PRACTICE OBSERVED

Vocational Training

Is the distribution of training practices appropriate for the needs of general practice?

T S MURRAY

Abstract

The distribution of practices that train general practitioners in the west of Scotland was examined. The concentration of training practices is lowest in conurbations that are grossly deprived. Several topics require debate: should trainees be given experience in such areas as an elective? Should the criteria for selecting training practices be similar in all areas? Should practices in deprived areas be encouraged to apply to become training practices?

Introduction

The criteria for appointing general practice trainers have been evolved over several years, and any doctor who wants to become a trainer must show a willingness to teach. This is only one of the many necessary criteria, and the full criteria are published in *Training for General Practice*. These criteria are an adequate model for a region to build on. There has been some concern that trainees get experience of a certain type of general practice that they may not experience in their long term careers. Hasler showed that trainees may see a different pattern of clinical problems from trainers.[1] The overall aim of the training year in practice is to ensure that the trainee acquires basic competence in general practice and to help lay a sound foundation for further professional development. This further development might be worrying if it is an environment that is totally different from the one that they have been trained in.

The Joint Committee on Postgraduate Training for General Practice believes that the aims of training may be achieved in a practice that provides the trainee with sheltered working conditions in which there is the time and opportunity to explore the range of general practice. The trainee should be challenged so as to be sufficiently stretched and intellectually stimulated. Unfortunately, the training year gives little experience of the high demand, socially deprived areas where many of the trainees will work as principals. It is important that young principals maintain their standards in their new environment.

I carried out a survey in the west of Scotland to determine whether the distribution of training practices was appropriate to the needs of the region. The distribution of principals in general practice in each health board area was obtained from the primary care administrator from health boards in the west of Scotland. This distribution was then compared with the current list of trainers in the west of Scotland.

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Findings

Table I gives the distribution of training practices throughout the west of Scotland according to their health board areas. In Argyll and Clyde there is considerable variation within the districts, and almost 15% of principals in the Dumbarton district are trainers but only half of this number in the other

TABLE I—*Distribution of trainers in health board areas*

Health board	No of general practitioner principals	No of trainers	Trainers as % of general practitioner principals
Argyll and Clyde	290	26	8·6
Ayrshire	225	18	8·0
Dumbreis and Galloway	102	16	15·7
Lanarkshire	290	16	5·5
Forth Valley	178	16	9·0
Greater Glasgow	624	49	7·8
Total in region	1711	140	8·2

three districts: Argyll and Bute, Paisley, and Inverclyde. In Ayrshire almost 9% of the principals in north Ayrshire are trainers but only 7% in south Ayrshire, and in Forth Valley there is a slightly higher number in the Stirling area than in the Falkirk area.

TABLE II—*Distribution of trainers in Lanarkshire*

Area	No of general practitioner principals	No of trainers	Trainers as % of general practitioner principals
Hamilton East Kilbride	110	9	8·2
Motherwell/Coatbridge	98	1	1·1
Monklands/Cumbernauld	82	4	4·9
Total in Lanarkshire	290	16	5·5

Table II gives the distribution in the Lanarkshire Health Board area. In the East Kilbride/Hamilton area the percentage of training practices in East Kilbride town is relatively high compared with the Hamilton area, with the town of Hamilton providing a third of the practitioners but only a tenth of the trainers. In the Monklands/Cumbernauld area Airdrie and Coatbridge, an area of gross deprivation, only one (2·3%) doctor out of 43 is a trainer.

Table III gives the distribution of the five Glasgow districts, highlighting two areas with a higher than average number of trainers: the Northern District and the South West District. In Glasgow Northern District is the town of Kirkintilloch, where a third of the 21 principals are trainers. In the remainder of the Northern District, with gross areas of inner city decay, less than 4% of the principals are trainers.

TABLE III—*Distribution of trainers in Glasgow*

Area	No of doctors	No (%) of trainers
Western	140	11 (7·9)
Northern	120	11 (9·2)
Eastern	125	8 (6·5)
South east	152	9 (5·9)
South west	91	10 (10·7)
Total in Glasgow	628	49 (7·8)

Discussion

Though the results are from the west of Scotland, this experience would probably be repeated in the other major conurbations in the United Kingdom. It is important to have high standards in training practices and to install the trainee with appropriate standards. If, however, trainees become principals in grossly deprived areas with little hope of putting their standards into practice this might lead to disillusionment followed by the adoption of the standards of those who practise around them.

Thus a month's elective might provide the trainee with some experience of working in a deprived area. It would also be invaluable experience for the practice that he or she is attached to. If, within any district, several trainees are doing electives it might provide good experience for the other trainees in the district. Such an elective seems to be particularly relevant now as the choice of practice vacancies for the trainee becomes more restricted. Undoubtedly, areas with a high concentration of training practices provide a high quality of care, which is desirable for the trainee to see. But is the doctor who has trained in this environment prepared for the hurly burly of a grossly deprived area?

The trainee's main aim at the end of vocational training is to obtain a practice, and many now obtain this in the area they work in without the post being advertised. One advantage of working in an area that is sparsely supplied by trainees is that chances for employment are decidedly improved. Despite the arguments for and against the present policy, each region tends to provide its own principals in general practice. Should the criteria for training practices be similar throughout the region? Should the regional committee be more flexible to its own needs and make allowances for practices in deprived areas with high workloads?

