A preliminary study of search procedures and patient management techniques in general practice

NORMA V. RAYNES, PH.D
Senior Lecturer, Institute of Psychiatry, London.

SUMMARY. A record of one in three consultations occurring in 10 general practice surgeries in two morning and two evening sessions was made by an observer. The results showed marked variation in the frequency of the general practitioners' use of different means of eliciting information about the patient and in forms of management. These activities were further analysed within subgroups of the patients' symptoms and some activities were shown to be influenced by patients' presenting symptoms whilst others were not. I discuss how much general practitioners' behaviour is responsive to patients' presenting symptoms and also some of the practical implications of these findings for general practice.

Introduction

THERE is now a large literature on general practitioners' workloads, their activities in the consultation, and how these vary. Several studies from individual practices or partnerships have contributed to our knowledge of the content of general practice consultations. Reports have indicated how often general practitioners refer patients or recall them, prescribe drugs for them, or physically examine them (Backett *et al.*, 1954; Scott *et al.*, 1960; Morrell, 1971; Floyd and Livesey, 1975; Marsh and Kaim-Caudle, 1976). Buchan and Richardson (1973) in Scotland analysed in a major comparative study the activities in which the general practitioner is involved during the consultation. They showed how much general practitioners vary in what they do in consultations. This has also been noted by others. Morrell (1971), in his comparison of three general practitioners, reported variations in a whole range of consultation-based activities. Parish (1971) and Shepherd and colleagues (1966) showed large variation between general practitioners in the number of psychotropic drugs prescribed and psychiatric diagnoses made. Byrne and Long (1976) recently showed how doctors vary in their style of eliciting and imparting information to the patient. Floyd and Livesey (1975) indicated that there is consistency in the amount of time a general practitioner spends on various activities in the consultation, which suggests that interpractice differences could reflect consistent patterns in any given practice.

A recent editorial in this *Journal* (1977), reviewing practice content studies, argued that we should change our focus from quantity to quality. If we are to do this and begin to understand why general practitioners do what they do, we must first describe the different parts of their activities and then try and discover which factors influence behaviour. Bloor's work (1976, 1978), carried out in a different medical context, is a useful starting point and his conceptual framework has influenced me in this study.

Part of Bloor's research sought to identify factors which might account for the variation in adenotonsillectomy rates, which are as marked in ENT clinics as are prescribing and referral rates in general practice. Sitting in on ENT consultations he recorded the ways in which the surgeons obtained information about the children referred to them for possible adenotonsillectomy and the bases for their decisions on whether to operate or not. He noted that the consultants tended consistently to use certain procedures for obtaining information and certain criteria for making their decisions, which he called "routine ways". In other words, their actions and decisions followed a regular course and were more or less unvarying within their own consultations. However, differences existed between the consultants in the kinds of routines they adopted. Bloor argued that the use of different routine practices by different consultants contributed to the observed differences in adenotonsillectomy rates.

Goffman's (1961) concept of the encounter is also useful in studying the consultation in general practice. He identified as "encounters" those social situations which occur when two or more people are in one another's immediate physical presence and when there is

a "single visual and cognitive focus of attention" (p. 18). He pointed out that what occurred in such a situation was determined largely, but not exclusively, by the roles and events peculiar to that situation. Attributes of the parties to the encounter which are externally based may also influence what occurs in the specific social situation. This distinction is helpful in thinking about consultations in general practice because it enables one to differentiate between features of it which are generated in the consultation itself and those which exist independently of it but which nevertheless may influence what occurs within it.

I define the features which are characteristic of the consultation as 'situation specific characteristics'. These would include the patients' symptoms and the doctors' actions. The attributes of the patients and doctors which exist independently of the consultation I call 'non-situation specific factors', and these include the age and sex of the patient or doctor, the length of time they have known each other, and the doctor's attitudes. The choice of non-situation specific factors to be studied as possible influences on what occurs within the consultation is influenced by research which has identified particular doctor and patient characteristics as important.

