PRACTICE OBSERVED

Practice Research

Mobile patients in an inner London practice

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Abstract

In an area with the most highly mobile population in Britain 10% of the consultations in one practice were with temporary residents and a further 10% with newly registered patients. We analysed data gathered in 1980 about these two groups and about established patients that included demographic characteristics, the diagnoses made, and the actions taken by the doctors. Temporary residents caused a considerable amount of administration, but they were relatively straightforward to deal with medically and the practice received compensation for the work; with new patients problems were more time consuming, both clinically and administratively, and there was no financial compensation. A practice with a high turnover of its registered patients is at a considerable disadvantage compared with one in a more settled area.

Introduction

It is widely accepted that a highly mobile population causes many problems for the primary health services. The Acheson report and two publications from the Royal College of General Practitioners described the problems in detail,^{1,2} and in one survey 1705 out of 1802 general practitioners from all over the

United Kingdom identified high mobility as one of the most important social factors that influenced the pressure under which they worked.³

An analysis by the Office of Population Censuses and Surveys of the 1981 census showed that there is a wide range of mobility in different parts of Britain.⁴ Using migration into the district as an indicator of mobility, the lowest rate was found in Afan in South Wales, where only 5% of the population had moved in the year 1980-1. The highest rates tended to be in inner London, in large new towns, and in areas with a sizable proportion of service personnel or students. The highest of all was recorded in Kensington and Chelsea: 21% overall, rising to 30% for people aged 25-34 and to 43% for 16 to 24 year olds. The average for Britain was 9.6%.

Through their accident and emergency departments hospitals provide primary care services for some mobile patients—those who do not register either permanently or temporarily with a general practitioner, and those who cannot do so because they have no fixed abode. In the main, however, these services are met by general practice.

The impact of patient mobility on a practice depends largely on the number of temporary residents who attend the surgery, the rate at which patients register with and leave the practice (turnover rate), and the nature of the problems that these mobile patients present. We have analysed data relating both to temporary residents and to newly registered patients in one practice in the most mobile area of the United Kingdom and have drawn conclusions about some of the effects that mobility has on the doctor's work.

We can find no comparable published research about temporary residents in an inner city. Studies using different approaches have been done on newly registered patients, mostly in new estates and new towns. Whitfield, and Bain and Philip, showed a higher consultation rate in the first year of registration, while Goodman and Crombie stated that "only in patients reporting new episodes (of illness) within six months of registering was the episode rate noticeably high."⁵⁻⁷

It has been recommended that practices with a high turnover

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of patients should be compensated for the extra workload by increasing support services⁸ or by an increase in the capitation fee in the first year⁹—an idea echoed most recently in the Acheson report.

The setting

The surgery is situated in the W8 postal district of London, taking patients from Kensington and Earl's Court in the area of the Kensington, Chelsea and Westminster Family Practitioner Committee. There is no large housing estate locally. A few temporary residents come from a hostel run by MIND and attend a nearby psychiatric unit as day patients. The practice was expanding and the original principal had recently taken on a part time partner; on 1 July 1980, 3018 patients were registered with the two doctors. Anyone who settled in the practice area and wished to register was accepted; anyone who stayed in the area for no more than three months was taken on as a temporary resident if eligible to be one.

The age and sex distributions of the patients are unusual by national standards, though they reflect closely those of the local population in having a high proportion of young adults and a high ratio of women to men. There are many students. In 1980, 9618 consultations were held; about 10% of these were with temporary residents and another 10% were with newly registered patients as defined below.

The temporary residents are typified in two ways. Firstly, in the United Kingdom generally, about 40% of temporary residents sign on for three months rather than two weeks (information provided by the Statistical and Research Division, Department of Health and Social Security); in the area of the Kensington, Chelsea and Westminster Family Practitioner Committee in 1980 the figure was 82.6% (information provided by the family practitioner committee); and in the practice it was 75.4%. Secondly, the distribution of demand over the year is very different from that which would be found in, say, a seaside resort: we noted from the practice's quarterly statements from the family practitioner committee that the number of temporary residents was highest in the first quarter of the year. This is again typical of the area (information from the family practitioner committee). Clearly, these temporary residents are not people taking their summer holidays and, indeed, their consultations are least frequent from May to September.

Method

The practice was one of a group of seven, five of which were in inner London, participating in research with the department of general practice, St Mary's Hospital Medical School, and had computer facilities for storing and analysing the registration data and consultations of all its patients. The data that we analysed related to consultations in 1980.

The registration data for each patient included age, sex, civil status, social class (according to the Registrar General's classification), and date of joining the practice. The consultation data included up to two diagnoses for each consultation; whether or not a prescription, a certificate, or a follow up appointment was given; and details of up to three investigations and one referral for each diagnosis. The diagnoses were coded in the practice according to the ninth revision of the International Classification of Diseases¹⁰; for the other items the research group developed its own classification codes.

