

Consultation length in general practice: a review

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SUMMARY. *Although there is evidence that consultation length has increased in the UK over the last 20 years, it is still short by international standards, and is blamed in part by both general practitioners and the public for failure to deliver high quality care. Consultation length is determined by both doctor and patient variables and these need to be looked at when interpreting observational studies linking longer consultations to beneficial outcomes. Studies of the same doctors consulting at different rates suggest that while many aspects of a doctor's behaviour do not change, longer consultations may be associated with greater patient satisfaction and increased health education/prevention measures.*

Introduction

DISSATISFACTION with the length of the average consultation has been a regular feature of many reviews on the state of general practice. Descriptions have included such phrases as 'appalling brevity'¹ and 'state of clinical poverty'.² Wilkes compared the system to a French military brothel, 'sacrificing quality to speed of throughput'.³ In 1966 a survey of general practitioners found that their three most strongly held grievances, in order of importance, were poor remuneration, the lack of time for each patient and the number of trivial complaints.⁴

Although surveys of the general population tend to show high levels of satisfaction with general practice, lack of time in the consultation is the most frequently voiced criticism. In 1964, a survey of patients found that 6% agreed with the suggestion that their doctor was 'not so good' at taking his time;⁵ in 1977, this rate had risen to 17.4%.⁶ The House of Commons Social Services Committee in 1987 reported that 'shortage of time in consultation is the major criticism of general practitioners expressed by patient organizations, with particular reference to the failure of doctors to listen. It is clear that shortage of consultation time is the greatest obstacle to improvement and extension of primary health care services by general practitioners'.⁷

This review examines historical and international comparisons of consultation length, and the methodological problems of such studies. The determinants of consultation length are discussed, and most importantly, the question of whether longer consultations are of any proven value.

Historical trends

The brevity of the typical general practice consultation has been a source of documented concern throughout this century. In a letter to *The Times* in 1912, Sir Thomas Allbutt described general practice as 'perfunctory work by perfunctory men'.⁸

Early audits of individual doctors' workloads included work by Fry⁹ and Watts,¹⁰ who in 1952 reported mean consultation lengths of 5.0 and 7.2 minutes, respectively. Longer mean consultation lengths were reported by Mair and Mair, who estimated these to be 8.8 minutes and 8.3 minutes in 1957 and

1958 respectively.¹¹ Later reports recorded no discernible trends towards longer consultations, with lengths of 5.7 minutes reported for 1962¹² and 5.8 and 5.2 minutes in 1970 for new and known patients respectively.¹³ In the 1960s and 1970s, interest in consultation length itself increased and published studies include data from several practices. Work by Buchan and Richardson, whose study included 22 doctors and 2113 consultations, reported a mean face to face contact of 5.0 minutes and concluded that a 10 minute appointment system was a priority for British general practice.¹⁴

These studies relied on volunteer general practitioners and were therefore drawn from an unrepresentative sample. In the 1980s, researchers attempted to remedy this and a survey of practices in the Manchester area reported a median consultation length of 7.5 minutes.¹⁵ Brent and Harrow family practitioner committee commissioned a workload study in their own area which revealed mean consultation lengths of 11.0 and 9.8 minutes for 1986 and 1987 respectively.¹⁶ The most representative report to include consultation length has been the Department of Health and Social Security study which sampled 1224 general practitioners, each of whom monitored their activities over a one week period. Unfortunately of those who were approached, only 58.3% took part. The mean consultation length was found to be 8.25 minutes.¹⁷ The larger scale studies of the last 10 years have reported longer consultation lengths than most of the small scale surveys conducted between 1950 and 1980. It is possible that the self selected general practitioners taking part in the earlier studies had shorter consultations than their peers, but a more likely explanation is that these findings reflect a more general trend towards longer consultations.