Aims

I wish to establish which of the general practitioner's activities can be classed as routines and which are responsive to differences in the patient's presenting symptoms. The activities discussed are:

1. The general practitioner's questions.
2. The general practitioner's use of physical examination.
3. The general practitioner's use of patients' notes.
4. The general practitioner's prescribing practices.
5. The general practitioner's referral of patients.
6. The general practitioner's recall of patients.
7. The general practitioner's writing of certificates.

The first three activities are referred to collectively as the general practitioner's search procedures, being the means by which he elicits information about his patient's condition. The last four activities are referred to collectively as the general practitioner's patient management techniques, which are all ways in which he deals with the patient's condition, having defined it for himself. All of these behaviours are situation specific, as defined above.

I hope to discuss the influence on these behaviours of non-situation specific factors such as the general practitioner's attitudes, age, sex, type of practice, as well as the patient's age, sex, occupation, and marital status, in future papers.

Table 1. Patient presenting symptom categories.

1. Physical symptoms
2. Psychological symptoms (mood, behaviour, depression, anxiety, marital problems, delusions, phobias)
3. Social problems (housing, leisure, work or family problems, excluding marital problems)
4. Patient feels unwell but is unable to identify specific symptoms
5. Problems relating to pregnancy
6. Improvement in condition being treated
7. No change in, or worsening of, condition being treated
8. Physical symptom with psychological symptoms superimposed
9. No symptoms

Method

Ten general practitioners gave permission for me to sit in on two of their morning and afternoon surgeries. The sample is not random but I tried to seek the co-operation of general practitioners who were representative of all general practitioners in terms of age, sex, practice size, and location of practice. The extent to which this was achieved is discussed in another paper (Raynes, 1979). A verbatim record of one in three of the consultations occurring in these surgeries was made. Details of data collection techniques have been described elsewhere (Raynes, 1978).

The general practitioner's search procedures I analysed were his questions, his use of physical examination, and his reference to the patient's notes. His questions were classified in terms of their focus. They could be physical, social, emotional, or administrative.

Thus, a general practitioner could ask questions about the location or duration of the patient's physical pain, or about social issues, such as his work, or about his emotional state perhaps relating to his depression, and finally, he could also ask questions of an administrative nature such as his age or address. Obviously, there could be some overlap of categories and for analytical purposes I distinguished between the questions which focussed exclusively on the physical characteristics of the patient's problem (P questions) and those which combined physical, social, and emotional elements (PSE questions).

A second search procedure used by the general practitioner to elicit information about the patient's problem is, of course, physical examination. No attempt was made to distinguish the locus of the examination as did Buchan and Richardson (1973). Its occurrence was simply recorded as being present or absent.

Patients' notes provide a third source of information for the doctor. Their contents are known to be variable but in so far as they contain a medical history, they constitute a potentially useful way of helping the general practitioner to complete his picture of the patient's problem so that he can begin to move towards patient management. Thus, the general practitioner's reference to notes was observed as a third search procedure used to elicit information.

Patient management was defined in terms of:

a) The writing of a prescription.

b) The writing of a prescription for a psychotropic drug.

c) Referrals for either evaluation or treatment.

d) A request for a patient to return for further consultation.

e) The writing of a certificate.

I recorded all of these activities during the course of the consultation.

I had the same difficulties over classification of presenting problems as others (Parish, 1971; Howie, 1972; Buchan and Richardson, 1973). Since no standard system could be applied to the problems I saw, I devised a system whereby I was able to classify presenting symptoms in nine categories (Table 1) derived essentially from the data. The presenting symptoms in each consultation were classified independently by two raters and a high coefficient of concordance was obtained, the raters agreeing on the classification of 96 per cent of the symptoms.

