The length of consultations in general practice

R. WESTCOTT, MA, MRCGP, DCH, DRCOG

Vocational Trainee, Department of General Practice, Postgraduate Medical Institute, University of Exeter

SUMMARY. Four characteristics of patients which might affect the length of time spent in consultations in general practice were studied: the sex, diagnosis, age, and social class of the patient. The sex of the patient was not shown to be significantly associated with any difference. The diagnosis of 'psychoneurotic' conditions was significantly associated with long consultations (p < 0·001) and this is discussed.

The number of consultations lasting less than the median time for the whole series was significantly more common in the 15 to 29 age group.

There have been few reports published on this topic, which seems important, and I hope further work will examine this aspect of the work patterns of established and trainee general practitioners.

Introduction

THE time spent in consultations by a general practitioner depends on many factors. Remarkably few studies have been made of this variation. Little has been done to examine the factors which may be associated with alterations in the length of consultation time, despite the variations in an individual doctor's consultations obvious to any practising general practitioner, as well as the variations between different doctors (Richardson et al., 1973).

Such a study is especially necessary to plan the 'ideal' booking time in appointment systems. Various writers have suggested (or assumed) certain times, ten minutes representing perhaps the most generally accepted 'ideal' length (Buchan and Richardson, 1973). It is interesting that when general practitioners' work is being considered, this aspect is often either ignored (McGregor, 1973) or assumptions are made which are unsupported by evidence (Noble, 1973).

Published figures for average consultation times vary between four and six minutes (Morrell et al., 1970; MacDonald and McLean, 1971; Floyd and Livesey, 1975), with figures of the Royal College of General Practitioners at 6·6 minutes (RCGP, 1973).

Aims

This study was undertaken to elicit the factors which alter the time spent, using one general-practitioner trainee's work. I hoped to clarify an underobserved aspect of trainees' work patterns and how they might differ from those of established general practitioners.

Method

This study was undertaken in an urban, three-partner practice in which the appointments with all the partners are booked at eight patients an hour (7·5 minutes per patient). Only routine surgery work was included. Home visits and antenatal appointments were excluded. All the consultations were with me. The following details for two consecutive weeks were recorded in November 1976:

1. Patient's name.
2. Time taken for the consultation.
3. Patient's sex.
4. Diagnosis made.
5. Patient's age.
6. Patient's social class.

Table 1. Length of consultation related to patient's sex.

	Number of episodes	Range (minutes)	Mean (minutes)	Median (minutes)
Males	99	3-23	7.97	7
Females	83	2-32	8.66	6.5
Total	182	2-32	8.66	6

Table 2. Length of consultation related to diagnosis made.

Disease category	Number of episodes	Range (minutes)	Mean (minutes)	Median (minutes)	Number of episodes lasting longer than the median time for the whole series
1. Infective	13	2- 8	4.77	5	2
2. Neoplastic	0	0	0	0	0
3. Endocrine	1	5	5	5	0
4. Blood	0	0	0	0	0
5. Psychoneurotic	44	5-32	14.14	13	40
6. CNS	11	3-14	6.45	6	4
7. CVS	5	5-21	12.60	14	4
8. Respiratory	51	3-20	6.53	6	23
9. Gastrointestinal	10	4-15	9.20	8.5	9
10. Genitourinary	7	6-18	9.14	8	6
11. Pregnancy	0	0	0	0	0
12. Skin	15	3-17	7.13	6	7
13. Musculoskeltal	7	4-15	7.14	5	3
14. Congenital anomalies	0	0	0	0	0
15. Perinatal	0	0	0	0	0
16. Symptoms	0	0	0	0	0
17. Accidents	13	3-10	6.31	6	6
18. Prophylactic	5	2-11	5	4	1
Total	182				

The names were recorded so that second consultations could be excluded. Timing was by stop watch, by me, from the entrance of the patient through the door to its closing on the way out. Times were approximated to the nearest minute. The diagnosis was recorded and later classified using the main disease categories of the College of General Practitioners (1963). Where there was more than one diagnosis, this was recorded and the time spent in the consultation was apportioned between the two different diagnoses. Thus an attendance may be represented as more than one patient episode. Similarly, when two people attended, such as a mother and child, in one appointment, if there was more than one diagnosis, the consultation was divided and considered as two or more.