International comparisons

The UK compares unfavourably with other countries, with mean lengths of 10 minutes being reported in the United States of America,¹⁸ 12 minutes in New Zealand,¹⁹ 15 minutes in Canada²⁰ and 21 minutes in Sweden.²¹ However, as the structure and role of primary care varies even between developed countries, such comparisons may be misleading. For example, in Sweden a proportion of patients who, in the UK would be seen by a general practitioner, are seen by a primary care nurse. Marsh, Wallace and Whewell attempted to control for the different case mix in primary care between the USA and the UK by looking only at consultation lengths for patients presenting with symptoms. They found that in the USA 34.0% of these consultations lasted less than five minutes, and 15.2% lasted more than 10 minutes. For the UK doctors, these figures are 49.5% and 7.9% respectively.²²

Methodological considerations

If any inferences about general practice are to be drawn from the studies described, it is important to consider whether these are representative. The earliest studies were simply case reports from individual doctors and therefore made no claims to be so. Given their independent contractor status, it is impossible to force general practitioners to take part in a workload study. Some surveys, however, have aimed to identify a population of general practitioners and requested their cooperation. The Manchester study¹⁵ included 39% of general practitioners in that area, and the DHSS study mentioned earlier achieved a 58.3% response rate.¹⁷ The response rate is clearly influenced by the nature of the task required, since a study of Nottingham general practitioners which asked them to report on their appointment length

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and estimated consultation length,²³ achieved an 88% response rate. Such questionnaire surveys may achieve a high response rate, and therefore reduce the risk of bias, but at the cost of less accurate, and therefore less valid observations. In any general practice study, it is likely that volunteers are more highly motivated, and/or have less pressure of work than those declining to take part.

There are several methods of estimating consultation length. The simplest is to enquire about booking intervals, although mean consultation length is likely to be longer than the intervals and surgeries have a tendency to run late.²⁴ General practitioners can be asked to estimate their mean consultation length, although their perception may not be accurate. Of the more valid methods, the simplest is to time the surgery session and divide this by the number of patients seen, a technique used in the majority of studies reviewed. This approach is certain to overestimate actual face to face contact, if only because of the transfer time from patient to patient. Buchan and Richardson found this difference to average one minute per patient.¹⁴ Doctors are likely to vary in the amount of work, such as writing referral letters, which they perform between patients and so this average may conceal a wide variation.

Clearly the most accurate method is to time face to face contact: three such methods have been used. First, the doctor can directly time him or herself, using a stopwatch²⁵ or a time sampling method,¹⁹ for example an electronic bleep.²⁶ Secondly, an observer such as another doctor,^{14,27} a medical student,^{28,29} or a social scientist³⁰ may be present while the doctor consults. Thirdly, direct timing may be performed using an audiotape³¹ or videotape.^{32,33} Self timing may lead to a preoccupation with time and so change the behaviour, thus invalidating the doctor's data, and an observer is potentially intrusive on the consultation. Videotaping has been shown not to alter doctor's consultation behaviour significantly,³⁴ and so it is this or audiotape which are likely to produce the most accurate and valid measurements of consultation length. However, disadvantages include the time and skill needed to interpret such recordings. The most appropriate method of estimating consultation length will depend on the scale and purpose of the study; it is likely that larger scale studies looking at populations of general practitioners will continue to estimate mean consultation lengths indirectly, whereas those investigating detailed components of the consultation will need to use one of the more accurate methods.

Determinants of consultation length

In theory, differences between doctors could be explained by the different patient mix presented, but studies have concluded that even when patient mix is accounted for, there is still a large residual variation between doctors.

Variation between doctors

Possible explanatory variables include age, sex, training and attitudes of the doctor, and the practice list size. Several studies have shown that older doctors have longer consultations, both in the surgery and at home visits.^{14,34} There is good evidence that women doctors have longer consultations than men, and Royal College of General Practitioners members longer than non-members.^{35,36}

Doctors with a more positive orientation to general practice and mental health have been found to have longer consultations,³⁰ a finding consistent with Mechanic⁴ who found that those with a high level of job satisfaction were prepared to 'let the patient talk for half an hour or more'. Further evidence for an association between interest in mental health and longer mean consultation has been reported by Whitehouse who found that

general practitioners with longer consultations identified more psychosocial problems in their patients.³⁷ As Whitehouse discusses, it could be that longer consultations are needed to draw out such problems; alternatively, that doctors more inclined to become involved in these aspects of medicine find they need longer to deal with them.

