The reported availability of general practitioners and the influence of practice list size

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SUMMARY

Background. Combined practice list sizes have increased, but larger practice size may be associated with disadvantage to patients.

Aim. The aim of the study was to investigate the availability of general practitioners as reported by their patients and the relationship between reported availability and practice list size.

Method. A one-week questionnaire survey of 8315 patients attending participating practices in West Lothian, Scotland, was conducted. Patients were asked about the arrangements for being seen at that attendance, their perception of doctor availability following an urgent or non-urgent consultation request, and their social and demographic characteristics. The proportion of respondents reporting they could see a doctor the same day following an urgent consultation request or within 2 days following a non-urgent consultation request was determined for each practice.

Results. Eighteen out of 26 practices agreed to participate in the study, and an overall response rate of 61% was obtained in the patient survey. Participating practices were representative of all practices in the area with regard to list size; questionnaire respondents were representative of the age profile of participating practices and were representative of the local general population with regard to car and home ownership. There was a wide variation among practices in the proportion of questionnaire respondents who reported that a doctor was available within 2 days following a non-urgent consultation request [mean 60.7 (SE 7.1%)] but less variation for the reported availability on the same day after an urgent consultation request [mean 81.1 (SE 2.3%)]. A significant negative association was demonstrated for patients reporting non-urgent or urgent availability.

Conclusion. Wide variation exists between practices with regard to patients' perceptions of doctor availability, and smaller practices may have advantages in this regard. The feelings and perceptions of patients should be taken into account when planning or reviewing the delivery of primary health care.

Keywords: appointment systems; workload; list size; practice organization; patient perceptions.

Introduction

SINCE the General Practice Charter of 1965, general practitioners have been encouraged to practise in groups as these seem to offer economies of scale and the most efficient means of delivering care to the population. Practice sizes have continued to increase; between 1950 and 1990, the proportion of unrestricted principals working in practices with a list size of more than 7500 patients rose from 24 to 56%.

However, large list sizes are not without problems, most notably in relation to continuity of care² and access to medical services. Continuity may be addressed by such measures as improved record keeping, but issues of access may be more difficult to overcome. Consumer organizations³ and government⁴ continue to comment on the difficulty reported by patients in arranging to see their general practitioner, and there is evidence⁵,⁶ that patients from larger practices are less satisfied with the arrangements for seeing a doctor than those from smaller practices.

This study investigates the availability of general practitioners as reported by their patients and the relationship between reported availability and practice list size.

Method

All 26 general practices in West Lothian, Scotland, were invited to contribute to a study with the above aim. All agreed to give information about their list size and 18 agreed to provide information regarding their medical staffing arrangements and distribute questionnaires to each patient attending the doctor during a one-week period. Adults attending with children aged less than 16 years completed questionnaires on their behalf. Respondents were asked about whether they could see a doctor the same day following an urgent consultation request (asked separately). Responses were obtained using a five-point scale (same day, day after, 2–7 days later, more than 7 days later, don’t know). Information obtained from patients was aggregated to practice level, with ‘don’t know’ responses being excluded from the analysis. A target availability of patients being seen the same day for urgent problems and within 2 days for non-urgent problems was adopted. The percentage of the questionnaire respondents reporting that their practice achieved these targets was determined for each practice.

Respondents were also asked about the arrangements for their current attendance at the practice — whether an appointment had been made in advance (and if so, whether this was for the day they wanted), or whether they had been advised to ‘come and wait,’ or had simply presented, hoping to be seen. The one practice with no appointment system was excluded from this analysis; for the 17 other practices, the percentage of patients reporting they had received an appointment for the day they wished was determined, and this was related to the percentage of the questionnaire sample reporting that their practice achieved the availability targets.

Questionnaire respondents were asked about whether they owned or had access to a car and whether they were living in council rented accommodation. In order to help clarify whether the sample of respondents was representative of the local population, information obtained was compared with equivalent data from the 1991 census for the 20 postcode sectors of West Lothian. The proportions of those under 5 and over 65 years of age in the questionnaire survey were compared with the proportions in the combined practice lists for the 17 practices contributing to the questionnaire survey.

Data obtained were analysed using the SPSS.⁷ Simple associa-
tions between variables aggregated to the practice level were examined by Spearman rank correlation coefficients or Pearson correlation coefficients.

