

The accreditation of vocational training programmes—results of a pilot survey

DONALD IRVINE, M.D., F.R.C.G.P.

General practitioner, Ashington

IAN RUSSELL, M.A., M.Sc.

Lecturer in Medical Statistics, Medical Care Research Unit, Newcastle upon Tyne

GEORGE TAYLOR, M.B., B.Sc.

Trainee general practitioner, Ashington

THE College is concerned to improve on its methods of measuring the quality of training programmes for general practice. In a recent pilot study¹ postal questionnaires were used to collect data from trainees and teaching practices in three selected areas, Oxford (Region), North of England (Tyneside and Teesside), and Scotland (West of Scotland, Dundee, and Edinburgh). The responses are shown in table 1.

TABLE 1
RESPONSES BY REGION

| Region | Teachers | | Trainees | |
|------------------|-----------------------|-------------------|-----------------------|-------------------|
| | Number of respondents | Response rate (%) | Number of respondents | Response rate (%) |
| Oxford | 14 | 61 | 31 | 100 |
| North of England | 29 | 94 | 22 | 63 |
| Scotland | 23 | 96 | 36 | 92 |
| Total | 66 | 85 | 89 | 85 |

Our paper reports mainly trainee responses since much of the material from teachers was similar to that reported earlier.² Some results were presented at the second National Conference of Trainee General Practitioners in Edinburgh earlier this year.³

In principle we have restricted comment on regional differences to those found to be statistically significant at the conventional five per cent level.

RESULTS

Information to applicants

The prospectus

Trainees normally apply to schemes some time before they start. Many respondents in this study were concerned about the quality of information supplied by regional general practice advisory committees (GPAC) in helping them make their choice.

In the three study regions a significant minority of trainees reported a lack of information on some items likely to be helpful in making a decision. Thus, one quarter received no information about the content of their future programmes. Of those who did receive information, 38 per cent remained uncertain about the educational aims of the programme and 66 per cent claimed that conditions of service had been covered inadequately. While only 18 per cent of those with brochures knew nothing of the available

hospital appointments, as many as 79 per cent had no information on teaching practices. Here, regional differences were apparent; trainees in the North of England (50 per cent) were more likely to have had this information than those in Scotland (17 per cent) or Oxford (nine per cent).

The interview

Most trainees (67 per cent) did not know before accepting a place in a scheme to which posts they would be appointed. Seventy-six per cent also complained that at this stage there was little or no information given about removal and other allowances; more trainees knew about salary (83 per cent) than about holidays (70 per cent), mainly because doctors in Scotland (53 per cent) were less well informed about annual leave than their colleagues in Oxford (77 per cent) or the North of England (86 per cent). At this time more trainee applicants in the North of England (55 per cent) knew about study leave entitlement than did their fellows (Scotland 22 per cent, Oxford 19 per cent).

Trainees were also asked whether their professional and academic obligations to the scheme had been adequately explained; only one third had found the explanation sufficient.

Training programmes

Every training programme for general practice has three parts: experience in general practice, appointments in several relevant hospital specialties, and supplementary courses. Some programmes, usually those lasting three years, have so-called 'linked' appointments. In others, often called 'self-constructed' programmes, the applicant has had previous hospital experience, which the GPAC is prepared to recognise as relevant to general practice, after which he may go on to complete his programme in approved hospital and general-practice appointments of his own choosing.

Length

Of the 123 trainees in the total survey population, 109 (89 per cent) had originally undertaken three-year programmes, although two had subsequently resigned. Thirteen programmes varied between 12 months and two and a half years, and one doctor in Scotland had chosen to supplement his three-year training programme with an additional six months.

Content

The timing of general-practice period(s) varied. In principle all North of England trainees began with six months in general practice. One of the five Oxford schemes started with three months and none did in Scotland. One Oxford and three Scottish schemes sandwiched the general-practice year between hospital appointments.

