Patterns of care for the elderly in general practice

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SUMMARY. Little is known about the care provided for the elderly by general practitioners. This study is based on data from 89 030 consultations with patients of all ages of which 17 771 were with patients over 65 years of age. It was found that general practitioners carry out more follow-up work with their elderly patients than with their younger patients and they make more home visits and referrals to nursing and social services. However, they do less investigative work with elderly patients and the level of referral to consultants is the same for patients of all ages. Considerable variation was found between doctors in the pattern of care provided for older patients. The proportion of elderly patients on the list of a general practitioner had little effect on his overall workload. The implications of these findings for health service research and planning are discussed.

Introduction

THE 1981 white paper *Growing older* described the role of the family doctor as being of 'crucial and increasing importance if more elderly people are to be enabled to live independent lives in their own homes'.[1] In the light of this it is somewhat surprising that our knowledge of the care that old people actually receive from their general practitioners is sparse. Some important studies have been carried out in general practice which document patterns of morbidity, disability and health care needs,[2-9] but with a few exceptions[9-11] little is known about the care that the average general practitioner provides for old people, how this differs from that provided for other age groups and how much variation there is between doctors in the quantity of care provided. Such information is necessary for the planning of effective health care for old people. For the vast majority of the elderly who continue to live in their own homes, the general practitioner provides both the main source of health care and the only means of access to a variety of hospital-based specialist diagnostic and therapeutic services.

The purposes of this paper are to compare patterns of care of the elderly in general practice with the care provided for other age groups; to illustrate the extent of variation between doctors in the care provided for old people; and to examine the effects of the elderly on aspects of workload.

Method

The data presented are drawn from 89 030 consultations with patients of all ages, of which 17 771 consultations were with patients over 65 years of age, undertaken by 201 general practitioners participating in a study of the process of care in urban general practice.[12,13] The group of general practitioners represented 39% of all those in the study area which consisted of five health districts and part of a sixth around Manchester. One hundred and ninety nine of these general practitioners had lists of more than 1000 patients, and it is this group who form the basis of the analysis contained in this paper. Where analyses require data on the numbers of elderly patients registered, these are based upon the 178 doctors who provided this information. For partnerships this figure was derived from the information for the practice as a whole divided by the number of partners. The participating doctors were broadly representative of all general practitioners in the study area but participants differed from non-participants in respect of age of doctor and patient list size. The study under-represents older general practitioners in semi-retirement having only small lists.

Each doctor recorded information on all face-to-face patient contacts occurring in a representative sample of 15 recording days. The content of the encounter form and the recording procedure have been reported elsewhere.[12,13] In addition to recording information on patients' characteristics, presenting problems and diagnoses, doctors also recorded prescriptions issued, laboratory tests ordered, referrals made, whether the consultation was for a new episode of illness or a follow-up and whether it occurred in the surgery or in the patient's home. A record was also made of surgery starting and finishing times which permitted estimates to be made of the total time spent in surgery. The results obtained were compared with those of the second national morbidity study carried out in 1971/72.[9]

Results

Distribution of consultations by age

It was possible to compare the distribution of consultations by age with the distribution in the total population of the study area as indicated in the 1981 census; a predictable pattern was observed. The age group 0–14 years made up 20% of the total population but only 17% of consultations, as compared with 18% in the second national morbidity study.[9] At the other end of the age spectrum this position was reversed so that those aged 75 years or over made up 6% of the population but 8% of consultations. However, there was a gradual shift from middle age to old age in terms of numbers consulting general practitioners. There was no evidence of a sharp change at the age of 65 years. The overall pattern was similar to that reported in the national morbidity study for 1971/72 which showed a total of 17% of consultations with patients in the over 65 years age group compared with 19% in the present study. This may indicate that the contribution of the elderly to the work of the general practitioner is increasing as the number of elderly in the population rises.

