Study of trainer/trainee workload with special reference to the care of the elderly

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SUMMARY. A study of the workload of trainers and their trainees in general practice, was undertaken throughout East Anglia. Thirty trainer/trainee pairs returned data over a two-week period and follow-up information was obtained from five pairs, eight months later. A simple encounter form was used.

Trainee workloads were found to be similar to those of earlier studies, though there was considerable variation between the workloads. Trainees had little experience with elderly patients, and there was a lack of teamwork between members of the practices in providing care for the elderly.

Introduction

IN the last 10 years there has been concern at the lack of information about the volume of work experienced by trainees in their training year. Presley compared the workload in his own trainee year and in his first subsequent year in practice.[1] He concluded that in training general practitioners to a high standard of medical practice it should be ensured that they can maintain that standard while coping with the daily workload they will encounter as a principal. Previously Richardson and colleagues had found that the amount of patient care experienced by trainees varies so markedly that some guidance may be required by trainers on the minimum and maximum number of patients that should be seen at different stages of the training year.[2,3]

Training in the care of the elderly is of special importance because of the high level of demand of these patients. However, out of 192 vocational training schemes approved by the Royal College of General Practitioners in 1982, only 107 provided trainees with an opportunity of working in geriatric medicine in hospital.[4] Even should more such posts be provided it is not known whether the trainees would want to fill them. The Joint Working Party of the British Geriatrics Society and the Royal College of General Practitioners found that doctors avoid vocational training programmes which offer geriatric medicine as part of the hospital rotation.[5] The Joint Working Party suggests that this attitude can be traced back to an undergraduate teaching system which pays little attention to the elderly; and it agrees with Elliott and Stevenson[6] that to change this attitude it would be necessary to give the care of the elderly the same priority and interest as the care of the very young, at both the undergraduate and postgraduate levels of teaching.

The Joint Working Party recommended that there should be more geriatric medicine posts in hospitals for vocational trainees; that proper emphasis should be placed on the care of the elderly during the trainee year in general practice; and that trainees should acquire the attitudes and skills which are necessary for them to work effectively with other professionals involved in the care of the elderly.

The Regional Advisers in General Practice in East Anglia became interested in the potential of the encounter form as a method of looking at trainer/trainee workload. The form was designed for use by all members of the primary care team and a report of a study of 17 practices in East Anglia where the form was used in this way is published elsewhere.[7]

Method

Thirty trainees and their trainers provided data from a two-week period. An encounter form (Figure 1) was completed each time a trainer or trainee gave professional advice to a patient aged 65 years or over. In addition, an encounter card was used to record the number of encounters with patients under 65 years of age. Thus, at the end of the two-week period the total workload of each doctor could be determined from his encounter forms and his encounter card.