Practices tend not to put themselves forward from deprived areas. Is this because they are unaware of training standards, having few local peers to compare themselves with? Are they afraid of rejection? Do they think that trainees will know more than they do and are therefore afraid to apply? Does the high workload prevent them from becoming trainers? Many other reasons may be postulated for this discrepancy, but an educative programme is required in the deprived areas to identify practices of potential and advise them how to reach the necessary standards, which must be decided by each regional committee, taking into account the needs of their own area. Collaboration with the local medical committees would be of great help in this task. Freeman *et al* showed that modelling is a powerful means of learning in vocational training.[3] It is important that the trainee who is appointed as a principal can cope with a new role.

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Multicultural medicine

Mongolian spot and culture—This is an ethnic characteristic. These congenital, macular, and non-inflammatory patches are common in ethnic Asian infants—Indian, Pakistani, Bangladeshi, and Sri Lankan. These are not uncommon in Afro-Caribbeans, especially West Indians (in the West Indies there is "an African as well as an Asian" population). Occasionally these are noted in Eskimos and Europeans of Celtic origin, especially those with dark hair. They are collections of spindle shaped melanocytes located deep in the dermis. These are blue, slate grey, or black, commonly occurring in the sacral region but may occur anywhere on the skin, including the face. These spots vary in shape and size. Some can resemble finger marks and mimic a bruise. The colour usually fades during the first year and they disappear by the end of the first decade. No treatment is required. The cause is unknown, thus more research is needed. It is important not to confuse them with bruises as the condition is often mistaken for a bruise if it has not been seen before. Many British general practitioners, health visitors, and consultant paediatricians in the National Health Service, especially those from South Africa, may never have examined an Asian or Afro-Caribbean infant.

In Asian culture to secure the extended family system, marriages are arranged—the less you see of the others, the more you stick to one—and the husband is often more loyal to his mother than to his wife. A woman is expected to give birth to a spotless baby, especially if it is a male. It is not surprising, therefore, that the mother may feel guilty and believe that this Mongolian spot is her genetic failure. The mother in law, who believed when she was young that her own mother in law was awful and now thinks that her daughter in law is horrible, might think of it as a curse and be ready to blame the mother. A general practitioner should not only reassure the mother, but also explain this to the family.

Fuel can be added to the fire when an English health visitor sees such an infant on her first visit and suspects child abuse. The mother in law may collude with her and, despite the mother's denials and tears, she calls a "case conference" to be chaired by a consultant paediatrician. The general practitioner, unlike the consultant, is not tailored and is paid on a "service per item" basis, knowing that there is no fee for such an attendance, carries on looking after his sick patients, and declines the invitation to attend, and no wonder. A lot of time and money is wasted.

If every medical student, general practitioner trainee, and health visitor could be shown such cases, much expense, stress, and tears could be avoided.

—BASHIR QURESHI, general practitioner, Hounslow, Middlesex.

Practice Research

Clinical trial of common treatments for low back pain in family practice

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Abstract

The results of a multicentred randomised clinical trial are reported of bed rest and of a physiotherapy and education programme for patients who presented in family practice with an acute episode of low back pain. No beneficial effect of either treatment was observed on several clinical outcome measures, including straight leg raising, lumbar flexion, activities of daily living, and pain. In fact the results favoured early mobilisation over bed rest and suggested that the physiotherapy and education programme was doing more harm than good. Moreover, additional analyses, which focused on clinically interesting patient subgroups, discovered no subset of patients who benefited from either of the treatments under study.

Having failed to identify any clinically important benefits, or other explanations for these negative results, we can only conclude that family doctors have little reason to prescribe either bed rest or isometric exercises to patients who suffer from low back pain.

Introduction

Many articles are published each year dealing with medical treatments for low back pain. Most are descriptive and uncontrolled, though five randomised clinical trials have been completed, primarily by British and Swedish investigators.[1-5]

Sims-Williams *et al* found that patients who received active physiotherapy showed significantly greater recovery at one month than those who received placebo physiotherapy.[1] This effect, however, disappeared after three months. The results of three other trials showed improvement with isometric exercises and patient education compared with mobilising or extensor exercises and standard physiotherapy treatment.[2-4] Bed rest, although commonly prescribed for low back pain in family practice, has only recently been tested in this setting. Wiesel reported that bed rest decreased the amount of time lost from work and the amount of discomfort experienced by patients by over 50%, compared with mobilisation.[5]

Although these trials have generated some positive results, interpreting them is hampered by the absence of valid and reliable measures of functional status, the failure to blind outcome assessments, small sample sizes, and imprecise criteria for patient inclusion and exclusion.[6] Our study was designed both to overcome these shortcomings and to examine the two most promising treatments from previous trials: bed rest and physiotherapy combined with education.

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Methods

A randomised trial was performed to determine the effect of bed rest, a programme of physiotherapy and education, both of these treatments, or neither treatment on patients with acute low back pain.

