Self-reported health care over the past 10 years: a survey of general practitioners

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SUMMARY. To investigate how and where doctors receive their health care, 275 general practitioners were given a questionnaire about their health care in the previous 10 years; responses were received from 247 doctors (90%). Thirty nine per cent of the subjects were registered with a general practitioner who was independent of them. All but one of the remainder were registered with a practice partner, close friend or relative. Whatever the relationship of the subjects with their own general practitioner, personal health problems were managed to a great extent by themselves. Most (84%) of the medication taken in the previous five years had been self-prescribed and one third of medical investigations had been self-initiated. Over half of the general practitioners studied had seen a specialist about their health in the preceding 10 years; 51% had referred themselves. A 'jury' of seven general practitioners compared the subjects' referrals to a specialist with the care that would be expected for a non-general practitioner patient. Where the jury reached agreement, 68% of referrals were thought to have been appropriate; self-referrals were significantly more likely to be thought inappropriate (P<0.05); and self-treatment prior to self-referral to a specialist was considered inappropriate in 78% of cases. The amount of self-prescribed medication and frequency of consultation was the same, whatever relationship the subject held with the general practitioner. This study shows that most general practitioners manage their own health care. The question of whether this is always appropriate is raised and the provision of an occupational health service for general practitioners is discussed.

Keywords: doctors' health; self care; general practitioners; quality of health care.

Introduction

DOCTORS are 'special' patients because they have access to drugs and the knowledge and skills to be able to treat themselves, but being special does not necessarily lead to better care. Doctors may feel inhibited about consulting their own general practitioner in the usual way and either treat themselves or seek an inadequate 'kerbside' consultation with a colleague.[1] Most doctors are registered with a general practitioner, but many general practitioners are registered with a partner in their practice or a friend[2] and are therefore unable to consult with a doctor who is independent of them.

Self-medication is common among doctors. Allibone found that 42% of significant illnesses reported by hospital or community based doctors had been initially self-treated.[3] Self-treated illnesses were more common among general practitioners. Selley listed the types of medication that were self-prescribed by hospital doctors at one hospital pharmacy.[4] Antibiotic drugs were the most commonly prescribed group but the list was wide ranging and included hypnotic and anxiolytic drugs. This was confirmed by Richards' study where more than three quarters of general practitioners had prescribed antibiotic drugs for themselves.[2] A small but important number of general practitioners had prescribed themselves tranquillizers and antidepressant drugs.

Doctors are regarded as reluctant patients who tend to delay seeking help for their health problems.[5] Allibone found that nearly half of the doctors who had experienced significant illness considered they had delayed seeking help longer than was prudent; only eight of 321 doctors reported that they had experienced difficulty in getting help from a colleague.[3] Other research into the delay of a sick doctor seeking help concerns mental illness and alcoholism. The National Counselling Service for Sick Doctors was set up in 1985 to try to achieve earlier intervention in a doctor's illness and a predominance of alcohol dependence and drug problems was found in their referrals.[6]

Little is known about how and where doctors receive their health care. This study looks at a group of general practitioners and their self-reported health care over the past 10 years. It attempts to determine whether the doctors studied received the same level of health care as would be expected for a non-general practitioner patient, and whether their colleagues treated them differently. The survey examines what treatment, in terms of medication, investigations and specialist care, the doctors said they had received and how much they had initiated themselves. It looks at whether being registered with a general practitioner who is a close friend, relative or practice partner is a factor in self-treatment.

Method

The study was carried out in March 1990 and the study sample comprised two groups: 225 general practitioners attending a postgraduate education course at a university in Staffordshire, and 50 general practitioners attending a postgraduate centre lecture in the West Midlands. They were asked to complete a questionnaire about their recent health care. The study was carried out after the new regulations were announced when attendance at postgraduate meetings had risen dramatically and a cross-section of general practitioners appeared to be attending educational meetings.

The questionnaire was anonymous, and covered the following: whether the general practitioner with whom the subject was registered was a close friend, relative, practice partner, or none of these; how often the subject had consulted the general practitioner in the previous year; details of prescription only medication taken in the last five years, who had prescribed it or whether it was a sample, and whether the subject always completed the courses of medication; details of referrals to a specialist in the last 10 years and subsequent investigations (obstetric referrals were excluded from the enquiry); details of investigations performed in the preceding five years, who had initiated the test and who received the results; whether they had consulted an alternative practitioner; if they had been examined by their

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medical colleagues for medical insurance purposes and how well they had been examined; and whether they had read or altered their medical records.