A wide range of hospital specialties was considered relevant to general practice by regional general-practice advisory committees. Thus, posts in medicine, obstetrics, paediatrics, and psychiatry were each undertaken by a majority of trainees; geriatric and casualty posts were less common. There were a few posts in minor specialties.

Teaching practices

All teacher respondents practised in partnerships; there were no single-handed doctors. Forty-one per cent said their premises were purpose-built and 96 per cent used an appointments system. The exceptions were in Scotland.

The proportions of teaching practices possessing a selected range of clinical and office equipment is shown in table 2. The importance of hospital diagnostic and treatment facilities to a teaching practice has been emphasised and the percentages of practices with such access are given in table 3.

TABLE 2
EQUIPMENT IN TEACHERS' PRACTICES (PERCENTAGES)

| Survey title and total number of respondents in each (=100%) | R.C.G.P. Visitors (1973) | R.C.G.P. Teaching Practices (1970) | B.M.A. Planning Unit (1969) |
|--|-------------------------------------|------------------------------------|-----------------------------|
| | <i>Equipment</i> | 68 | 188 |
| | % of practices possessing equipment | | |
| Microscope | 82 | 49 | 34 |
| Arm balance weighing machine | 74 | 52 | Not asked |
| ECG | 61 | 37 | 10 |
| Peak flow meter | 49 | 28 | 5 |
| Haemoglobinometer | 44 | 37 | 35 |
| Cautery | 29 | 27 | Not asked |
| Typewriter | 99 | 94 | 69 |
| Dictaphone | 82 | 66 | 38 |

TABLE 3
ACCESS TO DIAGNOSTIC AND TREATMENT FACILITIES IN TEACHING PRACTICES (PERCENTAGES)

| Survey title and total number of respondents in each (=100%) | R.C.G.P. Visitors (1973) | R.C.G.P. Teaching Practices (1970) |
|--|--------------------------------------|------------------------------------|
| | <i>Diagnostic Facility/Treatment</i> | 66 |
| | % of teachers with access | |
| Contrast media x-ray | 99 | 81 |
| ECG | 73 | 62 |
| Autopsy | 61 | 85 |
| Physiotherapy | 48 | 25 |

The proportion of practices possessing an age-sex register continues to increase. In this study 73 per cent of all respondent practices reported the possession of an age-sex register compared with 65 per cent in 1970. Similarly, a higher proportion of practices had a diagnostic index in the 1973 study (33 per cent) than did so in 1970 (11 per cent).

Nursing and clerical staff

Taking all nurses together, there was no significant difference between the regions when standardised rates of availability (hours per week per 1,000 patients) were compared. The range was 0—22.5 hours. The availability of health visitors to patients of teaching practices did not differ significantly between regions. The range was 0—17.5 hours per week per 1,000 patients. There was no significant difference between regions in the availability of clerical staff. However, the range varied from 7.5—32.5 hours per week per 1,000 patients.

Learning in the teaching practice

Although the personal characteristics of learner and teacher are clearly of paramount importance, there are other variables which have a bearing on the quality of the learning experience.

Consultation rates

It is generally accepted that teachers should reduce their consultation rates when teaching, especially in the trainee's introductory period. In this study 42 per cent of teachers reported that they saw nine or fewer patients per hour when consulting alone. By contrast, 20 per cent saw 12 or more patients an hour. In most practices this rate dropped when a trainee was present; two-thirds of teachers then booked patients at a rate of six per hour or less while only two doctors, both in Scotland, booked as many as 12 per hour. The proportion of doctors who saw more than seven patients per hour in the teaching situation was significantly greater in Scotland (55 per cent) than in either the North of England (28 per cent) or Oxford (15 per cent).

The trainees showed a lower consultation rate; 62 per cent of all respondents said they saw nine or fewer patients per hour when consulting alone and only 12 per cent saw 12 or more patients per hour. About two thirds of them indicated that they were allowed to choose their own consulting rate. However, they were significantly less likely to be given this choice in the North of England than in either Scotland or Oxford.