In order to clarify a complex situation, I refer only to three of the nine categories in this paper. The first of these, referred to as subgroup 1, is the category comprising all those consultations in which the patient presented with a physical symptom. The second category comprises those patients who presented with a psychological symptom (that is, one concerned with mood, behaviour, depression, anxiety, marital problems, delusions, or phobias). The third comprises all those consultations in which the patients presented with a social problem (housing, leisure, work, or familial problems other than marital problems). The second and third categories were combined to become subgroup 2 (psychosocial).

All of the consultations in subgroup 1 were patient-initiated episodes. Thirteen (68·4 per cent) in subgroup 2 were patient-initiated episodes and six (31·6 per cent) were consultations initiated by the general practitioner. There is no evidence to show that in subgroup 2 general practitioner-initiated consultations were any different from patient-initiated consultations in terms of the general practitioners' behaviours discussed here.

Table 2. Frequency of search procedures used in all consultations.

General practitioner	Focus of questions							
	Physical		Physical, social, and emotional		Physical examination		Reference to patient's notes	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
A	17	*70.8*	6	*25.0*	12	*66.7*	11	*64.7*
B	23	*67.9*	11	*32.4*	19	*70.4*	18	*69.2*
C	24	*39.3*	37	*60.7*	30	*63.8*	42	*89.4*
D	10	*30.3*	23	*69.7*	17	*68.0*	25	*100.0*
E	14	*51.9*	11	*40.7*	17	*70.8*	19	*79.2*
F	22	*51.2*	19	*44.2*	25	*75.8*	13	*39.4*
G	25	*50.0*	24	*48.0*	29	*87.9*	32	*97.0*
H	11	*32.4*	22	*64.7*	12	*54.5*	20	*95.2*
I	8	*53.3*	6	*40.0*	11	*55.0*	17	*85.0*
J	14	*58.3*	10	*41.7*	13	*86.7*	13	*86.7*
Total	168	*46.9*	169	*48.9*	185	*70.1*	210	*80.5*

Table 3. Frequency of patient management techniques used in all consultations.

General practitioner	Writing of prescription		Prescription of psychotropic drug		Referral of patient		Recall of patient		Issuing of certificate	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
A	11	*61.1*	3	*16.7*	3	*16.7*	5	*27.8*	1	*5.6*
B	18	*72.0*	4	*16.0*	6	*22.2*	12	*44.4*	2	*7.4*
C	20	*43.5*	1	*2.2*	9	*19.1*	19	*40.4*	9	*19.1*
D	24	*96.0*	6	*24.0*	1	*4.0*	13	*52.0*	5	*20.0*
E	15	*62.5*	0	*0*	9	*37.5*	14	*58.3*	1	*4.2*
F	22	*66.7*	2	*6.1*	8	*24.2*	18	*54.5*	3	*9.1*
G	21	*63.6*	7	*21.2*	8	*24.2*	23	*69.7*	2	*6.1*
H	15	*75.0*	6	*30.0*	1	*4.8*	15	*68.2*	2	*9.1*
I	9	*45.0*	2	*10.0*	3	*15.0*	7	*35.0*	2	*10.0*
J	11	*73.8*	3	*20.4*	6	*40.0*	12	*80.0*	1	*6.7*
Total	166	*64.1*	34	*13.1*	54	*20.5*	138	*52.3*	28	*10.6*

Results

The group of 10 general practitioners not unexpectedly showed variance in their search procedures as well as in their patient management techniques (Table 2 and 3).