All consultations were recorded but follow-up consultations were not included in the results. 'Follow-up' was defined as any patient-episode previously seen by me. Therefore patients were included if they returned for a second consultation only if a new symptom, disease or reason for attending occurred.

The social class was recorded according to the Registrar General's recommendations (Office of Population Censuses and Surveys, 1970).

At the time of the consultation the patient's (or husband's or father's) occupation was asked and this was later categorized. When the patient was a member of the Armed Forces or impossible to classify, the category '6' was used. Unemployed patients were classified according to their most recent occupation.

Table 3. Length of consultation related to main age groups.

Age range	Number of episodes	Range (minutes)	Mean (minutes)	Median (minutes)
0- 4	21	3-15	7.9	7
5-14	35	2-32	8.5	7
15-29	56	3-23	8.0	6
30-44	40	3-22	9.4	8
45-64	26	3-28	10.3	9
65 and over	4	4- 8	6.3	6.5

Results

After excluding the repeat consultations described above, 182 consecutive episodes were obtained (Tables 1 to 4).

A characteristic graph is obtained when all the consultations are plotted. The distribution of times is skewed with approximately half (48 per cent) lying within plus or minus two minutes from the median. As with Buchan and Richardson's study (1973), there is a long thin tail of values extending the mean to 8·6 minutes. In the absence of a normal distribution, non-parametric tests of statistical significance were used to

Table 4. Length of consultation related to social class.

Social class	Number of episodes	Range (minutes)	Mean (minutes)	Median (minutes)
1	16	3-16	7.6	7
2	18	4-32	11	8.5
3 N	27	3-28	7.8	7
3 M	41	2-20	8.3	7
4	40	3-22	9.8	8
5	36	3-23	8.0	6
(6)	4	2-11	6.3	6

assess the results (Fourfold X^2 test) and this suggests that there is no statistically significant association between the number of episodes lasting over the median time in relation to the patient's sex.

The second factor considered was the diagnosis made. Here, category 5, which includes the psychological disorders, was significantly associated with a consultation time longer than the median ($p<0.001$). Some of the numbers in the other categories were too small to allow chi-square analysis and no other statistically significant differences were found.

The third factor was the patient's age. The age group 45 to 64 had longer consultations than the under-45s ($0.05 > p > 0.02$). This pattern can be seen more clearly when the age groups are aggregated (Table 5). The number of consultations lasting less than the median time was significantly greater in the 15 to 29 age group ($p < 0.05$).

Fourthly, social class was studied (Table 6). The results show no significant variations at the five per cent level.

Discussion

No evidence was found that the patient's sex significantly altered the length of the consultation and this finding is consistent with that of Buchan and Richardson. The significantly longer time spent with those patients diagnosed as 'psychoneurotic' is striking, the more so since this finding contrasts with that of Buchan and Richardson.

As the proportion of patient episodes (24 per cent)

Table 5. Length of consultation related to aggregated broad age groups.

Age range	Number of episodes	Range (minutes)	Mean (minutes)	Median (minutes)
0-14	56	2-32	8.27	7
15-44	96	3-23	8.55	6
45 and over	30	3-28	9.73	8

Table 6. Length of consultation related to aggregated social class.

Social class	Number of episodes	Range (minutes)	Mean (minutes)	Median (minutes)
1 and 2	34	3-32	9.41	8
3 (N & M)	68	2-28	8.11	7
4 and 5	76	3-23	8.95	7

given this diagnosis is in keeping with published findings (Royal College of General Practitioners, 1973) it may be assumed that this category is being neither under-diagnosed nor over-diagnosed. In contrast, Buchan and Richardson found that this category accounted for only six per cent of their consultations. However, eight per cent of all their consultations were unclassified, and these generated the longest average consultation time. Therefore, the possibility arises that the longer consultation time may be caused in part by the problem of establishing the diagnosis of psychoneurosis. This hypothesis cannot be tested in this study.

Two possible explanations for this longer consultation time are that patients with emotional problems have particular difficulty in communicating. Secondly, doctors (trainees or established general practitioners) may have particular difficulty in making such diagnoses and therefore take longer over them. A third hypothesis is that less experienced doctors might have more difficulty in planning management for such patients. Each of these explanations deserves investigation.