Thirty-six per cent of all teachers said their trainees sat with them in the consulting room throughout the attachment rather than for an introductory period. Teachers in Oxford (77 per cent) were significantly more likely to have their trainee in the consulting room regularly than were their colleagues in Scotland (32 per cent) or the North of England (21 per cent). In contrast, two trainees denied the existence of an introductory period. Trainees' estimates of the length of this period had a median of 1.8 weeks (with a range between zero and 52 weeks!).

Trainee workload

Those 23 trainees who were in a practice at the time of completing the questionnaire were asked to record their workload for a period of one week.

The median number of new surgery consultations during the survey week was 58 with a range of 24 to 154. For return consultations the median was 32 with a range of 11 to 69. Taking all consultations together the median was 94 with a range of 40 to 192.

For new visits there was a median weekly rate of 13 (range two to 29) and for return visits there was a median of eight (range one to 39). Thus the median of combined new and return visits was 24 with a range of three to 54.

Over one third of teacher respondents said they visited with their trainee throughout

TABLE 4
SPECIAL CLINICS IN THE TEACHER'S PRACTICE

| Type of respondent and total number (=100%) | Teachers (providing) | | Trainees (attending) | |
|--|----------------------|----|----------------------|----|
| | 66 | | 51 | |
| Type of clinic | Number | % | Number | % |
| Immunisation | 55 | 83 | 25 | 49 |
| Antenatal | 54 | 82 | 38 | 75 |
| Child care | 41 | 62 | 26 | 51 |
| Cervical cytology | 39 | 59 | 16 | 31 |
| Contraception | 16 | 24 | 5 | 10 |
| Geriatrics | 2 | 3 | 3 | 6 |
| Other | 21 | 32 | 7 | 14 |

the latter's attachment; the remainder confined this supervision to the introductory period.

Opportunities for seeing special groups of patients in the practice through pre-arranged clinics are shown in table 4.

Trainee/teacher contact

Teachers were asked to estimate how many hours per week they spent with their trainee in formal or informal discussion. Their estimates range from two hours to 70 (sic) with a median of 9.8. With two exceptions they all claimed to engage in both topic and case discussions, although only half of them had guided project preparation. The teachers' estimates differ from those of the trainees, which ranged from zero to 40 with a median of 4.5.

As to contact with the teachers' partners, only four trainees had discussed neither patients nor general topics with them.

Trainee/nursing staff contact

Trainees were asked how many times they had met the practice/district nurse in the preceding month to discuss patient care. The 33 respondents to this question produced a median contact rate of 7.8 per month (range 0 to 60). For health visitors the median contact rate was much lower at 3.0 per month (range 0 to 30), and for social workers it was 0.3 per month (range 0 to 15).

Attendance at practice meetings

Practice management is held to be an important topic in the practice year. Forty-nine per cent of trainee respondents said they attended practice business meetings. By contrast, only one fifth of trainees said that their practices had clinical meetings; these were significantly more common in Oxford (44 per cent) than in Scotland (15 per cent) or the North of England (nine per cent).

Learning in hospital

New and return patients

Twenty-five per cent of trainee respondents reported that they saw new patients alone and 44 per cent saw new patients either alone or with a more senior doctor. Thus, a minority of trainees (31 per cent) always saw new patients with a more senior doctor.

Fifty-six per cent of trainees said they saw return patients alone and a further 37 per cent saw them either alone or with a senior doctor. Thus seven per cent saw returns only in the company of a senior colleague.