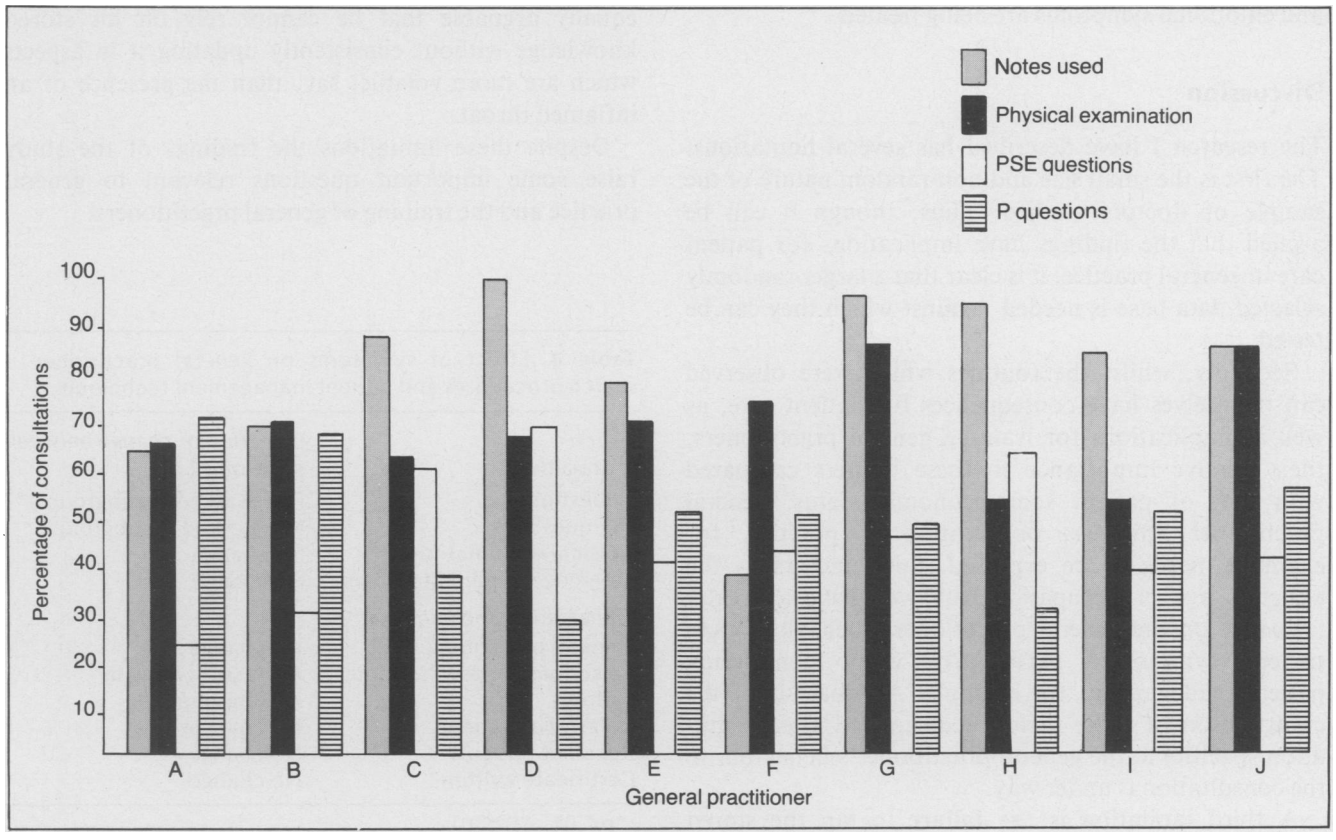
Three of the general practitioners (C, D, and H) asked PSE questions in over half of their consultations. Physical examination was used in over four fifths of the consultations of general practitioners G and J, compared with just over half of the consultations of general practitioners H and I. General practitioner D referred to his patients' notes in all consultations whereas general practitioner F made reference to them in less than 40 per cent of his consultations. Similar variation is apparent in the patient management techniques (Table 3). Individual profiles were developed for their search procedures (Figure 1) and for their patient management techniques (Figure 2).

When these same behaviours were examined within the patients' symptom-presenting subgroups, there were differences in some search procedures and patient management techniques used by the general practitioners when confronted by patients with physical problems on the one hand and emotional and social problems on the other. It is also clear that some behaviours in the consultation were not affected by these differences in the patients, the latter group containing behaviours which have been described by Bloor (1976) as routines. They are "tried and tested recipes" employed to investigate familiar complaints and to manage them in familiar ways (Bloor, 1978; p. 53). Table 4 summarizes the effect of the patients' presenting symptoms on the general practitioners' search procedures and patient management techniques.