Each registered patient was allocated a unique number that formed part of the registration data and was recorded on a consultation sheet at every consultation. This number enabled us to link the two sets of data and to analyse the data from consultations for individual patients. Temporary residents had no registration data file, and though similar demographic information about them was recorded on the consultation sheet at each of their consultations, the absence of a unique number means that we cannot tell which patient participated in which consultation. Payment was received from the family practitioner committee in 1980 for 500 temporary residents,

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but we do not know how often each one consulted, or if any signed on more than once in the year. Comparisons with registered patients have therefore been made on the basis of the first consultation.

One of our aims was to compare the consultations of newly registered patients with those of the temporary residents. As more than three quarters of the temporary residents signed on for three months, we defined a "new patient consultation" as any consultation that took place in 1980 within three months of the patient registering with the practice. Consultations with patients who had been registered for more than three months were identified as "established patient consultations." We were thus able to compare the consultations of the temporary residents and with those of the patients with those of the established patients and with each other.

Results

The three tables show our findings for the three groups and indicate where differences between each pair are significant (using the χ^2 test). Table I gives the sex, age, marital state, and social class of the patients consulting. Table II lists the diagnoses made in terms of the major categories of disease according to the International Classification of Diseases. The number of specific diagnoses in the two smaller groups was usually too low for reliable comparison, but where they are high enough this is noted in the text. Table III shows what the doctors did as outcomes of the consultations.

Using the definition given above, there were 514 new patients who consulted. Of the registrations in 1980, 77% of them first consulted in the calendar month of registration, 89% within one month, 99% within two months, and 100% within three months. Their average consultation rate was 2.0, and over one year it was 4.0. Patients who were registered for more than a year and consulted had a consultation rate of 3.8 in 1980. The number of patients who registered with the practice in 1980 was 649 and the number leaving was 398. The turnover rate of registered patients was therefore 27%.

Comparisons between the three main groups of patients are as follows:

TEMPORARY RESIDENTS AND ESTABLISHED PATIENTS

Temporary residents were more likely to be aged between 10 and 20 years (the peak age being 21) and less likely to be under 10 or over 50. They are more often single and in social class II (which includes students). Their most frequent complaint is of a minor infection—vaginosis in category I, upper respiratory infections in category 8, and gastroenteritis in category 9 are all relatively more common. They have fewer mental disorders, either psychotic or non-psychotic (with the exception of alcohol dependence) and less

TABLE I—Patients consulting

	Established patients (n=7760)	New patients (n=514)	Temporary residents (n=960)
Sex			
Male	2212	295	279
Female	5548	219	681
Age (years)			
Under 10	290	38	82
10-19	1503	198	189
20-29	2602	315	427
30-39	1767	99	469
40-49	1305	172	617
50 and over	4687	619	710
Marital state			
Single	2254	298	193
Married	5506	216	767
Separated, divorced, widowed	203	27	26
Unknown	105	2	2
Social class			
I	169	21	38
II	205	44	182
III	443	58	80
IV	473	62	61
Unknown	473	62	61

*The 7760 consultations include 36 for which age, sex, marital state, and year of registration are missing and which have been excluded from other data in this table (n=7760).
†p<0.01; ‡p<0.05; §p<0.001; ¶p<0.005 significantly different from new patients.

TABLE II—Diagnoses made (from International Classification of Diseases, 9th rev.—minor surgical procedures)

Category	Established patients (n=7760)	New patients (n=514)	Temporary residents (n=960)
(1) Infectious and parasitic diseases (except cancer)	487	68	56
(2) Endocrine, nutritional, and metabolic diseases	80	0	11
(3) Endocrine, nutritional, and metabolic diseases	170	17	111
(4) Diseases of blood and blood-forming organs	80	0	6
(5) Mental disorders	857	18	64
(6) Diseases of the nervous system and sense organs	755	78	90
(7) Diseases of the circulatory system	277	28	26
(8) Diseases of the respiratory system	151	139	180
(9) Diseases of the digestive system	563	58	56
(10) Diseases of the genitourinary system	680	70	100
(11) Complications of pregnancy, childbirth, and the puerperium	27	0	8
(12) Diseases of the skin and subcutaneous tissue	434	65	73
(13) Diseases of the musculoskeletal system and connective tissue	712	73	84
(14) Congenital anomalies	24	0	2
(15) Certain conditions originating in the perinatal period	1	0	0
(16) Symptoms, signs, and ill-defined conditions	992	102	163
(17) Injury and poisoning	507	32	45
(18) Supplementary classification of diseases	45	0	7
(19) Supplementary classification of factors influencing health status and contact with health services	1632	168	204
(20) Minor surgical procedures	87	0	7
Total	9741	1000	1230

*p<0.01; †p<0.02; ‡p<0.05 significantly different from established patients
§p<0.01; ¶p<0.05 significantly different from new patients

TABLE III—Outcome of consultations

	Established patients (n=7760)	New patients (n=514)	Temporary residents (n=960)
Two diagnoses made	2081	272	232
Certificate given	368	48	51
Prescription issued	1428	171	158
Follow up appointment made	661	60	65
Specific referral made	30	0	4

*p<0.01; †p<0.02; ‡p<0.05 significantly different from established patients
§p<0.01; ¶p<0.05 significantly different from new patients

disease of the nervous system and sense organs—otitis media and was in the ears in particular are rare.

