

Primary care

Consultation length in general practice: cross sectional study

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Abstract

Objectives To compare determinants of consultation length discussed in the literature with those found in consultations with general practitioners from different European countries; to explore the determinants of consultation length, particularly the effect of doctors' and patients' perceptions of psychosocial aspects.

Design Analysis of videotaped consultations of general practitioners from the Eurocommunication study and of questionnaires completed by doctors and by patients.

Setting General practices in six European countries.

Participants 190 general practitioners and 3674 patients.

Results In a multilevel analysis with three levels (country, general practitioner, and patient), country and doctor variables contributed a similar amount to the total variance in consultation length (23% and 22%, respectively) and patient variables accounted for 55% of the variance. The variables used in the multilevel analysis explained 25% of the total variation. The country in which the doctor practised, combined with the doctors' variables, was as important for the variance in consultation length as the variation between patients. Consultations in which psychosocial problems were considered important by the doctor and the patient lasted longer than consultations about biomedical problems only. The doctor's perception had more influence in this situation than the patient's. Consultation length is influenced by the patients' sex (women got longer consultations), whether the practice was urban or rural, the number of new problems discussed in the consultation (the more problems the longer the consultation), and the patient's age (the older the patient the longer the consultation). As a doctor's workload increased, the length of consultations decreased. The general practitioner's sex or age and patient's level of education were not related to the length of consultation.

Conclusion Consultation length is determined by variables related to the doctor and the doctor's country as well as by those related to patients. Women consulting in an urban practice with problems perceived as psychosocial have longer consultations than other patients.

Introduction

Most surveys show that patients are satisfied with the care they receive through general practice, but patients often say that their consultations are too short and that doctors do not use this time well.¹ Our cross sectional study was based on the larger Eurocommunication study.² We aimed to compare determinants of consultation length given in the literature with those identified in general practice.

Methods

We chose general practitioners from six European countries with different healthcare systems who took part in the Eurocommunication study.^{2,3} Based on our sample size estimation (see bmj.com), we selected 190 general practitioners. We videotaped 20 consultations with patients for each doctor and analysed 15 of these for each doctor.

Measurement instruments We identified determinants of consultation length with questionnaires completed by doctors and by patients.³ In the analysis, we differentiated between the presence of psychological problems and their importance. "Presence of psychosocial problems" for the doctor meant that the diagnosis could be coded into one of the psychosocial categories of the International Classification of Primary Care.⁴ For the patient, it meant that the patient's reason for the encounter could be coded into one of the psychosocial categories. We coded the doctor's diagnosis and the patient's reason for the consultation. General practitioners assessed "the importance of psychosocial problems" on a five point Likert scale (5 = very important (could be awarded even if a psychosocial problem was not the reason for the consultation); 1 = less important). The "importance of medical and psychosocial aspects of the consultation" for the patient was measured by a questionnaire derived from the patient request form that used 10 of the 42 items on the form.^{2,5} The length of consultations was measured with a stopwatch. Interruptions were subtracted from the total consultation time.

Statistical analysis We used a multilevel analysis that accounted for the clustering of patients within general practices and the clustering of doctors within countries (see bmj.com).⁶

Table 1 Length of consultation with general practitioner

Country	Mean (SD) time (minutes)
Germany	7.6 (4.3)
Spain	7.8 (4.0)
United Kingdom	9.4 (4.7)
Netherlands	10.2 (4.9)
Belgium	15.0 (7.2)
Switzerland	15.6 (8.7)
Overall	10.7 (6.7)

Results

We included 190 general practitioners. Overall, 3674/4650 patients agreed to participate; 2171 (59 %) of these were women.

Consultation length in different countries

The mean length of consultation for all consultations was 10.7 (SD 6.7) minutes (table 1). The six countries could be divided into three pairs that differed significantly from each other with respect to total consultation time. Belgium and Switzerland had the longest consultation times, Germany and Spain had the shortest consultation times, and consultation times for the Netherlands and the United Kingdom were in between.

Determinants of consultation length

The total variance in consultation length was 44.2. Multilevel analysis showed that this variance split into 24.4 (55%) at the patient level, 9.8 (22%) at the doctor level, and 10.0 (23%) at the country level. The variables used in the multilevel analysis at the different levels accounted for 25% of the explained variation ($R^2 = 0.252$).

Consultations in city practices lasted 1.5 minutes longer than those in rural practices, those with women patients lasted about 1 minute longer than those with men, and those about at least one new problem lasted 51 seconds longer than those about known problems. Consultations were longer when the doctor or patient felt that psychosocial problems were important (by 50 seconds for the doctor's perception and 30 seconds for the patient's perception) than when they did not. The presence of psychosocial problems in a consultation was related to the consultation's duration only when a psychosocial problem was diagnosed by the general practitioner, but not when it was mentioned by the patient as a reason for the consultation.

As the patient's age increased by one year, the consultation time increased by one second. The consultation time decreased as the doctor's workload increased—the consultation time reduced by 0.6 seconds for every additional unit of workload in a week. Length of consultation was not significantly correlated with the educational level of the patient, the patient's sex or age, or the experience or prescribing behaviour of the doctor (table 2).

Discussion

Consultation length is determined by variables related to the doctor and the doctor's country as well as by those related to the patient. The country in which general practitioners work and the individual variation

between general practitioners seem to be important determinants of the length of consultations.

