FACTORS INFLUENCING THE UPTAKE OF CONTINUING MEDICAL EDUCATION IN GENERAL PRACTICE

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MD THESIS

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MD by published research.

This work began as a result of academic enquiry which answered one question. This led to further questions and answers in a specific area of research. An application was made to prepare an MD by published research and this was accepted.

Eight original papers have been published in peer referenced journals and these are included in a folder at the back of the thesis.

It seemed important to review the past and current literature, to make recommendations for the future and also to include some information which has not been published. Taking all these factors into account I decided to present the information as a complete thesis.

DECLARATION

I hereby declare that the contents of this thesis represent work entirely undertaken by myself.

ACKNOWLEDGEMENTS

The work described in this thesis has involved many people within the Departments of Postgraduate Medicine and General Practice. The work has involved all general practitioners in the West of Scotland. My thanks is due to all of them.

SUMMARY

The 1990 General Practice Contract included a new postgraduate education allowance which the Government expected would stimulate interest among educational organisations and lead to the availability of an increased variety of courses. To claim the allowance general practitioners would have to submit evidence that they had attended an average of five days education a year and that they had achieved a reasonable balance in the topic areas and also between the years.

An educational scheme was set up in the West of Scotland to cope with the new arrangements. This allowed examination of the factors influencing the uptake of continuing medical education among general practitioners and also allowed their educational achievements and characteristics to be studied over a three year period.

Previous literature had stated concern about the uptake of continuing education among general practitioners and in the first year of the new allowance almost 95% of general practitioners attended sufficient meetings to claim this allowance. Initially meetings which were contract based or related were the most popular, with Service Management and Health Promotion being more popular categories than Disease Management. With regard to timing of the meetings, evenings were preferred when a large range of options was given.

102 doctors (5.7%) did not claim their first allowance. These doctors were more likely to work in urban areas, be single-handed and have been qualified for more than 30 years. 171 (9.5%) were high attenders and were more likely to work in urban areas, be female, Members of the Royal College of General Practitioners and work in a training practice. They were between 10 and 30 years from qualification and worked in larger group practices. There was considerable variation in the educational credits obtained by general practitioners, with 4.2% completing more than double the requirement.

Within the region doctors attended in excess of what was required by the new regulations and met the category provisions which were defined in the Statement of Fees and Allowances. A regional package with an annual charge was a viable and popular option to meet the requirements of the postgraduate education allowance.

Despite the changes in the delivery of continuing medical education, doctors continued to attend courses outwith their own region. The centrally organised educational scheme for the region was more likely to give a balanced spread and to meet the educational requirements of the 1990 Contract. This was true for all three categories but was particularly true for Health Promotion and Service Management.

Over the period of the study the following factors had a small but significant bearing on attendance at meetings; location of practice, whether working full-time or part-time, or in a training practice, marital status and being a Member of the Royal College of General Practitioners. This information is important to Primary Care Departments and others involved in the delivery of health care and also to organisers of educational meetings.

An examination of the characteristics of doctors who attended meetings funded by the pharmaceutical industry suggested that they worked predominantly in single-handed or two person practices and were less likely to be involved in training or be Members of the Royal College of General Practitioners. There was also an over-representation of doctors from ethnic minorities.

The uptake of continuing medical education in general practitioners was greatly affected by the educational changes in the 1990 Contract. These changes stimulated a considerable interest in education and resulted in an increased variety of courses. A complete picture is presented over a three year period of the educational achievements of over 1800 general practitioners. Reviewing this work and other recent literature on the topic suggests that individualised, personal education plans is the way forward, with the doctor responsible for his own education. The study has shown that particular groups require more help and should be a starting point for any new strategy.

CHAPTER 1

HISTORY OF CONTINUING MEDICAL EDUCATION IN GENERAL PRACTICE

An address on the importance of postgraduate study (Osler 1900) commenced "if the licence to practice meant the completion of his education, how sad it would be for the practitioner, how distressing to his patients! More clearly than any other the physician should illustrate the truth of Plato's saying that education is a long life process. The training of the medical school gives a man his direction, points him the way and furnishes a chart fairly incomplete for the voyage, but nothing more".

The seeds of the present day structure (Anon 1962) were sown in 1961 at a memorable conference on postgraduate medical education held at Christchurch, Oxford. The Christchurch conference was notable because of the catalytic effect it had on the development of postgraduate medicine within regions and districts of the National Health Service and in particular the growth of what came to be described as a postgraduate medical centre movement.

The first publicly funded scheme (Ellis 1985) for further education in general practice was based on Section 48 of the National Health Service Act 1946 and general practice was the only branch of medicine provided for in this way. The Department of Health and Social Security (then the Ministry of Health) made Universities with Medical Schools responsible for approving courses in their

regions. This responsibility was exercised by Postgraduate Deans who were in turn accountable to their University Postgraduate Committees. This funding was replaced by Section 63 of the 1968 Health Service and Public Health Act which provided for the funding of further education and vocational training for general practitioners. The approval of activities under Section 63 was fully delegated by the Department of Health and Social Security (DHSS) to the Postgraduate Deans and only they could decide whether a course was suitable for approval. Approval of a course meant that general practitioners who attended were authorised to claim a locum allowance, and travel and subsistence. Allowances for locums were withdrawn in 1966 when the Review Body included an element in the basic practice allowance to cover this cost.

From 1966 until 1977 seniority allowances, which were introduced in the Family Doctors' Charter Negotiations, were payable only if a general practitioner had attended the requisite number of educational sessions. This link between an element of remuneration and recorded attendances at Section 63 courses was strongly opposed by the profession for many years. The Government agreed to end it only after cash limits were applied to the funding of Section 63 in 1976. Until that time the expenditure on Section 63 courses and expenses had been open-ended.

In 1976 zero rating was introduced which meant that no central costs were incurred for courses but the general practitioner could claim travel and

subsistence expenses. The introduction of compulsory vocational training in 1981 meant that the costs of training would also be met from Section 63. This led, in England, to cash limits being imposed on the travel and subsistence budget.

Two surveys on general practitioner views on continuing medical education (C.M.E.) were carried out in 1974. In the North East of Scotland (Durno et al 1974) 217 general practitioners responded to a questionnaire in which they expressed a preference for single week courses covering several subjects and including a mixture of lectures, case presentations and group discussions. Only 18% thought that lunchtime meetings were acceptable as a source of regular education. The respondents rated contact with their partners and hospital colleagues as the most important source of education and the authors felt that this link had to be a growth point for postgraduate education within an integrated Health Service. In England and Wales, Aitcheson (1974) sent a questionnaire to a randomly selected sample of 1904 general practitioners. There were 1,067 respondents, representing 5.3% of all practitioners in England and Wales. Respondents preferred long intensive courses and thought that the dissemination of information about national courses was defective. 32% of those who required a locum in order to attend a course had difficulty in obtaining one. The survey also showed that local educational activity was enhanced by the presence of a postgraduate medical centre.

Reedy et al (1979) carried out an extensive survey in the Northern region. A pre-coded questionnaire was sent to a 50% random sample of the 1328 general practitioner principals in the Northern Region of England. Of the 664 questionnaires which were sent, 499 were returned, giving a response rate of 75.2%. The respondents' perceptions of postgraduate education were sought and their behaviour measured by the number of sessions they attended during the previous year, at both their usual and other postgraduate centres. Only 4% had not attended any postgraduate events during the previous year but the remaining respondents had attended eight sessions on average, six of which were at their usual centres. Those attending more than the average number of sessions tended to have registered between 1950 and 1969, to work in larger practices, to hold additional appointments or be trainers or college tutors.

Wood et al (1980) looked at Section 63 activities and felt that continuing education for general practice was not given the attention that it deserved. The authors quoted from the Todd Report (1968), "Because of the speed of advance of medical knowledge and techniques, doctors must make unceasing efforts if they are to keep abreast of developments. All doctors, in whatever branch of medicine, must have the opportunity and the time for continuing education to keep up-to-date in their own field and to remain reasonably well acquainted with development in others". They noted the growth in the total recorded attendances at Section 63 activities between 1969 and 1977 which had risen by 108%. They felt that this suggested that the decision to make the payment of

seniority allowances conditional upon a minimum of 12 hours attendance at Section 63 activities each year had had a positive influence on attendance though not necessarily, of course, on learning.

During this time the number of courses more than doubled (134%) with the sharpest increase in 1969 and 70, the first two years of the new arrangement. The authors noted that Section 63 activities had expanded at an impressive rate over the 9 year period but that the character of the meetings had not changed greatly, with brief lunchtime lectures at postgraduate centres being the main method of delivery. Looking at research into continuing medical education, the authors noted that in this field there was no established research tradition of general practitioners' continuing education as the volume of published research on the subject had been small and in the early 1980's there was no signs of it increasing quickly. They did note that the body with the greatest stake in the development of the subject, the Royal College of General Practitioners, had been the most active, being responsible for initiating half of the published studies.

The Leeuwenhorst European Working Party (1980) on Continuing Education for General Practitioners noted that the aims of continuing education were concerned with the maintenance, development and improvement of the care which a doctor provides for people throughout his professional life and which starts for the general practitioner when he or she assumes professional

responsibility. This would still be true today. The 1980 Working Party suggested that its purpose should be:

1. "To review knowledge, skills and attitudes already acquired in undergraduate and vocational training, eliminating those which are obsolete while retaining those which are still valuable.

2. To help the doctor to discover his deficiencies and to deal with the difficulties which he already recognises in his own work by sharing experiences with his colleagues, both medical and non-medical.

3. To help the doctor to recognise and apply new evidence and ideas using the experience of general practice as a basis for their evaluation and application. By giving as well as receiving training in this way he will be enabled to develop new competencies and learn new roles effectively.

4. To help the doctor's capacity to think creatively and to appraise his own work critically by means of education and research activities."

Pickup et al (1983a) looked at a postal questionnaire in Nottinghamshire which elicited responses from 50% of a sample of general practitioners in the County. The non-responding group were then followed-up by means of an abbreviated questionnaire and interviews, with about 50% success. The findings were then

derived from the main sample and from two sub-samples of the non-responders. The findings from the survey showed the relative popularity of Section 63 courses, and in addition revealed that two thirds of those doctors who did not attend Section 63 courses attended some other form of educational activity. The authors felt this suggested that only a small number of general practitioners had poor motivation towards their own continuing education.

A further study on the obstacles (Pickup et al 1983b) found that 82% had encountered difficulties in taking up continuing education as a result of lack of time, practice commitments and the need to preserve family life. Other problems which were mentioned were poor communication about courses, inconvenient timing, distance from practice, locum difficulties and lack of motivation.

A College journal editorial (Donald 1984) mentioned a survey undertaken of Scottish general practitioners: this was a random one in five sample of principals which produced an 80% response. Of the preferred learning methods reading at home was rated the most highly by 73% of the doctors. In relation to the educational content, recent medical advances with diagnosis and treatment of disease were supported by 82% of the respondents while clinical developments in general practice were favoured by 62%. The most frequent adverse comment related to provisions for continuing education with regard to

the special difficulties encountered by isolated doctors and their inability to find adequate time for continuing education due to overwork.

Millac (1985) observed continuing medical education for general practitioners in the Trent Region and suggested three closely linked problems which faced all general practitioners namely, isolation, a reduction in job satisfaction and lack of motivation. She highlighted the advantages of personal study in that it could be carried out in a doctor's own time and therefore could be selective. It is a simple and cheap resource which could include self-assessment and be related to personal needs. Gambrill (1986) in an editorial stated that continuing education should provide us with the means of maintaining and improving our professional skills on an individual basis which implies a requirement for continuing and critical review of clinical and organisational aspects of our daily work in order to identify these needs. He also stated that generally accepted principles of adult education emphasise that learning is an individual process accomplished at different rates by different people.

Horder et al (1986) looked at the ways of influencing the behaviour of general practitioners, noting that postgraduate medical centres tried to keep general practitioners up-to-date. They quoted from a literature review that valid and convincing evidence of the efficacy of continuing education is not plentiful. They felt that there was a widespread belief in education as a method of influencing general practitioners, but that gains in knowledge and skill with

resultant changes in behaviour seemed harder to achieve with general practitioners than with undergraduates. He noted that the difficulties increased with the age of the practitioner and were likely to accelerate from the age of 40. Deficiencies identified in this age group were more likely to be in performance than in knowledge.

An editorial by Schofield (1987) stated that continuing medical education must not be an optional extra and that the standard of care offered by a doctor was related less to his or her knowledge than to factors affecting its application, and the most important of these was motivation. Doctors need to know what they are trying to do and how well they are doing it to maintain their enthusiasm, otherwise they develop rituals and their performance declines. A Lancet editorial (1987) called for more organisation in postgraduate and continuing education. The editorial noted that attempts to challenge existing systems of postgraduate and continuing education were handicapped by resistance to change and also by scepticism about the qualitative methods used in educational evaluation. The editorial noted a growing awareness that traditional continuing education was seldom effective in changing doctors' attitudes and their adaptability. Although general practitioners had been especially concerned about the need for a new approach to continuing education, progress was painfully slow and there had been no serious attempt to devise clear strategies.

Branthwaite et al (1988) in an Occasional Paper on Continuing Education For General Practitioners noted the fall in attendance at meetings at postgraduate centres since this had ceased to be obligatory for seniority payments. The study included in-depth interviews with 32 general practitioners, who were chosen to represent certain demographic groups, and a questionnaire study which was mailed to 632 general practitioners in the West Midlands, with the final sample being completed by 408 or 65% of the initial survey sample.

The interview study indicated general practitioners' concern about their relatively low status in the profession and in relation to patients: insecurity and uncertainty about the decisions they had to make, and the dangers of making errors. They were also concerned about the widespread feelings of isolation and loneliness in their work. In addition, they were concerned about the frustrations with their role due to pressure of time, the limited resources of the NHS, demands from patients, the triviality of most complaints and the lack of opportunities for practising effective medical treatment, in particular treatment regimes which they had training and skills to do.

The questionnaire study indicated fairly widespread use of Section 63 lunchtime meetings, both in terms of the numbers who attended and also the frequency of attendances. Evening meetings were less well attended although half the sample had used them to some extent in the previous four months.

The authors felt that the implications of their findings for continuing education were quite profound in-so-far as they pointed to the differing needs of different groups of doctors and suggested opportunities for continuing education courses to play a wider role than merely imparting information. These included: maintaining interest, encouraging high professional standards and the ethos of being up-to-date, stimulating and motivating, providing reassurance, enabling contact, comparison with other doctors, and enhancing group identity and confidence.

A study looking at the continuing educational requirements for general practitioners was carried out in Grampian, (Shirriffs 1989). A questionnaire was sent to 297 general practitioners in Grampian with a response rate of 241 (81%) after three reminder letters. The majority felt that it was important to keep up-to-date and were setting aside a number of hours each week to do this. A significant number felt that general practitioners should be paid for attending courses and that difficulties in attending were mainly due to lack of time, family and social demands, pressure of work and locum problems. Despite 43% of doctors wanting to be paid for attending meetings and courses, 143 out of the 297 studied spent between one and three hours per week on educational activities related mainly to reading.

O'Dowd et al (1989) commented in a BMJ editorial that most general practitioners scanned newspapers and journals sent to the practice, with 89%

reading the three weeklies, 73% the BMJ, 27% the Journal of the Royal College of General Practitioners and 5% the Lancet. They felt that with peer audit general practitioners would examine their performance and identify the subjects in which further education was required.

Owen et al (1989) looked at general practitioners' continuing medical education within and outwith their practice. To do this they interviewed 96 out of 101 general practitioners, chosen at random from the list held by the Family Practitioner Committee. The results provided little evidence of regular attendance at meetings at local postgraduate centres though practice based educational meetings were also common. The general practitioners considered the most beneficial educational activities occurred within the practice, the most valued being contact with partners. They also asked for increased contact with hospital doctors.

Wall et al (1989) in an editorial considered the future for general practice postgraduate education and were concerned that the proposed general practice educational changes gave no mention of assessing the value of courses and no mention of study leave. They felt that good, meaningful and relevant continuing education for general practitioners cost time, effort and money but it was money well spent as it improved the standard of general practice and the care of patients. They felt that the Department of Health had little idea of the size of the task facing general practitioners in continuing education.

Forrest et al (1989) carried out a further study by postal questionnaire to all 1215 principals in Mersey. They interviewed 20 randomly selected who had responded, with an attempt to contact 10% randomly of the non-responders. The response rate to the questionnaire was 51% (623 questionnaires) and after much effort 44 general practitioners were interviewed, but this was only after 105 randomly selected general practitioners had been approached requesting an interview with them. They noted that a number of general practitioners were in fact extremely hostile. Courses were the most highly valued source of learning, in particular residential and periodic refresher courses. Younger general practitioners believed that continuing education should be compulsory: on the content of learning, the least valued topics were coping strategies, organisational skills and patient perceptions. Interview revealed that residential courses were perceived as the best learning source but pressure of work, attitudes of partners, lack of time prevented attendance. 63.1% felt that more meetings or courses would help them learn. Interviewers revealed that general practitioners were acutely aware of the need to keep up-to-date and many felt guilty that they devoted so little time to continuing education. The majority also felt that protected study time should be recognised in their Family Practitioner Committee Contract. The authors felt that all was not well with continuing education and noted that general practitioners saw this as competing with professional work and family commitments for scarce time. They also noted that without adequate management of the practice, money alone would

fail either to free the individual general practitioner for study or the partnership for practice based educational activity.

The Regional Advisers in their "Future Strategies for Continuing Medical Education in General Practice" (1989) looked at the guiding educational principles, the educational needs of general practitioners, the provisions required, the management processes and infrastructure. They also considered some of the likely political changes.

Parry (1990) in "Effective Continuing Medical Education" noted that continuing medical education still seemed to be based on the tacit assumption that general practitioners needed to be updated, principally by hospital specialists, and that the lunchtime lecture continued to dominate this area. Three issues were felt to be relatively new in continuing medical education: first, the search for good standards in general practice; secondly, there was renewed interest in the need to understand the stress under which general practitioners worked. Finally, many younger general practitioners were becoming interested in the idea of a career in general practice. In the management of continuing medical education it was felt that a questionnaire should be carried out to discover the perceived needs of all doctors. This could be undertaken by interviews, questionnaires, group discussions and the seeking of opinions although these do not always reflect the real needs. Such a study regarding general practice needs was carried out with all Derbyshire general

practitioners (Falk-Whynes et al 1992) and had a response rate of 48.9% (215). The study gave particular priority to further training in new clinical treatments, staff development, computerisation and clinical audit.

A review of the present state of continuing medical education was contained in "Portfolio Based Learning in General Practice" (1993) which re-emphasised the need for continuing medical education and noted that the educators needed to make a commitment to progress in professional development by the provision of continuing medical education for general practitioners after the completion of vocational training. This remains a matter of some national importance within the Health Service and one that requires careful planning. This was one of the important points at the foundation of the College of General Practitioners, and the Steering Committee asked that involvement in continuing medical education be made a condition of continuing membership although this requirement has never been tested in the annual renewal of membership.

The comments regarding continuing medical education have been very similar over the last 20 years, with many of the early criticisms discovered being reinforced by further questionnaires. The literature available on the subject does not, at present, relate to its importance in the individual professional development of the doctor and also the development of health care within the National Health Service.

CHAPTER 2

THE INTRODUCTION OF THE POSTGRADUATE EDUCATION ALLOWANCE

The Government Green Paper, "Promoting Better Health" (1987), set out a range of proposals for changing general practitioners' terms and conditions of service. The proposal introduced a new postgraduate education allowance to replace the vocational training allowance and the postgraduate training allowance. Doctors would qualify for the new allowance if they maintained a regular programme of education and training throughout their careers. The Government discussed with the profession the range and provision of approved training courses and distance based learning. They also referred to the wide agreement on the importance of continuing relevant medical education. A national co-ordinating group looked at the introduction of this allowance and made the following recommendations.

1. "The scheme should be easy and practical to administer, monitor and assess by the relevant regional and district educational bodies.

2. The aim is to improve patient care and services through continuing medical education for general practitioners by enabling them to develop their knowledge, skills and attitudes.

3. The scheme should be designed to encourage a wide variety of educational approaches and methods including individual, distance based and practice based learning. It should encourage the individual general practitioner to have a personal sense of responsibility for his or her own education, to plan participation and to set targets whose achievement will result in educational and financial benefit.

4. The incentive should be of sufficient value to encourage all general practitioners to participate actively and regularly, if possible weekly, and to enable practices to incorporate protected educational time in the weekly practice timetable."

Ideally the national co-ordinating group felt that the additional remuneration would therefore be equivalent to one session of CME per week (or 26 days annually) for every general practitioner. This could be calculated as equal to an annual postgraduate education payment of 10% of net average earnings or approximately £2,800 per general practitioner as an addition to the basic practice allowance.