The association between list size and mean consultation length has been investigated in several studies and reviewed by Butler.³⁸ He concluded that list size is not usually an important determinant of the length of consultation, although an extremely large or extremely small list might have an effect. He did find an inverse association between list size and consultation rate, explaining the finding that general practitioners with large lists did not work correspondingly longer hours than those with smaller lists. The Manchester survey was consistent with these conclusions in finding a negative association between list size and consultation rate, but little association between list size and consultation length except at the extreme of the list size distribution.¹⁵ In a later study, Butler and Calnan examined this relationship in more detail. In this national survey, they found a linear relationship between reported interval and list size, although the difference in the middle range was again small (1500–1999 patients, mean 7.3 minutes; 2000–2499 patients, mean 7.1 minutes; 2500–2999 patients, mean 6.6 minutes).³⁹ A similarly weak association between list size and consultation length has been found among Scottish general practitioners.⁴⁰

Variation between patients

One of the most exhaustive studies on this issue was by Morrell who described a year's activity in his three doctor practice.¹³ He found that consultations about new patient problems were longer than those for known problems (mean of 5.8 minutes compared with 5.2 minutes). The type of problems taking the longest time were psychosomatic and behavioural, where the mean duration of a consultation involving a new presentation was 10.5 minutes, although this included only 13 patients. These findings have, however, been replicated by Westcott,²⁵ and Raynes and Cairns.³⁰ In Sweden the same relationship between lengths of consultation for physical and psychological problems has been noted, although both are longer than in the UK (mean length of consultations with psychological and physical problems 28 and 14 minutes respectively).²¹ Buchan and Richardson found a slightly different distribution, with the longest consultations being for ill defined problems, psychosomatic consultations in the mid range, and the shortest consultations being for skin problems, respiratory complaints and infections.¹⁴

Buchan and Richardson found the largest determinant of consultation length was social class (mean length for social class 1, 6.1 minutes; for social class 5, 4.4 minutes).¹⁴ This difference could not be explained by differences in morbidity and age. Older patients had longer consultations, especially after controlling for new or existing problems, a finding confirmed by Raynes and Cairns.³⁰

Consultation length and outcomes

Observational studies have compared outcomes in practices with varying consultation lengths. In their study of 22 doctors, Buchan and Richardson examined the time spent on each detailed component of the consultation, for example history, examination, advice, social chat. Comparing nine quick doctors (mean consultation length 4.1 minutes) with 11 slower doctors (mean consultation length 5.3 minutes), they found that no component was lacking for the quicker doctors, everything being done fractionally faster.¹⁴

Hughes compared two practices, each with three partners, based in the same South Wales health centre.⁴¹ The doctors were

of similar age and background, all but one being natives of Wales. The practice populations were comparable in age and social class structures. One practice ran a 10 minute appointment system, and the other booked patients at five minute intervals. Mean consultation lengths were found to be 8.1 and 5.3 minutes respectively. The practice with longer appointments was found to prescribe less, with 51.5% of consultations resulting in a prescription compared with 62.6% in the other practice. No difference was found in referral rates, but doctors in the practice with longer appointments asked fewer patients to return within four weeks (28.5% versus 34.3%). Furthermore, in the practice with longer consultations there were fewer patient initiated revisits over the subsequent four weeks (7.2% versus 12.9%). The data are difficult to interpret as the practice with shorter booking times had more appointments available, and so one explanation for the higher follow-up rate could be availability of appointments.

Further evidence that longer consultations are associated with lower prescribing rates comes from a study conducted in Glasgow.⁴² This looked at the prescribing behaviour of general practitioners who were clinical tutors; 889 teaching consultations were analysed. Doctors were divided into two groups, those with a mean consultation time of 18 minutes, and those whose mean consultation length was 27 minutes. The prescribing rate was 76.3% in the first group and 60.2% in the second and the slower doctors were found to prescribe significantly fewer antibiotic and psychotropic drugs.

An association between mean consultation length and patient satisfaction was found by Hull and Hull.⁴³ Twenty five general practitioners volunteered to calculate their mean consultation length and to invite 50 consecutive patients to complete a questionnaire after their consultation; 1112 consultations were included. Ninety one per cent of patients thought their consultation time was 'just about right', a proportion that did not differ significantly between faster and slower doctors. Patients were asked to respond to the question 'Did you feel you were able to tell your doctor about your problem?' on a five point scale, from 'not at all' to 'very well indeed'. Doctors with a mean consultation length of eight minutes or more were found to have more patients who responded favourably to this question than doctors with a shorter mean consultation length.