INCLUSION OR EXCLUSION CRITERIA FOR PATIENTS

All patients who presented with low back pain to 22 participating family physicians over 10 months were considered for the trial. Physicians were drawn from both singlehanded and group practices, worked predominantly in urban areas, and cared for an average of 2000 patients. Patients were eligible if they were over 16 years of age, had pain in the lumbosacral region with or without radiation down the leg, and had been free of back pain for at least 30 days before the current episode. Patients were excluded if they had abnormal sensation, motor power, or reflexes or if their symptoms proved on preliminary investigation to be due to fracture, spondylolisthesis, spinal infection, disease of the hip or pelvis, gastrointestinal disease, primary or secondary tumours of the vertebral column, fractures of the vertebral column, Paget's disease, or rheumatoid disease. Pregnant women were also excluded.

BASELINE ASSESSMENT

Each physician used a standardised initial assessment form which outlined the inclusion-exclusion criteria and included questions on the precipitating event, medications, previous back surgery, previous medical consultant, and results of laboratory tests performed. The physical examination was left to the discretion of the physician with the exception of two standardised objective measurements: straight leg raising and lumbar flexion. Straight leg raising, considered to be a valid test of nerve root irritation, was measured on both legs using a reliable gravity corrected OB-goniometer. Lumbar flexion was measured using the method described by Moll and Wright.[7]

Patients were asked to complete a questionnaire that included personal information, history of back pain, the McGill/Melzack pain questionnaire,[8] and the activities discomfort scale.[9] All patients were also given a diary in which to record daily estimates of the degree of pain, degree of restriction in usual daily activities, and degree of improvement, if any, since the previous day.

An important goal of treatment of low back pain is to return patients to normal physical functioning either at work or at home. This outcome was assessed by the activities discomfort scale in which patients rate the degree of discomfort associated with 18 specific activities of daily living.[9] This instrument has been found to predict pain intensity at follow up.[10] In our pilot study we found this scale to be very reliable (Cronbach's alpha = 0·95), and significantly related to the physician's judgment of pain.[11] The McGill/Melzack pain questionnaire has also been a sensitive, reliable, and valid tool for the measurement of clinical pain.[12]

ALLOCATION TO TREATMENT

After obtaining informed consent from patients, physicians telephoned a centralised patient registry and randomisation service in the department of clinical epidemiology and biostatistics, McMaster University. Patients were stratified within each practice by whether their physicians intended to place them on major or minor medications. Minor medications were defined as regular analgesics (taking muscle relaxants or any analgesic containing fewer than eight aspirins per day, or both). Major medications were defined as anti-inflammatory agents (taking any non-steroidal anti-inflammatory drug or any analgesic containing eight or more aspirins per day). Within each of these strata patients were randomly assigned to one of four treatment groups comprising a 2 × 2 factorial design: (i) physiotherapy and education plus bed rest, (ii) physiotherapy and education only, (iii) bed rest only, and (iv) control (none of the above).

REGIMENS

Patients who were randomised to physiotherapy and education (groups i and ii) saw a 20 minute slide-tape presentation about the back and its care and were given a two page summary of the presentation for future reference. They were also seen by the study physiotherapist shortly after randomisation at which time the isometric flexion exercises were taught and supervised. Each patient was given a form with both written and pictorial directions for each exercise and was instructed to repeat the exercises at home three times a day. Repeat visits were scheduled by the physiotherapist as necessary to insure that all patients had mastered the exercise programme.

Patients who were randomised to bed rest (groups i and iii) were instructed to stay in bed for at least four days and given written instructions depicting appropriate positions for bed rest.

Patients who were randomised to the control group (iv) were given the same analgesic prescription as other groups and received no other instructions or treatments.

PATIENT FOLLOW UP

Patient progress was determined by follow up visits by the physician, daily patient diaries, self administered questionnaires, telephone interviews, and a medical record audit. All follow up assessments were performed by a physician or research assistant who was blind to the patient's assigned treatment.

All patients were re-evaluated in their physician's practice at roughly 10 day intervals for one month or until they were free of pain. At each follow up visit patients returned their latest diary, completed the patient questionnaire, and were examined by a physician who was blind to their assigned treatment.

Telephone follow up was performed six and 12 weeks after randomisation by a research assistant who was blind to the patient's assigned treatment. Using a standard questionnaire, all patients were asked to report the degree of their pain, restrictions in activities of daily living, and what, if anything, they were taking or doing for back pain.

A final long term follow up was conducted one year after entry to the study. A questionnaire was mailed to each patient which inquired about the present state of their back, the frequency and severity of any episodes of low back pain, their current activity level, and whether they had seen a professional for back pain (and, if so, the type and duration of treatment that they had received). Information regarding preventive measures being used by the patient to prevent further episodes of back pain was also obtained. To validate the accuracy of these patient reports reviews of medical records were conducted for all patients.

COMPLIANCE AND CONTAMINATION

Patients were asked at each follow up whether they had seen anyone else for their back pain, including physiotherapists, chiropractors, acupuncturists, or specialists, or all of these. Compliance with drug treatment and bed rest was measured by self report. Patients in all four treatment groups were provided with a diary which they completed each night before retiring until they were discharged from the study. Patients were asked to record: (*a*) the level of pain that they had experienced that day, (*b*) the extent to which the pain interfered with their usual daily activities, (*c*) the level of improvement since the previous day, (*d*) the name, strength, and number of both prescription and non-prescription medications taken that day, (*e*) the time spent resting and exercising, and (*f*) any other measures that they used to alleviate pain.