The 1990 Contract document, General Practice in the National Health Service (1989) noted that the existing training allowances would be replaced by a new postgraduate education allowance designed to encourage continuing medical education throughout a general practitioner's time in active practice. All costs

including tuition fees would be reimbursed through fees and allowances. The document also noted that seniority payments would be retained but would be reduced by the value of the new postgraduate education allowance to which all general practitioners will be entitled provided, of course, they met the necessary training requirements which involved a balanced programme of continuing education. To claim the allowance general practitioners would have to submit evidence to their employing authority that they had attended an average of 5 days training a year over the previous 5 years. Although the general practitioner could vary the amount of time spent on courses from year to year he or she would be expected to achieve a reasonable balance between the years.

The Government expected that this new allowance would stimulate interest among educational organisations and lead to the availability of an increased variety of courses. The courses would be considered by the Regional Adviser or, in Scotland and Wales, the Postgraduate Deans who would decide whether the proposed course should be accredited as educationally valuable and thus recommended for general practitioners. All courses accredited in this way would count towards qualification for the postgraduate education allowance (PGEA).

To ensure that general practitioners would be able to keep up-to-date and extend their range of knowledge and expertise in general practice activities,

courses would be divided into three broad areas: Health Promotion and prevention of illness, Disease Management and Service Management. To claim the PGEA general practitioners would have to attend at least two courses under each of the three headings over the five years preceding the claim. Regional Advisers and Postgraduate Deans would tell general practitioners in advance into which category each course fell.

When the new Contract was introduced in April 1990 the postgraduate education allowance was set at £1,955 and from that the general practitioners had to pay the expenses element of their educational activities. The only aspect of education which continued to be centrally funded was vocational training for general practice which continued to be supported by Section 63.

It was felt that these changes would create a competitive environment for continuing education in which doctors and their staff would choose courses as purchasers would choose any commodity on the basis of usefulness, attraction, cost effectiveness, etc. Many providers of education emerged and the traditional sources, eg. postgraduate centres and universities came under increasing competitive and economic pressure. It was felt that other providers might be commercial companies currently in the educational field, private and opted-out hospitals, educational establishments, finance and management houses, pharmaceutical companies and providers of other medical equipment.

With 33,000 general practitioners in the U.K.: if every general practitioner spent his full PGEA allowance purchasing and attending courses then the market would be worth over £66m. However, PGEA was designed to include not only reimbursement of course fees, subsistence and travel expenses but also an incentive element and as this allowance did not involve any new money there was some concern regarding its future format (Wall et al 1989). It was felt that there might be a return to the expert lecture and that cost considerations might be likely to restrict general practitioners to local meetings with local speakers and that this pre-occupation with finance could tempt many to ask for support from the pharmaceutical industry.

Brookes (1989) was concerned that doctors would be tempted to fulfil only the minimal educational requirements at the lowest cost. General practitioners as educational consumers, would tend to choose activities that were perceived as attractive and comfortable rather than those that were actually required to improve performance. He also doubted that under the previous arrangement the money spent each year under Section 63 regulations on lectures at postgraduate centres altered for the better the behaviour of general practitioners towards their patients.

The Regional Advisers in "Future Strategies for Continuing Medical Education in General Practice" (1989) noted that under the new PGEA arrangements one of the Government's aims was to guarantee the quality of courses and activities

by ensuring that they were accredited as educationally valuable, and recommended to general practitioners by the Regional Adviser in General Practice and the Regional Postgraduate Committee. They noted that the impact of the scheme on the individual general practitioner was that the underlying concept was one of transferring educational choice and responsibility in continuing medical education to the individual general practitioner. In theory they felt that doctors would use their allowance to seek out and pay for those courses they considered best suited to their needs. They assumed that the Department of Health's view was that general practitioners would select well balanced programmes which gave value for money. They postulated that in practice the following outcomes might occur: unspent money might be treated as income and doctors would be tempted to fulfil only the minimal and not necessarily the most relevant educational requirements at the lowest cost. Traditional lecture programmes would be considered the easiest and cheapest qualifying route and doctors would tend to choose activities which they perceived as attractive to them. They thought that the selection of relevant, well designed activities would tend to occur only if they led to enhanced practice income, eg. minor surgery, practice management and information technology, and that the activity was at a time which did not interfere with the practice work or make it necessary to employ a locum. The report postulated that course provision would become a competitive market in which only the most attractive, cost effective and accredited activities would survive. Course providers would wish to ensure their courses were economically viable and of

low cost. Alternatively, funding from commercial, charitable and other sources might be used more often to supplement doctors' course fee payments or as a safety net should the course prove uneconomic. It is fair to comment that this report was written before any method of delivery had been worked out.

The 1990 Contract Statement of Fees and Allowances defined the following subject areas. Health Promotion and the prevention of illness included the promotion of healthy living and the prevention of disease and injury (including for example child abuse and ill health). Disease Management included a natural history of disease and injury with treatment and care of the sick and terminally ill. Service Management included aspects of providing efficient care to patients including data and record systems, use of technology, use of staff and health care teams, making the best use of premises and facilities, practice management and organisation, communication with patients, cost effective prescribing, quality assurance and audit, and the interface between different caring services.

Stott (1990) in an editorial in Horizons welcomed the changes in CME resulting from PGEA and the Contract which he thought would result in greater harmonisation in the methodology of CME. He felt the education of established principals would be conducted in a fashion much more like that which characterised vocational training with an emphasis upon small group and participative work. Courses approved for PGEA would have a methodology

appropriate to the aims of the course, reduced reliance upon lectures as a sole method of teaching, a venue appropriate for the work in hand, pre and post course assessment, an organised structure for assessment of personal needs, and assessment by the Regional Adviser would ensure that these needs were met.

Bahrami (1990) in a further Horizons editorial noted that there was a need for general practitioners to develop a new attitude towards education to the extent that it would no longer be free and have to be paid out of PGEA. He also felt that this would enable individual general practitioners to consider developing their own personal education plans, and if implemented properly PGEA could herald a new beginning for general practice education.

Hilton et al (1991) in a regional survey looked at the intentions of general practitioners regarding postgraduate education under the terms of the 1990 Contract. A questionnaire was sent to a one in three sample of doctors in South West Thames. 523 general practitioners were approached and 398 (76%) responded after a second mailing. 94% of respondents intended to claim the new PGEA although only 169 had given serious thought to the ways in which they could qualify for it. The majority would want to qualify by accumulating multiple short sessions at their local postgraduate centre.

A study by Al-Shehri (1992a) looked at PGEA in November 1990 and studied a 20% sample (255) of principals in general practice in the Mersey region. With

the majority willing to attend to qualify for PGEA they thought the new arrangements would help them keep up-to-date and sought more information about PGEA activity. The results suggested that the new arrangements would be attractive to the overwhelming majority of general practitioners and that CME providers should take advantage of this opportunity and keep in mind characteristics in the individual general practitioner and in the practice which influence choice.

Al-Shehri (1992b) in a further paper noted that although attendance might not be a problem he questioned the educational appropriateness of some of the activities. He felt that the market created by the CME provision had favoured low cost activity of questionable value. Hasler (1992) looked at the PGEA two years on and felt that Regional Advisers should be taking increasing initiatives in postgraduate education and in PGEA arrangements. They could no longer afford merely to respond to applications but needed to create a climate in which the applications reflected real needs and had implications for audit.

The Portfolio Based Learning Occasional Paper (1993) expressed disappointment that the new arrangements did little or nothing to foster continuing medical education on accepted principles of adult learning. It was concerned that the allowance merely provided a limited financial award for time spent attending an educational activity and not for learning and subsequent appropriate professional development, although they did recognise that the

Regional Adviser structure was ill-prepared for the uncontrolled explosion of applications which had occurred. Virji (1991) studied the applicants applying for a residential course in which they were involved in the design, in the process of learning, and the evaluation. The 10 sessions for the PGEA could be gained at one time. The author noted that of the 110 formal applications PGEA was the main reason for applying.

SUMMARY

The development of PGEA on an national basis has been described with the various opinions and hopes for the allowance. The guidelines from the Department of Health on PGEA were very loose and systems had to be worked out according to local requirements.

CHAPTER 3

AIM OF THESIS

This research set out to ask an important question. The research provided an answer but inevitably led to further questions which resulted in more answers in a specific field of study: Factors influencing the Uptake of Continuing Medical Education in General Practice.

The information was prepared as a thesis by published research but in this format did not start with a stated hypothesis. The research set out to study doctors' behaviour in their uptake of continuing medical education in a changing general practice situation.

In his book on research in general practice Howie (1989) states that a hypothesis is what results when an attempt is made to anticipate an answer at the same time as asking a question.

The Shorter Oxford Dictionary defines a hypothesis as: "a supposition in general, something assumed to be true with proof", or alternatively, "a provisional supposition which accounts for known facts and serves as a starting point for further investigation by which it may be proved or disproved".

From Howie's description and that in the Oxford Dictionary this thesis did have a hypothesis at the beginning of the work. A probable hypothesis would have been "a general practitioner's uptake of continuing medical education is influenced by his personal characteristics and achievements, the logistics of his practice environment and the colleagues he meets".

The main aim of the thesis was to look at factors influencing the uptake of continuing medical education among general practitioners. Other aims were:

- to examine the educational changes resulting from the 1990 Contract.
- to investigate patterns of attendance at meetings accredited for the postgraduate education allowance.
- to compare the characteristics of general practitioners who followed specific patterns of attendance.

Despite continuing education and professional development being an important part of a general practitioner's ethos and a significant consumer of public funds, there was a limited tradition of research into the subject. Despite the importance of the subject, the literature was sparse with an individual author carrying out one or two publications with no obvious long term plan. There had been no real co-ordination between the various studies although the Royal College of General Practitioners had been involved in a number of these. Most

of the work done had been based on questionnaires to general practitioners, with variable response rates and this created problems as to whether people responded stating what they actually did or what they thought they should be doing. One of the difficulties in providing factual information was that none of the authors appeared to have access to factual data on their subjects, normally held by Health Boards or Family Health Service Authorities.

The 1990 Contract contained a new educational package which involved general practitioners attending a number of sessions with a balance of courses to meet the requirements of the PGEA. The Government wished to stimulate interest in education and to increase the variety of courses, which included a cash incentive in the general practitioners' terms and conditions of service.

This new allowance meant that the practitioner had to be absent from the practice. In addition the expenses element was paid by the general practitioner and it was important to find out if these factors would inhibit the delivery of education.

Other factors which were important to include when looking at uptake were the structure of practices, the effects of gender on attendance, the effects of the location of the practice, whether doctors worked full-time or part-time and whether they were Members of the Royal College of General Practitioners or worked in a training practice.

CHAPTER 4

INTRODUCTION OF EDUCATIONAL SCHEME

In a leader in Medical Monitor, Hasler (1990) noted that the biggest problem facing Regional Advisers at the beginning of 1990 was how to find sufficient money to operate the new arrangements for approving educational activities. With the loss of administrative revenue from Section 63, and with Government insistence that the money had to be raised from the profession, Regional Advisers were forced to devise charging systems.

An article in Financial Pulse (1990) gave the opinion of one course organiser who felt that the privatisation of postgraduate education would see the costs of lectures soar until they swallowed up the entire PGEA allowance, which was initially set at £1955. Another G.P. tutor in the same article warned "I really think most general practitioners don't yet realise they are going to have to pay for education, it just hasn't sunk in yet. They say it is part of their salary and why should they pay for the courses." He envisaged pharmaceutical involvement in training with general practitioners becoming even more "parasitic" on the pharmaceutical industry.

The Regional Advisers in England and Wales were planning to charge an accreditation fee to fund their infrastructure but at the eleventh hour the Department of Health provided £900,000 to fund the infrastructure. The

Working for Patients Medical Education Document (1991) stated that the Dean's budget would contain funding for central support and accreditation fees for the postgraduate education allowance. Until 1994 this support had not been given in Scotland but a contribution is now made.

The GMSC Survival Guide (1990) to the new Contract noted that accreditation in England would be the responsibility of the Regional Adviser and in Scotland and Wales would be the responsibility of the Postgraduate Dean in consultation with the Regional Adviser. Hilton et al (1991) in a Regional Survey on general practitioner intentions noted that 94% of their 398 respondents intended to claim the new PGEA. The idea of a regional scheme was posed. However, 36% were not in favour of such a scheme, 47% would be prepared to pay up to £200 per annum and only 17% more than £200 for such a scheme. £200 was well below the projected financial requirement in that region. Al-Shehri (1992a) in another survey of 179 general practitioners noted that 129 were willing to attend to qualify for PGEA. 44 said that they would, but reluctantly, and only one said he or she would not attend meetings. A small number did not reply to the question.

In October 1989 in the West of Scotland, the Section 63 administrative structure consisted of one administrative assistant and a secretary: a level of funding which was quite inadequate to implement the requirements necessitated by the 1990 Contract.

The introduction of the postgraduate education allowance was debated frequently within the region and it was decided that one method of implementing this would be by making an annual charge to each doctor in the region.

The West of Scotland Region covers six Health Boards, stretching from Oban in the North to the South West Border of Scotland (200 miles), with Falkirk and Stirling being just within the Eastern Border. Over 1800 general practitioners work in the six Health Board areas which serve 2.8 million patients.

In October 1989 it was announced that the first postgraduate education allowance would be paid on 1st April 1990 if a doctor had fulfilled 10 sessions of Section 63 education from 1.4.89 until 31.3.90. The qualification period was then extended by a further six months to 30.9.90. This ruling led to an increased demand for educational sessions but the Section 63 budget in the region until 31.3.90 had already been committed. Specific plans were required to meet this new demand.

Method

In order to help doctors obtain the necessary sessions it was decided to hold a number of large one day clinical meetings (maximum attending 160). Each

meeting was 2 sessions in length, 18 of which were arranged at short notice and all followed the same format. The Regional Adviser commenced each day talking about the plans for the introduction of the postgraduate education allowance. This was followed by two lectures of one hour with a break for coffee, with the afternoon consisting of three lectures, making up two and a half hours. Time for discussion was included at the end of each lecture. Details of these meetings were circulated by the Adviser when he talked to groups of people but the major method of distribution was through the Health Board mailing (Appendix 1). A daily charge of £30 was made as a course fee and any amounts paid were subtracted from the first annual charge (£300).

Results

The billet describing the meetings started reaching general practitioners on 7th December and there was probably a delay of 7 to 10 days until everyone in the region had the necessary information. The number of applications was high and by 15th December 359 had been received. The number of applications received by the end of January is shown in Table 1. The average number of days requested was 3.2, the first meeting was fully booked on 10th January and the demand for the others on that day is shown in Table 2. The meetings were all held between 10th January and 30th March 1990, all having between 138 and 160 attending. In the six month period before the 31st March the Adviser addressed 34 meetings on the plans for the PGEA, speaking to over 1200 of the doctors in the region. Six of these meetings were to the Local Medical

Committees (LMCs) of each Health Board. Some of these meetings were difficult, with members unhappy about paying course fees, but when the plans were explained the majority became more comfortable with the arrangements.

The income from course fees allowed an infrastructure to be set up to meet the demand after 1st April, and a further administrative assistant with secretarial back-up was employed. A computer was purchased and all the names of the general practitioners in the West of Scotland entered. This allowed a direct mailing informing doctors of the plans after 1st April. Potential course organisers were written to on 6th December 1989 saying:

"The new arrangements for postgraduate education will begin on 1st April 1990. At present there are no definite guidelines from SHHD nor do we have any idea of how many of our colleagues will take up their PGEA.

The West of Scotland Committee for Postgraduate Medical Education have been making plans for the introduction of the PGEA and hope that you can be involved in the provision of courses at a local level. You have been involved in the provision of continuing medical education, often with no payment to yourself, but we are now moving to a system where we hope to pay reasonable rates for work done. This will involve a fee for setting up a course, the level being based on the number of sessions. Lecturers, facilitators/chairmen will

also be paid realistic fees. Personal contributions to a course will count towards your own PGEA.

The success of this plan is dependent on the uptake by general practitioners in the region and we hope to mail a booklet to them on courses available for 1990/91 on 1.3.90. They will be asked to pay an annual course fee which will allow them to attend any of the courses listed and also attend more than 10 sessions if they wish. This fee will also allow us to keep a record of their attendance which will mean computerising this for the region. As far as the courses are concerned we hope the majority of these will be provided locally. The annual course fee will allow us to protect the high cost courses which will probably be arranged centrally, eg. the Consultation and Management courses. Any plan of courses will need to meet the requirements of the 1990 Contract. Could you let me know by 31st January 1990 the courses you plan to hold locally between 1.4.90 and 31.3.91. I will require:

- Title and summary of content.
- Category, which of the three areas covered.
- Venue.
- Dates and times.
- Minimum and maximum number on course.
- Proposed teaching methods, eg. lecture, small group, case discussion.

I would be grateful if you could indicate what you could arrange. When we are aware of what you are able to carry out we will work out what back-up is required both centrally and locally to provide the educational needs of the general practitioners. We could perhaps have a meeting some evening during January to discuss the plans. I look forward to receive your plans by 31.1.90."

During this time details of the scheme were worked out and the main characteristics were: a flat rate subscription, a guaranteed provision of the required sessions, the opportunity to attend additional sessions at no charge, computerised database with advice service, provision of courses to suit all requirements, high quality courses, record keeping and certification of attendance.

There were a number of high cost courses and these were subsidised by those costing less. It is also important to stress that the venture was non-profit making and that any proceeds which were left over were taken into account when setting the level of the following year's subscription. A booklet was prepared which described the system. The University Finance Department handled all funds on behalf of the Committee.

A computer database was established which recorded all attendances of every general practitioner in the West of Scotland Region at PGEA approved courses, both within and outwith the region. This provided an important resource for the study. Software for the computer which had been purchased was gradually developed to provide important administrative and educational data. This allowed direct mailings informing doctors of the plans and developments.

Around 100 doctors made no financial contribution to the system but their records were kept for two reasons. Firstly, the educational information on all doctors was therefore complete, and secondly, the six Health Boards did not wish to duplicate information and would only agree to use the database if all doctors were included. This decision had considerable cost savings for the Health Boards.

1344 of the 1802 doctors (75%) became subscribers to the West of Scotland Scheme. This varied from Health Board to Health Board with the lowest number of subscribers being 182 out of 307 (59%), with the highest 255 out of 300 (85%). Four of the six Health Boards had over 75% subscribing. The details are shown in Table 3. Of the remainder, a number of doctors had sessions which they had carried forward from the previous year and paid for additional individual courses on a pro-rata basis. A number decided not to claim their postgraduate education allowance, with others making their own arrangements for provision both within and outwith the region.

A wide range of courses was organised throughout the region. These involved week long courses, expert lectures, small group work and the opportunity for practical experience. All areas specified in the contract were covered including Paediatric Surveillance and Minor Surgery. There were also clinical updates, management courses, consultation skills and general practice research. In the initial booklet, 249 courses were included, with 125 of these being arranged centrally and the remainder throughout the region. Of the total, 166 were in Disease Management, 80 in Health Promotion and 104 in Service Management. 113 were greater than 4 sessions. Details are shown in Table 4.

DISCUSSION

The introduction of the postgraduate education allowance resulted in considerable changes in education. In the West of Scotland there was an increase in the central organisation to facilitate, provide and accredit courses. The annual charge paid allowed the new arrangements to be instituted. The likely acceptance of the new arrangement was unknown and the support of the doctors in the region was gratifying. The fact that the author was able to address almost two thirds of the doctors with the plans was an important factor in the success. There was initial concern among some general practitioners that doctors would be reluctant to subscribe to the scheme but this was not our experience. The initial speed of applications caused major logistic problems in an already hard pressed environment but hard work and the recruitment of extra

staff eventually solved the problem. The initial one day meetings allowed a sum of money to provide for longer term plans which were important in a situation where there were no clear guidelines.

Educational funding early in the contract in England and Wales provided some help with an infrastructure but similar funding was not granted in Scotland. A number of doctors felt strongly about this and it was hoped that similar funding would be provided in Scotland. A contribution to this funding is being made in the year 1994/95.

A regional scheme for a region as large as the West of Scotland did provide some difficulties in estimating the number of courses required and ultimately it seemed that there was some over-provision as a small number of courses had to be cancelled.

A flat rate subscription reduced administration and it also allowed doctors to attend extra sessions without having to consider cost. It allowed some very high cost courses to be provided in situations where the actual cost would have been prohibitive to any doctor attending, eg. high cost management courses used in industry. The scheme also brought experts from a distance, something which was very difficult under the previous arrangements because of limited funds.

Such a vast expansion in the number of courses did give some concern regarding quality and this issue continues to require more attention and resources. In the last two years evaluation of courses has taken place but only at a participant happiness level. However, the feedback has been encouraging. Another advantage of a regional scheme, with travel and subsistence no longer being directly reimbursed, is that some protection is given to doctors who practice at a distance from the centre with meetings being provided locally with relatively more speakers being brought from outwith their own areas. This is important in a region where marked rural and urban variations occur.

The overall uptake was 75% within the region and this rose to 80% when doctors who appeared not to be claiming their PGEA were removed from the sample. Two of the Health Board areas had fewer subscribers than the others. Argyll and Clyde had an educational forum in an area of high doctor density and this explained their lower uptake whereas Forth Valley sits in contact with three Scottish regions and some of their doctors would obtain their requirements in these other regions.