These studies illustrate the difficulty of designing and interpreting observational studies and an alternative approach is a controlled study in which the same doctors are observed when consulting at different rates.

Two detailed intervention studies using very similar methods have been published.^{31,44,45} Both were based in single practices and compared outcomes between three appointment lengths; Morrell and Roland allocated patients to appointments of five, 7.5 and 10 minutes each, and Ridsdale to five, 10 and 15 minutes each. Morrell's study included five doctors and 780 consultations, and Ridsdale's two doctors and 961 consultations. Both studies included the same method of audiotape analysis, and the same items in a patient satisfaction questionnaire. In both studies the data were analysed using chi squared for trend, and so statistically significant results could be due to the effect of the shorter, rather than longer appointments. In Ridsdale's 15 minute appointments, mean consultation length was 9.2 minutes, and in Morrell's 10 minute appointments mean consultation length was 7.4 minutes. Of the hypotheses tested, both studies found no changes in prescription, referral or reconsultation rates. Both found differences in verbal content on audiotape analysis, with a significant increase in statements made by both doctor and patient in the longer consultations. In Morrell's study this increase included statements about health education and prevention. Also related to preventive activity, Morrell reported an increase in both

blood pressure measurement and vaginal examination in the longer consultations, whereas Ridsdale found only the latter increased. Levels of patient satisfaction did not alter significantly in Morrell's study, but Ridsdale found that satisfaction with length of consultation did differ according to length of appointment. Other smaller studies where the same doctors have consulted at different rates have also found no change in referral or prescribing rates, but increases in preventive activity.^{46,47}

These studies suggest that many of the associations between consultation length, process and outcome are due to the confounding effects of the doctor's activities. These include prescribing, investigation, referral and follow up. Findings on patients' satisfaction are more difficult to interpret but suggest that patients may be able to detect differences in consultation duration. The use to which a doctor puts the time available through longer consultations is likely to be idiosyncratic; the findings of several studies that health education and prevention activity increases could simply reflect the current preoccupation of general practice.

Conclusions

Despite the problems of comparing studies using different methods of assessing consultation length, it appears that mean consultation length in the UK has increased over the last 30 years, but remains short when compared with other western countries. This increase in length is not unexpected given the trends towards lower list sizes, reduced home visiting and the increased emphasis placed on the consultation.^{48,49} Perhaps because of such increased expectations, the brevity of consultations is still a major criticism of general practice.

Determinants of consultation length have been studied in detail, and it appears that it is differences between doctors, rather than patients, that account for much of the variance. This conclusion is supported by the intervention studies which found that many of the associated phenomena of longer consultations disappear when the doctor is controlled for. The intervention studies reviewed were of small scale and for a limited period, however, and future studies are needed to explore whether other aspects of doctor and patient behaviour might alter in the long term following a change in consultation length. Of importance to the question of optimal list size is whether longer consultations may eventually lead to a reduction in consultation rates.

Few of the studies reviewed have addressed the question of whether general practitioners should be encouraged to extend their consultation length. Clearly the public and the profession consider such a change desirable, but the empirical evidence suggests that although it may have an effect on patient satisfaction and preventive activity in the consultation, it will not deliver all the benefits expected.

A change to longer consultations is not without costs. In order to achieve longer consultations, general practitioners would have to reduce their list size, decrease their patients' consultation rate with the doctor, perhaps by increased delegation, or work longer hours.⁵⁰ It is reasonable to expect that the organization of general practice should enable doctors to consult at a pace that suits them within an appointment system that allows them to keep to time. In most cases this would involve a small extension of mean consultation length and a somewhat greater increase in appointment length. A 10 minute appointment system is likely to suit most practices. Others, however, may choose to develop additional methods of delivery of care, such as health promotion and chronic disease clinics, viewing the consultation more as process of initial assessment, leading if necessary to referral to other facilities within the practice. Any assessment of quality of care should consider time availability in its broadest sense within the practice.

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