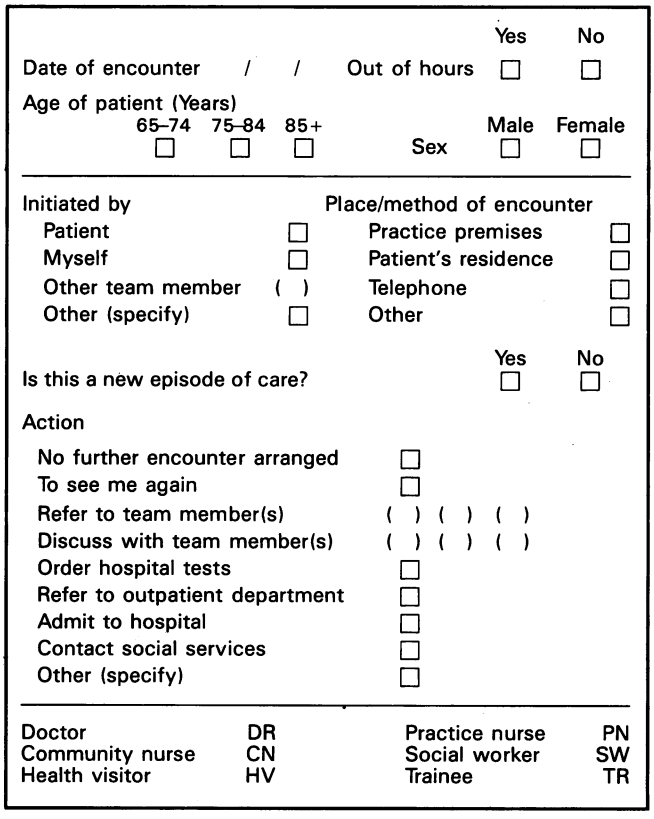

Figure 1. *Encounter form.*

The encounter form provided a measure of the extent to which referral of patients within a practice was taking place in the care of the elderly. If a reasonable balance in the contributions of the various team members exists and there is a degree of interdependence between them, then it would be expected that a certain proportion of the encounters would be initiated by team members other than the doctor. Similarly, a certain proportion

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of encounters would be expected to result in discussion with as well as referral to other team members, especially when a trainee is a member of the team.

Eight months after the initial study period a follow-up study was carried out. Five of the 30 trainer/trainee pairs collected data over another two-week period; the objective being to compare patterns of workload, for the same trainees, in the early and later months of the training year.

When the preliminary analysis was complete, each trainer and trainee involved in the study was sent a report which related the patterns of their work to mean figures for the group as a whole. Each report was accompanied by a one-page questionnaire asking for comments and including a question about the usefulness of the collection of workload figures. This was completed by 23 trainers and 20 trainees.

Results

In order to maximize the comparability of the data, the weekend workload figures were excluded from the analysis. As three trainers and two trainees failed to return their encounter cards, observations of the workload of these five doctors had to be confined to encounter forms and so to the elderly.

Trainee workload

Over the period of 10 working days a full-time trainee saw a mean of 16.5 patients of all ages per working day, with a range of 9.7 to 25.8 patients per day. The trainers saw a mean of 26.5 patients per working day, with a range of 14.0 to 40.2 patients per day.

The daily mean for a trainer/trainee pair was 43 encounters with patients of all ages with a range of 23.7 to 59.2. The workload for two of the trainees was less than 40% of the total workload of their trainers, whereas in eight of the 27 pairs of data, trainees had a workload which was more than 80% of that of their trainer (Figure 2). In two cases where the trainee workload was higher than that of the trainer, the trainer was a part-time principal.

The mean number of elderly patients seen by a trainee per working day was 2.6, with a range of 0.7 to 5.9, compared with the trainers who saw a mean of 5.4 elderly patients per working day, with a range of 1.3 to 13.3.

Figure 2 shows the trainees' workload with the elderly as a percentage of the workload of their trainees. On average, the trainees saw approximately half as many elderly patients as did their trainers but the percentages range from 17.3% to 121.2%. The distribution of encounters between the three groups of elderly patients studied, that is those aged 65–74, 75–84 and 85 plus years, was similar for trainers and trainees.

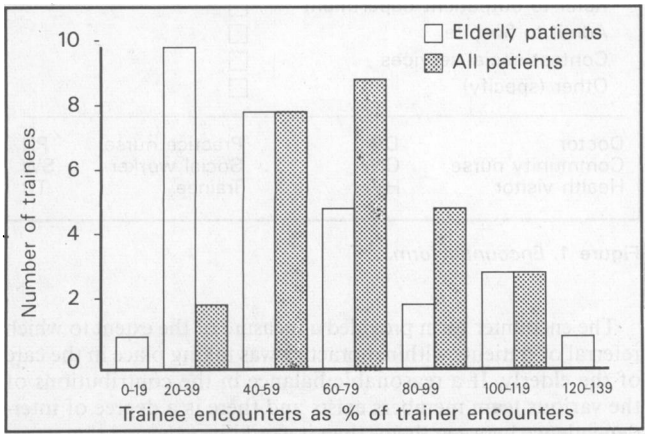

Figure 2. *A comparison of the total workload of trainees and trainers. The mean values for trainee encounters are 54.3% of trainer encounters for elderly patients and 67.0% for all patients.*

Determinants of trainee workload

In an attempt to identify the reasons for the wide variation in workload between trainees, characteristics of the trainees and their training practices were taken into account. These included the age and sex of the trainee, the interval between graduation and the trainee year, whether a trainee was following a formal or informal vocational training programme, the length of time the trainee had spent in practice, the number of partners in the training practice and the average list size of the training practice.