Answers to questions that required interpretation of whether appropriate care had been received were put to a 'jury' of seven experienced general practitioners who worked at six different practices. These general practitioners had not been involved in the design of the study. These assessors were asked to evaluate whether the subject who had been referred to a specialist had received the same treatment as would a non-general practitioner patient. Each set of referral details were evaluated independently from a summary of the results and without the supervision of the investigator. The assessors were asked to consider the length of time the subject had had symptoms before consulting the specialist; whether the self-treatment of a problem before self-referral was appropriate; whether the referral to a specialist was appropriate and whether the amount and kind of investigations were appropriate. An agreement by the jury was taken to be that at least five out of seven members concurred. The assessors knew that the respondents were general practitioners.

Categorical values were analysed using the chi square test from a *Microstat* statistical programme. The hypothesis test for two proportions was used to compare independent groups using the same programme.

Results

Of the 275 general practitioners surveyed, 247 (89.8%) completed the questionnaire. Most of the respondents completed the questionnaire immediately during the course; a few returned the questionnaire by post. The mean age of respondents was 42.2 years (standard deviation 9.3 years); 78.9% were men.

General practitioner consultations

Of doctors questioned 39.3% were registered with a general practitioner who was independent of them, 40.1% had a general practitioner who was their practice partner and 20.2% their friend or spouse. Only one respondent was not registered with a general practitioner. The mean consultation rate with the general practitioner was 0.4 times per year; 75.7% of subjects had not consulted their general practitioner in the preceding 12 months. Only 2.8% of doctors reported consulting an alternative practitioner in the previous five years; they were most likely to have visited a physiotherapist or osteopath.

One hundred and four respondents (42.1%) had been physically examined by another doctor for medical insurance purposes; 84.6% of those examined thought they had been treated in the same way as a normal patient but 12.5% considered they had been examined less thoroughly, three doctors having only had their blood pressure taken instead of a full examination. Three doctors thought they had received better treatment.

A total of 34.8% of general practitioners had read their own medical notes. Five doctors had removed information from their file and two had written extra material into their notes.

Medication

Two hundred and thirteen of the 242 respondents (88.0%) reported that they had taken at least one drug in the previous five years. Table 1 shows the six groups of drugs most commonly recorded by respondents. Antibiotics were the most commonly prescribed drug and three quarters of the respondents (73.1%) had taken at least one; 89.3% of the respondents had had a course of antibiotics which had been a sample or self-prescribed. Most of the hypnotic drugs, taken by 12.8% of respondents, had been self-prescribed. Seven subjects reported taking tranquillizers (self-prescribed in 71.4% of cases) and eight subjects reported taking antidepressants, self-prescribed in half of cases. Twenty eight of the 34 doctors who had taken analgesics and 20 of the 24 doctors who had taken peptic ulcer healing drugs had treated themselves. Responses received from 179 general practitioners who had taken medication in the preceding five years revealed that 137 doctors (76.5%) always completed the course, 5.0% sometimes, and 18.4% had never finished the course of medication.

Table 1. Medication taken by respondents in the previous five years and author of prescription.

Medication	No. of doctors	% receiving prescriptions from: Self	Other doctor
Antibiotics	177	*89.3*[a]	*14.7*[a]
Analgesics	34	*85.3*[b]	*17.6*[b]
Hypnotics	31	*93.5*	*6.5*
Peptic ulcer healing drugs	24	*83.3*	*16.7*
Antidepressants	8	*50.0*	*50.0*
Tranquillizers	7	*71.4*	*28.6*

[a] Seven doctors received prescriptions from both self and other doctor.
[b] One prescription from both self and other doctor.

Investigations

Table 2 shows the investigations that the general practitioners reported they had undergone in the previous five years and who had initiated them. About one quarter of respondents who had had a urine test or swab had initiated it themselves, approximately one third had arranged their own blood pressure measurement or blood test and one fifth had arranged their own chest x-ray. A total of 17.6% of the investigations had been done as part of an insurance or pre-employment medical examination. The results of 39.2% of the investigations had been reported directly to the subject who had decided on the action to be taken.

Table 2. Investigations undergone by respondents in last five years and initiator of investigation.