Opportunities for consultant teaching

Table 5 demonstrates that consultant ward rounds were significantly more frequent in

TABLE 5
FREQUENCY OF CONSULTANT WARD ROUNDS BY REGION

| <i>Consultant ward rounds per week</i> | <i>Oxford</i> | | <i>North of England</i> | | <i>Scotland</i> | | <i>Total</i> | |
|--|---------------|----------|-------------------------|----------|-----------------|----------|---------------|----------|
| | <i>Number</i> | <i>%</i> | <i>Number</i> | <i>%</i> | <i>Number</i> | <i>%</i> | <i>Number</i> | <i>%</i> |
| 0 or 1 | 17 | 25 | 8 | 15 | 11 | 12 | 36 | 17 |
| 2 or 3 | 37 | 55 | 32 | 58 | 36 | 40 | 105 | 49 |
| 4 or 5 | 11 | 16 | 12 | 22 | 21 | 23 | 44 | 21 |
| 6 or more | 2 | 3 | 3 | 5 | 23 | 25 | 28 | 13 |
| Total number (=100%) | 67 | | 55 | | 91 | | 213 | |

Note:—As each trainee reported on up to four hospital posts, the total number of responses in tables five to eight is much greater than that in tables one and four.

Scotland. As a rider to this table, it should be recorded that, according to their trainees, nine per cent of consultants held no teaching ward round in the preceding month. Again, one fifth of trainee respondents could recall no informal case discussion in the past month; rather more (31 per cent) had had no formal topic discussion in the preceding month. There is evidence of regional variation here with a preponderance of informal discussion in the North of England, and of formal discussion in Scotland.

To summarise, ten per cent of respondents denied having had any but the most fleeting contact with their consultant during the previous four weeks.

Night and weekend duty arrangements

These varied markedly between teaching practices and hospital posts. Almost all practices had some form of rota arrangements, and for 76 per cent of respondents this was confined to the practice partnership. Emergency deputising services were not available in Oxford, but in Scotland and the North of England such a service was available within the practice areas of 21 teachers. Of these, six practices in Scotland and one in the North of England said they used an emergency deputising service to some extent.

All but two of the teacher respondents said they provided emergency cover for the trainee during the day, and all but four at nights and weekends. However, only 68 per cent of the trainee replies said that cover was normally provided by their own teacher; with the exception of two doctors in Scotland, the remainder were covered by a partner or another principal in general practice.

TABLE 6
FREQUENCY OF HOSPITAL NIGHT DUTY BY REGION

| <i>Average number of nights on call per week</i> | <i>Oxford</i> | | <i>North of England</i> | | <i>Scotland</i> | | <i>Total</i> | |
|--|---------------|----------|-------------------------|----------|-----------------|----------|---------------|----------|
| | <i>Number</i> | <i>%</i> | <i>Number</i> | <i>%</i> | <i>Number</i> | <i>%</i> | <i>Number</i> | <i>%</i> |
| 1 or less | 17 | 23 | 6 | 11 | 18 | 19 | 41 | 19 |
| 1·1—2·0 | 13 | 18 | 14 | 25 | 20 | 22 | 47 | 21 |
| 2·1—3·0 | 23 | 32 | 13 | 24 | 34 | 37 | 70 | 32 |
| More than 3 | 19 | 26 | 22 | 40 | 20 | 22 | 61 | 28 |
| <i>Total number (=100%)</i> | 72 | | 55 | | 92 | | 219 | |

The frequency of hospital night duty is shown in table 6; North of England trainees were significantly worse off than their colleagues in Oxford and Scotland. However, it was the Oxford trainees (table 7) whose emergency cover in such situations shows a significant change from consultant to registrar. It must also be recorded that five trainees in the North of England and Scotland alleged that they had no emergency cover.