Length of time in practice. As might be expected, the workload of a trainee was related to the length of time spent in practice ($r = 0.41$). The correlation between the number of months in training and the trainee's workload as a percentage of that of the trainer was lower ($r = 0.30$) and the correlation between time in training and combined trainer/trainee workload lower still ($r = 0.16$).

One might expect that trainee encounters with the elderly, as a percentage of the trainer's workload with the elderly, would increase with the length of time the trainee had spent in the practice, but this was not the case ($r = 0.08$). Nor did the trainees' workload with the elderly, as a proportion of their total workload, increase according to number of months of training ($r = 0.08$).

Size of practice. The number of partners in a training practice and the average list size per partner were factors which determined the total number of patients seen by both trainees and their trainers. In practices where there were fewer than four partners, trainees saw a mean of 13.6 patients per day compared with 19.1 patients per day in practices with four or more partners. The mean number of patients seen per day by trainees working in practices where the average list size per doctor was less than 2000 patients was 14.0, compared with 18.5 per day for trainees where the average list size was 2000 or more. Therefore, both the number of partners and the list size appear to influence the workload of trainees.

This was not true for the care of the elderly. Only one factor, the number of elderly patients on the list of the training practice, was found to correlate with the amount of geriatric experience gained by trainees in general practice expressed in terms of the number of elderly patients seen ($r = 0.65$). For trainers the corresponding figure was $r = 0.71$. This was also true of nurses who saw elderly patients referred by trainers ($r = 0.71$).

In a practice where the elderly population was less than 15.0% of the total practice population, 13 or 14 patients out of every 100 seen by a trainee were aged 65 years or over, compared with 19 or 20 patients in a practice where the elderly patients made up 15.0% or more of the list. For trainers, the corresponding figures were 14 or 15 and 28 or 29 patients.

Other aspects of care of the elderly

Location of encounter. A large part of the work of both trainers and trainees with the elderly took place in the patient's home. For every 10 consultations with elderly patients at the surgery trainees visited 11 elderly patients at home and trainers visited eight.

Teamwork. Only 5% of all trainee and trainer encounters with the elderly were initiated by members of the primary care team other than the doctor. A similar proportion of elderly patients (about 9%) were referred to other team members by trainers and trainees.

The trainees discussed all their work with other team members twice as often as did their trainers but nearly three-quarters of these discussions were with the doctors in the practice rather than with nurses or health visitors.

Follow-up study

Eight months after the initial study period the mean number of encounters with all patients per day, for the five trainees had risen from 11.7 to 14.5. The mean number of patients seen by the trainers per day, was reduced accordingly from 29.9 to 27.0. The combined trainer/trainee workload had changed very little but the individual trainee's workload as a percentage of that of the trainer had increased by a mean value of 10% (Table 1).

The mean number of elderly patients seen per day by the trainees had risen slightly from 1.5 to 1.9 and the number seen by their trainers had decreased from 5.1 to 4.3 (Table 1). The individual trainee's workload with the elderly as a percentage of that of the trainer had increased by a mean value of 12% but this was chiefly because the trainers had seen fewer elderly patients (54 fewer) — the trainees had only seen 23 more elderly patients.

Four out of the five trainees saw more patients in the 75 years plus age groups after this eight-month period, the increase ranged from 4% to 41%.

The number of encounters with the elderly involving new problems had decreased for all five trainees after this eight-month period and the number of follow-up interviews had increased. Patient-initiated encounters made up a smaller proportion of the workload with the elderly after this period; the decrease ranged from 12% to 29% and the mean overall proportion decreased from 12% to 10%. Most trainees initiated more work themselves.

After this eight-month period encounters with the elderly initiated by other team members had increased. Although the numbers are small, there is some evidence to suggest that trainees worked with other team members most frequently in cases which required referral.

Table 1. Workload of five trainer/trainee pairs for 10 working days. Data from early and later months of the training year (separated by eight months) are compared.

