possible meningism. For every case of appendicitis, there are scores of patients with abdominal pain.

The significance of a diagnosis like meningitis can always be considered at leisure in retrospect. The problem for general practitioners is the *hundreds* of

children they see every year who are ill with a temperature, any one of whom, but less than one of whom will go on to develop meningitis. Nor is intervention easy. Liberal prescriptions of antibiotics—"just in case"—are bitterly criticized and sending all such children to hospital would swamp the wards within a week.

### *Measure of responsibility*

In reacting to these record damages, it is worthwhile reflecting on the value to society of general practitioners who make the right diagnosis the rest of the time. If £300,000 is the new price of failure it must logically also be the value of success.

The size of this award is one measure of the professional responsibility of the modern general practitioner.

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## Trainee projects

**T**RAINEE projects are important and are being published more often. The idea, however, still arouses surprising resistance and apathy, largely because it has not yet been appropriately studied.

### *Need for research*

In the 1979 William Pickles Lecture published today (p. 457) Professor Morrell, one of the most distinguished academic clinicians in the UK, issues a clarion call for more research effort in general practice. He reminds the profession of the research contributions of Mackenzie and Pickles and chides the present generation for failing to devote enough attention to research work in general practice.

Mukherji also reports today (p. 466) as Chairman of a Faculty Research Committee which has worked to promote research by trainees in South-East Scotland. These two articles taken together clearly call for a re-examination of the place of research and project work in general practice.

The idea needs careful consideration and calls into question the objectives of vocational training itself. Certainly there is a growing body of opinion, notably the Leeuwenhurst Working Party (1977), for encouraging young doctors to acquire and practise critical thinking about their work as an important aim in itself.

Simultaneously, Sir George Pickering (1978) underlines what he regards as the tragic over-emphasis on factual knowledge in much of modern education. He concludes that time and again all that is taught and all that is tested is the ability to recall facts—far too little time is being allowed or devoted to young doctors to think critically about their clinical practice. (See p. 501 for review.)

It is not surprising that trainee research should develop slowly in general practice in view of the historic educational deprivation in general practice as a whole, which is only now beginning to be put right. Research among experienced general practitioners is still rare; carrying out audits, writing papers, and getting them published in medical journals is still, alas, distinctly unusual.

Those who work regularly with trainees, however, soon come across a common, widely held prejudice. Research, it is said, always involves big numbers, is very complicated, difficult to carry out, is remote from everyday practice, and is certainly not possible within a trainee year. Reasons are somehow found for *not* completing a study.

The word 'research' is itself a problem. It arouses prejudice because much of the best of general practitioner research is now associated with big organizations or successful units with professional staff

and multidisciplinary teams; the very word creates resistance. Changing this attitude among trainees is now an important objective for trainers, scheme organizers, and regional advisers. Change it will, because trainees themselves are breaking it down. Perhaps the growing number of trainee projects which are being completed and now beginning to be published offer the greatest encouragement of all.

#### *Practical aids to projects*

The word 'project' is useful. The aim is simply to help each trainee to see project work in general practice as part of the everyday business of being a modern clinician, of looking critically at what is done, how it is done, and asking whether or not it could be done a little better. It is practical, local, is often personal, and it can be fun.

Some schemes have already built up considerable experience of trainee projects and some general principles have emerged. It is important to set the scene immediately. Trainees should be shown on entry to their scheme in their welcoming documents or in the prospectus an expectation that they will carry out a formal project and wherever possible should be referred to local colleagues, especially other trainees who have successfully completed such projects.

Trainers can help considerably by allocating at least three hours, or preferably half a day, in the weekly timetable for the trainee project. Kratky has reported (1977a) how stimulating he found this technique which enabled him to complete an audit of diabetics in just eight weeks as a trainee on an introductory attachment to a practice. Giving a fixed time in the week underlines the importance of the project and provides a reasonable opportunity for the work to be done.

Secondly, the training practices must provide the basic tools for everyday clinical practice, in particular an age/sex register (*Journal of the Royal College of General Practitioners*, 1977). The development of some form of diagnostic register is also often needed. Scheme organizers and the Joint Committee on Postgraduate Training for General Practitioners could do much to encourage the introduction of these registers in all training practices.