The consultations of temporary residents are much less likely to be in the patient's home and are not as likely to produce two diagnoses or referral to a specialist, but investigations—largely bacteriology and simple haematology—are ordered more often and follow up

NEWLY REGISTERED PATIENTS AND ESTABLISHED PATIENTS

New patients are more strongly represented at all ages under 30 (especially children under 2), but they are less frequent over the age of 50; more are single and fewer are married, and though more are from social classes I and IV, fewer are from social class III. They are less likely to be diagnosed as having a mental disorder or to fall into the small category of "endocrine, nutritional, and immunity diseases and metabolic disorders." In category 19 pregnancy is more common, and category 16 shows that more diagnoses are left at the symptomatic level. The newly registered patients are accorded two diagnoses or even certificates less often, and investigations and follow up appointments are arranged more often.

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Conclusions

The data illustrate many of the effects of a highly mobile population on the work of a practice and show that it is primarily the high turnover rate of registered patients that causes the greatest clinical and administrative problems—with no extra remuneration. A practice in which this rate is high is therefore at a considerable disadvantage compared with one in a more settled area.

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Pertussis: what percentage of children can we immunise?

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Abstract

The immunisation records of 584 children who were born between 1978 and 1982, in a general practice of average social class distribution, were examined: 3.5% of the children would have been excluded from starting a course of vaccination including pertussis using contraindications established by the Department of Health and Social Security. A further 3.5% had reactions to immunisation that were judged severe enough to prevent completing the course of vaccination. In 1981 and 1982 13% of parents refused pertussis vaccination, considerably fewer than from 1978 to 80. Consequently, immunisation against pertussis rose from 51% to 84% over the five year period. Given the incidence of contraindications and the level of parental refusal, it is concluded that a pertussis uptake of 80% would be a reasonable target for any population.

Introduction

The incidence of pertussis in the United Kingdom, already declining in the early decades of this century, decreased further after the introduction of an effective vaccine in the late 1950s. In the years immediately before immunisation was begun between 30 000 and 90 000 cases were notified annually, with a case fatality of one per 100. In 1972, when vaccination rates were approaching 80%, there were only 2000 cases and two deaths in

TEMPORARY RESIDENTS AND NEW PATIENTS

The age differences shown in table 1 are striking—more of the consultations of new patients are for children under 10 or adults over 50, while among the temporary residents more are for people aged between 10 and 29. Fewer temporary residents are married, separated, widowed, or divorced; they are more often in social class II and less likely to be in any of the other social classes. More consultations with new patients are held in the patient's home. Although there are often differences between the diagnoses of temporary residents and new patients, in only two categories are they statistically significant: category 3, due mainly to obesity and diabetes; and category 9, in which temporary residents consult more often for gastroenteritis. Consultations of new patients often result in a referral or a follow up appointment, but investigations are ordered more often for temporary residents—again, most often bacteriology and simple haematology.

Discussion

More than two thirds of the mobile patients who consult, both the temporary residents and the newly registered, are in social classes I and II, and the proportion is nearly as high in the established patients. This class distribution reflects the locality: no one eligible was refused registration with the practice.

It has been said that the prevalence of mental illness is particularly high in inner London.¹¹ Harris, however, using the second National Morbidity Study as a comparison, shows that the percentage of consultations for mental illness is the same in the five inner London practices of the St Mary's research group as in the United Kingdom as a whole.¹² The rates for schizophrenia and alcohol and drug addiction are higher in these five practices, but the figures are too small to make an appreciable difference to the work of general practice there. In the five practices in the research group mental disorders make up 7.9% of the diagnoses and 10.0% of the consultations; in this practice the equivalent figures are 8.3% and 10.5%. The rates for established patients are above the average for the practice, whereas rates for both mobile groups are below it. The International Classification of Diseases codes psychosocial problems under category 19, our data thus comprise fewer than 1% of the consultations of the established patients and are even rarer in the two mobile groups, the two doctors preferring to include them with the stress illnesses of category 5.

The temporary residents seem, in the main, to be healthy young adults. Though the doctor does not have the professional satisfaction of giving continuity of care, the conditions that they present are usually straightforward to deal with. They are more of a problem administratively because their numbers are high, but a three month temporary resident attracts a payment that is higher than the standard capitation fee for a registered patient, and for a two week temporary resident it is almost as high.

The new patients are very diverse. The age, marital state, and social class of those who consult suggest that their problems will be more diverse than those of the temporary residents and as complex as those of the established patients. It seems that their average consultation rate of 2.0 over the first three months of registration is about the same as that of the temporary residents; over a year they consulted 4.0 times on average, compared with an average consultation rate of 3.8 for established patients.

The actions of the doctors imply that the problems of new patients need more exploration than those of the established patients: diagnoses are more often left at the symptomatic level; investigations and follow up are arranged more often; and there is a tendency for referral to be more common. Delay in receiving the medical records of large numbers of new patients contributes to the increased time spent on first consultations, and complicates taking each patient's medical history. The administrative work takes more time than for temporary residents.

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