Data collection	Mean number of encounters			Trainee encounters as a percentage of trainer encounters
	Trainers	Trainees	Combined workload	
All patients				
Early months	299	117	416	*46.7*
Later months	270	145	415	*56.7*
Elderly patients				
Early months	51	15	66	*36.6*
Later months	43	19	62	*48.5*

Discussion

The range of 9.7 to 25.8 patient encounters per day with a mean value of 16.5 found for the trainees in this study agrees with the results of previous work. Richardson found a mean value of 19 patient encounters per day for trainees, with a range from 10 to 25,[3] and a survey of 404 trainees, reported at the Third National Trainee Conference, produced an almost identical mean value of 19.4 patients per working day.[8] Carney reports a figure of 19.6 patient encounters per day.[9] Bain in his own training year saw a mean of 12.9 patients per working day during the first six months and 14.5 during the second six months — these rates are the closest to the results of this study.[10]

Whitfield[11] asked 122 trainees in England and Wales whether they had continuous care of certain patients during their trainee year, and 25% of these trainees replied that they did not, yet *The future general practitioner: learning and teaching* recommends that a trainee should be able to recognize conditions of a chronic nature and the important factors requiring continuing care.[12] In order to fulfil this objective, a trainee needs experience in the management of chronic disease. Reports of cases seen by trainees in general practice suggest that this experience is inadequate.[8,9,13]

When our findings were reported to the practices taking part in the study, the reaction of some of the trainers and trainees was surprise at how few elderly patients were seen by most trainees during their year in general practice. Others were aware of the problem and pointed out the difficulties involved in directing elderly patients to the care of trainees. Elderly people like to see the doctor they know and trust, and may resent a temporary change from their usual doctor.

Difficulties arising from inexperience were expressed clearly by one trainee who was not sure what problems to look for in elderly patients or which problems she could do something about, hence, she preferred to see younger patients. This trainee was in the eighth month of her training year. Another trainee found it hard to deal with the elderly. In general, however, our study showed that the problem lay in encouraging elderly patients to see trainees.

It is difficult for trainers to ensure that a trainee receives adequate experience in the continuing care of old and young patients with chronic illness when only one of the three years of vocational training is spent in general practice. Opinion is divided as to whether this period should be extended. In a survey of ex-trainees in the Northern Region, carried out six months after the end of their course, all the 62 doctors in general practice said that the year spent in training practice had been the most relevant to their work and 75% of these thought that this period should be extended to 18 months.[14] In a similar survey carried out by Bloomfield among ex-trainees from the north-east London area, only 12% of trainees said they would have liked longer in the training practice;[15] the corresponding figure from the National Trainee Survey in 1981 was 23%.[16]

Discussion between trainers and trainees at the beginning of the training programme should help to make the best use of the limited time the present system provides. Williams is a proponent of trainee assessment at the beginning of the training year,[17] as is Hasler, who found that less than half of the 54 trainees he studied in the late 1970s had participated in a formal assessment of their educational needs with their trainers.[18,19]

The conclusion reached by the trainees taking part in this study who examined their own workload is that the trainer and trainee should agree on the pace and content of experience needed at the beginning of the attachment. The position should then be reviewed at regular intervals during the training year. The trainees considered that when deficiencies are found it should be possible to channel patients in such a way as to provide balanced experience and the best possible preparation for their future in general practice. Such an important matter should not be left to chance.

The small percentage of trainee and trainer workload with the elderly initiated by, referred to or discussed with other members of the team also does not reflect well on the effectiveness of training. The questionnaire asked 'Is it important for trainees to learn about caring for the elderly as members of a multidisciplinary team?' One trainee felt that it was important but that trainers may be reluctant to delegate and trainees may be uncertain of the role that can be or will be played by other team members. Vocational training for general practice

still tends to take place in isolation from the education of other health workers although various groups and individuals are trying to change this attitude by promoting joint learning exercises.[20-22] General practitioner trainees, nurses and health visitors can only improve working relationships by increasing their knowledge of their colleagues' roles, so stimulating an open and positive approach to teamwork. If trainees are not encouraged to do this any improvement in teamwork must be limited.

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Acknowledgements

This work was supported by the Chief Scientist, Department of Health and Social Security, the Cambridgeshire Area Health Authority (Teaching) and the East Anglian Regional Health Authority. We are most grateful to all the members of the practices we studied.

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