Among the general practitioner's search procedures only the focus of his questions was affected by differences in the patients' presenting symptoms. More PSE questions were asked by all the general practitioners in subgroup 2 than in subgroup 1. The use of patients' notes and physical examinations were unaffected by the patients' presenting symptoms (Table 4). In so far as the general practitioners' patient management techniques were concerned, a similar routine quality characterized the general level of prescribing, referral and recall of patients, and writing of certificates. For each general practitioner, these practices were unaffected by patients' presenting symptoms (Table 4). However, the prescribing of psychotropic drugs was affected by patients' symptoms, considerably more being prescribed in subgroup 2 than in subgroup 1.

On examination it was found that none of the search procedures were related to each other. Amongst the patient management techniques frequency of prescribing and patient recall were found to be unrelated in subgroups 1 and 2. High prescribing levels, however, were found to be inversely related to patients' referral in both subgroups 1 and 2, which meant that the general practitioners who often prescribed seldom referred their

Figure 1. *Search procedures: all consultations.*



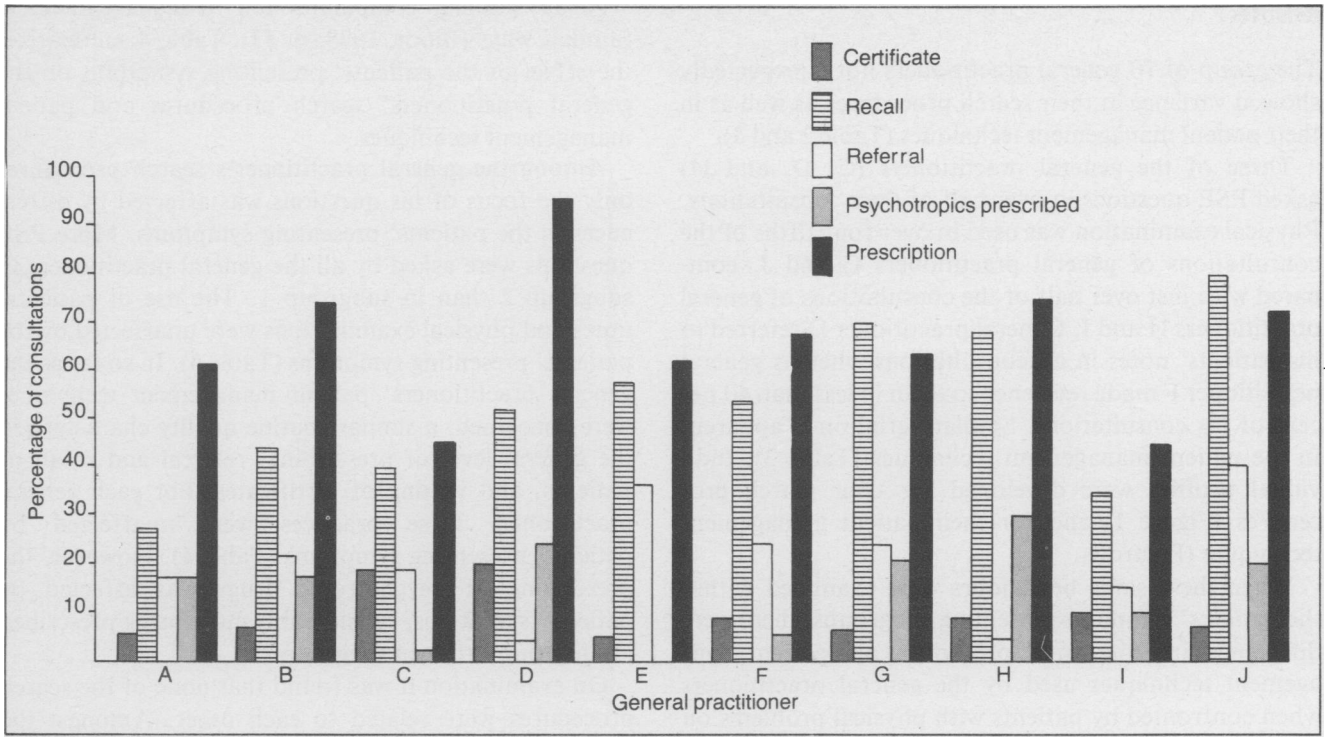


Figure 2. *Patient management techniques: all consultations.*

patients. High referral rates were found to be related to high recall rates in subgroup 1, but not in subgroup 2. Thus the general practitioners who often referred patients presenting with physical symptoms also often recalled such patients. These techniques are not statistically significantly associated when patients with social and emotional symptoms are being treated.

Discussion

The research I have described has several limitations. The first is the small size and non-random nature of the sample of doctors studied. Thus, though it can be argued that the findings have implications for patient care in general practice, it is clear that a larger randomly selected data base is needed against which they can be tested.

Secondly, whilst the routines which were observed can themselves have consequences for patient care, as well as implications for training general practitioners, their relative importance to these matters compared with that of patient socio-economic status, general practitioner attitudes, or location of practice, for example, needs to be explored. Such factors as the patient's age or occupation may well have a greater influence on the general practitioner's behaviour than patient symptoms, particularly when considering patient management, for example. An analysis of the contribution of these factors (categorized as non-situation specific) to the general practitioner's behaviour in the consultation is under way.

A third limitation is the failure to tap the stored knowledge about the patient which all general practitioners have. This knowledge may well explain some of the differences in question focus used by general practitioners. For example, a general practitioner who has known a patient for 10 years may well not need to ask questions which we have called PSE questions, but it is equally arguable that he cannot rely on his stored knowledge without consistently updating it in aspects which are more volatile, say, than the presence of an inflamed throat.