Investigation	No. of investigations	% initiated by:[a] Self	Doctor at consultation	Medical insurance or pre-employment medical examiner
Blood pressure measurement	185	*38.4*	*45.9*	*15.7*
Blood test	142	*35.2*	*52.1*	*12.7*
Urine test	124	*26.6*	*50.8*	*22.6*
Chest x-ray	77	*18.2*	*55.5*	*27.3*
Swab	19	*26.3*	*73.7*	*0*

[a] Some subjects had investigations which were initiated by a different doctor at different times during the five year period.

Specialist referrals

One hundred and thirty nine of the 247 general practitioners (56.3%) had been referred to a specialist in the previous 10 years, making a total of 144 referrals. One hundred and thirteen were men and the mean age was 45.3 years (standard deviation 9.6 years). In approximately half of the cases (50.7%), the respondents had referred themselves directly to the specialist;

in 59 cases (41.0%) respondents had been referred by their own general practitioner, and in 12 (8.3%) they had been referred by a consultant, friend or spouse, a partner who was not their general practitioner or as an emergency.

Verdict of general practitioner jury

Table 3 shows the verdict of the jury of seven general practitioners who were asked to decide whether aspects of specialist referral for general practitioners were the same as those for non-general practitioner patients. The general practitioner jury reached agreement as to the appropriateness of referrals to a specialist in 106 of the 144 referrals. Referral by another general practitioner was significantly more likely to be thought appropriate by the jury than if the subject had referred him or herself (chi square test with continuity correction factor = 7.81, $P<0.05$).

Table 3. Specialist referrals for general practitioners: a comparison with aspects of care expected for non-general practitioner patients.

	No. (%) of specialist referrals where 5 or more jury members agreed		
GP jury decision	Total	Self-referral	Referral by other doctor
Referral appropriate	72 (67.9)	30 (54.5)	42 (82.4)
Referral inappropriate	34 (32.1)	25 (45.5)	9 (17.6)
Investigations appropriate	81 (94.2)	33 (89.2)	48 (98.0)
Too many investigations	5 (5.8)	4 (10.8)	1 (2.0)
Too few investigations	0 (0)	0 (0)	0 (0)
Time of referral appropriate	26 (61.9)	9 (47.4)	17 (73.9)
Referral too late	11 (26.2)	7 (36.8)	4 (17.4)
Referral too early	5 (11.9)	3 (15.8)	2 (8.7)
Prior self-treatment appropriate	8 (21.6)	8 (21.6)	NA
Prior self-treatment inappropriate	29 (78.4)	29 (78.4)	NA

NA = not applicable.

The general practitioner jury reached agreement about the number and appropriateness of investigations arranged by specialists in 86 out of 144 referrals, and decided that in only five referrals were more investigations done than would have been expected for a non-general practitioner patient. Four of these cases were self-referrals.

The jury could only agree about whether referrals were made at an appropriate time in less than one third of cases. In 26 out of 42 cases, referrals were considered to have been made at an appropriate time. Self-treatment prior to self-referral was agreed by the jury to be appropriate in eight out of 37 cases.

Relationship of subjects to general practitioners

The relationship of the subject to his/her general practitioner and whether it affected consultation and treatment were considered. Women doctors were significantly more likely to be registered with a general practitioner who was independent of them: 27 of the 97 subjects registered with an independent general practitioner were women (27.8%) compared with 25 of 150 registered with a practice partner, close friend or relative (16.7%) (chi square test with continuity correction factor = 4.06, $P<0.05$). No statistical differences were found when analysing the relationship of the subjects with their own general practitioner and whether the respondents prescribed themselves medication or arranged their own investigations, or the frequency of consulting in the past year. The proportion of subjects registered with a general practitioner who was a practice partner, relative or friend who had referred themselves to a specialist was greater than for those registered with an independent general practitioner, but the difference was not significant (48/91, 52.7% versus 26/53, 49.1%).

Comparison of self-referrals and referrals by other doctors

A comparison of subjects who referred themselves to a specialist and those referred by another doctor, according to whether they prescribed medication or initiated investigations for themselves, is shown in Table 4. There was no significant difference in self-prescription of medication between subjects who had referred themselves to a specialist and those whose general practitioner had referred them. The subjects who referred themselves to a specialist tended to initiate investigations themselves, but this difference was only significant for blood tests (test of proportions $P<0.001$).

The respondents were invited to make comments at the end of the questionnaire; 98 chose to do so. Approximately half of the respondents expressed praise or satisfaction with the health care they had experienced, while the other half complained or were critical of the care they had received.