In addition to the patient diary compliance with bed rest was assessed using a recently developed large scale integrated motor activity monitor.[13] This device, which is slightly larger than a wristwatch, records body movement and was used to monitor physical activity unobtrusively but objectively.

Compliance with physiotherapy was determined in part by patients returning for their physiotherapy education. Patients who received physiotherapy were also asked at the end of their six and 12 week follow up interviews whether they had used the exercises and, if so, how long they had continued to do so.

STATISTICAL METHODS

In designing the trial the activity discomfort scale was identified as the main outcome measure. A treatment effect equal to one standard deviation on the activity discomfort scale was considered clinically important, whether it occurred as a main effect or as interaction between bed rest and the physiotherapy and education programme. This, and the choice of alpha = 0·05 (2 tailed) and power = 80%, lead to a target sample size of 65 patients/cell (total = 260).

Physicians were asked to follow patients up every 10 days until recovery or for a maximum of 30 days. At each assessment five major outcomes were assessed: straight leg raising, lumbar flexion, restriction in activities of daily living, and pain assessed by the McGill/Melzack total and word count scales. Ten day follow up was a guideline and was not mandatory. Recognising that each patient would be followed up in family practice only until the patient and physician were satisfied with the degree of recovery, that clinically acceptable recovery would occur at different times for different patients, and that all patients could not be seen for outcome assessment on a rigid time schedule, we proposed the following strategy for analysis. To control for varying durations of follow up by physicians outcomes were expressed as the amount of change from the baseline assessment to the final assessment divided by the number of days between randomisation and the final follow up by the physician. In effect, we examined the rate of change in each outcome measure during physician management of the episode of low back pain.

Since most patients completed at least one 10 day diary, 10 day total scores were constructed for each of the three scales assessed daily. These included "any improvement," "activity level," and "pain" and provided short term outcome measures. For each scale a lower total score corresponds to a better clinical result. A 2 × 2 factorial analysis of variance, controlling for baseline measures, was used to compare the four treatment groups on the above physician and patient diary outcomes.

In addition, survival analysis using the Cox proportional hazards model was used to compare treatment groups on the time to clinically interesting events. The diary data were used to identify the date on which the patient first reported "feeling a lot better," "normal level of activities," "no pain," and "stopped taking drugs." In addition, "recovery" was defined as the first follow up by the physician on which the doctor and patient agreed that pain had disappeared or declined to a mild level or, failing this, the first telephone follow up on which the patient alone reported this result. Again, the 13 baseline variables described in table I, were included as covariates in these analyses.

Results

ADHERENCE TO PROTOCOL

A total of 270 patients was entered into the trial. Of these, eight were excluded on review of their baseline data for failure to meet the trial's predefined criteria for inclusion and exclusion. A further 10 patients refused to accept the treatment that was randomly assigned to them (one control, six bed rest, and three bed rest plus education). Thus 252 eligible patients began treatment. Follow up data were obtained for all but one patient, with 219 (87%) returning to their physician for follow up evaluation, 224 (89%) completing at least one 10 day patient diary, 242 (96%) completing the six and 12 week telephone follow ups, and 227 (90%) completing the long term one year follow up. The duration of patient follow up by physicians ranged from three to 44 days, median 12 days.

The diaries showed that patients who were randomised to bed rest spent an average of three days longer in bed than non-bed rest patients ($p = 0·0007$). Unfortunately, the large scale integrated motor activity monitor proved unreliable and thus no objective measure of compliance with bed rest could be obtained.

All but two of the patients who were randomised to physiotherapy and education saw the physiotherapist at least once, and none of the patients in the non-physiotherapy groups received the physiotherapy and education programme.

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BASELINE DATA

The four treatment groups were well balanced on 13 key baseline variables (table I). Some significant, but clinically trivial, differences were observed, however. Patients who were randomised to the educational programme were better at baseline on three measures: straight leg raising (5 degrees more), the McGill/Melzack total pain score (2·3 points lower), and the McGill/Melzack word count (1·1 words fewer). These baseline differences were taken into account in the analysis.

TABLE I—*Baseline patient characteristics: mean (SD)*

	Bed rest and physiotherapy and education (n=65)	Physiotherapy and education (n=62)	Bed rest (n=60)	Control (n=65)
Age (years)	40·7 (14)	41·7 (15·3)	40·0 (14·9)	40·1 (14·5)
Sex (M/F)	32/33	29/33	30/30	37/28
Referred pain (%)	28	33	33	29
Workman's compensation cases (%)	18	16	15	11
Straight leg raising (worst leg <70 degrees) (%)	48	47	58	56
Lumbar flexion (cm)	4·0 (2·1)	4·6 (1·8)	4·2 (2·0)	4·0 (1·9)
Activities of daily living* (0-100)	40·4 (16·4)	35·9 (13·7)	36·3 (13·1)	36·6 (12·4)
No of prior episodes:				
0	21	18	17	21
1-4	25	27	29	24
≥5	19	16	12	17
McGill pain scale:				
Total score	23·0 (7·4)	22·7 (6·7)	25·2 (8·6)	25·1 (6·9)
Word count	13·7 (2·5)	13·7 (2·5)	14·9 (3·4)	14·8 (3·0)
Duration of pain 0-5/6+ days	41/24	30/32	29/31	35/30
Pain intensity moderate/severe	36/29	37/25	31/29	40/25
Pain medication minor/major	42/23	44/18	45/15	46/19

Note: Referred pain=pain radiating into one or both legs.
*Higher scores indicate greater impairment.