When sub-groups were examined it was encouraging that over 80% of the trainers in the region had subscribed, a group who had a significant number of educational sessions to carry forward as allowed in the Statement of Fees and Allowances. A similar level of support was given by some of the LMCs' which indicated an awareness of the difficulties being faced. The large number of

courses gave a timing and venue which suited most doctors. The length of the course was at the discretion of the local organiser but it was interesting to note that meetings arranged by the Faculty of the RCGP tended to be longer. The West of Scotland Faculty RCGP provided a significant number of courses under Section 63 and provided an increased number under the new system using the same educational philosophies. There were almost as many courses in Disease Management as the other two categories added together, undoubtedly a reflection of the speed at which the courses were set up. Disease Management, with consultant input, was the easiest to organise but a more even balance developed subsequently to meet the category requirements over five years.

One impression gained was that most doctors prefer to attend courses within their own Health Board areas and the regional exchange which took place under Section 63 appears to be less prevalent. However, this is something which may change with time as doctors become more comfortable with the working of the contract. Non-attendance had been a problem at some of the courses and perhaps could be explained by the booking system which asked for reservations to be made early in the educational year and secondly, with a flat rate subscription, doctors tended to book for more sessions than they were actually able to attend. It is interesting to note that the large meetings which were arranged to obtain the first postgraduate education allowance had a maximum no-show of 4 in any of the 18 meetings of up to 160 participants.

One problem which has been discussed from time to time is the conflict which the Regional Adviser has as a provider and accreditor. During 1990/91 he acted as a co-ordinator, and was a provider of 3 of the 249 courses. However, this potential conflict led to his withdrawal as the co-ordinator of the regional scheme. Guidelines were also prepared for organisers of meetings and these are included as Appendix 2. A further criticism of the regional scheme has been that such a scheme, with the majority joining, removed choice but this criticism has not been borne out as there are a significant number of alternatives.

In setting up the regional scheme there was a tremendous increase in workload for a number of people but the large amount of goodwill among doctors in the West of Scotland towards the new arrangements eased the path of these difficult educational changes.

A regional package with an annual charge paid by the general practitioners seemed a popular and viable option for doctors to obtain the postgraduate education allowance. The success of this scheme in the West of Scotland allowed a considerable amount of money to be carried forward to the next educational year and the subscription for 1991/92 was set at £160.

SUMMARY OF SCHEME INTRODUCTION

A regional scheme can provide the required number of sessions for doctors to qualify for the postgraduate education allowance. 1344 of the 1802 general practitioners (75%) subscribed to the West of Scotland Scheme. In the initial booklet 249 courses were arranged between 1.4.90 and 31.1.91 with 125 of these being located centrally and the remainder throughout the region.

A regional package with an annual charge is a viable and popular option to meet the requirements of the postgraduate education allowance.

ACCREDITATION, SUBSEQUENT FINANCE AND WEST OF SCOTLAND SCHEME

As no infrastructure had been provided within the regional office an accreditation fee had to be charged for each meeting. Within the annual charge there was an element for accreditation and any outside providers had to pay an accreditation fee for the service. Because of the high level of uptake among the general practitioners, meetings which were set up by the medical societies and the Health Boards had their accreditation fees waived. The end of the first year of the scheme provided a very healthy financial situation and as all the money was paid at the beginning of the year (a 5% discount having been given if this was paid by the 8th April), high interest rates at that time provided a useful boost to the funds.

The number of subscribers at £160 was 1292 during 1991/92 but the £160 had been set at too low a level and a small loss was made, for 1992/93 the figure was set at £240 and this has been the level since that time. The number joining the scheme dropped in 1992/93 to 1,037 and in 1993/94 was 915. The loyalty of the general practitioners has been very gratifying as there have been for a few years a considerable number of free alternatives.

WEST OF SCOTLAND COMMITTEE FOR POSTGRADUATE MEDICAL EDUCATION

Chairman:
DR. J. CAMPBELL FERGUSON
Dean of Postgraduate Medicine:
PROFESSOR NORMAN MacKAY
Adviser in General Practice:
DR. T. S. MURRAY
Secretary to the Committee:
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Ext.

If telephoning, please ask for:

Ms. Sandra Lyall

30th November, 1989

Dear Colleague,

POSTGRADUATE EDUCATION ALLOWANCE

The new 1990 contract will include a postgraduate education allowance which will be paid to all practitioners who maintain a balanced programme of continuing education. This will cover the three areas laid out in the contract. The allowance will contain an element to pay course fees and accreditation of courses. The administration for courses from 1990 onwards would be greatly simplified by paying an annual charge.

The West of Scotland Committee for Postgraduate Medical Education would provide sufficient courses both at local and central venues to fulfil each of the category requirements but specific courses with a high demand, e.g. child surveillance, would be on a first come basis.

There is a tremendous demand for Section 63 courses at present but this year's budget is already spent. The West of Scotland Committee have decided to arrange a number of one day meetings (2 sessions) at 5 Lancaster Crescent, Glasgow, G12 and charge a daily course fee of £30. These meetings will have full Section 63 approval. As the sessions accumulated will count towards the first P.G.E.A. and thus allow the doctor to claim this at an earlier stage in the year we will deduct the fees paid now from the first annual charge. The annual charge as yet not been decided. Several proposals have been made and proposed charges vary from £400 - £1000. In the West of Scotland however we feel that if we get a good uptake 80%+ we could offer all necessary postgraduate education for a fee of £300.

A schedule of proposed one day meetings is attached and as the numbers on these will be limited an early application is essential. I will speak about the new arrangements at each of the one day meetings and will be available for consultation for one hour prior to the meeting.

The West of Scotland Committee for Postgraduate Medical Education will mail directly to you in early March 1990 all courses planned for 1990-91.

Stuart Murray

T. S. MURRAY
ADVISER IN GENERAL PRACTICE

COURSES

ONE DAY MEETINGS (2 Sessions) : JANUARY - MARCH 1990

Daily course fee : £30.

Daily contribution to coffees and lunch : £2.50

All meetings will be held at the Western Postgraduate Centre, Lancaster House, 5 Lancaster Crescent, Glasgow. (Tel: 041-357 2615)

The meetings will commence at 9.30a.m and finish at 4.00 p.m.

Please indicate which of the courses below you wish to attend by NUMBERING IN ORDER OF PREFERENCE. If lunch is required please tick appropriate box.

		No.	Lunch
ASTHMA	10th JANUARY 1990		
CARDIOLOGY	12th JANUARY 1990		
ENDOCRINOLOGY	17th JANUARY 1990		
HYPERTENSION	31st JANUARY 1990		
CARDIOLOGY	7th FEBRUARY 1990		
GASTROENTEROLOGY	13th FEBRUARY 1990		
MULTIPLE RISK FACTOR MANAGEMENT	14th FEBRUARY 1990		
VIROLOGY SERVICES IN GENERAL PRACTICE	23rd FEBRUARY 1990		
COMPUTER IMPLICATIONS OF NEW CONTRACT	27th FEBRUARY 1990		
CHRONIC RESPIRATORY DISEASE IN PRACTICE	28th FEBRUARY 1990		
DIABETES MELLITUS	7th MARCH 1990		
RHEUMATOLOGY	9th MARCH 1990		
DERMATOLOGY	13th MARCH 1990		
MEDICINE and THERAPEUTICS	14th MARCH 1990		
PALLIATIVE MEDICINE	27th MARCH 1990		
INFECTIOUS DISEASES	28th MARCH 1990		
STROKE and REHABILITATION	29th MARCH 1990		
DERMATOLOGY	30th MARCH 1990		

NAME _____

ADDRESS _____

_____

TEL. NO. _____ SIGNATURE _____

PLEASE RETURN THIS FORM WITH THE APPROPRIATE FEE TO:-

Ms. SANDRA LYALL
ADMINISTRATIVE ASSISTANT
DEPARTMENT OF POSTGRADUATE MEDICAL EDUCATION
UNIVERSITY OF GLASGOW. G12 8QQ (TEL: 041-339 8855)

CHEQUES should be made payable to UNIVERSITY OF GLASGOW.

ON RECEIPT OF APPLICATION FORM AND FEE, YOUR ACCEPTANCE WILL BE CONFIRMED AND A PROGRAMME FOR THE APPROPRIATE DAY WILL BE SENT TO YOU.

APPENDIX 2

GUIDELINES FOR ORGANISERS

- There should be a named organiser.
- The aim of the provider organisation should be clearly stated.
- The provider should consult with the Regional Adviser regarding the programme design.
- There should be a clear description of the educational objectives of the programme.
- The content should be relevant to the learning needs of General Practitioners and patient services they provide.
- Experimental methods should be actively sought.
- There should be participative learning where possible.
- There should be evaluation and post-course feedback.
- External evaluation by the Regional Adviser can take place.
- The venue should have suitable educational facilities.
- Arrangements for recording attendance should be specified.

TABLE 1

Date	Number of Applications
7.12.89	55
15.12.89	359
18.12.89	444
22.12.89	509
5.1.90	679
9.1.90	700
30.1.90	827

TABLE 2 - Applications to Courses on 10.1.90

January	Asthma	140
	Cardiology	121
	Endocrinology	120
	Hypertension	156
February	Cardiology	134
	Gastroenterology	147
	Multiple Risk Factor Management	100
	Virology Services in General Practice	110
	Computer Implications of New Contract	160
	Chronic Respiratory Disease in Practice	122
March	Diabetes Mellitus	152
	Rheumatology	110
	Dermatology	142
	Medicine and Therapeutics	126
	Palliative Medicine	103
	Infectious Diseases	106
	Stroke and Rehabilitation	75
	Dermatology	110

TABLE 3 - Doctors Subscribing to Regional Scheme by Health Board

Health Boards	**Total GP's**	**Subscribers**	*%*
Greater Glasgow	653	500	77
Lanarkshire	300	255	85
Argyll and Clyde	307	182	59
Ayrshire and Arran	252	196	78
Dumfries and Galloway	104	81	78
Forth Valley	186	130	70
	1802	1344	75

TABLE 4 - Courses available, origin, category and length

	No. of Courses	DM	HP	SM	Length greater than 4 sessions, ie. 2 days
Central	125	81	27	42	48
West of Scotland Faculty R.C.G.P.	18	12	8	10	12
Lanarkshire	20	15	10	11	12
Ayrshire and Arran	20	16	9	12	17
Argyll and Clyde	33	19	12	16	13
Forth Valley	16	12	8	7	9
Dumfries and Galloway	17	11	6	6	2
	249	166	80	104	113

DM - Disease Management HP - Health Promotion DM - Service Management

Some courses had more than one category

CHAPTER 5

BOOKINGS FOR COURSES ACCREDITED UNDER THE SCHEME

Previous postal and interview studies (Aitcheson 1974, Reedy et al 1979, Branthwaite et al 1988, Shirriffs 1989) have shown that general practitioners prefer evening and week long meetings. The most popular topics in these studies were related to clinical and therapeutic issues and recent medical advances. Aspects of Service Management had a low priority and although doctors recognised the importance of this area they did not attend courses in the topic.

The initial course booklet describing the West of Scotland Scheme contained 249 courses and was mailed directly to general practitioners in early March 1990. Of the total number, 166 fell under the category of Disease Management, 80 under Health Promotion and 104 under Service Management. Some courses had more than one category with a few including all three. With the large number of courses on offer an opportunity was presented to look at the popularity and preferred timing of the various courses.

Method

When doctors enrolled in the West of Scotland Scheme they were asked to choose the courses they wished to attend for the first year. The course bookings were examined at the end of May and it was decided to analyse the courses which were more than 75% booked by that date, and determine their content and timing.

Results

Almost 80% of the doctors who had joined the West of Scotland Scheme had done so by the end of May. At that time 44 courses (17.7%) had more than 75% bookings. Within that group 22 (13.3%) were in Disease Management, 25 (24.0%) in Service Management and 22 (27.5%) in Health Promotion. Too many courses had been arranged and a number had to be cancelled because of lack of uptake. In the first year there was an overlap of categories (DM, SM, HP) between courses.

The meetings which were contract related accounted for 18 (60.0%) out of the 30 with more than 75% booked and this included minor surgery, audit and management courses. Meetings held in the evening accounted for 15 (39.5%) out of a total of 38 in the group studied. The maximum number of participants for the majority of courses was between 30 and 40: 8 meetings had a maximum of less than 20, with 7 having a maximum of over 50. By the time of the analysis 24 meetings were fully booked and these are shown in Table 1. 11 were specifically related to the contract and many of the others had contract related components. 10 of those fully subscribed were a programme of evening meetings held throughout the educational year. All 5 courses in child health surveillance were fully subscribed.

Other courses which were popular included organising a diabetic clinic, customer care, women's health, sports medicine and medico-legal aspects of practice. Child sexual abuse, and an update in geriatric medicine, were also popular. Courses held during the day were popular particularly a single session in the afternoon, but courses held at the weekend attracted a low number of applicants. This lower number of bookings also applied to week long courses. When the distribution of the timing throughout the region is examined the doctors working in the more central Health Boards preferred evening meetings whereas those in the more rural situations opted for day-time meetings with several consecutive days popular.

DISCUSSION

Quality of education is of great concern to providers of education and educational advisers. It was impossible, with such vast changes in the educational field, to build in a quality measurement at an early stage. Although the number booking for courses is not a measurement of quality it gives some indication to providers of the priorities as seen by the consumer. The speed of change did not allow the quality issue to be built in from the start but evaluation has now become an important issue.

With the new educational situation it was difficult to predict the number of courses required, and a five-fold increase in activity was an overestimate when viewed retrospectively. As a result, a number of courses had to be cancelled. Some courses were held with less than an ideal number of participants as it was

considered disruptive to general practitioners to cancel or change the date at a late stage. However, this had an effect on the dynamics of the group attending and this policy was not repeated.

A study of general practitioners' attendance at courses (Difford et al 1992) showed the same pattern in the South West Region at 358 different courses, 71 courses having only between 1 and 5 attenders and 89 between 6 and 10. The South Western region has shown an even more liberal approach to the continuation of meetings. Difford's study also showed that longer courses were more popular with general practitioners.

The trends which had been shown were not altered as further doctors joined the scheme throughout the year.

The effect of the new contract has influenced doctors' choice of courses with child health surveillance being the prime example. It has also widened general practitioners' educational interests. Previous studies (Reedy et al 1979, Branthwaite et al 1988) have shown a preference for clinical medicine and therapeutics whereas the current scheme showed a marked shift in courses to Service Management and Health Promotion. Initially there were fewer courses in these two categories as compared with Disease Management and this may be a factor in such significant differences. The South West study (Difford et al 1992) showed a similar balance among the three categories. The change in the course

preference may have been predictable but the degree and the speed of change was surprising.

Al-Shehri (1992a) in a questionnaire survey after six months of the PGEA showed that organisational skills were rated significantly higher in their 1990 survey than they had been in a previous survey three years earlier.

The potential of the contract to effect change is demonstrated with doctors keen to attend courses which would increase their expertise in these areas of change and although the importance of certain topics had been recognised previously they were not popular subjects for courses. However, their link to terms and conditions of service has changed that perception.

The majority of courses were day long, although a number lasted one week, but the demand for the latter fell considerably. This is in sharp contrast to the findings of previous studies (Aitcheson 1974, Reedy et al 1979, Branthwaite et al 1988 and Shirriffs 1989). There is also an undoubted preference for evening meetings, which are more compatible with the increased demands of the 1990 Contract resulting in greater difficulty arranging time away from the practice.

Half day meetings in the afternoon were also popular and these meetings undoubtedly allowed the practitioner to combine an educational half-day with a degree of service work. A survey on continuing education (Forrest et al 1989) had

suggested that residential courses were perceived as the best learning source. However, pressure of work, attitudes of partners and lack of time prevented attendance and these difficulties were undoubtedly heightened by the new arrangements. Despite the increased workload as a result of the 1990 Contract it was interesting to note that weekend courses still did not have a high priority.

The numbers attending each meeting also varied according to the teaching method employed but there was still a considerable choice of the various options. The timing of the meeting, in addition to the content, seemed to be an important factor. Another factor was the distance from the workplace to meetings and this could also have explained some of the differences in central and local preferences. A regional survey of general practitioners' intentions regarding postgraduate education under the 1990 Contract (Hilton et al 1991) reported that the majority of the doctors in their region would still want to qualify for their PGEA by accumulating multiple short sessions at their local postgraduate centre.

The requirements for child health surveillance probably gave Health Promotion a short term boost in popularity but this might not be maintained in the long term. Audit, minor surgery and management were all related to the new Contract and each of these areas was popular although association with terms and conditions of service could have been a factor in this popularity. The update in geriatrics may also have been perceived as being related to the 1990 Contract. Child abuse

courses became more popular and this could be related to a topical issue where general practitioners' knowledge may have been deficient.

The courses related to the new contract were mainly in management with practical help on how to handle this in the new situation. The health promotion courses, outwith the topic of child surveillance, were those related to holding clinics within the practice. These areas are important in the day-to-day running of the practice.

The bookings were a snapshot at a particular point in time but did give a useful pointer to course organisers as to what the customers considered important at a time of change.

SUMMARY

Of the large series of courses, those which were contract based or related were the most popular, with Service Management and Health Promotion being more popular categories than Disease Management. With regard to the timing of meetings, evenings were preferred when a wide range of options were given, with courses held at weekends being less well attended. This information has been echoed in other studies reported and should be useful to providers of continuing medical education in their forward planning.

TABLE 1 - Courses fully subscribed by title, category, number of sessions and participants

Title	Category	Number of sessions	Number of participants
Practical Help with New Contract	SM	5	30
Postgraduate Updates	DM\SM	6	30 E
Minor Surgery	DM	1	30
Primary Care and Health Promotion	HP	2	15
Child Health Surveillance	HP	6	30
G.P. and Management	SM	2	15
Child Health Surveillance	HP	6	30
Postgraduate Updates	DM\SM\HP	9	30 E
Child Health Surveillance	HP	6	30
Minor Surgery	DM	1	30
Postgraduate Updates	DM\SM\HP	8	30 E
Medical Cardiology	DM	2	30
Sports Medicine	HP	2	80
Diabetic Study Day	HP	2	30
Child Health Surveillance	HP	6	30
Advanced Sports Medicine	HP	3	30
Postgraduate Meetings	DM\SM\HP	9	30 E
Postgraduate Meetings	DM\SM\HP	11	30 E
Postgraduate Meetings	DM\SM\HP	10	40 E
Postgraduate Meetings	DM\SM\HP	10	30
Postgraduate Meetings	DM\SM\HP	14	40 E
Postgraduate Meetings	DM\SM\HP	10	40 E
Postgraduate Meetings	DM\SM\HP	10	30 E
Child Health Surveillance	HP	6	30 E

CHAPTER 6

CHARACTERISTICS OF AND VARIATIONS AMONG GENERAL PRACTITIONERS

a) Those not claiming their postgraduate education allowance.

Attendance by general practitioners at postgraduate meetings fell when this ceased to be obligatory for seniority payments (Wood et al 1980). The Green Paper "Promoting Better Health" (1987) suggested that 50% of doctors never attended any continuing education and a similar figure has also been shown in other studies (Ellis 1985).

Studies of non-attenders (Reedy et al 1979, Wood et al 1980, Pickup et al 1983a, Branthwaite et al 1988) had not shown definite trends although there had been some suggestion that non-attendance occurred in the younger and older age groups and also in single-handed doctors with small lists. However, the most recent study (Branthwaite et al 1988) showed few differences between attenders and non-attenders at continuing education meetings for general practitioners.

There had been discussion as to whether doctors would find it worthwhile obtaining the necessary requirements for the new postgraduate education allowance as the sessions needed would require time away from the practice, and this might not be prudent or cost effective in the new climate. The new educational arrangements with the removal of the travel and subsistence budget heightened that fear for those who practised at a distance from the centre. The

current study examined the fears related to the new arrangements and the characteristics of the doctors who did not claim their first allowance.

Method

A printout was obtained from the database on 31.12.90 and for this specific study doctors who had obtained fewer than 10 sessions were examined. A circular was mailed directly to each doctor four weeks previously giving them a note of their sessions and asking them to check and highlight any discrepancy.

The latest editions of the Medical Register and the list of doctors registered with the General Medical Council were examined to ascertain when the doctor qualified and whether he was a Member of the Royal College of General Practitioners. The Health Board lists were examined to determine the structure of each doctor's partnership. The College membership data was checked from the latest membership handbook. Data on recent College membership, distance from an educational centre and whether the doctor worked in a training practice was based on the knowledge of the author.

Results

102 doctors did not have sufficient sessions to claim their postgraduate education allowance. The doctors had all 2 or fewer sessions. Their distribution in the six Health Board areas is shown in Table 1. Of the 102, 18 were female, 14 had the MRCGP, 9 worked in training practices but none were the trainer or the deputy.

The number of partners in the practices where doctors worked is shown in Table 2. Over half of them were in a single-handed or a two person practice. Their year of qualification is shown in Table 3 and 38 of the doctors had been qualified for over 30 years.