Discussion

The age and sex distribution of the general practitioners in this study was similar to the general practitioner population in the United Kingdom.[7] Nevertheless, the design of the study did not ensure that the study population was representative of British general practitioners as a whole.

The decisions of the jury of seven experienced general practitioners were limited by having incomplete information about subjects' past referrals and by the facts being recalled by the subjects after a length of time. They were also aware of the reported diagnosis in each case and some of the objectives of the study, which may have biased their decisions about the number and appropriateness of investigations and self-treatment. Doctors differ enormously in their referral patterns[8] so that the jury members would be likely to vary in what they considered to be appropriate referral behaviour. Despite these limitations, at least five out of seven members of the jury agreed that a large number (34 out of 144) of referrals to a specialist were in-

Table 4. Comparison of subjects who referred themselves to a specialist and those referred by another doctor, according to whether they prescribed medication or initiated investigations for themselves.

	% of specialist referrals by:	
Health care	Self ($n=73$)	Other doctor ($n=71$)
Self-medication		
Antibiotics	64.4	53.5
Hypnotics	15.1	11.3
Tranquillizers	1.4	1.4
Antidepressants	1.4	2.8
Strong analgesics	12.3	9.9
Peptic ulcer healing drugs	11.0	5.6
Self-initiated investigations		
Blood pressure measurement	30.1	18.3
Blood test	31.5	9.9
Urine test	15.1	9.9
Swab	4.1	0
Chest x-ray	9.6	4.2

n = number of specialist referrals.

appropriate and that self-referrals were significantly more likely to have been inappropriate than referrals made by another doctor. Considering that the jury frequently found self-treatment inappropriate, the great amount of self-care practised by general practitioners is disquieting. The high rates of self-medication confirm other studies;[2-4] self-referral to a specialist was as common as referral by another doctor; investigations were self-initiated at least half as frequently as by the subject's general practitioner; and the subject had been the doctor responsible for deciding on the course of action to be taken in two fifths of the investigations.

The treatment that the subjects received when they were examined by another doctor for medical insurance purposes was included as an indicator of how general practitioners treated colleagues. The 13% of subjects who reported they had been examined less thoroughly than they would have expected may reflect different medical practice or may be due to inhibition of the doctor when examining a colleague.

The UK mean rate for non-general practitioner patients aged 16 to 64 years consulting their general practitioner is four times per year.[9] This compares with the mean consultation rate in this study of 0.4 times per year; three quarters of subjects had not consulted their own general practitioner in the preceding 12 months. Just as the subjects did not turn to conventional medical practice for advice neither did many consult an alternative therapist, with only 3% having visited such a practitioner.

Having an independent general practitioner, as opposed to one who was a practice partner, close friend or relative was not related to the amount of self-prescribed medication or the frequency of consultation. One reason for this may be that an independent general practitioner is more likely to be sited in a different locality and less easy to consult when the subject has spare time, and so the readier option of self-care is taken. Although the difference was not significant, doctors with an independent general practitioner tended to refer themselves for specialist care less often. This might be explained by the subject being less inclined to respect the opinion of a close friend or partner, or alternatively they may feel embarrassed or ashamed about confiding their health problem to someone they know well. A study involving larger numbers of subjects will be needed to confirm whether having an independent general practitioner significantly affects the extent of self-referral.

The doctors in this study often used a specialist in the same way as non-general practitioner patients might consult their general practitioner. Advocating that doctors should register with a general practitioner who is independent of them is only part of the solution because it may be difficult for doctors to consult a colleague in a routine way, owing to time pressures and emotional constraints, such as embarrassment. Women doctors may have been more likely to register with an independent general practitioner because they are often the only woman doctor in their practice and by registering with a different group practice they can consult another woman doctor. Mortality statistics indicate that the suicide rate for women doctors is increasing.[10] Their predicted mortality rate from suicide was 391 in 1982 compared with a standard of 100 in England and Wales, more than three times that of the general female population. The equivalent standardized mortality rate for men doctors was 181, nearly twice that of the general male population. Figures for mortality from cirrhosis of the liver in men doctors may be declining but are still higher than those of the general male population.

This study has demonstrated that most general practitioners look after their own health themselves on a day to day basis. A preferential health care system for doctors has been discussed in the past.[1,11,12] A national body such as the General Medical Council might help to create a nationwide occupational health service for hospital consultants and general practitioners or encourage local initiatives. Such a confidential service would have to be manned by experienced and well respected doctors with flexible consulting hours that accommodated local doctors' off-duty periods.

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