CLINICAL OUTCOME MEASURES

Patient daily diary—Bed rest produced a significant, but small, increase in the patients' 10 day report of "restrictions in daily activities" (p=0·034). No effect of bed rest or physiotherapy was observed for the 10 day total scores for "pain" and "improvement" (table II). Analysis using the Cox model showed that bed rest patients took 42% longer to report having achieved a "normal level of activities" (p=0·004), whereas patients who were randomised to receive the physiotherapy and education programme reported that they "stopped taking drugs" 46% sooner (p=0·048). No other significant effects of treatment were found with data from the diaries.

TABLE II—*Total diary score over the first 10 days: mean (SD)*

	Bed rest and physiotherapy and education (n=50)	Physiotherapy and education (n=41)	Bed rest (n=47)	Control (n=48)
Improvement	22·27 (5·14)	23·30 (6·92)	21·66 (6·54)	21·54 (6·31)
Activities	24·35 (8·75)	21·34 (9·22)	24·34 (10·04)	20·90 (8·46)
Pain	23·77 (5·22)	25·94 (7·47)	24·15 (7·12)	22·88 (5·88)

Note: Lower total scores indicate a better clinical result.

Final office assessment by physician—Table III indicates the average daily rate of improvement for the five outcome measures assessed at the final physician follow up. Statistical analysis gave a deleterious effect of the physiotherapy and education programme on the activities of daily living scale (p=0·05). Although no other significant effects of either bed rest or the physiotherapy and education programme were observed, the trend in the other four measures also went against the physiotherapy and education programme.

TABLE III—*Rate of change in physical and psychological scales during physician follow up: mean (SD)*

	Bed rest and physiotherapy and education	Physiotherapy and education	Bed rest	Control
Straight leg raising (degrees)	0·96 (1·70)	0·56 (1·57)	1·96 (3·31)	1·21 (1·96)
Lumbar flexion (cm)	0·15 (0·30)	0·12 (0·23)	0·14 (0·20)	0·18 (0·24)
Activities of daily living	2·04 (1·91)	1·53 (1·49)	2·11 (2·34)	2·29 (1·99)
McGill Melzack total	1·22 (0·88)	1·27 (1·20)	1·46 (1·99)	1·65 (1·31)
McGill Melzack word count	0·73 (0·48)	0·80 (0·62)	0·93 (0·97)	1·01 (0·72)

Note: Straight leg raising and lumbar flexion are expressed in degrees and cm of improvement per day respectively.
The activities of daily living and McGill Melzack pain scores show average reduction in activity restrictions and pain per day respectively.

Six and 12 week phone assessment—No differences among the four study groups were observed on either self reported level of pain or restrictions in activities in daily living at the six and 12 week telephone follow ups (table IV).

TABLE IV—*Six and 12 week follow up*

	Bed rest and physiotherapy and education	Physiotherapy and education	Bed rest	Control
Six weeks	(n=61)	(n=60)	(n=56)	(n=58)
Present pain:				
None	34	33	36	33
Mild	14	15	6	9
More than mild	13	12	14	16
Restrictions:				
None	31	35	28	31
Little	13	12	12	15
More than a little	17	13	16	12
12 weeks	(n=63)	(n=62)	(n=57)	(n=60)
Present pain:				
None	47	46	44	43
Mild	6	8	5	10
More than mild	10	8	8	7
Restrictions:				
None	43	47	36	40
Little	10	8	9	13
More than a little	10	7	12	7

Recovery analysis—Recovery was defined as either the first follow up assessment by the physician on which both the patient and physician reported that pain was no worse than mild, or, failing this, the telephone follow up on which the patient reported that pain was no worse than mild. Analysis using the Cox model showed no effect of either bed rest or the physiotherapy and education programme. The median time to recovery by the above definition was 14 days, irrespective of treatment group.

One year mail and phone follow up—Twenty six patients (10%) moved, left the physician's practice, or died. The remainder were asked to report any pain on the day of follow up and to report their experience over the past five months in terms of frequency and intensity of pain, restrictions in daily activities, and whether they had sought professional help for low back pain. Table V indicates no significant differences among the study treatment groups.