Distance from the centre did not appear to be an important factor in attending and only 20 doctors out of the group came into that category. 25 of the doctors worked in a Health Centre. The decision regarding the PGEA seemed to be practice based and this appeared to be the situation in 37 instances, involving 48 doctors: 27 of the doctors were single-handed: it involved both partners in 6 two person practices and 2 partners on three occasions in a partnership of three, four and eight respectively. In an urban partnership of five, three of the doctors did not claim their postgraduate education allowance.

DISCUSSION

It is interesting to note that the group of doctors most in need of postgraduate education were those deriving least benefit from it. With the rapidly changing scene in medicine, doctors in small practices need to share experiences with their peers and those qualified for a long time need their knowledge updated. The early Section 63 arrangements (Ellis 1985), when those attending were paid a locum allowance, gave a greater incentive to those in small practices. However,

this sum was absorbed into the basic practice allowance and is clearly not now identified for that purpose.

Pickup et al's study (1983b) showed that approximately two thirds of the group who were not attending Section 63 meetings were attending other educational events. This did not seem to happen with the 1990 Contract as general practitioners now expect any meetings they attend to have educational approval. A questionnaire study (Siegler 1986) to 46 general practitioners who had not attended a Section 63 meeting in the previous two years had responses from 36. Although they found the programme interesting and relevant the timing of the meeting, other practice commitments and the distance which had to be travelled made attendance impossible. The Section 63 activities study (Wood et al 1980) found that the non-attenders were more likely to be single-handed practitioners with relatively small lists.

A further study (Branthwaite et al 1988) had only 19 non-attenders in the sample and thus made comparisons difficult. However, the researchers found no evidence to support the view that low attendance at postgraduate meetings was due to dissatisfaction with the lectures. Attenders and non-attenders were not significantly different in their view on the content and organisation of lectures, attendance at other kinds of educational events or in their reading habits and preferences. The only statistically significant difference between attenders and

non-attenders was that more non-attenders reported having no difficulty in keeping up-to-date.

In the present study all the doctors who did not qualify for the PGEA obviously had made a positive decision to do so as they all had two or less sessions considerably below the required number of 10. There was early concern regarding the accuracy of the information on the database since doctors could have attended courses outwith the region and not forwarded their certificates to the postgraduate office. However, this was unlikely as any certificate of attendance was passed to the Health Board and would then have been forwarded for addition to the database. The mailing of sessions to all doctors four weeks before the time of the analysis acted as a check on the accuracy of the information as they were asked to contact the office by telephone regarding inaccuracies.

The initial concerns regarding time away from the practice, the course fees, and travel and subsistence made doctors consider whether the exercise would be cost effective: and speculate whether many doctors would not try to fulfil the requirements for PGEA. In the West of Scotland there were adequate courses available at times and places to suit everyone, with 102 doctors deciding not to apply for this particular allowance. The fact that almost 95% of doctors were fulfilling the requirement would suggest that the PGEA was one of the successes of the 1990 Contract and has led to a vast increase in the number of meetings

and attendances to meet demands. Considerable concern has been expressed as to what doctors gain by attending courses and an answer to this question must be a long term aim in Departments of Postgraduate Medicine.

The sex difference in those not claiming was difficult to comment on although there seemed to be fewer women than would have been expected, which may be explained by the age range, with fewer women among the older doctors. Another explanation could be the allowance is more financially worthwhile where the commitment is less than full-time as the PGEA is paid in full, with the female doctor more likely to meet the requirements as its relative value is increased for the part-timer. In the study carried out by Wood et al (1980) non-attenders were more likely to be female which is at variance to the current study.

Where the allowance was not claimed, which seems to have been a practice decision on a significant number of occasions, no doubt these practices would benefit from discussing educational and management issues with colleagues.

Of the doctors not claiming their allowance only a small number were in the younger age group and well over half had been qualified for more than 20 years. These findings did not agree with previous studies (Reedy et al 1979 and Branthwaite et al 1988) which suggested that there was lower uptake of education by younger doctors. As the previous linkage was with seniority payment then this may help to explain this difference. A questionnaire involving

279 general practitioners in Mersey in November 1990 (Al-Shehri 1992a) stated that there were significant differences recorded between the different age groups in terms of their attitudes to PGEA activities. Older general practitioners were more reluctant than those younger to attend the sessions required to claim PGEA and preferred Section 63 arrangements. General practitioners who had been in practice for 15 to 19 years were the least motivated to attend PGEA validated activities.

Nationally only a third of practices are single-handed or two person (Fry 1983) but in the sample in the study over half came into that category. Practitioners in small practices would benefit from contact with their colleagues in other practices. Only 14 in the study were Members of the Royal College of General Practitioners, in contrast to 31% of doctors in the Region. Education has always been a very high priority area for the Royal College and the local West of Scotland Faculty have always been active in providing courses and this may explain the difference.

Only 9 of the doctors in the West of Scotland sample worked in training practices and this may reflect the fact that training is regarded as a practice commitment throughout the region with all partners subscribing to the ethos of training. Over a third of the general practitioners in the region work in training practices. The criteria for appointment as trainers now demands that all partners

in a training practice are fulfilling their requirement for the postgraduate education allowance. This change took place in 1991.

Only a small number of doctors were distant from the centre. Fears about attendance, with the incentive of the travel and subsistence budget being taken away, have not been justified. Another study (Branthwaite et al 1988) found that the distance from the surgery to the nearest postgraduate centre was strongly related to attendance and on average non-attenders lived twice as far away as frequent attenders.

It is interesting to note that the region has the highest concentration of doctors in Greater Glasgow and this area had the highest percentage of doctors not claiming the allowance. The new deprivation payments paid in Greater Glasgow may be one factor as these doctors may have considered the effort for PGEA not to be worthwhile in comparison to their deprivation payments which are automatically paid. The number of doctors working in Health Centres and not claiming was smaller than expected in the West of Scotland. This would suggest that their contact with other doctors is an important factor in attendance at meetings. These doctors would be aware of the requirements to claim the PGEA. This tends to be borne out by the fact that on a number of occasions the decision not to claim was practice based which would seem to be a decision made by the practice rather than by individual doctors.

The length of time since the doctor qualified is an important factor and those who had been qualified for longer could have been overwhelmed by the changes in the contract and not had sufficient time to adjust and follow their educational requirements. Some could have been preparing for retirement, others may have taken a 24 hour retirement where there was a restriction on the monies which they could earn thereafter. These factors may have influenced their decision regarding the postgraduate education allowance. This decision would not affect their partners in the practice as the allowance tends to be taken personally whereas not claiming other allowances would affect all partners.

Branthwaite et al (1988) studied their non-attenders in more depth and found that they were relatively younger and less organised in their attitudes and approach to work in comparison to doctors who were regular attenders. The non-attenders "often appeared to be more earnest, conscientious and highly concerned about their work (although there were some exceptions who were laissez-faire and complacent) but the non-attenders seemed to be disorganised and struggling against the pressures and demands on them. Many appeared isolated, they were anxious and lacking confidence in their relationship with other doctors although they would have welcomed support and opportunities for discussion. Some of them were very active and hardworking although in a restless way".

These are interesting comments from a previous study but it is very difficult to make a direct comparison with the current study because of the totally different

educational requirements and the linkage with terms and conditions of service and secondly, the small size of the sample in Branthwaite's study.

Doctors who do not claim their postgraduate education allowance are an interesting group with specific needs and further work is required to look at these needs as the doctors would undoubtedly benefit from the educational process.

SUMMARY

102 doctors in the region did not claim their first postgraduate education allowance. The highest concentration was in Greater Glasgow and distance from a centre did not appear to be an important factor. There was a higher number of doctors in single-handed and two partner practices with a significant number having been qualified for over 30 years.

A FURTHER STUDY

Subsequent work on this group was carried out (Kelly 1994) and two years later the number not claiming their allowance had fallen to 36. The non-claimers in this group were more likely to be male, to be working in small practices, and the only difference from the work which has just been described was that 10 of the group worked in a rural situation so distance could be an important factor in the longer term.

b) High attenders at educational meetings.

Previous literature (Reedy et al 1979, Wood et al 1980, Pickup et al 1983a, Branthwaite et al 1988) has shown that those who attended more sessions than their colleagues tended to have been registered as doctors between 10 and 30 years and to be working in practices with five or more principals. They were also more likely to hold additional appointments or be trainers.

Within the Statement of Fees and Allowances the maximum number of half days with which any doctor can be accredited for PGEA purposes in any one year is 20. This study looked at those who attended more than that number. The methodology was similar to that used for the study on the non-claimers already described. The groups looked at were those attending more than 35 half days and more than 45 half days between 1.4.89 and 31.12.90. A decision was considered practice based when more than one doctor in the grouping had completed more than 35 half days.

Results

171 (9.5%) doctors had attended more than 35 half days of accredited education. Of that number 34 (1.9%) had attended more than 45 half days. Their distribution in the six Health Board areas is shown in Table 4. The highest proportion of doctors 82 (12.6%) were in Greater Glasgow with the lowest proportion 13 (4.2%) in Argyll and Clyde. Of the doctors with over 45 half days, 28 of the 34 worked in Greater Glasgow and Lanarkshire. Of the 171

doctors, 56 were female: women doctors formed 26.1% of the general practitioners in the region but 32.7% of those who had attended more than 35 sessions. Overall 11.8% of the female doctors in the region attended more than 35 sessions but this varied from 3.6% in Argyll and Clyde to 16.9% in Greater Glasgow. Of the 34 doctors who had more than 45 half days, 7 were female (1.5% of the female doctors in the region) with 6 working in Greater Glasgow.

Of the 171, 104 (60.8%) were Members of the Royal College of General Practitioners and 25 of the 34 (73.5%) with more than 45 sessions were also College Members. 88 doctors (51.4%) with over 35 half days were in training practices and 18 (53.0%) in the group had more than 45 half days. From these training practices 60 of the 88 with more than 35 half days worked in Greater Glasgow and Lanarkshire and 14 of the 18 in the group with over 45 half days.

Of the high users 41 of the 171 (24%) were course organisers/speakers and this applied to 17 (50%) of those with more than 45 sessions. The decision appeared to be practice based for 64 (37.8%) of the doctors. 45 of that group were either single-handed or were in a two person practice. The remaining 19 were 5 groupings of 3 partners and one of 4: these doctors worked in practices with between 3 and 6 partners.

The number of partners in the practices where the doctors worked is shown in Table 5. The biggest single group was in the 5 partner practices and this

amounted to 15% of the sample. The association between the number of half days and the size of the practice was more common in Greater Glasgow, particularly for doctors working in a 5 person practice. This association was present both for doctors with more than 35 and 45 half days.

The time since qualification is shown in Table 6 with the largest group of doctors obtaining more than 35 and 45 half days being between 10 and 30 years qualified. The overall figure was 76% of the total for more than 35 days with Lanarkshire having 58.3% and Greater Glasgow 64.6%; the other Boards were considerably above this with three having above 90%. Of those with more than 45 days, 28 of the 34 (82.3%) had been qualified between 10 and 30 years.

DISCUSSION

The number of 35 half day sessions was chosen as this was the maximum number allowed by the Statement of Fees and Allowances during the period studied. Any sessions obtained above this number did not count towards the postgraduate education allowance, therefore all the doctors described in the study had attended meetings for which they would not obtain credits.

The distribution among the Health Board areas was interesting and the two areas with the largest urban population had the highest percentages of doctors attending both over 35 and 45 half days. The same areas also had the highest percentage of doctors who did not claim their postgraduate education allowance.

It was surprising that an area with the highest concentration of meetings had the highest number of both high attenders and non-attenders. This illustrated the vast range of doctors working in an urban situation.

The non-attenders tended to work in single-handed and two person practices and lack of contact with colleagues on a day to day basis seemed to be an important factor in their non-attendance at educational meetings. With the demands of the new 1990 Contract it is unlikely that doctors attend a significant number of other meetings which are not accredited for the allowance.

It is interesting that in the other Health Board areas, where there were a significant number of doctors with above 35 half days, there were few with over 45. It is difficult to postulate why this particular difference existed but it might have been related to the number of meetings available with an increased distance to the centres where meetings were held.

The study by Reedy et al (1979) found that those who had been to significantly more sessions than their colleagues tended to have been registered during the two decades after the war (1950 to 1969) or to be working in practices with 5 or more principals. The study by Wood et al (1980) showed that the high attenders had more hospital experience, tended to be in mid career (registered 10 to 20 years previously), work in a large practice (5 principals or more) and held an

above average number of part-time appointments outside the practice. These were similar findings to the current study.

The Royal College of General Practitioners has been interested in education and the organisation of educational meetings since its inception. It was interesting to note that their Members form 61% of the group with more than 35 half days and 74% of those with more than 45 sessions. Within the region 31% of the principals are College Members so there are roughly twice as many College Members in the high users of education as would be expected. This disparity is almost three-fold when one looks at those with more than 45 half days. The West of Scotland Faculty has been a major provider of local meetings which could explain this difference. However, the faculty has always had a policy of opening its meetings to all doctors. In the group who did not claim their first postgraduate education allowance only 14 were College Members which was half of the number expected. There does seem to be an association between being a College Member and attendance at educational meetings. If attendance at educational meetings alters the way doctors work then it could affect the quality of care given in the practice. A recent viewpoint (Gray 1991) on Qualifications and Quality of Care thought that there may be some relationship between having the MRCGP and the quality of care provided. This could also be related to attendance at more clinical meetings. At the moment it is very difficult to link the two but the area of attending meetings and the effect on the

quality of care is one which will gain further importance in the drive towards quality in health care.

88 of the doctors were from training practices and 18 of those with more than 45 sessions also came into this category. There are 155 trainers in the region and the 88 doctors came from 70 of these practices. This is a higher than expected proportion and the stimulus of a trainee in the practice each year means that an active teaching programme is ongoing. This could also provide a stimulus to seek education outwith the practice and to keep up to date with the latest developments. However, the presence of a trainee in the practice may also make it easier for those doctors to attend educational meetings.

Hilton et al (1991) in their regional survey noted trainers and their practice partners were significantly more likely to be clear about regulations for the PGEA, to intend to claim it and to be aware of local plans for CME arrangements. All of these changes were statistically significant from the group who were not from training practices. A study comparing attitudes between trainers and non-trainers in continuing medical education activities (Allery et al 1991) found three main trends running through their results distinguishing trainers from non-trainers. Trainers were significantly more likely than non-trainers to be organising their own continuing medical education, to be using their day to day work as a basis for continuing medical education and to be involving other members of the primary health care team in their continuing

medical education activities. Trainers also placed more value on these particular activities than did non-trainers. One comment which must be made, however, was that only 33 doctors formed the trainers group in this study. In the study by Reedy et al (1979) trainers gave less value to the formal lecture and the involvement of local consultants as teachers but they placed considerably more value on group discussion or seminars, the participation with local, regional and national general practitioners, nurses and health visitors, social work staff and non-medical academics. They also gave higher ratings to the following topics, medical/social problems, voluntary services and the primary health care team.

The decision regarding high users seemed to be practice based and this represents almost 37% of the total. This could be related to like-minded doctors working together, with education having a high priority in their various activities. A week's study leave, for example, may be written into the practice agreement making attendances at meetings easier to arrange. However, this would only provide 17.5 half-days in the time studied: only 50% of the attainment of those being studied.

It is interesting to note that female doctors are over-represented and this is encouraging as many of these will have a more limited commitment to the practice and significant commitments outwith the practice. Despite this they gave education a high priority.

When the high attendance group is compared to doctors who have few sessions the majority of the latter work in single-handed or two man practices with only a few of them in a training practice situation, which is a marked contrast to the high attenders. The time since qualification (Reedy et al 1979, Wood et al 1980) is similar to the previous studies, with the high attenders having been qualified for between 10 and 30 years. In the study by Branthwaite et al (1988) "high attenders appear to be more mature, to be more resilient to the demands and pressures of practice and to be more passive and accepting (or even complacent) about the difficulties of the work and their capacity to meet the expectations people have of them. In general they were more integrated in their attitudes, expectations and personality. They were also better socially integrated both in the profession and in the community. This does not imply that they did not have doubts or conflicts but these were by and large better controlled and managed. High attenders were less isolated, more confident of their status in work and less frustrated by everyday demands and difficulties".

A paper looking at ways of influencing the behaviour of general practitioners (Horder et al 1986) felt that belief in education as a method of influencing general practitioners was confirmed, but with gains in knowledge and skill with changes in behaviour seeming harder to achieve with general practitioners than with undergraduates. The difficulties increase with the age of the practitioner and are likely to compete with deterioration in these abilities from the age of 40 years. Deficiencies are far more likely to be in performance than in knowledge.

It is encouraging that such a large number of general practitioners are high users of the educational facilities provided. The option of one annual charge, as a result of which the doctor can attend as many sessions as he or she wishes, does seem attractive for this group. The strategy is supported in educational terms as many doctors are attending well in excess of what is required. Doctors who subscribe to the scheme attend more sessions, and the Health Board which has the lowest number of subscribers to the scheme also has the lowest number of doctors attending a high number of sessions. If educational sessions are of value to a doctor then the more sessions attended, the more likely patients are to benefit. Course fees undoubtedly provide some restriction on attendance but a single annual charge does not seem to have this effect.

SUMMARY

171 (9.5%) principals in general practice had obtained more than 35 half day sessions of accredited education between 1.4.89 and 31.12.90. During the same period 34 (1.9%) doctors attended more than 45 half day sessions. The highest percentage of the doctors worked in Greater Glasgow and Lanarkshire. The doctors were more likely to be female, be Members of the Royal College of General Practitioners and to work in a training practice. 64 of the sample were from practices who had at least two doctors who were high attenders. The majority of the doctors in the study were between 10 and 30 years from qualification and worked in larger group practices.

c) Variation in educational credits.

Previous studies (Reedy et al 1979, Branthwaite et al 1988) have shown that general practitioners attended Section 63 meetings at least once or twice a year. However, attendance (Wood et al 1980) fell when this ceased to be obligatory for seniority payments. It was difficult to obtain an overall picture of educational experience as general practitioners attended many meetings (Branthwaite et al 1988) which did not have Section 63 approval, although many may have been educationally sound.

The educational credits obtained by general practitioners were reviewed with three months remaining of the first two years of the new allowance. A printout was obtained giving the credits of all doctors between 1.4.89 and 31.12.90.

Results

With three months of the qualifying period remaining for the second allowance, 68.4% of general practitioners had reached the requirement, with 38.3% having 12.5 days or more. At the two extremes 5.7% had less than 2 days with 4.2% having more than 20 days. One doctor had completed 37 days. The educational day attainments show almost a normal distribution and this is shown in Table 7 and is also illustrated in graph form.

DISCUSSION

With all the demands on the general practitioner's time as a result of the new contract, almost all educational activity was at accredited meetings. This therefore gave a much clearer picture of the general practitioner's involvement in continuing medical education.

The group with less than seven days attained would require to make this a priority for the last part of the qualifying period. Within the group between 5 and 15 half days there would be new principals who qualified automatically on completing training for the first allowance and who only required 5 days to qualify for their second allowance.

The variation in the number of meetings attended by individual doctors is worthy of note and it would be interesting to know if this variation is also present in other branches of medicine.

The new requirements for the postgraduate education allowance are considerable but it is encouraging to note that so many doctors had already qualified to meet the requirements three months before the end of the qualifying period.

The high profile given to continuing education, with the provision of so many courses to meet the demands, has allowed doctors to go to more meetings than the minimum demanded by the Contract. Over two thirds of doctors had already

exceeded the minimum required with almost one fifth having attended 50% more than the requirement. This information was encouraging to the course providers and showed the general practitioner's commitment to keeping up to date. The link with income was no doubt a factor in the change but only part of the overall picture. Each allowance was paid when the average attendance was maintained at 5 days per year but the maximum number of days accredited in any one year was 10. 4.2% of doctors had already exceeded this figure with three months of the two years to go which demonstrates a commitment to continuing medical education and was unrelated to the requirements of the new contract.

A previous study (Wood et al 1980) showed the variation in the demand for Section 63. At one extreme more than one in four general practitioners had spent less than 15 hours (5 sessions) at Section 63 activities in the year preceding the survey. At the other extreme, one in ten had spent 63 hours (21 sessions) or more in Section 63 activities. The exposure for the majority was limited to 30 hours (10 sessions) or less for each year. Work in another region looking at attendances at courses accredited (Difford et al 1992) showed that there was considerable variation in timing of courses throughout an educational year.

The high uptake of educational days with the PGEA was encouraging and may affect the doctor in the quality of care he provides on a daily basis. Whether education changes doctors in the way they practice on a day to day basis, is crucial with this large continuing medical education programme. The change in

the new Contract has been rapid, leading to a considerable increase in the numbers of courses. Outcome studies in education are difficult but are a challenge to those who provide and accredit educational courses.

SUMMARY

There was considerable variation in the educational credits obtained by general practitioners. With over three months of the qualifying period remaining 68.4% had reached the requirement. The educational day attainments showed almost a normal distribution with 4.2% of doctors completing more than double the requirement.