The two-tailed significance of Pearson partial correlation moment values was calculated when correcting for questionnaire response rates. Practice list sizes were compared using Student's t-test. Analysis of variance was used to compare the ages of respondents in each of the response categories when questioned regarding doctor availability.

Results
The 18 participating practices had a mean list size of 6469 patients (range 1596–11 478), compared with 6333 (range 1779–12 490) for non-participating practices (difference not significant, P=0.93); all but one of the 18 practices operated an appointment system. The average number of medical full-time equivalents (excluding locums and trainees) was 3.9±0.5 (SE) per practice, and the average list per medical full-time equivalent was 1787±107 (SE) patients. During the one-week study period, participating practices saw 8315 patients, of whom 5094 completed questionnaires were obtained (average practice response rate 61%, range 36–97%). There was no significant association between practices’ average number of visits and questionnaire response rate. Respondents were similar to the general population of West Lothian with regard to car and home ownership (68% versus 63% car ownership, 47% versus 46% local authority accommodation) and the combined age profile of participating practices (4.7% versus 5.8% aged <5 years; 6.9% versus 8.5% aged≥65 years). There was a significant difference between practices in the mean age of respondent (36.7±18.7 years (SD), range 34.0–42.6 years for 18 practices, F=3.8, P<0.0001). The age of the respondent, however, was not a predictor of their perception of doctor availability for urgent (η=0.04, P=0.29) or non-urgent (η=0.04, P=0.22) appointment requests.

Out of 5094 questionnaire respondents, 4999 (98%) were from practices operating an appointments system; of these, 4535 (94%) had been given a specific appointment time, 210 (4%) had been advised to ‘come and wait’ and 83 (2%) had arrived unannounced (171 missing responses). Appointments had been given for the day requested to 3558 (80%) patients (range for 17 practices 70–95%) and ‘not for the day requested’ to a further 872 (20%) patients (105 missing responses).

The percentage of questionnaire respondents reporting that their practice met the targets for doctor availability is presented in Figure 1. The results show considerable variation among the 18 practices in the reported availability for non-urgent problems [mean 60.7±7.1% (SE) of the sample reporting they could be seen within 2 days], but less variation for urgent problems [mean 81.1±2.3% (SE) of the sample reporting they could be seen the same day].

The association of practice list size with the reported availability of a doctor to deal with urgent requests the same day, or non-urgent appointment requests within 2 days is presented in Figures 2 and 3. There was a statistically significant negative association between list size and the percentage of respondents reporting that the practice achieved the predefined target for availability for urgent problems (Pearson correlation coefficient r=0.62, P=0.006) and non-urgent problems (Pearson r=0.53, P=0.03). Correcting for varying response rates did not alter this association substantially (urgent, Pearson partial correlation moment r=0.61, P=0.009; non-urgent, r=0.53, P=0.03). There was no association between practices’ average number of patients per whole-time equivalent doctor and their patients’ perceptions of doctor availability in either the urgent (r=0.34, P=0.16) or the non-urgent (r=0.25, P=0.31) situation.
There was a significant association between the percentage of the questionnaire respondents in each practice reporting they had received an appointment for the day they had requested and the percentage reporting a practice's perceived attainment of target times for availability for both urgent and non-urgent appointment requests (urgent, Pearson $r = 0.75$, $P<0.001$; non-urgent, Pearson $r = 0.84$, $P<0.0001$).

Discussion
Participating practices were representative of all practices in West Lothian with regard to list size, and the one-week questionnaire survey carried out in these practices gave a satisfactory overall response rate. Respondents completing the questionnaire were similar to the local general population with regard to car and home ownership, and a comparison of age profiles demonstrated that the sample of respondents had a similar age profile to that of participating practices.

Variation in perceived availability
Using a standard previously adopted when considering doctor availability, a 10-fold variation in doctor availability for non-urgent problems was reported by patients from 18 different practices. This is a substantial variation, with potentially important implications for decisions taken by patients as to whether, where, when and whom to consult. Previous work has suggested that patients attending accident and emergency departments are less satisfied with the arrangements for seeing their doctor than patients attending their general practitioners, and that this dissatisfaction is significantly associated with poorer perceptions of general practitioner availability. It would be of interest to explore the possibility that patients with poorer perceptions of general practitioner availability might also make greater use of general practitioner out-of-hours services than those with a better view of general practitioner availability.