TABLE 7
GRADE OF HOSPITAL EMERGENCY COVER BY REGION

| <i>Grade of doctor providing emergency cover in hospital</i> | <i>Oxford</i> | | <i>North of England</i> | | <i>Scotland</i> | | <i>Total</i> | |
|--|---------------|----------|-------------------------|----------|-----------------|----------|---------------|----------|
| | <i>Number</i> | <i>%</i> | <i>Number</i> | <i>%</i> | <i>Number</i> | <i>%</i> | <i>Number</i> | <i>%</i> |
| Consultant | 11 | 18 | 28 | 51 | 36 | 42 | 73 | 37 |
| Registrar | 50 | 82 | 25 | 45 | 46 | 54 | 121 | 60 |
| Nobody | 0 | 0 | 2 | 4 | 3 | 4 | 5 | 3 |
| <i>Total number (=100%)</i> | 61 | | 55 | | 85 | | 201 | |

According to trainees the median number of nights on call in the practice per month was 4.4; this contrasts with their on-call commitment in hospital which had a median of 9.9 nights per month. There was also a lower on-call commitment at weekends in general practice. Eighteen per cent of trainee respondents worked no weekends, 87 per cent did one per month and four per cent did two. In hospital, by contrast, 52 per cent of trainees worked two or more weekends per month.

Day-release courses

There was a wide variation in the number of sessions offered. In the North of England all trainees were expected to attend 30 sessions each year, making a total of 90 in a complete three-year programme. In Scotland half-day release courses were normally of 36 sessions or less and in Oxford there were two main groups, one of 54 sessions and the other ranging between 90 and 120 sessions.

The arrangement of these courses also differed; in some there was day release from the general-practice year with no release during hospital appointments; in others there was some form of release throughout.

Regional advisers reported that all trainees had access to day release courses. This information was not entirely corroborated by trainees. Although all trainees in the North of England said they attended courses, one fifth in Oxford and two fifths in Scotland thought there was no course available. Where courses were available, some trainees found difficulty in getting time off from hospital appointments (table 8).

TABLE 8
DIFFICULTY WITH DAY RELEASE BY REGION

| <i>Trainee reported difficulty in obtain- ing time for day release</i> | <i>Oxford</i> | | <i>North of England</i> | | <i>Scotland</i> | | <i>Total</i> | |
|--|---------------|----------|-------------------------|----------|-----------------|----------|---------------|----------|
| | <i>Number</i> | <i>%</i> | <i>Number</i> | <i>%</i> | <i>Number</i> | <i>%</i> | <i>Number</i> | <i>%</i> |
| Yes | 21 | 40 | 10 | 18 | 24 | 32 | 55 | 30 |
| No | 32 | 60 | 45 | 82 | 52 | 68 | 129 | 70 |
| Total number (=100%) | 53 | | 55 | | 76 | | 184 | |

DISCUSSION

Comparative surveys of the consumers and providers of education, rare in medicine, can help the development of educational programmes by identifying problems previously unrecognised by teachers. This is especially true in postgraduate medical education where the apprenticeship method implies the use of a wide variety of teachers who are at best loosely co-ordinated and supervised. By and large our surveys present a favourable picture of vocational training in the regions surveyed. This is especially true of the general-practice year. Since we are keen to see improvements in training programmes, however, there are some aspects which merit further consideration both in these schemes and elsewhere.

Information to trainees

We suggest that scheme organisers should supply as much information as possible about the training programmes they are providing.

The most disturbing omission concerns information on the broad educational aims and content of programmes. There is evidence that training schemes for general practice differ significantly in the academic content of their programmes. Some limit the trainees' experience to a rotation of posts; others provide a wide spectrum of learning experiences

ranging from case discussion in individual posts to residential courses. Some programmes make no attempt to assess the performance of the trainee; the others do so either through continuous assessment or by preparing him for examination for a variety of post-graduate qualifications.

Trainees were also concerned about inadequate information about posts, especially teaching practices. Indeed, in Scotland and the Oxford region the practices had not always been chosen at the time of interview.

It is hoped that regional advisers will review their programme literature in the light of these findings.

Teaching practices

There is a need to clarify the aims and objectives of the general-practice year. Some teachers are working to a curriculum, often within the framework elaborated by the College³ in *The Future General Practitioner—Learning and Teaching*; others are not. Such a curriculum will be influenced by the presence or absence in the practice of certain characteristics such as an appointment system and well-kept records.