TABLE 1 - General Practitioners not eligible for P.G.E.A. in West of Scotland by Health Board

Health Boards	Total GP's	Not Eligible for P.G.E.A.	%
Greater Glasgow	653	42	6.4
Lanarkshire	300	16	5.3
Argyll and Clyde	307	17	5.5
Ayrshire and Arran	252	14	5.6
Dumfries and Galloway	104	4	3.8
Forth Valley	186	9	4.8
	1802	102	5.7

TABLE 2 - Number of Partners in Practices of Doctors not claiming P.G.E.A. with number of practices in West of Scotland of that size in brackets

Single Handed	27	(162)
Two Partners	26	(108)
Three Partners	13	(119)
Four Partners	15	(100)
Five Partners	10	(52)
Six Partners	6	(34)
Seven Partners and above	5	(26)
	102	(601)

TABLE 3 - Years since qualification of General Practitioners not claiming P.G.E.A.

Up to 10 years	14
11 - 20 years	27
21 - 30 years	23
30 + years	38
	102

TABLE 4 - General Practitioners in the West of Scotland with more than 35 and 45 half-days of accredited education between 1.4.89 and 31.12.90 by Health Board

Health Board	Total GP's	Over 35	Over 45
Greater Glasgow	653	82 (12.6%)	18 (2.8%)
Lanarkshire	300	36 (12.0%)	10 (3.3%)
Argyll and Clyde	307	13 (4.2%)	4 (1.3%)
Ayrshire and Arran	252	20 (7.9%)	1 (0.4%)
Dumfries and Galloway	104	8 (7.7%)	-
Forth Valley	186	12 (6.5%)	1 (0.6%)
Total West of Scotland	1802	171 (9.5%)	34 (1.9%)

TABLE 5 - Numbers of Partners in Practices of Doctors with more than 35 half-days of accredited education. Number of practices of that size in West of Scotland in brackets

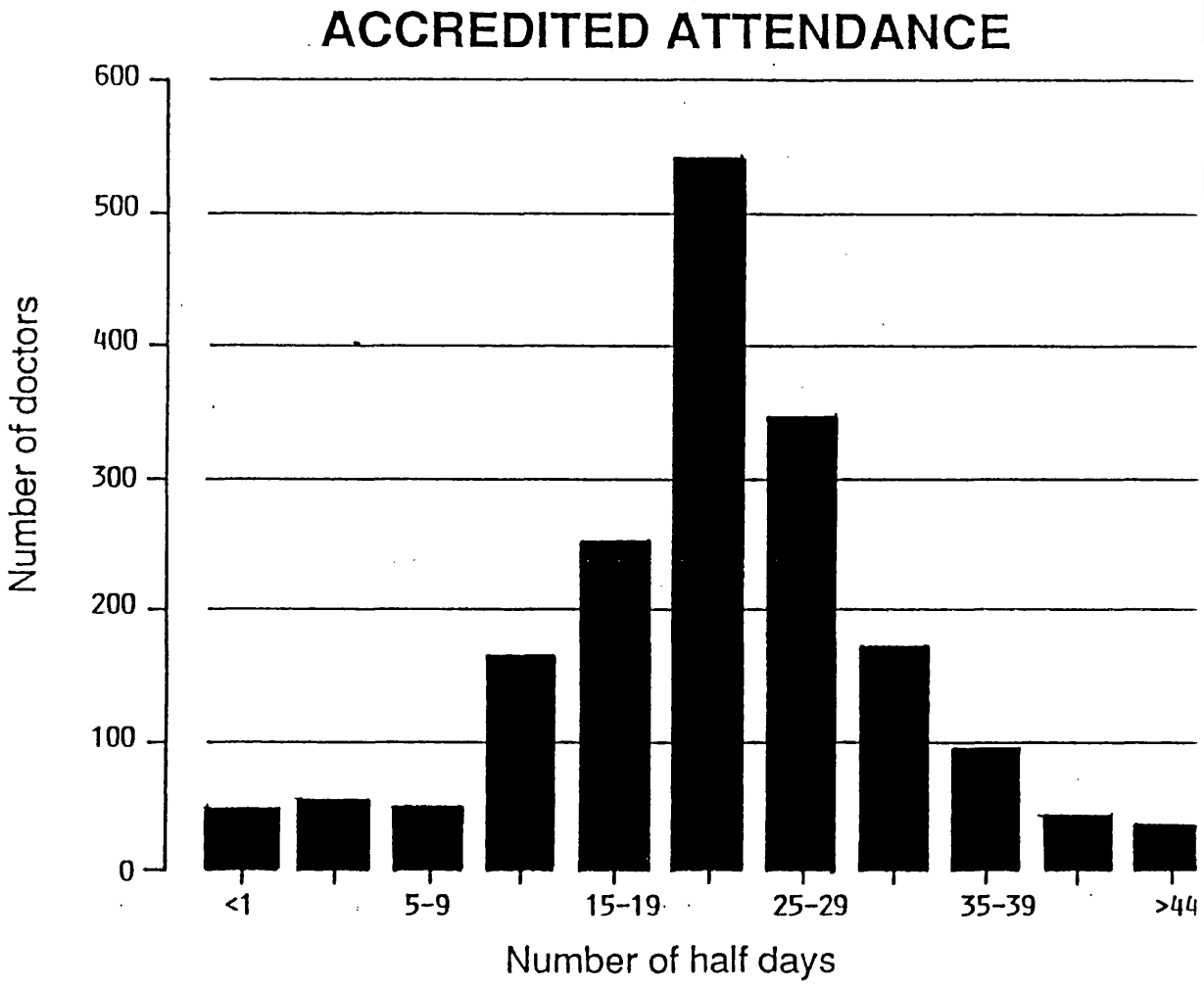
Single Handed	11	(162)
Two Partners	22	(108)
Three Partners	36	(119)
Four Partners	39	(100)
Five Partners	39	(52)
Six Partners	8	(34)
Seven and above Partners	16	(26)
	171	(601)

TABLE 6 - Years since qualification of General Practitioners with more than 35 half-days of accredited education. More than 45 sessions in brackets

Up to 10 years	26	(2)
10 - 20 years	70	(18)
20 - 30 years	60	(10)
Over 30 years	15	(4)
	171	(34)

TABLE 7 - Attendance by General Practitioners between 1.4.89 - 31.12.90 in the West of Scotland at meetings accredited for the Postgraduate Education Allowance

No. of Half Days	No. of Doctors	%
45 and over	34	1.9
40 - 44	42	2.3
35 - 39	95	5.3
30 - 34	170	9.4
25 - 29	349	19.4
20 - 24	542	30.1
15 - 19	253	14.0
10 - 14	164	9.1
5 - 9	51	2.8
1 - 4	55	3.1
Less than 1	47	2.6
	1802	100.0


ACCREDITED ATTENDANCE
Number of doctors
600
500
400
300
200
100
0
<1
5-9
15-19
25-29
35-39
>44
Number of half days

CHAPTER 7

a) Postgraduate Education Allowance - A regional analysis of the first year.

A previous study (Reedy et al 1979) showed that only 4% had not attended any postgraduate event during the previous year but the remaining respondents in the study had attended on average 8 sessions. The following study examines the educational attainment of the general practitioners in the West of Scotland with the specific categories attended during the first year of the postgraduate education allowance and also their attendance under Section 63 between 1.4.89 and 31.3.90.

Method

A printout was taken from the database of all Section 63 sessions achieved by general practitioners between 1.4.89 and 31.3.90 and also of all accredited sessions for the postgraduate education allowance between 1.4.90 and 31.3.91, divided into the categories of Disease Management, Service Management and Health Promotion. The number of general practitioners in each Health Board area varied slightly throughout the time of the study but the number taken for the analysis is the number in each Health Board area on 31.3.91.

Results

The number of educational days attended by general practitioners under Section 63 for 1989/90, and under the postgraduate education allowance for 1990/91, is

shown in Table 1 by general practitioner and Health Board. The total was 18,863 half days for 1989/90 and 25,718 for 1990/91. The mean number of half days attended in the region rose from 10.3 in 1989/90 to 14.0 in 1990/91, an increase of 36%. The mean was increased for all Health Boards but varied from 17% in Argyll and Clyde to 51% in Greater Glasgow. Within the 1990/91 total is the shortfall for some doctors from the previous year. This was a mean of 0.3 in the total: 84 doctors completing 571 half days.

The categories of the educational half days for 1990/91 is shown in Table 2. The mean number achieved by each general practitioner of Disease Management half days was 5.5, Service Management 4.4 and Health Promotion 4.1. For Disease Management the lowest mean was 4.4 in Ayrshire with the highest 6.0 in Forth Valley. For Service Management the lowest attained was 2.9 in Dumfries and Galloway with the highest 4.8 in both Greater Glasgow and Lanarkshire. In Health Promotion the lowest mean was 3.0 half days in Argyll and Clyde with the highest 5.0 attained in Ayrshire and Arran. Overall in three of the Boards namely, Greater Glasgow, Lanarkshire and Ayrshire and Arran there was an even spread of categories but two Boards namely, Forth Valley and Dumfries and Galloway did have a greater proportion of Disease Management.

Table 3 shows the educational days which had been attained in each of the three categories. In the region 85% had attended a day in Disease

Management, 78% in Service Management and 72% in Health Promotion. Dumfries and Galloway had the lowest number, attaining a day in Service Management but the highest number attaining a day in Health Promotion.

Table 4 shows where educational days have been covered in two categories and in the region the highest attained combination is 71% in Disease Management and Service Management. Disease Management and Health Promotion categories were reached by 65%, with Health Promotion and Service Management by 62%. The number of doctors who attended a day in any two was 80%. Table 5 shows the educational days covered in all three categories and this was attained by 57% of the principals in the region.

DISCUSSION

The education credits obtained by general practitioners in the West of Scotland for the requirements of the postgraduate education allowance were encouraging. The requirements of the new contract were a major factor in this change but the mean was well in excess of the minimal requirement. General practitioners were kept informed throughout the year of their educational attainments but it was very encouraging, with all the demands of the new Contract, that the mean number of sessions attended by general practitioners was 36% greater than the previous year.

The time period for the claim for the first postgraduate education allowance was extended from 31.3.90 to 30.9.90 but almost all doctors in the region had qualified for their first allowance by 31.3.90 and the increase between the two years due to this was minimal.

The increase varied from Health Board to Health Board but was highest in the area of greatest doctor concentration: this area had the highest number of courses and this clearly was an important factor. However, the variation is undoubtedly more complex than the number of courses available. In addition there were a number of doctors who did not claim their postgraduate education allowance and as they were included within the sample the sessions attained by the doctors claiming their allowance were even greater than indicated. The crowded course marketplace is a factor but the quality and enjoyment of the education must be other factors. The courses were arranged mainly for small numbers and were based on small group principles. Feedback when obtained was satisfactory.

The number of sessions which was available in each of the three categories was considerable and was the result of forward planning within the region. Although the timescale allowed was short, six months of planning attempted to obtain an overall balance for the year. This allowed the doctors to reach the category requirements of the Statement of Fees and Allowances. It will be interesting when other Family Health Service Authorities publish their findings

to see if the required spread of categories has occurred throughout the country. However, Disease Management still dominates the categories available but there was considerable change from the previous published literature (Reedy et al 1979, Branthwaite et al 1988) which showed that clinical and therapeutic areas and recent advances found a high priority and aspects of Service Management a low priority.

The mean attendance in each of the categories varied between the Health Boards and this feedback to providers of future needs is an important component of forward planning. The number of meetings available was one factor in this but the main factor seems to have been the doctors' perceived need of what was required in their day to day practice with this change being mainly affected by the new regulations. The requirements of the new 1990 contract increased the general practitioner's attendance at Service Management and Health Promotion education.

In a study of courses accredited in another region (Difford et al 1992) the mean attendance for principals was similar to the present study with almost half of the meetings attended being under Disease Management.

In the Statement of Fees and Allowances the length of a course is not defined but a period of a day seems reasonable with smaller proportions cumulative towards this. When the second claim was made a general practitioner had to

complete at least one course in each of two categories and the doctors in the present study attained this requirement without much difficulty. For a third claim the doctor needed to have attended an educational course in each of the three categories and 57% of the doctors in the present study had already reached that requirement. The Health Board area which had the most comprehensive spread of courses in the three categories had 67% of the doctors already qualified: careful forward planning is important with the doctors having some input into their own educational plan. A centralised database with regular feedback to the doctors is helpful in formulating plans which are relevant educationally and also fit the new statutory regulations.

Health Promotion may be the only category which causes a problem in meeting the statutory requirements. During the first year there were a number of courses on Paediatric Surveillance, which will not be recurring with such intensity, and Health Promotion sessions will require a high priority by providers in the long term, particularly with the current emphasis on health promotion, to meet the health needs of the nation.

The achievement which was considerably in excess of the minimum required by the regulations was very gratifying for the organisers and hopefully that this education had an effect on the practitioner in the delivery of his day to day work.

SUMMARY

General practitioners in the region attended a mean of 14.0 half days of education in 1990/91, an increase of 36% over the number of half days attended in 1989/90. During 1990/91 the mean number of half days attended in Disease Management was 5.5, Service Management 4.4 and Health Promotion 4.1. 85% of the doctors attended a day in Disease Management, 78% in Service Management and 72% in Health Promotion with 80% having achieved a day in any two. 57% had achieved a day in all three categories. Within the region doctors were attending education in excess of what was required by the new regulations, with the division of the education appropriate to the category requirements of the Statement of Fees and Allowances.

b) Attendance at meetings during the first year outwith the region.

Previously the Section 63 budget had two components, one for course provision and a separate budget for travel and subsistence. Since 1985 the latter had been cash limited in England and Wales (Ellis 1985) but not in Scotland. As an encouragement to doctors to join the West of Scotland Scheme they were told in the literature that if they attended a course in another region then the course fee would be paid up to a limit of £50 per day. There would be no contribution to travel and subsistence.

It was felt that the new educational arrangements could affect doctors travelling to meetings and it was decided to examine the attendance of doctors at meetings outwith the West of Scotland and also their participation in distance learning programmes.

Method

In addition to a printout being taken from the database for all meetings between 1.4.90 and 31.3.91 a list of courses was also obtained with titles, providers and numbers attending outwith the region and a printout was obtained of participation in distance learning.

Results

During 1990/91 general practitioners from the West of Scotland attended and participated in 345 courses which provided 1050 half day sessions. The

doctors from the region attended 2262 half day sessions with 1267 (56%) being in the category of Disease Management, 424 (18.8%) in Health Promotion and 571 (25.2%) in Service Management. During the same year 122 doctors from outwith the region attended 263 courses. These doctors attended 711 sessions, of which 295 (41.5%) were in Disease Management, 176 (24.8%) in Health Promotion and 240 (33.7%) in Service Management. The attendance by general practitioners from the West of Scotland at accredited courses is shown in Table 6.

413 (22.6%) general practitioners attended courses outwith the region and they attended 2003.4 half day sessions, a mean level of 4.9. 64 doctors (3.5%) attended 10 or more half days. There was some variation between the Health Boards with the numbers attending varying from 15% to 42.6%, with the number attending 10 or more half days varying between 0.6% and 10.6%. The geographical location of the courses is shown in Table 7. 118 (35.2%) were in South East Scotland with 159 (47.5%) in other parts of the U.K. outside Scotland. Only 2 doctors attended an accredited course abroad. 10 of the meetings in England were for recognised societies. A sum of £35,257 was refunded to doctors for course fees outwith the region.

The content and location of courses when five or more doctors attended is shown in Table 8 for all areas except South East Scotland. There were 12 such meetings in the year studied. Of these meetings 7 were funded by the

pharmaceutical industry and 2 were meetings of specific groups. The participation of doctors in distance learning is shown in Table 9. 85 doctors (4.6%) participated in 10 distance learning programmes completing 258.6 half day sessions, a mean of 3.0. The variation in the percentages participating by Health Board varied from 1.8 to 8.4. Of the 85 doctors participating, 29 had attended courses outwith the region. During 1990/91 doctors in the region completed 25,718 half days of accredited education with 2,262 half days (8.8%) being at activities outwith the region.

DISCUSSION

The change in funding of postgraduate education, particularly the removal of a specific budget for travel and subsistence, might have been expected to provide a situation where educational activity would become more parochial and there would be less exchange of ideas between doctors from the various regions. In addition to this, the need to deal with the workings of the 1990 Contract suggested that doctors would elect to attend courses close to their area of practice to minimise the time away from the practice. It appears that this did not happen and that there was still a healthy exchange between the various regions.

Over one fifth of all doctors attended a course outwith the Region and the figure was higher from Dumfries and Galloway, and Forth Valley where their areas adjoin other regions. The doctors who attended courses outwith the

region attended a mean of 4.8 half days, so doctors still looked to their own regional providers to arrange the bulk of their education.

In a previous study (Reedy et al 1979), when travel and subsistence was paid, 18.1% of doctors attended outside their region: the number involved was similar to this study both for attendance and participation in more than 10 half day sessions. In another study (Branthwaite et al 1988), distance was a factor in attendance at a postgraduate centre but this might be less important with the new educational arrangements where this is tied to a specific allowance. However, it is obviously a factor as those from the West of Scotland closest to other regions were the highest recipients of their educational sessions.

Difford et al (1992) in their study in the northern part of the South Western Regional Health Authority were able to say that considerable numbers of general practitioners came to the South West courses from outside the region to attend one week and one day courses and likewise local general practitioners attended courses outside the region. Unfortunately they could not calculate specific numbers for the relative groups.

The West of Scotland Scheme took a positive decision at an early stage that it would encourage exchange with other regions and the generous refund of fees would be to facilitate that process. The scheme was also keen that the annual fee would cover all educational activity.

There was no limit to the number of courses where fees were refunded and some doctors were refunded more than their initial payment. As doctors from the West of Scotland obtain more than three times as many sessions outwith the region as doctors travelling to the West of Scotland it appeared that this policy was successful. Another reason may have been that there were more attractive courses available outwith than within the region, but this opinion would not be supported by local providers.

It was interesting to note that Disease Management was the predominant category covered by those going out of the region, whereas the balance was more even for those coming into the region. The highest number of courses attended outwith the Region were located in the adjoining regions but there were significant numbers going to other parts of the United Kingdom and to London. There had been a traditional exchange between Dumfries and Galloway and Cumbria and that link appears to have been maintained. It was interesting to note that only two doctors attended courses abroad, considering all the publicity that this issue had generated. The courses abroad had been accredited by other regions.

The vast majority of meetings outwith the region had only one or two people attending and this may have been because the content was of particular interest, or may have been related to suitability of the location. When more than five

doctors attended it seemed that a more representative picture could be obtained by excluding the adjoining region (S.E. Scotland) from the analysis. Only 12 meetings came into this category and the pharmaceutical industry seemed a significant provider within this group.

An innovation in the new educational arrangements was the introduction of distance learning but only a small number of doctors within the region participated in this. There was still some confusion as to what distance learning involved and this may have been a factor. Another factor could have been that the doctors had to be actively involved to receive the recognised credits, a situation which was not always true in more traditional educational methods.

In a survey of general practitioners' views (Durno et al 1974), personal contact was highly rated as a source of continuing education, particularly contact with partners or hospital colleagues. The findings regarding distance learning were similar to a more recent report from Grampian (Sherriffs 1989) when only 10% considered distance learning important. It is interesting that the doctors in the most rural part of the region used distance learning least: a survey (McNamara 1990) in the Northern Region of Scotland, the most rural part of the U.K., showed that doctors wished to attend courses centrally and have contact with colleagues. They did not see distance learning as a solution to their problem: these survey findings are supported by the present study.

It was encouraging that there was still considerable exchange between regions but the data suggests that this will only be for a proportion of what doctors require, as only 3.5% of the doctors obtained 10 or more half day sessions outwith the region but it was around 10% in the two Health Board areas adjoining other regions. Travel and subsistence was a factor and it was encouraging that a number of doctors were still attending courses at a considerable distance and expense. Exchange of ideas is a healthy educational situation and the pointers were encouraging that this would continue.

SUMMARY

Despite the changes in the delivery of continuing medical education doctors continued to attend courses outwith their own region. General Practitioners from the West of Scotland obtained 2,262 sessions from 345 courses outwith their own region. 413 doctors (22.6%) attended courses and an additional 56 (3.1%) who had not attended courses participated in distance learning. 64 doctors (3.5%) attended 10 or more half day sessions outwith their own region. The largest single group attended courses in South East Scotland but there was a representative sample throughout the rest of the United Kingdom. A total of 85 doctors (4.6%) from the region participated in 258.6 half days of distance learning. Despite concern regarding the removal of the travel and subsistence Section 63 budget from CME it did not appear to have a significant effect on general practitioners' choice of courses.