Patterns of care by age group

Within each age group differences were observed in the pattern of care provided. The proportion of new consultations (patient initiated rather than doctor initiated) declined steadily with age so that among the very old two-thirds of all consultations were for follow-up care (Table 1). At the same time the proportion of consultations conducted in the patient's home increased but in this case there was a marked difference between the 55–64 years age group and the 65–74 years age group and again for the 75 years and over age group. This trend continued into the very old (85-plus years) where two-thirds of consultations were home visits. The figures for the 1971/72 national morbidity study also showed an increasing proportion of home consultations for the elderly, but at a higher level. Thus for the 75-plus years age

Table 1. The pattern of care as a percentage of all consultations in the study population in one year.

Age group (years)	No. of consultations	Percentage of all consultations					
		New cases	Home visits	Prescriptions	Laboratory tests	Consultant referrals	Other referrals
15–54	44 910	55	5	67	5	7	2
55–64	11 738	39	8	74	3	6	1
65–74	10 224	37	20	80	3	6	2
75+	7547	33	47	75	2	6	3

group the proportion of home visits was 57% of all consultations. The slightly lower figure for the present study may reflect a gradual process of change in general practice or simply differences in the doctors participating in each study.

Patients aged 55-plus years were more likely to receive a prescription than young adults (Table 1) but this pattern did not continue into the 75-plus years age group, possibly reflecting increased surveillance and follow-up. The figures suggest that more prescriptions were written for the elderly and by implication there were fewer people for whom a prescription was not considered necessary. However, the higher incidence of often complex multiple pathology among elderly patients might suggest a need for more investigation.

Among the 75-plus years age group 24% of patients consulting had more than one diagnosis recorded compared with only 14% in the 15–54 years age group. It is therefore surprising to find that laboratory utilization declined from 5% of all consultations for the 15–54 years age group to 2% for the 75-plus years age group (Table 1). The proportion of haematology tests carried out was similar at all ages, but there were fewer microbiology tests for the older age groups. Biochemistry tests only declined for the 75-plus years age group as did X-ray investigations.

Although the elderly are generally known to be heavy users of hospital services there was no evidence of a higher rate of referrals for older patients (Table 1). Indeed referrals to consultants declined slightly with age and none of the general practitioners had access to community hospital beds. In contrast, referrals to district nurses and social services increased, but even among the 75-plus years age group referrals to all other agencies combined were only half the level of those to consultants. For all referrals more men were referred than women — in the 65–74 years age group the ratio of men to women referred was 1.21:1 and in the 75-plus age group 1.26:1. The difference is small, but old men may consult with more serious problems than old women, or their problems may be perceived by doctors as being more serious.

Unfortunately comparable data on prescribing, laboratory utilization and consultant referrals were not available from the second national morbidity study.

Patterns of care of the elderly by area of residence

By considering ward clusters[13] of varying social levels, based on the location of the doctor's surgery premises, not the patient's address, it was possible to conclude that old people in more affluent areas received more home visits, fewer prescriptions and more fixed returns than the elderly in less affluent areas, but the picture was by no means consistent.

Variations in patterns of care

The crude rates for selected aspects of the patterns of care shown in Table 1 conceal an enormous amount of variation between general practitioners. Figure 1 indicates the extent of variation between doctors in the average annual consultation rate for patients aged over 65 years. The overall rate for the elderly was 4.6 consultations per year compared with 2.9 for all patients aged less than 65 years. However, for just over a quarter of general practitioners the consultation rate for the elderly was less than three contacts per year and a similar proportion saw their elderly patients more than six times each year. There was a negative correlation between the number of elderly patients on the doctor's list and the consultation rate for the elderly ($R = -0.26$) (Table 2).

The patterns of home visiting were equally varied (Figure 2). Sixteen percent of doctors carried out less than five home visits per week while 15% carried out more than 30.