Despite these limitations the findings of the study raise some important questions relevant to general practice and the training of general practitioners.

Table 4. Effect of symptoms on general practitioner search procedures and patient management techniques.

Search procedures	*Direction of change between subgroup 1 and 2*
P questions	Fewer asked in subgroup 2*
PSE questions	More asked in subgroup 2**
Physical examination	No change
Reference to patients' notes	No change
Management techniques	
General prescribing level	No change
Prescribing of psychotropic drugs	More prescribed in subgroup 2**
Referral of patients	No change
Recall of patients	No change
Certificate written	No change

*$p<.05$ **$p<.01$

Although they reiterate the existence of the variance in general practitioners' prescribing practices, particularly of psychotropics, and other activities in the consultation observed by other workers, they suggest that some of it is a function of the general practitioner's response to an important situation specific factor, namely, recognition of the patients' presenting symptoms. Such factors were ignored by Byrne and Long (1976) in their study of doctors interacting with patients. In this study both the nature of the general practitioner's questions and his prescribing of psychotropic drugs were influenced by the patient's presenting symptoms. However, it is clear that some activities in the consultation, perhaps most important, the general level of prescribing practised by the general practitioner and his use of referral, are routines not significantly influenced by the patient's presenting problem.

Much criticism has been levelled at the ever increasing size of the drug bill which exceeds the cost of general practitioners' own income and professional expenses combined *(Journal of the Royal College of General Practitioners,* 1978). This study suggests that the use, or lack of use, of the prescription pad is a routine behaviour for general practitioners. Again, in this study this routine behaviour is inversely associated with referring patients for evaluation or treatment (another routine). Perhaps low referral rates limit fuller scrutiny of prescribing practices and thus one possible source of change in this routine behaviour. The prescribing of psychotropics is, however, for eight of the 10 general practitioners an activity responsive to patients' symptoms. Most of the prescriptions for psychotropic drugs written by these were given to patients in consultations in which the patients presented with social and emotional symptoms. It should not be forgotten, however, that two of the highest prescribers of this type of drug had no patients presenting with such symptoms. The situation responsive activity of asking more PSE than P questions may or may not produce better care. If this practice is thought to be worth encouraging, then teaching it will have to be linked to its relevance to specific kinds of pathology or uncertainty about patient disorder. On the other hand, the modification of routines, if thought desirable, needs different kinds of techniques.