TABLE 1 - Educational Half Days 1989 - 91 by Health Board

Health Board	Number of General Practitioners	Half-Days 1989-90	Mean	Half-Days 1990-91	Mean
Forth Valley	190	1952	10.3	2557	13.5
Argyll and Clyde	308	3268	10.6	3884	12.6
Lanarkshire	327	3469	10.6	4811	14.7
Greater Glasgow	640	6356	9.9	9534	14.9
Ayrshire and Arran	252	2636	10.5	3512	13.9
Dumfries and Galloway	113	1182	10.5	1420	12.6
Total West of Scotland	1830	18863	10.3	25718	14.0

TABLE 2 - Categories of Educational Half Days 1990-91 by Health Board

Health Board	Number of General Practitioners	Disease Management	Mean	Service Management	Mean	Health Promotion	Mean
Forth Valley	190	1147	6.0	746	3.9	663	3.5
Argyll and Clyde	308	1679	5.5	1234	4.0	931	3.0
Lanarkshire	327	1872	5.7	1564	4.8	1420	4.3
Greater Glasgow	640	3624	5.7	3087	4.8	2819	4.4
Ayrshire and Arran	252	1110	4.4	1138	4.5	1264	5.0
Dumfries and Galloway	113	671	5.9	331	2.9	418	3.7
Total West of Scotland	1830	10103	5.5	8100	4.4	7515	4.1

TABLE 3 - Educational Day covered in one Category by Health Board

Health Board	Number of General Practitioners	Disease Management	Service Management	Health Management
Forth Valley	190	166 (87%)	141 (74%)	128 (67%)
Argyll and Clyde	308	252 (82%)	244 (79%)	197 (64%)
Lanarkshire	327	276 (84%)	262 (80%)	252 (77%)
Greater Glasgow	640	552 (86%)	503 (79%)	439 (69%)
Ayrshire and Arran	252	207 (82%)	210 (83%)	200 (79%)
Dumfries and Galloway	113	97 (86%)	69 (61%)	101 (89%)
Total West of Scotland	1830	1550 (85%)	1429 (78%)	1317 (72%)

TABLE 4 - Educational Day covered in Two Categories by Health Board

Health Board	Number of General Practitioners	Disease Management and Health Promotion	Disease Management and Service Management	Health Promotion and Service Management
Forth Valley	190	124 (65%)	136 (72%)	110 (58%)
Argyll and Clyde	308	172 (56%)	215 (70%)	176 (57%)
Lanarkshire	327	229 (70%)	236 (72%)	218 (67%)
Greater Glasgow	640	397 (62%)	452 (71%)	382 (60%)
Ayrshire and Arran	252	179 (71%)	189 (75%)	181 (72%)
Dumfries and Galloway	113	93 (82%)	66 (58%)	64 (57%)
Total West of Scotland	1830	1194 (65%)	1294 (71%)	1131 (62%)

TABLE 5 - Educational Day covered in Three Categories by Health Board

Health Board	Number of General Practitioners	All Three Categories	
Forth Valley	190	109	(57%)
Argyll and Clyde	308	154	(50%)
Lanarkshire	327	202	(62%)
Greater Glasgow	640	352	(55%)
Ayrshire and Arran	252	168	(67%)
Dumfries and Galloway	113	63	(56%)
Total West of Scotland	1830	1048	(57%)

TABLE 6 - Attendance by General Practitioners at accredited courses outwith their region

Health Board	Number of General Practitioners	No. attending courses outwith region	Total number of half-days attended	Mean half-days	No. attending more than 10 half-days
Forth Valley	190	81 (42.6%)	448.1	5.5	17 (8.9%)
Argyll and Clyde	308	63 (20.5%)	329.4	5.2	10 (3.2%)
Lanarkshire	327	77 (23.5%)	368.3	4.8	12 (3.7%)
Greater Glasgow	640	96 (15.0%)	350.6	3.7	4 (0.6%)
Ayrshire and Arran	252	57 (22.6%)	262.0	4.6	9 (3.6%)
Dumfries and Galloway	113	39 (34.5%)	245.0	6.3	12 (10.6%)
Total West of Scotland	1830	413 (22.6%)	2003.4	4.9	64 (3.5%)

TABLE 7 - Geographical location of courses

South East Scotland	118	(35.2%)
Rest of U.K. except Cumbria	111	(33.1%)
Eastern Scotland	38	(11.3%)
London	34	(10.2%)
Cumbria	14	(4.2%)
Northern Scotland	12	(3.6%)
Grampian	6	(1.8%)
Abroad	2	(0.6%)
	335	(100%)

TABLE 8 - Content and location of courses in all areas except South East Scotland when 5 or more doctors attended

Content of Course	Location	Number of Doctors Attending
Cardiovascular risk	Aviemore	24
Sports injuries	Shropshire	10
Infection in general practice	Eastern Scotland	12
Management in general practice	Eastern Scotland	5
Migraine	Eastern Scotland	6
Cardiology	Oxford	8
Cottage Hospital Association	Eastern Scotland	13
Practice management	Eastern Scotland	5
Management for trainers	Stratford-upon-Avon	5
Practice management	Eastern Scotland	9
Research annual conference	Eastern Scotland	9
University teachers conference	Grampian	6

TABLE 9 - Participation in distance learning by general practitioners and Health Board

Health Board	Number of General Practitioners	Number participating in Distance Learning	Total No. of Half-Days Achieved	Mean number of Half-Days
Forth Valley	190	16 (8.4%)	55.4	3.5
Argyll and Clyde	308	14 (4.5%)	56.4	4.0
Lanarkshire	327	17 (5.2%)	48.7	2.9
Greater Glasgow	640	26 (4.1%)	77.3	3.0
Ayrshire and Arran	252	10 (4.0%)	13.4	1.3
Dumfries and Galloway	113	2 (1.8%)	7.4	3.7
Total West of Scotland	1830	85 (4.6%)	258.6	3.0

CHAPTER 8

A COMPARISON OF SUBSCRIBERS AND NON-SUBSCRIBERS TO THE CENTRALLY ORGANISED EDUCATIONAL SCHEME

One of the aims of the new allowance was that general practitioners would purchase courses most suited to their needs and that providers would arrange courses in response to market forces.

The West of Scotland educational scheme allowed doctors unlimited attendance at courses for a single annual fee. The following study looks at those who have subscribed to the regional scheme during 1990/91 and compares their attendance with non-subscribers.

Results

There were 1830 general practitioners on the Health Board list at the time of the analysis. During 1990/91 the doctors completed 25,718 educational half days. 1,353 of the 1830 had subscribed to the regional scheme and 477 did not subscribe. 118 doctors had less than one educational half day during the period studied and were thus excluded from the analysis. All 118 of these doctors were non-subscribers to the educational scheme, therefore for the purposes of the study there were 359 non-subscribers giving a total of 1712 general practitioners who were eligible for the educational allowance.

The number of half day sessions completed by subscribers and non-subscribers is shown in Table 1. The mean number of sessions completed was 15.0 with subscribers completing a mean of 15.7 educational half days with the non-subscribers completing 12.5 half days. Subscribers were therefore completing 25.6% more educational half days than non-subscribers.

The number of half day sessions in Disease Management, Service Management and Health Promotion is shown in Table 2. A mean of 5.9 half days were completed in Disease Management with subscribers completing 6.1 half days with non-subscribers 5.3. In Service Management a mean of 4.7 half days were completed with subscribers completing 4.9 half days and non-subscribers 4.1; and for Health Promotion a mean of 4.4 half days were completed with subscribers completing 4.7 half days and non-subscribers 3.1. Subscribers completed a higher number of sessions than non-subscribers in all three categories: 15.1% more in Disease Management, 19.5% more in Service Management and 51.6% more in Health Promotion.

The educational days covered in one category are shown in Table 3. In Disease Management an educational day had been achieved by 90.5% of the group studied: 92.4% of subscribers and 83.6% of non-subscribers. In Service Management an educational day had been attained by 83.5% of the group studied: 86.5% of subscribers and 72.1% of non-subscribers. Overall 76.9% had attended a day in Health Promotion with 81.7% of subscribers in

comparison to 58.8% of non-subscribers. This represented an excess of 10.5% subscribers having completed a course in Disease Management, 20% in Service Management and 38.9% in Health Promotion. The educational days covered in two categories is shown in Table 4. Overall 69.7% had attended a day in Disease Management and Health Promotion: 75.3% of subscribers as compared to 48.7% of non-subscribers: this represents an excess of 54.6%. In Disease Management and Service Management 75.6% of the group surveyed had attended a day: 79.2% of subscribers and 61.8% of non-subscribers, a difference of 28.2%. In Health Promotion and Service Management an educational day had been attended by 66.1%: 71.5% of subscribers and 45.4% of non-subscribers, representing a difference of 57.5%. When any two categories are taken a total of 1464 had attended an educational day, ie. 85.5%: from this group 1199 (88.6%) were subscribers and 265 (73.8%) were non-subscribers, an excess of 20.1%. When all three categories are taken 1048 (61.2%) doctors completed an educational day in each. Within that group 901 (66.6%) are subscribers and 147 (40.9%) are non-subscribers, an excess of 62.8% for those who are subscribers.

DISCUSSION

The requirement of the new Contract asked for a balanced programme of education and over a five year period a doctor had to attend two courses in each of the three subject areas. Unfortunately a course was not defined in the Statement of Fees and Allowances but the present study has regarded an

educational day as a course. A day could also be achieved by the addition of smaller parts. However, the spread of courses is important and for a second claim a doctor requires to have attended a course in each of two subject areas and for the third claim a course in each of the three subject areas. In the West of Scotland regular feedback was given throughout the years to all doctors regarding their educational attainments whether the doctors were subscribers or not.

A regional programme of education did require considerable planning as the new educational needs required to be balanced. Cost and resources also had to be taken into account when courses were organised. However, a centrally organised scheme, where there was a guaranteed provision of the required number of sessions with the opportunity to attend additional sessions at no charge, had obvious attractions. When a general practitioner enrolled in a subscription scheme there was no longer any financial implications on the decision to attend a further course. On the other hand a non-subscriber had to fund each course that he attended and low cost courses had attractions with free courses having even greater appeal. The pharmaceutical industry is a major provider of the latter and these courses are more likely to be in Disease Management than in any of the other two categories.

The educational attainment for doctors who were subscribers is superior for all the parameters studied. Overall a subscriber attended almost a third more

education than his non-subscriber colleague and in areas like Health Promotion this difference increased to more than one half. The differences present were lowest when Disease Management was included and the significant number of courses which were provided free in this area was an important factor. Meetings organised within the educational scheme were open to all but non-subscribers paid an individual course fee. There were also many accredited meetings outside the scheme, some of which had to be cancelled because of lack of numbers. However, despite this subscribers attended more Disease Management sessions than non-subscribers.

There were also differences in the areas of Service Management but the differences which caused greatest concern were those in Health Promotion. The Government in their Health of the Nation documents (1991) have described their strategy for health. Smith (1991) described how it may be possible to make this a reality. General practitioners see the majority of patients consulting daily in the National Health Service and the change in funding of general practice recognised their role in Health Promotion. The strategies to develop and to achieve what is required in Health Promotion is likely to be through education as part of the postgraduate education allowance. It must therefore be of some concern that in the present study, when subscribers were compared with non-subscribers, the number of educational half days attended in such education is more than 50% greater in subscribers, with considerable differences in all of the measurements where Health Promotion

was involved. This difference must cause concern for those developing the strategy for health.

The Working Party (1989) of Regional Advisers on "Future Strategies for Continuing Medical Education" stated that in theory doctors would use their allowance to seek out and pay for "those courses" which they considered best suited their needs. They thought that the government's view was that general practitioners would select well presented programmes which gave value for money. However, they suggested that doctors would be tempted to fulfil only the minimal educational requirements at the cheapest price to protect their income. In the current study the non-subscribers almost certainly had their education cheaper than the subscribers and this produced a less balanced educational product.

With the requirements of the new postgraduate education allowance, education now seems to be an all *or* none phenomenon with 118 doctors having attended no education and all of the others attending the required amount to continue their allowance. Under the previous funding (Section 63) a doctor could elect to attend as many courses as he wished without any financial penalty. Current education is now part of the marketplace and one annual subscription, with unlimited attendance, allows doctors to maintain a system as near the one which was previously available. There have been recent suggestions that the

funding for education should revert, at its present level of activity, to Section 63 with costs no longer being a factor in attendance.

Locally, considerable planning was involved in developing the regional programme, noting the requirements of the three categories. It is interesting to note that 88.6% of the subscribers had already reached the course requirement for their next postgraduate education allowance, and 66% already had the balance required for the following year, both attainments well ahead of the statutory requirements.

It is very difficult to evaluate the educational merit of the individual courses attended by doctors in each of the two groups and no attempt is made to do so. However, this study does show that when doctors join a centrally organised educational scheme they obtain a more balanced spread of courses than otherwise would be obtained. In addition they were more likely to attend additional sessions in all three areas but particularly in Health Promotion. Cost to a doctor should not be a major factor in the ability to attend education and an annual subscription to a central organising body is an attractive and viable option.

SUMMARY

General practitioners who subscribed to a centrally organised educational scheme are compared to their colleagues who did not subscribe. During the

year studied, 1712 principals in general practice had sufficient sessions to claim their allowance. The 1353 doctors who subscribed to the educational scheme attended 15.7 educational half days during 1990/91 in comparison to 12.5 half days attended by 359 doctors who did not subscribe to the scheme. This difference was present in all three categories and was greatest in Health Promotion where subscribers attended 4.7 half days and non-subscribers 3.1. The education was more balanced for the doctors who were members of the scheme: a higher number had attended a day in all three categories with the excess being 10.5% for Disease Management, 20% for Service Management and 39.1% for Health Promotion. The differences were greater for combinations of categories and for all categories 66.6% of subscribers had attended an educational day in each, with 40.9% of non-subscribers having a similar achievement. A centrally organised educational scheme for a region was more likely to give a balanced spread and to meet the educational requirements of the 1990 Contract.

TABLE 1 - Number of half-day sessions completed by subscribers and non-subscribers

	Number	Number of half day sessions	Mean half-day sessions
Subscribers	1353	21234	15.7
Non-subscribers	359	4484	12.5
Total	1712	25718	15.0

($Chi^2 = 13.79$ DF = 1 $p < 0.01$)

TABLE 2 - Number of half-day sessions in Disease Management, Service Management and Health Promotion completed by subscribers and non-subscribers

	Number	No. of half-day sessions - DM	Mean DM	No. of half-day sessions - SM	Mean SM	No. of half-day sessions - HP	Mean HP
Subscribers	1353	8200	6.1	6621	4.9	6413	4.7
Non-subscribers	359	1903	5.3	1479	4.1	1102	3.1
Total	1712	10103	5.9	8100	4.7	7515	4.4

($Chi^2 = 57.8$ DF = 2 $p < 0.001$)

TABLE 3 - Educational day covered in one category by subscribers and non-subscribers

	Numbers	No. completed educational day - DM	%	No. completed educational day - SM	%	No. completed educational day - HP	%
Subscribers	1353	1250	92.4	1170	86.5	1106	81.7
Non-subscribers	359	300	83.6	259	72.1	211	58.8
Total	1712	1550	90.5	1429	83.5	1317	76.9

($Chi^2 = 5.74$ DF = 2 $0.10 > p > 0.05$)

TABLE 4 - Educational day covered in two categories by subscribers and non-subscribers

	Numbers	No. completed educational day in DM+HP	%	No. completed educational day in DM+SM	%	No. completed educational day in SM+HP	%	No. completed educational day in any two	%
Subscribers	1353	1019	75.3	1072	79.2	968	71.5	1199	88.6
Non-Subscribers	359	175	48.7	222	61.8	163	45.4	265	73.8
Total	1712	1194	69.7	1294	75.6	1131	66.1	1464	85.5

($Chi^2 = 9.51$ DF = 3 $p < 0.05$)

CHAPTER 9

ATTENDANCE AT EDUCATIONAL MEETINGS

a) Effect of demographic factors.

Previous work (Reedy et al 1979, Wood et al 1980, Branthwaite et al 1988) has shown that doctors who attend more educational sessions than their colleagues tend to have been qualified for between 10 and 20 years, to be working in practices with five or more principals, and also be more likely to hold additional appointments or be trainers. Previous work in the current study has shown that high attenders are more likely to be women. The aim of this study is to determine the effect of demographic factors on the attendance at educational meetings.

Method

A questionnaire was sent to all doctors in the region to determine their educational preferences. This questionnaire asked for demographic data related to age, location of practice, size of practice, gender, practice commitment, marital status in addition to many other questions (Kelly 1994). The non-responders after two mailings received a further questionnaire which only requested the demographic data. A printout was obtained from the database of all accredited sessions for the postgraduate education allowance between 1.4.90 and 31.3.92 with their division into the categories of Disease Management, Service Management and Health Promotion. Only those who were principals before 1.4.90 and had two years of data sufficient to claim the PGEA were included in the study.

Statistical Methods

Comparison of the mean number of sessions attended in different sub-groups was made by a two sample t-test or a one way analysis of variance as appropriate. In addition since the distribution of the number of sessions attended was positively skewed for all three categories of meeting these comparisons were repeated after logarithmic transformation. The results obtained by the two methods were very similar so that only results using the untransformed data are reported. In addition stepwise multiple regression was used to enter all explanatory variable into a linear model to assess the effect of each on the number of sessions after adjusting for all others (Altman 1991).

Results

There were 1830 general practitioners in the region and data was available from a total of 1672, of whom 121 (7.2%) were non-responders to the questionnaire. Any missing data was properly accounted for and excluded from the analysis. All the numbers quoted are means with standard deviations in brackets.

The educational sessions with categories completed by responders and non-responders are shown in Table 1. There is a highly significant difference in the number of total sessions attended between responders and non-responders (24.6 versus 16.8, $p < 0.001$) and this is shown for all three categories. All further analysis of the data was based on responders only ($n = 1551$). The number of people answering each question varied, with 116 not responding to their age, 37 to

the location of the practice, 26 to the practice size, 7 to gender, 23 to the practice commitment and 39 to marital status.

The educational attainment and categories is shown by year of birth in Table 2. The older doctors attended slightly fewer educational sessions but this was not statistically significant. However, the older doctors attended the lowest number of Service Management sessions on average ($p = 0.003$) and although not significant the lowest number of Health Promotion sessions and the highest number of Disease Management sessions. The location of the practice (Table 3) shows that those in a rural situation attended fewer meetings on average ($p < 0.001$), with the main difference being shown in Disease Management. The attendance of doctors from urban and mixed practices was similar.

Table 4 shows that doctors in larger practices tended to attend more meetings than average with this being statistically significant for Service Management. The effect of gender is shown in Table 5 with the overall number of meetings attended being similar, but males attended statistically significantly more sessions involving Service Management, with females attending more on Health Promotion.

Doctors with a full-time commitment attended more sessions than those with a part-time commitment. This was of borderline significance overall but was significant for Service Management where full-timers attended 8.8 sessions and part-timers 7.3 on average ($p = 0.005$). Marital status had an effect on attendance at meetings with

the widowed/divorced attending a mean of 20.7 sessions in comparison to 24.9 for single and 24.7 for married ($p = 0.032$). Within the categories there was no difference in Disease Management but a significant difference for both Service Management ($p = 0.06$) and Health Promotion ($p = 0.009$). Multiple regression was used to assess the effect of each of these factors after adjusting for all others. After this adjustment the only three important factors related to total attendance were the location of the practice ($p < 0.001$); full-time ($p = 0.05$) and marital status ($p = 0.01$). This is illustrated in Table 6. None of the other factors was significantly associated with total sessions attended after these three had been taken into account. However, these factors accounted for less than 5% of the differences.

For Disease Management location was the only significant factor affecting the mean number of sessions attended ($p < 0.001$), for Health Promotion only gender ($p < 0.001$) and marital status ($p < 0.001$) remained significant.

For Service Management four factors were significant, marital status ($p < 0.05$), gender ($p < 0.001$), the number of doctors in the practice ($p < 0.001$) and the date of birth ($p < 0.005$). However, this only explained 3.4% of the variability in Service Management sessions attended.

DISCUSSION

The responders and the non-responders were distinct groups and this could be related to their perception and interest in education and the relevance and importance which they placed on questionnaires. It is interesting that the difference was for total sessions and for all categories, suggesting that the behaviour of non-responders was consistent when related to educational matters. Some of the data requested in the questionnaire was already available on the database but non-responders were excluded from the study since most of the demographic data was missing.

The number of sessions attended was slightly lower for the older doctors but, despite this being lower overall, their attendance at Disease Management sessions was the highest: their training both at an undergraduate level and in continuing education meetings over the years undoubtedly had stressed Disease Management as being the most important area. Previous studies had suggested that this was the area of greatest interest among general practitioners (Reedy et al 1979, Wood et al 1980). The 1990 changes have been more related to Service Management and Health Promotion and these challenges appear to have been taken on board more by the younger doctors which is understandable. The 1990 Contract has resulted in considerable change and those who were going to be affected by it for the longest time were the most likely to attend Service Management and Health Promotion sessions.

There had been some concern that with the removal of the travel and subsistence budget from the new postgraduate arrangements, doctors in rural situations would attend fewer meetings. A previous study (Branthwaite et al 1988) suggested that distance from a postgraduate centre was an important factor in attendance. This appeared to the case in the present study despite considerable central effort in the West of Scotland in arranging meetings throughout the region. It is interesting to note that this difference was highly significant in Disease Management but that the rural doctors were attending as many Service Management and Health Promotion meetings as their urban colleagues, no doubt in response to the 1990 Contract. Earlier work in the current study showed that general practitioners continued to attend educational courses outwith their region despite the removal of the travel and subsistence reimbursement.