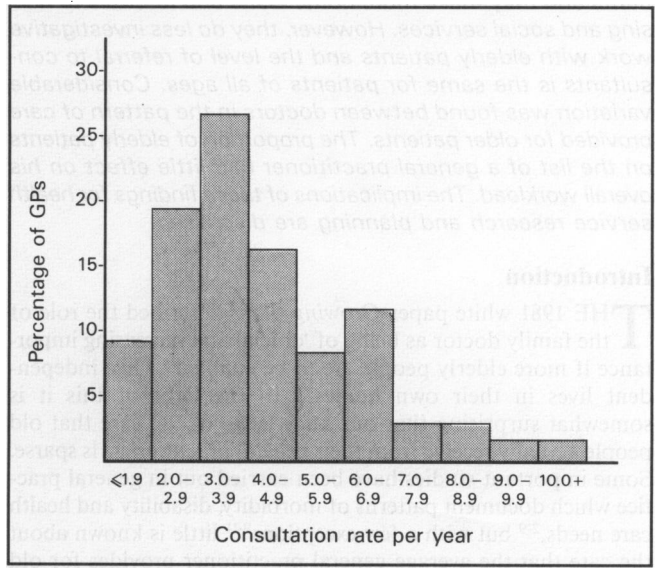

Figure 1. *Variation between doctors (n = 178) in the annual consultation rate for patients aged 65 years and over.*

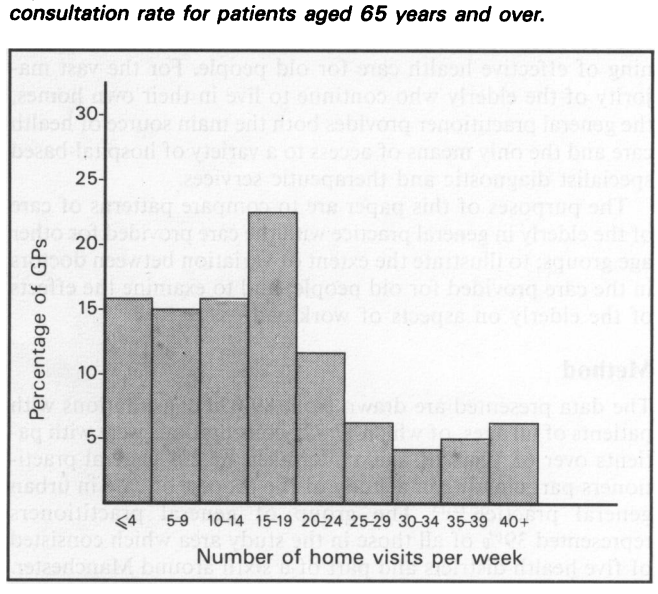

Figure 2. *Variation between doctors (n = 199) in the number of home visits made to all patients each week.*

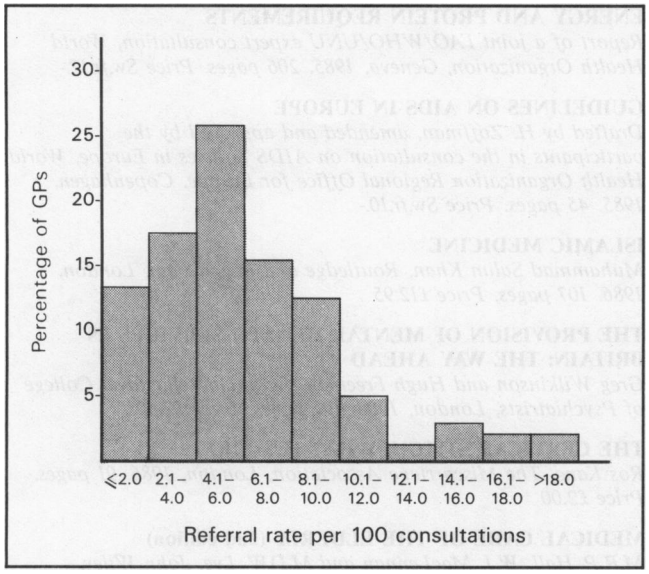

Figure 3. *Variation between doctors (n = 178) in the referral rate per 100 consultations for patients aged 65 years or over.*