Despite the wide variations between practices in perceived doctor availability, an overall average of 81% of patients reported they could usually get an appointment within 24 h of an urgent request, a figure rather more than that reported by Cartwright and Anderson (63%) or Ritchie et al (45%). Both of these studies involved interviewing a random stratified sample of adult patients identified from the electoral register compared with a sample of patients consulting the doctor in this study. Study design may thus account for some of the difference. In this study, 80% of questionnaire respondents stated they had received an appointment for the day they wanted and there was a close association between practices' reported ability to provide such an arrangement and the reported availability of a doctor in the urgent or non-urgent situation. This association was taken to reflect a good degree of internal consistency in these items of the questionnaire. A more formal validation of the questions is planned.

List size and perceived availability
This study has demonstrated a significant negative association between practice list size and the perceived availability of a doctor to deal with urgent or non-urgent consultation requests. It is perhaps surprising that this relationship is so marked for perceived availability for urgent problems — one might have anticipated this to be independent of list size and to be determined mainly by 'clinical' factors. The findings of this study offer further support to the suggestion that smaller practice list sizes have advantages with regard to patients' perceptions of their doctor's availability. Butler and Calnan have previously reported findings from a survey of 1300 general practitioners and observed that 'with increasing list size, doctors were more likely to feel that patients should be able to get an appointment with any doctor on the same day, and were also more likely to report that patients in their own practices would be able to do so'. Their study used mean personal list size rather than practice list size, and relied on doctors' reports rather than patients'. Another study, surveying doctors from 245 out of 267 practices in the south-west of England, reported that 80% of practices claimed to be offering a non-urgent appointment to patients on the same or the next day. This finding, obtained from doctors' reports, is at odds with the reports of the patients in this study, in which only 61% thought they could be seen on the same or next day after a non-urgent consultation request. These earlier studies were carried out in different parts of the country, and the socioeconomic characteristics of the practices contributing to the studies cannot be readily compared. Despite this, the apparent discrepancy between doctors' and patients' perceptions of availability would appear to warrant further study.

In this study, there was no association between list size corrected for the numbers of doctors in the practice and patients' perceptions of doctor availability. In the presence of an association between uncorrected list size and perceived availability, this suggests that any such association is independent of medical staffing levels. It is possible that the differences in perceptions described in this study might reflect varying expectations for delivery of care among patients from different-sized practices, rather than real differences in availability of services. Alternative explanations for the observed association might include a less personal approach to care perceived by patients in larger practices, some element of receptionist operation or greater administrative flexibility in smaller practices which might require less rigid administrative procedures. Freeman and Richards have observed that patients receiving more personal continuity of care were likely to have booked their most recent appointment further in advance than patients receiving less personal continuity; they also highlighted the difficulties inherent in providing both personal continuity of care and freedom of choice for patients. The relationships between practice size, perceived doctor availability and administrative flexibility is a potentially interesting area, and further work is planned to explore these possibilities.

List size has been demonstrated to be negatively associated with consultation length, but Butler and Calnan's detailed study of list sizes concluded that, whereas smaller list sizes might result in advantages to patient care (e.g. through longer consultation length), the evidence examined suggested that not all the potential time advantage gained through smaller list and practice sizes would be passed on to patients. In the light of that observation, it is not possible to predict the likely impact of reducing practice size on patients' perceptions of doctor accessibility without careful consideration of other factors that may also be operating.

Practice organization is of importance in days when the process of care is influenced by the need to achieve targets. Distinction should be drawn between the 'availability' of services and their 'accessibility'. The former suggests simply provision of a service, the latter relates more to the perception of that service by the user and the ease with which that user might avail themselves of the service. The 'distance between general practitioners and their patients' may not simply be a geographical one, and the more intangible feelings and perceptions of patients should be accounted for when considering changes in practice organization. This study suggests that smaller practices have advantages with regard to patients' perceptions of doctor availability. The pressure to increase practice size on administrative
and financial grounds may ultimately prove to be disadvantageous to patient expectations and desires. Government and health service managers would be advised to take account of available information on practice list size before perpetuating this trend.

References

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