The attendance at educational meetings by practice size does not vary greatly although smaller practices were attending fewer sessions with the differences being particularly significant in Service Management. It is noteworthy that single-handed doctors were attending the highest number of sessions in Disease Management. This would seem to be related to the difficulties that these doctors had in sharing medical problems with colleagues, and their motivation for keeping up to date was most important in Disease Management where recent advances and changes were more rapid. In larger practices doctors can have specific areas of medical interest but the single-handed doctor has to encompass all areas.

Service Management involvement was highest in the largest practices; which were most likely to have a practice manager who would be aware of this area and be implementing management principles.

There was no difference in the mean number of sessions attended by males and females and this differed from the earlier study in this thesis where high attenders were more likely to be females. This, however, was only looking at one end of the attendance spectrum, the group who were high attenders. In the present study when categories were examined, males attended considerably more Service Management and considerably less Health Promotion. The excess Service Management was related to the business side of general practice which may be seen as a male prerogative, whereas Health Promotion, especially cervical cytology, is more likely to be carried out by female doctors. As business principles and Health Promotion were areas with which doctors were likely to be familiar it is interesting that they wanted to update their knowledge in these areas rather than seek alternatives with which they were probably less familiar.

The difference between a full-time and a part-time commitment was of borderline significance in relation to total sessions but significant for Service Management. The part-timer obtains the full postgraduate education allowance and their educational component was therefore a higher percentage of their total commitment and this could be one of the relevant factors in explaining the small differences. However, the PGEA will be a higher proportion of the part-timers income. The

full-timers were more likely to be involved in the running of the practice and this could explain the higher number of Service Management sessions.

Although the number in the sample was small, for those who were widowed and divorced there was a significant difference in the total number of sessions attended. This difference was not present for Disease Management but was highly significant for both Service Management and Health Promotion. It would seem that this group continued to attend in the area where they were comfortable, namely Disease Management, and were more reluctant to be involved in the areas which required change. The method of teaching for Disease Management was the most likely of the three to be in the lecture situation and therefore more passive with this format being more comfortable for this particular group. There was no information on when this group became widowed or divorced so it was difficult to speculate further.

The linear model suggests that location of practice, whether working full-time and marital status were the three main factors related to total attendance at educational meetings, but in relation to Disease Management sessions only the location of the practice was statistically significant. Overall the doctors in a rural situation went to fewer sessions at the expense of Disease Management rather than Service Management or Health Promotion. This could have been influenced by the interest of the doctors involved or it could have had something to do with the maintaining their income.

Health Promotion was more likely to be carried out by female doctors and doctors who were married or single. This could have been related to their specific interests or to the fact that they were more likely to have had a limited commitment to the practice and been involved in cervical cytology and paediatric surveillance. Service Management was significantly related to marital status, gender, number of doctors and year of birth. It was interesting that the mean number of Service Management sessions attended by doctors from practices with more than four doctors was significantly greater than those attended by the doctors from practices with two to three doctors. Within a larger group there was more likely to have been one doctor who was interested in this area and that doctor's knowledge and enthusiasm could also be passed to the other doctors. It was interesting that the single-handed doctors completed more Service Management sessions than doctors in a two to three man practice. Overall with Service Management sessions the doctors who were born between 1935 and 1954 completed significantly more than those born before 1935. This category included computers and audit and also management changes within the practice, and these innovations were much more likely to have been accepted by younger doctors. However, these factors were responsible for less than 5% of the differences with the vast majority being the result of other factors.

Forrest et al (1989) in a postal survey of 623 doctors in Mersey, found that factors such as gender, location of practice and practice size did not have a statistically significant influence on general practitioners' responses to their questionnaire.

However, they were unable to look at the information in connection with the general practitioners' educational habits.

The significant differences found are mainly due to the large sample size and only explain a part of the general practitioners' behaviour in relation to education. Most of the variability remains unexplained and further studies are required. With the large sums of money now being spent on postgraduate education, providers need to look at doctors' needs and how this need relates to their day to day work in practice.

SUMMARY

The demographic factors on the attendance of general practitioners at educational meetings was studied over a 2 year period. 1672 doctors had attained sufficient sessions to claim their postgraduate education allowance and 1551 (92.8%) responded to the questionnaire. The overall attendance at meetings did not vary between age groups but older doctors attended the highest number of Disease Management sessions on average, and the lowest number of sessions involving Service Management and Health Promotion on average. Doctors in a rural situation attended fewer meetings on average (22.1 sessions v 24.8 urban v 25.1 mixed) with the largest difference in the Disease Management category. There was a variation in the number of attendances related to the size of a practice with this being slightly more for larger practices. The only significant difference was for Service Management where the smaller practices were attending fewer sessions on average

(8.4 for single-handed v 9.3 for practices with 6 doctors or more). There was no difference between the genders regarding the total number of sessions attended, but males did significantly more Service Management on average (9.0 v 7.8) and females more Health Promotion on average (6.7 v 6.0). The difference between full-time and part-time commitments was marginal but full-time doctors did more Service Management sessions on average (8.8 v 7.3). The effect of marital status on total sessions was significant with the widowed/divorced attending fewer total sessions on average with the differences being greatest in Service Management (6.8 v 8.7) and Health Promotion (4.3 v 6.2). Multiple regression analysis showed that location of practice, whether working full-time or part-time, and marital status had a small but significant bearing on attendance at meetings. Although the differences were small these factors should be noted by providers, negotiators and government.

b) The effect of membership of a training practice, vocational training and College membership.

Previous work in this thesis has shown that higher attenders at education meetings are more likely to be Members of the Royal College of General Practitioners. It was decided to look at all doctors and not merely high attenders and relate these with vocational training, training practice principalship and membership of the Royal College of General Practitioners.

Method

In addition to that already described membership of the Royal College of General Practitioners was obtained from the College Year Book and information on whether the doctor was a member of a training practice was already held within the Regional Adviser's office. The comparison of vocationally trained doctors and those not vocationally trained was carried out for the period when vocational training was voluntary. The statistical methods and the analysis were similar to those carried out earlier in the chapter.

Results

The attendance at educational meetings and the effect of being a College Member is shown in Table 7. The Fellows and Associates completed the highest number of sessions, with the Fellows having the highest number in both Disease Management and Service Management, and the Associates having the highest number of Health Promotion sessions. The number of Fellows and Associates was too small to be

analysed separately and was grouped with the Members. Overall the mean total number of sessions attended by Fellows, Members and Associates (26.4) was significantly more than the non-members (23.5; $p < 0.001$). The difference was greatest for Service Management (mean 10.0 v 7.9; $p < 0.001$) and was of borderline significance for Disease Management (mean 10.1 v 9.5; $p = 0.07$).

Principals in training practices attended more sessions on average than those in non-training practices and this is shown in Table 8. This was highly significant for total sessions (mean 25.8 v 23.8; $p < 0.0001$) and was also highly significant for Service Management (mean 9.5 v 8.1; $p < 0.001$). In Disease Management those in training practices attended 10.1 sessions on average and in non-training practices 9.5 ($p = 0.02$). There was no difference in Health Promotion, with groups attending an average of 6.2 sessions. The effects of vocational training are shown in Table 9. 490 had undergone this voluntarily, with 468 going into practice without having completed vocational training. The group who had not been vocationally trained attended a mean of 25 sessions and those who had been vocationally trained attended a mean of 24.8 ($p = 0.17$).

Multiple regression was used to assess the effect of each of these factors after adjusting for all others and for other demographic variables. After this adjustment College Members attended on average 2.1 sessions more than non-members, (95% C.I. 1.1 to 3.2; $p < 0.001$) and those in training practices attended on average 1.2 sessions more than those in non-training practices (95% C.I. 0.7 to 1.7; $p = 0.02$).

The demographic variables important in this regression have already been described namely, location of practice, whether full-time or part-time and marital status. It is important to note, however, that these five factors only explain approximately 4% of the variability in attendance between doctors as most of the variation in attendance remains unexplained.

DISCUSSION

Attendance at educational meetings was related to a number of factors. Fellows of the Royal College of General Practitioners attended more educational sessions and it is possible to speculate that their interest in education was one of the factors taken into account when they were elected to Fellowship. It was also interesting to note that the Associates attended more sessions in all categories than the Members. The Associates undoubtedly had an interest in education and the principles of the College probably having joined for this reason. The local faculty of the College provided some of the PGEA meetings but these, like the other educational activities in the region, were open to all doctors and therefore would not explain any of the differences shown. The current difference in attendance at educational meetings was present overall for all Members of the College and was an important finding for general practice.

Doctors who worked in training practices attended more meetings and this could be due to the practice being more interested in education as part of the training process. However, it could also have been due to a trainee's presence in the

practice, resulting in less service demand for the individual doctor and therefore an increased opportunity to attend meetings. The highest differences were in Service Management and, with the changes in the 1990 Contract, the training practices were likely to be at the innovative end of the spectrum as they were already fulfilling many of the new requirements. However, the difference also applied to sessions in Disease Management and this could have been related to a desire to keep up to date in this area because of the demands of training and working with young doctors who had a high level of this type of knowledge.

Doctors who had gone through vocational training when this was optional attended slightly fewer meetings than those who were not vocationally trained, although this is not statistically significant. Previous work (Reedy et al 1979, Wood et al 1980 and Branthwaite et al 1988) had shown that the first ten years as a doctor is a time when the doctor attends fewer meetings than in the subsequent ten years. This could explain the difference. One reason for this could have been that the early years in practice were seen as a settling in period with less desire to attend meetings after a prolonged training process. The doctor's commitment to a young family could also be highest at this time. One of the important areas covered in vocational training is professional development, and responsibility for one's own education and these results could be disappointing for those responsible for vocational training. However, it must be pointed out that these doctors had all completed vocational training more than ten years ago and hopefully vocational training today has a more positive impact.

The largest part of the variability in attendance between doctors was still unexplained. However, being a member of both a training practice and of the Royal College of General Practitioners had an important effect on the attendance at educational meetings. Various reasons for this have been suggested but further work is required.

SUMMARY

The effect of College membership, training and vocational training was examined over a two year period in relation to attendance at educational meetings. College Members, Fellows and Associates attended more meetings than non-members (26.5 v 23.5; $p < 0.001$) and this was particularly true for Fellows and Associates. Within the three categories of education the differences were highest in Service Management and Disease Management. Members of a training practice attended more educational sessions than doctors who worked in other practices (25.8 v 23.8; $p < 0.0001$). This was particularly true for Service Management and also Disease Management with no difference for Health Promotion. On comparing doctors who were vocationally trained with those who had not been vocationally trained, in the period when this was optional, there was minimal difference in the number of sessions attended, with attendances in the various categories being similar. After adjusting for the effect of other demographic variables using multiple regression, being in a training practice was still important regarding attendance at educational meetings (95% C.I. for adjusted mean differences, 0.7 to 1.7; $p = 0.02$) and being a

Member of the College was also important (95% C.I. for adjusted mean differences, 1.1 to 3.2; $p < 0.001$).

TABLE 1 - Educational sessions with categories completed by responders and non-responders over a two year period - mean (s.d.).

	Responders	Non-Responders	p-Value
Number	1551	121	
Total Sessions	24.6 (9.9)	16.8 (11.4)	<0.001
Disease Management	9.7 (5.2)	6.9 (5.2)	<0.001
Service Management	8.7 (5.4)	5.6 (5.8)	<0.001
Health Promotion	6.2 (4.1)	4.2 (3.8)	<0.001

TABLE 2 - Educational attainment and categories over a two year period by year of birth - mean (s.d.).

	Pre-1935	1935-44	1945-54	1955 on	Total	p-value
	173	306	536	420	1435	
Total Sessions	23.2 (9.4)	25.1 (9.7)	24.9 (9.6)	24.4 (10.0)		0.14
Disease Management	10.1 (5.1)	10.0 (5.0)	9.6 (4.9)	9.6 (5.5)		0.52
Service Management	7.4 (3.9)	8.8 (5.3)	9.1 (5.6)	8.6 (5.6)		0.003
Health Promotion	5.7 (4.1)	6.3 (3.9)	6.2 (4.0)	6.2 (4.2)		0.36

TABLE 3 -Educational attainment and categories over a two year period by location of practice - mean (s.d.)

	Urban	Rural	Mixed	Total	p-value
	832	191	491	1514	
Total Sessions	24.8 (9.3)	22.1 (9.8)	25.1 (10.3)		<0.001
Disease Management	9.8 (5.0)	8.5 (5.4)	10.1 (5.2)		<0.001
Service Management	8.7 (5.2)	8.0 (5.3)	8.9 (5.6)		0.24
Health Promotion	6.3 (4.3)	5.6 (4.0)	6.1 (3.9)		0.06

TABLE 4 - Educational attainments and categories over a two year period by practice size - mean (s.d.).

	Practice Size					
	1	**2-3**	**4-5**	**6+**	**Total**	**p-value**
	150	486	571	318	1525	
Total sessions	24.7 (12.2)	23.7 (9.0)	24.8 (9.6)	25.3 (9.5)		0.09
Disease Management	10.3 (6.8)	9.6 (4.9)	9.7 (5.1)	9.7 (4.6)		0.41
Service Management	8.4 (5.4)	7.8 (4.9)	9.1 (5.4)	9.3 (5.6)		<0.001
Health Promotion	6.0 (5.0)	6.3 (4.2)	6.0 (3.9)	6.3 (3.9)		0.68

TABLE 5 - Educational attainments and categories over a two year period by gender - mean (s.d.)

	Male	Female	Total	p-value
	1087	457	1544	
Total sessions	24.6 (10.3)	24.5 (9.0)		0.77
Disease Management	9.6 (5.2)	10.0 (5.1)		0.17
Service Management	9.0 (5.6)	7.8 (4.7)		<0.001
Health Promotion	6.0 (3.9)	6.7 (4.5)		0.002

TABLE 6 - Multiple regression analysis of factors affecting total attendance.

Factor	Mean Difference	95% Confidence Interval	p-value
Location (urban/mixed - rural)	2.73	1.26 to 4.20	<0.001
Full-Time (full-time - part-time)	1.77	0.00 to 3.54	0.05
Marital Status (married/single - divorced/separated)	3.89	0.93 to 6.85	0.01

TABLE 7 - Effect of College Membership on attendance at educational meetings - mean (s.d.)

	Members	Fellows	Assoc	Non-Members	Total	p-value
	501	29	26	995	1551	
Total Sessions	26.1 (10.4)	31.1 (12.5)	27.7 (12.3)	23.5 (9.3)		<0.001
Disease Management	10.0 (5.0)	11.5 (6.2)	10.3 (5.2)	9.5 (5.2)		0.07
Service Management	9.9 (6.1)	12.9 (7.3)	10.2 (5.5)	7.9 (4.7)		<0.001
Health Promotion	6.2 (4.1)	6.7 (5.3)	7.1 (6.1)	6.1 (4.0)		0.62

TABLE 8 - Effect of Membership of Training Practice on attendance at educational meetings - mean (s.d.)

	Training	Non-Training	Total	p-value
	596	955	1551	
Total Sessions	25.8 (9.8)	23.8 (9.9)		<0.0001
Disease Management	10.1 (4.9)	9.5 (5.3)		0.02
Service Management	9.5 (5.8)	8.1 (5.1)		<0.001
Health Promotion	6.2 (4.0)	6.2 (4.2)		0.73

TABLE 9 - Effect of vocational training on attendance at education meeting - mean (s.d.)

	Vocational Training	Non-Vocational Training	Total	p-value
	490	468	958	
Total Sessions	24.8 (9.8)	25.0 (10.1)		0.17
Disease Management	9.6 (5.0)	9.8 (5.1)		0.61
Service Management	8.9 (5.6)	8.9 (5.4)		0.97
Health Promotion	6.3 (4.2)	6.2 (4.0)		0.84

CHAPTER 10

CHARACTERISTICS OF GENERAL PRACTITIONERS WHO ATTEND EDUCATIONAL MEETINGS FUNDED BY THE PHARMACEUTICAL INDUSTRY

The involvement of the pharmaceutical industry in continuing medical education for general practitioners has been an area of controversy for some time. The organisers of the scheme took the early view that they would not seek funding from the pharmaceutical industry and, with the complete reimbursement of expenses in general practice by government, any costs which general practitioners paid in education would automatically be refunded. However, this view was not taken by general practitioners, with the majority keen on the cheapest option (Hilton et al 1991). It is important, however, to get the background to the controversy of funding.

A survey in North East Scotland (Durno et al 1974) with questionnaires being sent to all general practitioners had 217 responding: visits by drug company representatives were encouraged by 143 of the doctors, a slightly smaller number 122 found lunch or dinner meetings with drug firms of value. Doctors commented that the representative was a useful source of information on new drugs and that meetings arranged by drug companies were also a useful source of contact with other general practitioners and, on occasions, hospital consultants.

Forrest et al (1989) received questionnaires in their Mersey survey from 623 respondents on sources of learning. This study suggested that drug company representatives, and to a lesser extent video tape and audio tapes were of little educational value. Branthwaite et al (1988) in another survey looked at meetings which did not have Section 63 approval and found that a large proportion of the meetings held within practices were sponsored by drug companies: 72% said that all of the meetings they had attended were drug sponsored. Within practice 82% of such meetings were said to be drug sponsored and of those held away from the practice 68% of such meetings were drug sponsored.

O'Dowd et al (1989) in a BMJ editorial commented on the influence of the pharmaceutical industry in continuing medical education. The Welsh survey (Hayes et al 1990) looked specifically at continuing education for general practice and the role of the pharmaceutical industry. This was carried out with 96 general practitioners and involved interviewing. Only 16% of all respondents thought that visits by representatives from pharmaceutical companies were educationally valuable and 37% thought that educational events organised by these companies were of value. Surprisingly 60% of those who worked in practices which held meetings organised by drug company representatives thought them to be of little or no educational value. The authors thought that external control and balance could not be maintained when a pharmaceutical company ran a meeting at which it alone decided on the

content. They felt there was a clear need to encourage and facilitate the development of independently organised non-sponsored continuing medical education in general practice. If adequate funds were not available to allow this then one approach would be to ensure that reasonable guidelines were developed for the use of pharmaceutical company sponsorship of meetings within general practice, and that these were agreed with the pharmaceutical industry. They, however, questioned the current level of dependence on drug companies for organising these meetings.

Burrows (1990) considering a similar topic felt that commercial pricing of events was unlikely to be acceptable to general practitioners accustomed to apparently free education in the past, even though their expenditure might be fully reimbursed in the postgraduate education allowance. He felt that most general practitioners regarded this as income rather than expenses. A proportion of their seniority allowance was withheld until postgraduate education qualifications had been met. Burrows asked that very careful examination should be made of the interests of the sponsors as well as the educational content of meetings. He felt that general practitioners could not operate outside the real world of commercial interests in CME. Another survey (Hilton et al 1991) showed that only 7 out of a sample of 398 ventured the opinion that pharmaceutical companies should subsidise continuing medical education. However, only 47% were prepared to pay more than £200 for a regional scheme.

Al-Shehri (1992a) received a questionnaire from 179 general practitioners in his Mersey study and found that courses were the most highly valued source of learning whereas drug representative's visits were the least valued.

A study looking at PGEA two years after its introduction (Hasler 1992) noted that 1539 courses were approved in the Oxford region in 1991/92. He noted that sessions either run or sponsored by commercial firms (mainly from the pharmaceutical industry) had doubled from 12% in early 1991 to 26% a year later. Indeed the overall increase in his region in approved activities was largely accounted for by increased pharmaceutical company activity. He felt that such meetings inevitably created conflict between marketing and independent education. He felt it better if the pharmaceutical industry were to carry out its marketing activities without becoming involved in conflict over PGEA approval.

This area required further study and doctors within the region who obtained more than half of the postgraduate educational requirements from meetings funded by the pharmaceutical industry were examined.

Method

A printout was obtained from the database of the educational attendances of all general practitioners for the educational year 1.4.91 to 31.3.92. The latest

editions of the Medical Register, the General Medical Council list and the Health Board lists were used to determine the University of Qualification, Membership of the Royal College of General Practitioners and the structure of each doctor's practice.

Results

During the year studied 1,475 meetings were accredited for the postgraduate education allowance and 121 (8.2%) of these were organised and funded by the pharmaceutical industry. The general practitioners in the region attended a total of 22,816 half day sessions and of these 2,064 (9%) were earned at meetings sponsored by the pharmaceutical industry. No doctor in the region attended only pharmaceutical company meetings and during the year studied, 81 doctors attended 5 or more half day sessions at pharmaceutically funded meetings, with 11 obtaining 10 or more sessions in this way. No doctor in this group of 81 attended more than 15 sessions in total, ie. not only did this group of doctors attend a significant number of industry sponsored sessions but these sessions made up a minimum of one third each of doctor's total approved educational sessions. The 81 doctors worked in 69 practices, 30 of the doctors worked in single-handed (14) and in two person (16) practices - expected total 17: $chi^2 = 9.94$, $p<0.01$.

17 of the sample were partners in training practices (expected 29: $chi^2 = 4.97$, $p<0.05$) but only one was a trainer. 19 (expected 21) of the sample were

female and 19 (expected 29) were Members of the Royal College of General Practitioners and one was a Fellow. These parameters did not show a statistically different prevalence from that predicted.