Study limitations

Although the patients in our study probably were representative of the population of the participating countries, the groups of general practitioners were not. Our general practitioners had lower workloads than the average doctor in the same country in the task profile study, there were more city practices in our study, and more women doctors took part. Some of our results have to be generalised with care.

All of the doctors in our study agreed to have their consultations videotaped. This may mean that they were more interested in communication and had more experience with research and training than the average doctor. This positive attitude towards communication could have biased our findings.

Intercountry variation

The variation in consultation length between countries was the most striking finding of our study. In Germany and Spain, general practitioners have, on average, more than 200 encounters with patients a week.⁷ This high "demand" on doctors' time could lead to a "culture" of shorter consultation times.

In Belgium and Switzerland, general practitioners operate in an "open market," in which patients have direct access to more than one general practitioner and to specialists. This means that the doctor has to "invest time" in order to satisfy patients and encourage them to return with their next problem ("patient binding"). Moreover, general practitioners in Belgium and Switzerland are paid mostly by direct payment from the patient at the end of the consultation.

The United Kingdom and the Netherlands, which had intermediate consultation times, have well organised primary healthcare systems, with restricted patient lists and gatekeeping. General practitioners in these countries are predominantly paid by capitation (the government supplies a fee per patient).

Psychosocial problems

The presence of psychosocial problems in the consultation was an important factor influencing the length of consultation, and doctors' and patients' perceptions about psychosocial problems affected the length of the consultation. The difference between the effects of doctors' and patients' perceptions was remarkable. When

Table 2 Multilevel analysis with length of consultation as dependent variable

Variable	Regression coefficient (95% CI)
At general practitioner level:	
Practice located in the city	1.50 (0.32 to 2.68)
Weekly workload of general practitioner†	-0.01 (-0.003 to -0.02)
At patient level:	
Importance of psychosocial problems perceived by general practitioner (Likert scale)‡	0.83 (0.58 to 1.08)
Woman patient	0.99 (0.40 to 1.58)
At least one new problem	0.86 (0.27 to 1.46)
Patient's age (years)	0.02 (0.01 to 0.04)
Presence of psychosocial problems: diagnosis by general practitioner according to International Classification of Primary Care	0.95 (0.08 to 1.81)
Importance of psychosocial aspects by patient (summed score of patient's questionnaire)	0.52 (0.10 to 0.95)

†Average number of patient encounters plus twice number of home visits plus half the number of telephone calls.

‡Likert scale ranges from 5 (very important) to 1 (less important).

doctors perceived a psychosocial problem, the duration of the consultation increased; this was as true when the doctor thought that a psychosocial element was important, even if it was not mentioned in during the consultation, as when he or she made a psychosocial diagnosis. From the patient's perspective, the consultation time was longer when the patient expected some help on psychosocial aspects from the doctor than when they did not. The length of consultation was not significantly longer for consultations in which psychosocial aspects were given as a reason for the encounter by the patient.

Whitehouse asked "do doctors need more time to explore psychosocial problems or do they need extra time to deal with these problems when they are involved?"⁸ Our results show that when a doctor explores an issue other than the main reason for the encounter, the consultation time increases. If a doctor explores or manages a problem openly introduced by the patient, the length of the consultation is not affected.

Other determinants

New and old problems—Consultations lasted longer for new problems. For new problems the doctor needs to explore the problem, but for follow up consultations the doctor can rely on information from earlier encounters.

Practice characteristics—Location was the most important determinant of the length of consultations. Consultations lasted longer in city based practices than in rural practices. In urban practices, patients presented more problems within one consultation. This could be a plausible explanation for the long consultation times in city based practices.

Doctors' characteristics—Of doctors' characteristics reported as important in the literature, our study confirmed only the positive orientation to psychosocial problems; the age and sex of the doctor had no impact on the duration of the consultation. This contradicted a previous study, which showed that women doctors had longer consultations than men doctors.⁹

Doctors' workload—Workload had a negative influence on consultation time, but this relation was weak when calculated into seconds. The mean length of consultation decreased by about 6.5 seconds for every increase of 10 contact units a week in a doctor's workload. Busy doctors still spent time with their patients. In contrast with literature findings, whether a doctor prescribed medications had no relation on the consultation length in our study.¹⁰

Patient characteristics—Consultation times were longer for women patients than for men. Women are often described as more talkative than men, and they are more likely to discuss psychosocial problems.⁹ Age seemed to influence the length of consultation, but its influence was too small to take into account—doctors spent about 1.2 seconds more time with patients for every year increase in the patients' age. The highest level of education attained by the patient did not have an influence on the length of consultation. This contradicts results from several studies that reported an influence of social class on consultation length.¹

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What is already known on this topic

Patients are satisfied with care from general practice but often say that consultations are too short

Studies have investigated the determinants of consultation length, but different studies use different methods to determine the exact length of consultation

Determinants identified by studies in one country cannot be extrapolated to those in another

What this study adds

Consultation length varies from country to country

Characteristics of patients have as much effect on consultation length as the characteristics of countries and doctors combined

Consultations are longest for women patients seeing general practitioners in urban practices about problems that doctor and patient perceive as psychosocial

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Endpiece

The fast way out

The fast way out usually leads back in.

Peter M Senge (b 1947)

In 1999 Senge was named one of 24 men and women who have had the greatest impact on the way we conduct business today.