TABLE V—*One year follow up*

	Bed rest and physiotherapy and education (n=60)	Physiotherapy and education (n=59)	Bed rest (n=53)	Control (n=54)
Present pain:				
None	37	34	32	35
Mild	6	12	11	11
More than mild	17	13	10	8
Past five months				
Frequency of pain:				
None	14	16	14	16
Once a month	26	20	20	18
More often	20	23	19	20
Intensity of pain:				
None	14	16	14	16
Mild	18	12	12	16
Worse	28	31	27	22
Restrictions:				
None	32	37	27	31
Once or twice	11	7	11	11
More often	17	15	14	12
Sought help from a professional	9	6	5	8

Discussion

No beneficial effects on clinical outcomes were observed for either bed rest or a physiotherapy and education programme among patients who presented with low back pain to 22 physicians in family practice. In fact the diary and final follow up assessments by the physician favoured early mobilisation over bed rest and suggested that the physiotherapy and education programme was doing more harm than good. Although this trial was not designed to assess the efficacy of differing medication regimens, our analysis comparing minor *v* major medications showed no significant differences on any of the clinical outcome measures. Since the assignment of medication regimens to patients was performed by clinical judgment, not random allocation, this result must not be overinterpreted.

Since compliance with both the prescribed bed rest and the physiotherapy and education programme was excellent these negative results cannot be explained by poor patient compliance. Moreover, further analyses which focused on clinically interesting patient subgroups (including acute *v* chronic cases and subgroups defined by the severity and duration of the presenting episode) showed no subset of patients who benefited from either of the treatments under study.

These negative results thus do not appear to depend on characteristics of the patients who were entered into the trial. Although treatment effects were negative, several baseline patient variables were consistently related to the outcome measures in a clinically sensible direction. Recovery was slower with increasing age, longer duration of the presenting episode, and with greater impairment as assessed by both straight leg raising and the activities of daily living scale. People who were receiving workman's compensation were also slower to recover. Each of these factors made a significant and independent contribution to patient outcomes and provided evidence for the validity of the outcome measures used in this trial, as they are consistent with both the findings from other studies and the common clinical impressions about patient variables related to recovery.

We failed to identify any clinically important benefits or other explanations for these negative results, and thus there is little reason to prescribe either bed rest or isometric exercises to patients in family practice who suffer from low back pain.

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Survey of health visiting in antenatal care

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Abstract

The range of the health visitor's work is expanding. To find out what antenatal work health visitors actually carry out and what their attitudes towards such work are we surveyed general practitioners, midwives, and health visitors in three district health authorities. The results indicate that health visitors are qualified and willing to work with women in the antenatal period.

Introduction

The debate in Britain about perinatal mortality rates and their relation to inequalities among the social classes has led to a discussion of the roles of health visitors in the care of women. For instance, an editorial article in the *Health Visitor* in 1979 argued that "the active involvement of the health visitor in antenatal care would appear to be essential in order to reduce the number of children who are at a disadvantage even before birth."[1] Long after the Short report, which endorsed this view, the debate still reverberates.[2] Perhaps this is not surprising since health visitors are now being asked to work for a wider range of client groups, especially the elderly. Furthermore, any appreciable changes in the role of a profession depend on various factors that affect training, work practices, and relationships with other professionals.

It is small wonder, therefore, that the profession of health visiting is now grappling with fundamental questions. Chapman argues, for instance, that the aims of health visiting are to achieve "(*a*) the promotion of health and prevention of ill health; (*b*) the early detection of illness or abnormality; and (*c*) the alleviation and containment of an already established condition."[3] Are health visitors then to be trained and encouraged to take part in health promotion activities rather than to detect ill health? Should they give priority to the care of parents and potential parents, and will this be to the detriment of other groups?

The results of the research presented here (part of a research programme, funded by the Health Education Council, which also examines the contribution of general practitioners and community midwives to antenatal care and education[4]) concentrate on the contribution of the health visitor to antenatal care and education. To clarify the issues at stake in defining the health visitor's role we have asked: "In what ways are health visitors now concerned in this aspect of care?" We believe that evidence of their participation needs to be examined before the question can be asked: "Should they be expected to take a greater role in antenatal care?" We hope

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that from this starting point the cart will follow the horse and debates on the role of health visiting in the antenatal period will be grounded on a better knowledge of practice and not prescription.

Methods

All of the general practitioners in Leicestershire and central Birmingham, all of the community midwives and health visitors from central Birmingham, and half of the community midwives and health visitors in Leicestershire were surveyed from November 1983 to January 1984. Differences in sampling were due to large disparities in the number of midwives and health visitors who worked in each district health authority. Three hundred and fifty six general practitioners, 44 community midwives, and 124 health visitors responded; response rates of 56%, 57%, and 78% respectively are acceptable in relation to other comparable studies.[5] Responses from postal questionnaires were followed up by group discussions with health visitors and midwives, and 18 personal interviews were conducted with general practitioners who lived in inner city areas.

The sample incorporated two cities (central Birmingham and Leicester City) and the rest of the Leicestershire district health authority, which is mainly a mixture of market towns and rural areas. Because the populations that health visitors were expected to deal with had different social characteristics, the sample was divided into three groups: 32 health visitors from central Birmingham, 31 from Leicester City, and 61 from the rest of Leicestershire, which is referred to here as the county.

Results

(1) Most health visitors had some qualification or training in antenatal care and education. Over half had midwifery qualifications, and nearly 60% had worked as midwives. Though roughly a quarter had not been trained in antenatal education during health visitor training, just over half had been given in service training in this, whereas a quarter of the midwives had had no training in antenatal education at all.