The mean referral rate to consultants for elderly patients for all doctors was 6% of all consultations but this concealed large variations between doctors. Thirteen per cent of general practitioners had referral rates of more than 10 per 100 consultations and a similar proportion had rates of less than two per 100 consultations (Figure 3). These differences were not related to differences in the availability of hospital services for the elderly in different parts of the study area. As the doctors were not asked which specialty patients were referred to it is not known whether differential referral rates reflect differences in the propensity to refer to particular specialties. The pattern of care was not related to whether or not the practice had nursing attachments, or employed a practice nurse.

The elderly and workload

Table 2 shows various aspects of patient contact in terms of the proportion of elderly patients registered with the general practitioner. Those doctors with more elderly patients had a slightly higher overall consultation rate but the consultation rate for elderly patients was inversely related to the proportion of elderly patients on the list.

Higher proportions of elderly patients were not associated with an increase in the amount of time spent in surgery, but were associated with more time spent on home visits. When these figures were used to calculate the average amount of time spent on each registered patient over a whole year there was a small increase for those doctors with higher proportions of elderly patients. There was no evidence that doctors with more elderly patients felt any more over-worked than their colleagues. However, this is a subjective assessment and it should be noted that of the small group of doctors with more than 20% of elderly patients some had very small lists.

Discussion

Analysis of consultations has shown that the patterns of care provided by general practitioners change gradually with increasing age of patients. Doctors do more follow-up work with their elderly patients than with younger patients, they visit them more in their own homes and they make more referrals to nursing and social services. However, they do less investigative work and the level of referral to consultants is unchanged.

The lower use of laboratory investigations for the elderly suggests that doctors may be unwilling to subject their elderly patients to possibly unpleasant investigative procedures or it may reflect the fact the more elderly people are receiving follow-up care from hospitals. Whatever the reason the apparent discrepancy between the high level of unrecognized morbidity among older patients and a low level of investigative work by general practitioners should be examined further.

Of more immediate interest is the variation between doctors in the pattern of care provided for older patients. General practitioners clearly hold very different views of what is appropriate for their elderly patients. This variation does not necessarily reflect varying standards of care, it might simply reflect different interpretations of what is appropriate. Variations in the pattern of care may also arise as a consequence of differences in perceptions of the role of the general practitioner and of other professions and agencies. However, whatever the source of variation there is a need to examine the effect of this on patients, families, other services and the community. From the perspective of hospital-based services, it is often convenient to assume that all elderly people have similar access to specialist care through the referral system. This is clearly not so. Recognition of this, and that patients will have received widely different patterns of care prior to referral might lead us to question whether the current system is adequately meeting the needs of many old people.

The relationship between the proportion of elderly patients on the list of a general practitioner and certain aspects of workload were examined. Any conclusions must be tentative as only frequency and time spent in patient contact were considered. It was apparent from these analyses that there is only a loose relationship between the proportion of elderly patients on a doctor's list and the volume of patient contact. There was also little relationship between doctors' perceptions of whether or not they were over-worked and how many elderly patients were on their list. The combination of these findings and the variation in the patterns of care provided suggests that crude administrative measures designed to ensure better care for the elderly are unlikely to have much success. The additional capitation fees payable for patients aged over 65 years and over 75 years may not provide a means of encouraging good practice. Primary health care for the elderly must be re-examined with a view to encouraging those doctors who already provide high standards of care and to help others to develop better care. The fact remains that 94% of all people over the age of 65 years will still live in their own homes and the general practitioner will continue to be the single most important source of health care for most of these people.

Table 2. Workload of general practitioners (total $n = 178$) by the proportion of elderly patients on their lists.