Conclusion

The research has identified some of the components of the general practitioner's behaviour in the consultation and has demonstrated the feasibility of doing this. The findings suggest that some of the observable behaviour of the general practitioners is best understood as the implementation of familiar and trusted techniques by means of which they seek to impose order on the world in the consulting room. The data cannot be accepted as proof of this argument; the size of the sample alone precludes that. The findings, however, at least indicate the need to examine this line of reasoning further, over a wide range of general practice morbidity and using a more detailed identification of pathological signs and symptoms than was feasible in this study.

What influences the choice by a general practitioner of one routine method of assessment or patient management rather than another is another issue which deserves further research, especially if one approach is considered to be more effective in the identification of pathology or its management. It has been argued that general practitioners do remain ignorant of potentially treatable conditions in their patients (Williamson *et al.,* 1964; Cartwright *et al.,* 1976) and some factors which contribute to this situation may well be elucidated by further research into which of those behaviours of the doctors are routine responses and which are not. It would also be useful to identify those factors which contribute to the emergence and implementation of particular routines. If such research is carried out it should then become possible to assess the appropriateness of the routine techniques in specified clinical contexts, which could in turn lead to the development of practical guidelines for the general practitioner and vocational trainee.

References

Backett, E. M., Heady, J. A. & Evans, J. C. G. (1954). Studies of a general practice. *British Medical Journal,* **1**, 109-115.

Bloor, M. (1976). Bishop Berkeley and the adenotonsillectomy enigma. *Sociology,* **10**, 43-61.

Bloor, M. (1978). On the routinised nature of work in people processing agencies. In *Relationships between Doctors and Patients.* Ed. Davis, A. London: Saxon House.

Buchan, I. C. & Richardson, I. M. (1973). *Time Study of Consultations in General Practice.* Edinburgh: Scottish Home and Health Department.

Byrne, P. S. & Long, B. E. L. (1976). *Doctors Talking to Patients.* London: HMSO.

Cartwright, A., Lucas, S. & O'Brien, M. (1976). Some methodological problems in studying consultations in general practice. *Journal of the Royal College of General Practitioners,* **26**, 894-906.

Floyd, C. B. & Livesey, A. (1975). Self-observation in general practice—the bleep method. *Journal of the Royal College of General Practitioners,* **25**, 425-431.

Goffman, E. (1961). *Encounters.* New York: Bobbs-Merril.

Howie, J. G. R. (1972). Diagnosis—the Achilles heel? *Journal of the Royal College of General Practitioners,* **22**, 310-315.

Journal of the Royal College of General Practitioners (1977). How many patients? Editorial, **27**, 3.

Journal of the Royal College of General Practitioners (1978). Prescribing in general practice. Editorial, **28**, 515-516.

Marsh, G. & Kaim-Caudle, P. (1976). *Team Care in General Practice.* London: Croom Helm.

Morrell, D. C. (1971). Expressions of morbidity in general practice. *British Medical Journal,* **2**, 454-458.

Parish, P. A. (1971). The prescribing of psychotropic drugs in general practice. *Journal of the Royal College of General Practitioners,* **21**, Suppl. 4.

Raynes, N. V. (1978). General practice consultation study. *Social Science and Medicine,* **12**, 311-315.

Raynes, N. (1979). Factors affecting the prescribing of psychotropic drugs in general practice consultations. *Psychological Medicine,* **9**, 671-679.