Finally, incentives can be helpful. Numerous prizes are available for principals and it is only fair that appropriate awards should also be available to trainees. The Royal College of General Practitioners/Astra Award, is the best known, but other parts of the College, including the Welsh Council and some faculties, have arranged prizes for trainee projects carried out within their area. Within the last few years, Syntex Pharmaceuticals have offered prizes in several schemes which have encouraged trainees.

The trends are encouraging and have been reflected in this *Journal*. The first is the sheer number of projects being carried out, and the growing number being submitted. Secondly, there is a steadily increasing number surviving the assessment hurdles and appearing

in print. A few years ago, trainee research was virtually unknown in Britain; today this *Journal* expects to publish, at least every other month on average, an article written solely or jointly by a vocational trainee. This, moreover, at a time when less than a third of manuscripts can be accepted and standards are rising faster than ever before. The new generation is responding to the challenge.

A third encouraging trend lies in the topics chosen. Choice of subjects by trainees themselves is a key ingredient of success. Subjects suggested by trainers or imposed by organizers soon bite the dust and it is only when a young doctor is really interested in the subject concerned, has chosen it himself, and is keen to find out the answer to a question, that success is usually attained.

#### *Successful projects*

Among the earliest trainees to write were Barley (1972) on choosing a practice and Carey-Smith (1972) on home visits. An early classic came the following year when Ainswick and colleagues (1973) reported a group project from Doncaster which drew an editorial (*Journal of the Royal College of General Practitioners*, 1973).

One particularly attractive idea is that of joint authorship between a trainer and trainee(s). Harris and Fletcher (1974) looked at training and Watson and colleagues (1975) considered vaccination against measles. Elliott-Binns and colleagues (1976) studied joint consultations, Rose and Mole (1976) and Davies and Franklin (1976) all considered contraception and Tombleson and Garsed (1976) death.

Joint clinical studies have included Rose and Mole (1978) on rubella immunization, Manning and Brown (1976) on serum digoxin levels, and Billings and Mole (1977) on rheumatology. More recent joint studies include Phizaklea and Wilkins (1978) on headache in general practice.

Prescribing is the commonest single topic. Reilly and Patten (1978) examined prescribing policy, Davies *et al.* (1976) oral contraception, Davies (1976) reviewed beta blockers and both Rapoport and Ho-Yen deal with prescribing today (p. 468 and p. 473). Audit is another common topic with both Fletcher (1977) and Kratky (1977b) choosing diabetes and Worrall (1974) and Rutledge (1977) appointment systems.

Child care is also emerging as a suitable topic with Freer and Ogunmuyiwa (1977) looking at attendance rates for developmental checks and Hodgson (1978) studying infant feeding. Accident and emergency departments have already been studied twice (O'Flanagan, 1977; Peppiatt, 1979).

Certainly trainees are analysing what they see, how long they take (Westcott, 1977), what their decisions cost (Richards, 1976), what kind of contract they should have (Hannan and Worrall, 1974), and how they are being trained (O'Flanagan, 1978; Stubbings and Gowers, 1979; Stott, 1979).

All in all, it seems that trainees are looking at many aspects of their day-to-day work in the practices and studying performance critically. Trainees more than principals are looking at clinical problems—a healthy sign for the future.

Although Mukherji is almost exclusively concerned with the trainee year, trainees with research interests should be encouraged also to carry out projects during their hospital years and publish reports with their consultants. Some have already done so (Bayley and Haslock, 1976; Peppiatt *et al.*, 1978), but it is general practice itself which is most in need of critical study, has most to gain, and for vocational trainees the most to offer.

Many trainee projects, including several published in this *Journal*, have been completed well within the trainee year, and several within a few months (Richards, 1976; Kratky, 1977; Westcott, 1977).

Trainee projects, however, simply do not happen unless the trainers themselves are interested and supportive. Regular, personal encouragement is usually needed. In one scheme at least, it has already been shown that the chance of a trainee successfully completing a project is statistically significantly related to the trainer having been on an intensive trainers' course (Pereira Gray, 1977).

Research committees in many faculties have been lying fallow for several years. Mukherji shows today an important task ahead which happily walks the boundary between research and education in general practice.

Morrell and Mukherji have caught the mood of the moment. It is now up to trainers, trainer workshops, and College faculties to follow this up and encourage many more trainee projects.

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