A breakdown of the general practitioners by Health Board and names suggestive of ethnic minority origin is shown in Table 1. The region has Glasgow as its main conurbation with other areas of high population in Lanarkshire. It can be seen that the high attenders at pharmaceutically sponsored meetings tended to come from the high population density areas and are not well represented in the more peripheral areas. Most industry sponsored meetings tended to be held in the major centres. Of the 81 doctors in the study 23 (expected 5) had names suggestive of ethnic minority origin. This result was statistically significant: $chi^2 = 28.1$, $p<0.001$. Of these 23, 18 were graduates of non-United Kingdom Universities.

DISCUSSION

There has been considerable debate since the introduction of the postgraduate education allowance as to the provider role of the pharmaceutical companies. Some comment had suggested that their role may be more than educational and some of the literature on this has already been described in this chapter. The doctors who fulfil the criteria for the study decrease as you leave the centre. The majority of the pharmaceutical meetings are held in the central area. This distribution of meetings would suggest that their agenda is different from other

providers of education who hold meetings throughout the region. From the results the pharmaceutical companies are not major providers of education locally, but this finding might have been influenced by the immediate provision of education by the local scheme whereby doctors attended meetings for one annual subscription. It would have been interesting to know if the situation was different in areas where such a structure did not exist.

No doctor in the region obtained all of his sessions from pharmaceutically sponsored meetings but it was of concern that, of those attending, there was a predominance of doctors from single-handed or two person practices who were working in a non-training situation and who were not members of the Royal College of General Practitioners. Principals in training practices and Members of the College were more familiar with personal involvement in their education, and the meetings which had been accredited locally for the pharmaceutical industry tended to be lecture situations in which those attending would be more comfortable with passive involvement.

It has been shown that ethnic minority origin can be identified from a population when surnames are used (McManus et al 1990). The judgements are 85% reliable when made by a white British subject. In the present study the majority were known to the author thus increasing this reliability. The reasons for the over-representation of doctors from ethnic minorities was a matter for speculation. This was difficult to explain but the method of delivery of

education may be a factor, with cost another. The survey of the MRCGP examination (Wakeford et al 1992) did highlight that graduates of non-U.K. Universities did not perform well and their perception and involvement in continuing medical education could be a factor in this. Further work needs to be carried out in this area but it is possible that lack of familiarity might discourage doctors from taking part in inter-active educational meetings. Help in preparing a personal education plan could be a way forward, with the plan being related to the doctor's needs.

The study has shown some interesting characteristics of general practitioners who attend meetings sponsored by the pharmaceutical industry. However, the predominance of one grouping makes further discussion difficult, as prejudice could be inferred if specific comments were made although this is the last thing intended. Further study of this group is required and funding has just been obtained to interview all 81 doctors identified to examine their educational needs and personal development.

SUMMARY

The characteristics of doctors who attended meetings funded by the pharmaceutical industry were identified. During an educational year 81 doctors attended 5 or more half day sessions at such meetings, with 11 obtaining 10 or more sessions in this way. No doctor in this group attended more than 15 sessions in total.

The doctors predominantly worked in single-handed or two person practices and were less likely to be involved in training or be members of the Royal College of General Practitioners. There was also an over-representation of doctors from ethnic minorities.

TABLE 1 - Numbers (percentages) of general practitioners attending more than 5 half days for the postgraduate education allowance by Health Board and names suggestive of ethnic origin.

Health Boards	Total	More than 5 half-days	Names in the Health Board list suggestive of ethnic minority origin	More than 5 half-days
Greater Glasgow	640	59 (9.2%)	51	14 (27.5%)
Lanarkshire	327	14 (4.3%)	35	7 (20.0%)
Argyll and Clyde	308	2 (0.6%)	15	0
Ayrshire and Arran	252	6 (2.4%)	6	2 (33.3%)
Dumfries and Galloway	113	-	Not relevant	-
Forth Valley	190	-	Not relevant	-
Total	1830	81 (4.4%)		

CHAPTER 11

FINDINGS OF STUDY AND THE FUTURE

The uptake of continuing medical education in general practice was greatly affected by the educational changes in the 1990 Contract. These changes stimulated a considerable interest in education and resulted in an increased variety of courses. A complete picture is presented for almost 2,000 general practitioners, with the part of the study involving a questionnaire almost complete with a 93% response rate. Although almost all general practitioners qualified for their postgraduate education allowance, there was a significant variation in their educational achievements, and these were more likely to be at the higher level of achievement if they worked in larger practices which were also training practices and if they were Members of the Royal College of General Practitioners. An annual charge is a viable and popular option when arranging courses, and this results in the subscribers attending more sessions in all categories with a better balance.

Overall age made no difference to attendance at meetings but the older doctors were over represented in the group who did not attend meetings. Doctors in urban situations attended more meetings and the removal of travel and subsistence made little difference to attendance outwith the region. Over the three years studied the doctors were attending significantly more than the minimum required. Five factors were significant in attendance, namely,

location of practice, whether working full-time or part-time, marital status, whether in a training practice and whether a Member of the Royal College of General Practitioners. Both training status and membership of the Royal College of General Practitioners are competitive situations which do seem to have some educational advantages. However, these five factors overall only account for less than 5% of the reasons for differing attendances at meetings, although they do seem to have a greater influence at both ends of the attendance spectrum. This does emphasise the importance of individual planning by a general practitioner for his continuing education throughout his professional life. This should begin during the undergraduate period and should be given the highest priority during vocational training. The GMC document (1993) "To-morrows Doctors" lays firm foundations for this process in medical schools.

A letter by Harding et al (1992) commenting on the two articles, high attenders and attendance outwith the region, published in the British Journal of General Practice from the current thesis stated that "our colleagues from the West of Scotland should be congratulated on their ability to attract general practitioners to courses that they organise, but we feel that their success has not been experienced in other parts of the country". They then discussed the input of the pharmaceutical industry, expressed a concern for the quality of education and its long term future.

The thesis has shown the difference in behaviour between trainers and non-trainers in general practice and the preference of some general practitioners for courses provided by Pharmaceutical Companies. The concern is that, under the current arrangements for the postgraduate education allowance, obtaining continuing medical education of the right quality is becoming a lower priority for many general practitioners than their desire to collect their postgraduate education allowance at the lowest possible cost. If this situation continues then the long term future of postgraduate education is compromised.

The crux of continuing education is whether attending meetings affects the way a doctor works and delivers health care. Does a doctor who attends more meetings bring greater benefits to his patients? Recent work (Kelly 1994) has shown that attending meetings does increase knowledge in the majority of cases, and that this is truer for Disease Management than the other two categories. However, the acquisition of knowledge and the level of change which this brings within the practice is disappointingly low. Overall the level of change which is achieved is small and seems to have little effect on the quality of care. As a result of this work, the recommendation was that each doctor should develop a personal education plan and this seems particularly true for single-handed doctors in small practices, doctors in rural situations, doctors who are not in a training environment and doctors who are not members of the Royal College of General Practitioners. These groupings seem

the area of greatest need, and with limited resources available, are those with the greatest need for guidance.

Wood et al (1980) in their work on Section 63 activities recommended that greater effort should be made to design incentives to encourage general practitioners to participate actively in Section 63 activities. A Lancet editorial (1987) noted that there was growing awareness that traditional continuing education was seldom effective in changing doctors' attitudes and adaptability. Although general practitioners have been especially concerned about the need for a new approach to continuing education, progress has been painfully slow and there has been no serious attempt to devise clear strategies. Educational advisers are well aware of the need for this change, although not widely recognised by busy general practitioners, who do not readily perceive that new educational approaches will improve either their knowledge or its application to medical practice. Although the editorial was written seven years ago, it is still very apt with the 1990 Contract with its demands on general practitioners, and is probably more relevant now than it was when written.

Branthwaite et al (1988) felt in their Occasional Paper that the way forward was by having general practitioner tutors who would be the basis for the development of the individual general practitioner. Al-Shehri (1992b) said that some of the educational activities qualifying for PGEA were simply of low educational value and, at best, preserved the status quo of traditional teaching.

Uncontrolled markets facilitate the supply and consumption of cheap goods and, in the situation created by the PGEA, educational innovators (providers or consumers) may conclude that they are doing better but feeling worse and abandon the unequal struggle. High quality CME will emerge if the consumer demands the best and doesn't choose the cheapest provision. If providers accept the challenge of transforming attendance into meaningful participation then this will contribute to quality. A managed market for general practice CME is needed to protect educationally sound provision and to ensure effective use of PGEA.

The use of portfolio based learning (1993) in continuing medical education would be one approach. In an article about effective continuing education (Harden et al 1992), seven criteria were identified which contribute to the effectiveness of CME. These were: convenience, relevance, individualisation, self-assessment, interest, speculation and presented in a systematic way. Harden described this as a practical tool which covers the real life situation.

Gray (1986) examining what techniques are effective in continuing education suggested that effective education should be based on the following principles: the education should be based on the doctor's own work as well as on research findings; the doctor should be helped to assess his or her work and compare it with that of others; the whole team should be involved where teamwork is necessary for good quality care; continuing education programmes should be

developed in collaboration with doctors rather than being imposed on them; the views of patients should be incorporated in continuing education; continuing education should help the physician not only to acquire new knowledge and skills but also to change the way he or she works; continuing education must be based on the assumption that doctors are busy and that the great majority would like to improve the quality of care they provide; doctors should be involved in the development of their continuing education and continuing education should be enjoyable.

A survey of all general practitioners in the U.K. (GMSC 1992) on "Your choices for the future" suggested that a re-accreditation system in general practice was long overdue.

Sylvester (1993) looked at general practitioners' attitudes to professional re-accreditation and noted that most general practitioners supported professional re-accreditation. They believed the process should be led by the profession, be educational and take account of a range of professional activities. The GMSC Discussion Paper (1993) on re-accreditation felt that practitioner re-accreditation would be an adaptation of the postgraduate education allowance.

Hasler (1992) looking at the PGEA in 1992 felt that if progress was to be made we should encourage practices to develop plans and strategies before they decide on their educational needs, and he felt the time had come for Regional

Advisers and G.P. Tutors to take increasing initiatives in postgraduate education and in PGEA arrangements. They can no longer merely respond to PGEA applications but need to create a climate in which the applications start to reflect real needs and to have implications for audit. The educationalists also need to think how to improve the briefing of lecturers and teachers so that they can become more effective. He felt that the possibilities were exciting.

The Regional Advisers in their "Future Strategies for Continuing Medical Education" (1989) felt that the most fundamental change would be an increased emphasis on a more personal, practice based and targeted approach to continuing training and education. Their report felt that educational relevance, effective approaches to learning and the outcome of performance reviews, both voluntary and statutory, should underpin the process of planning, provision and quality assurance in general practice continuing education.

Al-Shehri (1993) felt the major responsibility of continuing medical education was to address two sequential tasks: first to sustain motivation among established general practitioners for self-directed learning based on experience; and secondly, to devise ways of sharing individual experiences which both interpret and enrich learning. The authors felt that these were not being addressed at present.

The present study and the recent literature both suggest the way forward is individualised personal education plans and making the individual general practitioner responsible for his own education. The study has shown that particular groups require more help than others and they should be the starting point for the new strategy. With this approach and the doctor's own involvement in his education then the real benefits affecting patient care will become evident. Education should then make a more meaningful contribution to the delivery and quality of the NHS with the general practitioner having a pivotal role in this contribution. More meaningful evaluation of education, looking at individual motivation and management of change, will be the major challenge facing educators in the next decade.

Wright (1994) in an editorial noted that it is difficult to resist low cost, unchallenging courses which do not contribute to professional development. He felt that continuing medical education should enable continuing professional renewal and development. The way ahead from this thesis would reinforce that point of view.

REFERENCES

Aitcheson H W K. 1974. Continuing education in general practice in England and Wales. Journal of the Royal College of General Practitioners, 24, p643-647.

Allery L, Owen P, Hayes T and Harding K. 1991. Differences in continuing medical education activities and attitudes between trainers and non-trainers in general practice. Postgraduate Education for General Practice, 2, p176-182.

Al-Shehri A. 1992a. General Practitioners' PGEA: the first six months. Postgraduate Education for General Practice, 3, p53-61.

Al-Shehri A. 1992b. The market and educational principles in continuing medical education for general practice. Medical Education, 26, p384-388.

Al-Shehri A. 1993. Continuing education for general practice. Systematic learning from experience. British Journal of General Practice, 43, p249-253.

Altman D G. 1991. Practical statistics for medical research. Chapman and Hall, London.

Anon. 1962. Postgraduate medical education. Conference convened by the Nuffield Provincial Hospitals Trust. Lancet, 1, p367-368.

Bahrami J. 1990. Postgraduate Education Allowance: A new beginning? Horizons Editorial, August, p423.

Branthwaite A, Ross A, Henshaw A and Davie C. 1988. Continuing education for general practitioners. Occasional Paper 38. Royal College of General Practitioners, London. May.

Brookes D. 1989. Educational consequences of the White Paper. Update. 1st August, p195.

Burrows P. 1990. Continuing Medical Education and pharmaceutical sponsorship. Postgraduate Education for General Practice, 1, p115-116.

Difford F and Hughes R C W. 1992. General Practitioners' attendance at courses accredited for the postgraduate education allowance. British Journal of General Practice, 42, p290-293.

Donald A G. 1984. Continuing learning in practice project (CLIPP). Journal of the Royal College of General Practitioners, 34, p242-245.

Durno D and Gill G M. 1974. Survey of general practitioners' views on postgraduate education in North East Scotland. Journal of the Royal College of General Practitioners, 24, p648-654.

Editorial. 1987. Postgraduate and continuing education in need of orchestration. Lancet, 1, p898-899.

Ellis N. 1985. What is happening to Section 63? BMJ, 290, p1527-1530.

Falk-Whynes J and Whynes D. 1992. What type of postgraduate education do general practitioners want? Postgraduate Education for General Practice, 3, p147-151.

Financial Pulse. 1990. Winners and losers under the new G.P. education allowance. January, p26-30.

Forrest J M, McKenna M, Stanley I M, Boaden N T and Woodcock G T. 1989. Continuing education - a survey among general practitioners. Family Practice, 6, p98-107.

Fry J. 1983. Present state and future needs in general practice. Royal College of General Practitioners.

Future strategies for continuing medical education in general practice. 1989. Report of the England and Wales Working Party of Regional and Associate Regional Advisers in General Practice.

Gambrill E. 1986. Whither continuing medical education for general practitioners? Update. 1st January, p11-13.

General Medical Council. 1993. To-morrow's Doctors.

General Practice in the National Health Service - The 1990 Contract. 1989. Issued by the Health Departments of Great Britain. August.

General Medical Services Committee. 1993. A discussion paper: re-accreditation.

General Practitioner. 1990. Education Fund. 13.4.90, p3.

Green Paper. 1987. Promoting Better Health. The Government's Programme for Improving Primary Health Care. HMSO, London.

Gray D J. Pereira. 1991. Qualifications and quality of care. Lancet, 337, p1025.

Gray J A M. 1986. Continuing education - What techniques are effective? Lancet, 2, p447-448.

Harden R M and Laidlaw J M. 1992. Effective continuing education: The CRISIS criteria. Medical Education, 26, p408-422.

Harding K G, Owen P and Allery L. 1992. Continuing medical education. British Journal of General Practice, 42, p443.

Hasler J. 1990. What price G.P. education now? Medical Monitor, June 8th, p19.

Hasler J. 1992. The PGEA two years on. Postgraduate Education for General Practice, 3, p171-174.

Hayes T M, Allery L A, Harding, K G and Owen P A. 1990. Continuing education for general practice and the role of the pharmaceutical industry. British Journal of General Practice, 40, p510-512.

Hilton S and Hornung R. 1991. A regional survey of the intentions of general practitioners regarding postgraduate education under the terms of the 1990 Contract. Postgraduate Education for General Practice, 2, p126-131.

Horder J, Bosanquet N and Stocking B. 1986. Ways of influencing the behaviour of general practitioners. Journal of the Royal College of General Practitioners, 36, p517-521.

Howie J G R. 1989. Research in General Practice. Chapman and Hall, London.

Leeuwenhorst European Working Party. 1980. Continuing education and general practitioners. Journal of the Royal College of General Practitioners, 30, p570-574.

Kelly M H. 1994. Evaluation of Continuing Medical Education for General Practitioners in the West of Scotland. PhD Thesis, University of Glasgow.

McManus I C, Maitliss L and Richards P. 1990. Identifying medical school applicants from ethnic minorities. Studies in higher education, 15, p57-73.

McNamara I. 1990. Personal communication.

Millac J. 1985. Continuing medical education. Journal of the Royal College of General Practitioners, 35, p303-304.

O'Dowd T C and Sprackling P D. 1989. Continuing medical education in general practice. BMJ, 298; p1472.

Osler W. 1900. The importance of postgraduate study. Lancet, 2, p73-75.

Owen P A, Allery L A, Harding K G and Hayes T M. 1989. General practitioners' continuing medical education within and outside their practice. BMJ, 299, p238-240.

Parry K M. 1990. Effective continuing medical education. Medical Education, 24, p546-550.

Pickup A J, Mee L G and Hedley A J. 1983a. The general practitioner and continuing education. Journal of the Royal College of General Practitioners, 33, p486-490.

Pickup A J, Mee L G and Hedley A J. 1983b. Obstacles to continuing education. Journal of the Royal College of General Practitioners, 33, p799-801.

Portfolio Based Learning in General Practice. 1993. Occasional Paper 63. Royal College of General Practitioners, London. December.

Reedy B L E C, Gregson B A and Williams M. 1979. General practitioners and postgraduate education in the Northern Region. Occasional Paper 9. Journal of the Royal College of General Practitioners. November.

Schofield T P C. 1987. Continuing medical education must not be an optional extra. BMJ, 294, p526-527.

Scottish Office Home and Health Department. 1991. Health Education in Scotland, the National Policy Statement. Edinburgh. HMSO.

Secretary of State for Health. 1991. The Health of the Nation. London. HMSO.

Shirriffs G G. 1989. Continuing educational requirements for general practitioners in Grampian. Journal of the Royal College of General Practitioners, 39, p190-192.

Siegler D. 1986. Why do some general practitioners never attend Section 63 meetings? Medical Teacher. Volume 8, No.4, p389-392.

Smith R. 1991. First steps towards a strategy for health. BMJ, 303, p297-299.

Stott P. 1990. Editorial. Horizons. CME in 1990. January, p9.

Survival Guide to the new Contractual Arrangements. 1990. Part 2. General Medical Services Committee. January.

Sylvester S H H. 1993. General practitioners' attitudes to professional re-accreditation. BMJ, 307, p912-914.

Todd Report. Royal Commission on Medical Education. 1965-68 (1968 Cmnd) 3569. London. HMSO.

Virji A. 1991. A description of applicants to a residential course for general practitioners. Postgraduate Education for General Practice, 2, p202-207.

Wall D and Houghton G. 1989. Is there a future for general practice postgraduate education? Journal of the Royal College of General Practitioners, 39, p311-312.

Wakeford R, Farooqi E, Rashid A and Southgate L. 1992. Does the MRCGP examination discriminate against Asian doctors? BMJ, 305, p92-94.

Wood J and Byrne P S. 1980. Section 63 activities. Occasional Paper 11. Journal of the Royal College of General Practitioners, June.

Working for Patients. 1991. Postgraduate and continuing medical and dental education, March.

Wright A F. 1994. Modular continuing medical education: our flexible friend. British Journal of General Practice, 44, p146-147.

Your choices for the future. 1992. A survey of G.P. opinion. General Medical Services Committee, April.

The current thesis is submitted as an MD by published research. The following articles from the thesis have been published.

1. Murray T S, Dyker G S and Campbell L M. 1991. Characteristics of general practitioners who did not claim the first postgraduate education allowance. BMJ, 302, p1377.

2. Murray T S, Dyker G S and Campbell L M. 1992. A regional programme in the West of Scotland to meet the demands of the postgraduate education allowance. Postgraduate Education for General Practice, 3, p62-64.

3. Murray T S, Dyker G S and Campbell L M. 1992. Characteristics of general practitioners who are high attenders at educational meetings. British Journal of General Practice, 42, p157-159.

4. Murray T S, Dyker G S and Campbell L M. 1992. Postgraduate education allowance: general practitioners' attendance at courses outwith their region. British Journal of General Practice, 42, p194-196.

5. Murray T S, Dyker G S and Campbell L M. 1992. Continuing medical education and the education allowance: variations in credits obtained by general practitioners. Medical Education, 26, p248-350.

6. Murray T S, Dyker G S and Campbell L M. 1992. Postgraduate education allowance, a regional analysis of the first year. Health Bulletin, 50 (5), p348-350.

7. Murray T S, Dyker G S and Campbell L M. 1993. Postgraduate education allowance: educational attainment of subscribers and non-subscribers to a centrally organised educational scheme. British Journal of General Practice, 43, p19-21.

8. Murray T S, Dyker G S, Kelly M H, Gilmour W H and Campbell L M. 1993. Demographic characteristics of general practitioners attending educational meetings. British Journal of General Practice, 43, p467-469.