It is interesting to note that the diagnosis category 'prophylactic' is associated with the shortest consultation times. This finding agrees with Buchan and Richardson. Perhaps the minimal diagnostic problems associated with this category account for this phenomenon; if so it would support the first two explanations proposed above.

It is hard to explain why there is an apparent increase in consultation time with age, but it is a general finding (Buchan and Richardson, 1973). The slower communication between ageing patients and their doctors has been proposed as an explanation (Buchan and Richardson, 1973) but this is not convincing, nor does it account for the significantly shorter times associated with the 15 to 29 age group. What is striking is the similarity between consultation length and consultation rates per person per year. When these are plotted by age distribution (Fry, 1977) a similar pattern results with a drop from the childhood peak to a trough from 10 to 30, and then a gradual climb to the highest peak at the oldest age. Why do young people consult less often and produce consultations which are significantly shorter? Is the explanation for one the same as for the other? Could the answer lie in the ease or difficulty of communication?

Although not statistically significant, the results

suggest a tendency towards a pattern of decreasing consultation time with lower social classes; this has been noted before (Buchan and Richardson, 1973). Ease of communication can be proposed as an explanation but this contrasts with suggestions that difficulty in communication causes longer consultations. Perhaps patients of a higher social class ask more questions and expect more diagnostic skills to be deployed; on the other hand, the probability of less easy communication suggests that the lower social classes require longer consultations and more follow-up consultations. The implication of inappropriate allocation of doctor-time aroused by these thoughts needs pursuing for clarification. It is at strategic points like this that work on quantity must turn to work on quality. Certainly, as Buchan and Richardson stressed: "as a factor affecting the duration of consultation time, social class merits more attention in future research".

References

Buchan, I. C. & Richardson, I. M. (1973). *Time Study in Consultations in General Practice.* Scottish Health Service Studies No. 27. Edinburgh: Scottish Home and Health Department.

College of General Practitioners (1963). *Journal of the College of General Practitioners,* 6, 207-216.

Floyd, C. B. & Livesey, A. (1975). *Journal of the Royal College of General Practitioners,* 25, 425-431.

Fry, J. (1977). *Journal of the Royal College of General Practitioners,* 27, 9-17.

MacDonald, A. & McLean, I. G. (1971). *The Practitioner,* 207, 680-688.

McGregor, R. M. (1973). *Journal of the Royal College of General Practitioners,* 23, 787-791.

Morrell, D. C., Gage, H. G. & Robinson, N. A. (1970). *Journal of the Royal College of General Practitioners,* 19, 331-342.

Noble, E. J. (1973). *Update,* 7, 989-991.

Office of Population Censuses and Surveys (1970). *Classification of Occupations 1970.* London: HMSO.

Richardson, I. M., Howie, J. G. R., Durno, D., Gill, G. & Dingwall Fordyce, I. (1973). *Journal of the Royal College of General Practitioners,* 23, 132-142.

Royal College of General Practitioners (1973). *Present State and Future Needs of General Practice. Reports from General Practice No. 16.* London: *Journal of the Royal College of General Practitioners.*

Acknowledgements

Pharmaceutical services

Pharmaceutical services in England in 1975/76 cost £368,442,270. The equivalent figure for Scotland was £44,511,035, and for Wales £28,599,600.

Prescription charges surrendered by dispensing doctors yielded £910,224 in England, and £70,002 in Wales.

Expenditure on the Prescription Pricing Authority in England amounted to £4,386,805.

Reference

Appropriation Accounts (1975/76). 3, London: HMSO.

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. Members are reminded that children under the age of 12 years cannot be admitted and dogs are not allowed.

From 1 January 1977, charges are:

	Members	Others
Single room	£5	£9
Double room	£9	£14
Flat 1	£11	£14
	(£70 per week)	(£90 per week)
Flat 3	£12	£15
	(£75 per week)	(£95 per week)

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

	Members	Others
Long room	£30	£40
Damask room	£20	£30
Common room and terrace	£20	£30
Kitchen		£10
Dining room	£10	£10

Enquiries should be addressed to:

The Accommodation Secretary
The Royal College of General Practitioners
14 Princes Gate, Hyde Park
London SW7 1PU.

Tel: 01-584 6262

Whenever possible bookings should be made well in advance.