% of elderly patients on list	No. of GPs	Mean no. of consultations per patient per year	Mean no. of consultations per elderly patient per year	Mean time spent in surgery per week (hours)	Mean time spent on home visits per week (hours)	Mean time spent with each patient per year (minutes)	% of GPs who felt overworked
<10	23	2.8	6.2	15.1	3.3	23	*52*
10–14	78	3.0	4.6	15.1	4.5	24	*59*
15–19	68	3.2	4.1	15.0	4.9	27	*56*
20–25	9	3.1	3.4	13.5	4.2	26	*33*

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BOOKS RECEIVED

The following books were submitted for review:

AN OUTLINE OF MODERN PSYCHIATRY (2nd edition)
Jennifer Hughes, John Wiley, Chichester, 1986. 228 pages. Price £9.50

PLANNING PRINCIPLES FOR ACCELERATED IMMUNIZATION ACTIVITIES
A joint WHO/UNICEF statement, World Health Organization, Geneva, 1985. 24 pages. Price Sw.fr. 3.-

FOOD FOR THOUGHT. A PARENT'S GUIDE TO FOOD INTOLERANCE (2nd edition)
Maureen Minchin, Oxford University Press, 1986. 250 pages. Price £3.95

CARING FOR OLDER PEOPLE. A PRACTICAL GUIDE FOR EVERYONE
J.A. Muir Gray and Heather McKenzie, Penguin Books, London, 1986. 169 pages. Price £2.95

WHAT EVERY PREGNANT WOMAN SHOULD KNOW. THE TRUTH ABOUT DIET AND DRUGS IN PREGNANCY
Gail Sforza Brewer with Tom Brewer, Penguin Books, London, 1986. 260 pages. Price £3.95

PROBLEM DRINKING. THE NEW APPROACH
Nick Heather and Ian Robertson, Penguin Books, London, 1986. 286 pages. Price £3.95

DYSLEXIA. WHAT PARENTS OUGHT TO KNOW
Vera Quin and Alan Macauslan, Penguin Books, London, 1986. 319 pages. Price £4.95

THE NEW GENETICS AND CLINICAL PRACTICE (2nd edition)
D.J. Wetherall, Oxford University Press, 1985. 206 pages.

ENERGY AND PROTEIN REQUIREMENTS
Report of a joint FAO/WHO/UNU expert consultation, World Health Organization, Geneva, 1985. 206 pages. Price Sw.fr.17.-

GUIDELINES ON AIDS IN EUROPE
Drafted by H. Zoffman, amended and approved by the participants in the consultation on AIDS policies in Europe, World Health Organization Regional Office for Europe, Copenhagen, 1985. 45 pages. Price Sw.fr.10.-

ISLAMIC MEDICINE
Muhammad Salim Khan, Routledge and Kegan Paul, London, 1986. 107 pages. Price £12.95

THE PROVISION OF MENTAL HEALTH SERVICES IN BRITAIN: THE WAY AHEAD
Greg Wilkinson and Hugh Freeman (Eds), Gaskell, Royal College of Psychiatrists, London, 1986. 197 pages. Price £7.50

THE CERVICAL STITCH: WHAT IT'S LIKE
Ros Kane, The Miscarriage Association, London, 1986. 91 pages. Price £2.00

MEDICAL CARE OF THE ELDERLY (2nd edition)
M.R.P. Hall, W.J. MacLennan and M.D.W. Lye, John Wiley, Chichester, 1986. 192 pages. Price £9.95

FOOD ADDITIVES. TAKING THE LID OFF WHAT WE REALLY EAT
Erik Millstone, Penguin Books, London, 1986. 162 pages. Price £2.95

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RECENT ADVANCES IN THE TREATMENT OF URINARY TRACT INFECTIONS
International Congress and Symposium Series, Number 97
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PEDIATRIC PATHOPHYSIOLOGY
A.R. Colon and Mohsen Ziai (Eds), Little Brown, Boston, 1986. 555 pages. Price £50.60

AN ATLAS OF DISEASES OF THE EYE (3rd edition)
E.S. Perkins, Peter Hansell and Ronald J. Marsh, Churchill Livingstone, Edinburgh, 1986. 90 pages. Price £14.95

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