(2) The demand for the intervention of health visitors was illustrated by the size of their antenatal case loads. The average number of new babies born from January to November 1983 was 110 for Leicester City, 91 for central Birmingham, and 77 for the county. These disparate figures cannot be explained by the number of hours that health visitors worked, as the proportions of those who worked part time and full time in each of the areas were similar.

(3) The health visitors in the cities had many women from ethnic minorities on their case loads. Over half of those who worked in central Birmingham and two fifths of those from Leicester City reported that half or more of the women whom they saw came from an ethnic minority group. At the other end of the range three quarters of the county health visitors had almost no women from ethnic minorities on their case load compared with a third to a quarter of the Leicester City and Birmingham health visitors. Many respondents reported difficulties in communicating with such women. For instance, half of the Birmingham sample and over a sixth of those in Leicester City thought that an interpreter was needed for over half of the women from ethnic minorities.

Paid language interpreters were available. Seven health visitors in Leicester City and 16 in central Birmingham said that they "sometimes" or "often" had help from a paid interpreter. This help was vital, as one health visitor stated: "Our work, in many cases, would be virtually impossible without an interpreter." There were few available, however, as another Birmingham health visitor noted: "We have a full time interpreter, but because there are so many of us I am entitled to use her one morning a fortnight."

Voluntary help with interpreting was so scarce (only three health visitors had used organised voluntary interpreters) that relatives were often the main source of help. Many respondents wondered whether it was appropriate to use relatives for translation as they may add their own views to the consultation without the health professional being able to discern possible distortions: "Husbands and family of patients are not the right people to 'find histories'—too often you will hear what they want you to hear, not what you want to hear."

This was emphasised by an Asian general practitioner who spoke several Asian languages: "It is the level of communication that is a big problem . . . it is not simply translating from one language to another. It's a matter of putting the right word, using the right terminology . . . it is so difficult to communicate even for the children who are born in Britain. Sometimes children come with their mums and I say, 'Look your mum is perfectly well,' or 'She has worry problems—nothing medical.' Children seem to understand it very well. But the mothers won't listen. Even the children find it difficult to communicate with their own parents. It's a big problem." This general practitioner focused on the blurred boundary between translating and interpreting in consultations which involve complex conceptual and wider cultural meanings held by lay people and professionals. Many health visitors argued that "interpreters are becoming more important for our job in an increasingly multiracial society."

(4) Half of the total sample had seen fewer than 10 pregnant women throughout their work during the month before the survey and a third had seen none. The few health visitors who had seen 25 or more pregnant women were concerned in parentcraft classes and were likely to work in the county. Though half the total sample reported that they were concerned to some extent in parentcraft classes, only a quarter of those in central Birmingham and a half in Leicester City made such a contribution compared with two thirds of the county group.

(5) Apart from parentcraft, health visitors were concerned very little in antenatal care. Only seven worked in an antenatal clinic and two thirds never made home visits to pregnant women. Similar trends were found by Draper *et al* in a survey of 40 health visitors: "Twenty-nine health visitors were involved in parentcraft classes and seven in antenatal clinics. Although all the health visitors felt that they should meet pregnant women and visit them at least once antenatally, only 24 actually visited routinely."[6]

(6) The partial exclusion of health visitors from antenatal work caused discontinuity between their antenatal and postnatal care. Over half the central Birmingham and Leicester City samples had never seen in the antenatal period (table I) the women whom they visited postnatally.

TABLE I—*Proportion of postnatal women who had been seen in antenatal period by health visitors*

	Almost none No	%	Less than a quarter No	%	About half No	%	More than half No	%	No reply No	%
Leicester City (n=31)	17	55	5	16	4	13	3	10	2	6
County (n=61)	21	34	10	16	8	13	16	26	6	10
Central Birmingham (n=32)	17	53	8	25	4	12	2	6	1	4

The cities fared worse in this aspect of care, with only three health visitors in Leicester and two in Birmingham seeing more than half the postnatal women whom they had visited before the birth of their babies, again mainly in parentcraft classes. This lack of continuity not only prevented many health visitors from building up relationships with pregnant women early but also reduced the likelihood of early intervention and support either in collaboration with or in addition to the care offered by community midwives.

(7) Respondents overwhelmingly believed that a major reason for their low input into antenatal care was the unreliable communication procedures among members of the primary care team. Poor liaison isolated health visitors from the general practice.

Three quarters of the health visitors reported that they discussed individual pregnancies with midwives and two thirds did so with general practitioners. Such discussions were less likely to take place in central Birmingham, where fewer than half of the health visitors reported such exchanges with general practitioners (table II). All the midwives said that they discussed individual cases with general practitioners, which was confirmed by the general practitioners, who also pointed out the lack of contact with health visitors in this respect. The isolation of the health visitors became more apparent when data were obtained about meetings when general issues on antenatal care and education could be raised. Tables II and III show that meetings among professionals, especially between general practitioners and health visitors, were held least frequently in central Birmingham.