It is time general practitioners asked themselves which characteristics they consider essential for good practice, which merely desirable, and which positively detrimental to good primary care. If some broad measure of agreement could be achieved, the selection of teaching practices would be made easier by the prospective teachers' advance knowledge of the characteristics of a 'model' practice. More important, the trainee would benefit not only from a curriculum of a uniformly high standard but also from the realisation that there are one or two features of good practice which are only to be found outside his own teaching practice.

We can illustrate this theme with examples from our data. Thus it could be argued that close collaboration between family doctors and nurses and health visitors, is an essential feature of general practice. Most teaching practices in this survey would meet such a criterion in that they have these staff attached. However, this is no guarantee that trainees within these practices are exposed to effective teamwork! Indeed, we have seen that there is a wide range of trainee contact with attached nursing and health visiting staff.

Instances of practice characteristics which might be held to be desirable though not essential would include an age-sex register or a diagnostic index. These tools can be used to give the trainee a basic understanding of practice demography and of the categories of morbidity he is likely to encounter. However, our results show that the learning opportunities are unevenly spread. Can we devise a local mechanism to ensure that the trainee whose practice does not possess these tools can gain adequate experience in their use elsewhere? As a final example it could be proposed that the regular use of deputising services is an undesirable feature which ought not to be present in a teaching practice. If this were to be agreed, then a number of practices in this study would be in danger of losing their teaching status.

There is one further aspect of the general-practice year which is worthy of comment. The trainee general practitioner, like any clinical specialist, only develops his knowledge and skills with sureness and sensitivity if he is regularly seeing patients. Unfortunately there is evidence of a wide variation in clinical experience in the general-practice year and even that some trainees may be seeing too few patients. The situation is easy to understand. Teachers in general practice have been keenly aware of earlier criticisms of exploitation by some trainers; it is possible that there has been an over-reaction. Even within the framework of an agreed curriculum between trainee and teacher, there is a fine balance to be struck between clinical experience and supplementary learning activities.

In summary, the further development of the general-practice year is unlikely to be achieved by individual teachers working alone. Events critical to the identification of

essential and desirable characteristics in a practice will be the evolution of local peer groups and the co-ordination, crystallisation and dissemination of their findings by the College.

Hospital appointments

Trainee observations on their hospital experience suggest a wide variation in quality. In particular, the availability of consultants for teaching appears remarkably variable. Furthermore, comparison with the service provided by the teachers in general practice is, to say the least, unfavourable.

There may be two reasons for this. First, most hospital appointments are not selected with the same care and consideration as is given to the choosing of teaching practices. Second, scheme organisers have not always told consultants what is required of them and what the training programmes comprise. The whole regional selection of hospital posts will have to be overhauled as a matter of urgency if unsatisfactory posts are to be upgraded or discarded.

The future of trainee surveys

Consumer surveys are important and should form an integral part of the procedure for assessing training programmes for general practice in every region. Of course, data obtained from trainees, like data from any other source, needs to be validated before its true significance can be appreciated. However, a disregard for the experience of learners, so often a characteristic of specialty training programmes in the past, can only lead to further criticism of posts and courses.

Acknowledgements

We are grateful to the Education Foundation Board of the Royal College of General Practitioners for their support for the visiting studies of which this is a part. We thank Miss Margaret Forsyth, late of the Medical Care Research Unit, Newcastle-upon-Tyne.

REFERENCES

1. The Royal College of General Practitioners (1974). *The Accreditation of Vocational Training Programmes*—unpublished.
 2. Irvine, D. H. (1972). *Teaching Practices*. Reports from General Practice No. 15, London: *Journal of the Royal College of General Practitioners*.
 3. The Royal College of General Practitioners (1972). *The Future General Practitioner—Learning and Teaching*. London: British Medical Journal.
-