Scott, R., Anderson, J. A. D. & Cartwright, A. (1960). Just what the doctor ordered. *British Medical Journal,* **2**, 293-299.

Shepherd, M., Cooper, B., Brown, A. C. & Kalton, G. (1966). *Psychiatric Illness in General Practice.* London: Oxford University Press.

COLLEGE ACCOMMODATION

Charges for college accommodation are reduced for members (i.e. fellows, members and associates). Members of overseas colleges are welcome when rooms are available. All charges for accommodation include breakfast and are subject to VAT. A service charge of 12½ per cent is added. Children aged 12 years and over, when accompanied by their parents, can always be accommodated; for those between the ages of six and 12 years, two rooms are being made available on a trial basis. Children under the age of six cannot be accommodated and dogs are not allowed. Residents are asked to arrive before 18.30 hours to take up their reservations.

From 1 April 1980, charges will be (per night):

	Members	Others
Single room	£8	£16
Double room	£16	£32
Flat 1	£25	£40
Flat 3 (self-catering with kitchen)	£35	£60

Charges are also reduced for members hiring reception rooms compared with outside organizations which apply to hold meetings at the College. All hirings are subject to approval and VAT is added.

	Members	Others
Long room	£60	£120
John Hunt room	£40	£80
Common room and terrace	£40	£80
Kitchen/Dining room	£20	£40
Jephcott room	£40	£80

Enquiries should be addressed to:

The Accommodation Secretary,
Royal College of General Practitioners,
14 Princes Gate, Hyde Park,
London SW7 1PU.
Tel: 01-581 3232.

Whenever possible bookings should be made well in advance and in writing. Telephone bookings can be accepted only between 9.30 hours and 17.30 hours on Mondays to Fridays. Outside these hours, an Autophone service is available.

Williamson, J., Stokoe, I. H., Gray, S., Fisher, M., Smith, A., McGhee, A. & Stephenson, E. (1964). Old people at home. *Lancet,* 1, 1117-1120.

Acknowledgements

I am indebted to Professor Michael Shepherd, Director of the General Practice Research Unit at the Institute of Psychiatry, under whose auspices the study was carried out. The work was supported by a grant from the Department of Health and Social Security. None of the work would have been possible without the collaboration of the 12 general practitioners involved in the study: Dr Bruce Armstrong, Dr Steven Curson, Dr David Finer, Dr John Fry, Dr Graeme Jupp, Dr Thomas Madden, Dr Sheila O'Hara, Dr Beryl Palmier, Dr Aaron Rapoport, Dr Peter Sowerby, Dr Keith Thompson, and Dr Julian Tower, to whom I am particularly indebted. I am also grateful to Ms Victoria Cairns, who did the computing, and to Ms Gillian Andrews for her patient assistance with the collation of data.

Morbidity of single-parent families

In an English urban practice of 7,600 patients, all single-parent families were identified and an attempt was made, using a computerized record system, to match these with control two-parent families from the same practice. The morbidity of these families was studied over the course of one year and it was found that significantly more visits were made by single-parent adults than by the controls. There was no significance between the single-parent children and control children as far as visiting the doctor was concerned.

Selected reasons for attendance were looked at and it was found that single-parent adults consulted significantly more for respiratory disease than control adults. There was no significant difference between single parents and controls for psychiatric attendances or injuries. The gynaecological consultations and the consultations for contraceptive advice were also not significant, which suggests that even with single-parent status single parents are probably sexually active. In the past medical history, the fact of most note was a higher significant incidence of termination of pregnancy in the single-parent adults.

The conclusions of this study are that the clinical impression of high usage by single parents has been shown with the adults consulting nearly twice as frequently as controls. However, there seems to be no stress produced on the children in terms of their psychological behaviour or increase in attendance for them.

Reference

Bolden, K. J. (1979). The morbidity of single parent families. SIMG Janssen Prize 1978. *International General Practice,* 3, 113-119.