TABLE II—*Discussions about individual pregnancies in the three areas*

Health visitors had discussions with	Leicester City (n=31) No	%	County (n=61) No	%	Central Birmingham (n=32) No	%
General practitioner	21	67	45	74	14	44
Midwife	26	83	51	83	21	65
Another health visitor	14	45	21	34	13	40

Variations in the organisation of the work of health visitors in each area may have contributed to the differences in the extent of their concern in antenatal care. In the Leicestershire district health authority health visitors were attached to general practices, whereas this was rarely the case in central Birmingham district health authority. A Birmingham respondent said: "Liaison was probably better when we were attached to a GP practice."

Furthermore, the recent reorganisation of the health service had created some managerial disruptions in central Birmingham district health authority, whereas the boundaries of the Leicestershire district remained largely unchanged. A general practitioner in Birmingham commented: "We used to have a health visitor. I saw her a lot. She was good. Since reorganisation, she has finished working here. Now we have to contact the health visitors at X clinic. It's miles away! I don't even know whom I am supposed to contact and the health visitors keep changing."

TABLE III—*Meetings about general issues in antenatal health education in the three areas*

Health visitors meet	Leicester City (n=31) No	%	County (n=61) No	%	Central Birmingham (n=32) No	%
General practitioners	9	29	12	20	6	19
Midwives	11	35	30	49	7	22
Other health visitors	10	32	12	38	13	41

This was not conducive to developing frequent and reliable communication procedures among health visitors, general practitioners, and community midwives. When health visitors were asked how they were kept informed about new antenatal cases about half reported that they were sometimes told informally by the midwife, but none was informed regularly through a formal procedure. Only a third expected to "find out" about new cases through parentcraft classes—that is, later in pregnancy, and a few through general practices: "In the case of two GPs I get my information from their receptionist. With the other two GPs, I look in their 'antenatal notes box' every two weeks."

Health visitors generally had to rely on their own initiatives to get information about new antenatal cases, although occasionally meetings at the surgery provided liaison: "Once a month a list from the hospital is passed round at group meetings. The secretary at the surgery gives me a typed list of pregnant mums."

Hospitals were no better as a source of information. Only 14 health visitors were "often" informed of cases through their local hospitals, usually where a liaison health visitor was appointed, and only four were "often" informed through systems organised by nursing officers. Even in cases where information procedures were established, health visitors could still have difficulties in obtaining information about the women whom they most wanted to see—that is, the primigravidas and women with specific problems: "We are informed of all bookings at the local maternity hospital but not, however, where women are booked further afield in consultant units. This is a lack, as often these women require extra surveillance." This health visitor highlighted poor liaison between centralised obstetric units and community care, especially in unusual cases. Only 22 health visitors were regularly informed about missed appointments, their main informants being other health visitors or community midwives but not general practitioners.

Lack of communication must be one of the prime factors in excluding health visitors from antenatal care. A health visitor who worked in a poor inner city area commented: "I do not even know who is pregnant, let alone who has missed antenatal appointments."

Discussion

The results of this survey indicate that health visitors are well qualified and willing to extend health visiting to the antenatal period. Nevertheless, impediments to such work are wide ranging. These include heavy case loads, lack of adequate information about antenatal cases and missed antenatal appointments, and a lack of close liaison with general practices and obstetric units. Furthermore, the work of health visitors in inner city areas is even more difficult because there are few language interpreters available. Geographical attachment may also contribute to the isolation of the health visitor from the general practice when they are not attached to a practice. Draper *et al* make a similar obervation but in relation to midwives in a study of health visitors who were attached to practices. They suggest that improvements in the working relations between health visitors and midwives might include attachment to a practice for midwives.[6]

Similar surveys of the primary care team confirm that working relations and communication within the team can be inadequate.[7,8] In such areas, expecting health visitors to increase their antenatal work might cause contention between the professional groups and demoralisation for health visitors, who do not have the resources to provide a preventive and supportive service for parents at home.

This brings into question the value of further abstract recommendations on the role of health visiting in the antenatal period. Although this role urgently needs to be clarified by training boards and professional associations, the discussion must go beyond its formal acknowledgment, a position which has already been jointly supported by the Health Visitors' Association and the Royal College of Midwives.[9,10] Specific guidelines need to be developed to facilitate decision making at the level of the district health authority and general practice. Improvements can be made without major expenditure. Clear policies on antenatal care that define not only the role of the health visitor but also that of the community midwife and general practitioner need to be established and regular practice meetings arranged. These three professional groups need to work closely so as not to confuse their respective roles and undermine each other's efforts.

With regard to efficient flow of information with obstetric units, lists of women who are booked for home confinement might be regularly and systematically provided for all health visitors. A mandatory visit to a woman in early pregnancy at home by the health visitor would ensure greater continuity of care between the antenatal and postnatal periods. According to the figures analysed above, such a visit would mean on average about two extra home visits a week for each health visitor. In areas where there is already a shortage of health visitors a policy of positive discrimination in favour of pregnant women who are most at risk might be considered.

The health visiting profession cannot define alone either short term or long term programmes in antenatal care and education because the scope of the health visitor's work is inexorably tied up with her working relations with general practice and the hospital. We hope that this argument will be taken into consideration in the review of community nursing and health visiting which has been called by the Minister of Health and is due to report at the end of 1985.[11] After years of debate on how to improve antenatal care it is urgent that an effective policy, informed by an appraisal of current work practices, is developed for the professions that are concerned with the welfare of pregnant women.

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