Out of hours primary care centres: characteristics of those attending and declining to attend

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Abstract

Objectives—To study the number, demography, and clinical details of patients who agreed or refused to attend centralised primary care centres for out of hours medical care and to study the satisfaction with the service of those who attended.

Design—Data collected by telephonists and doctors. Satisfaction questionnaires given to patients who attended.

Setting—Five out of hours primary care centres in the United Kingdom.

Subjects—All patients contacting the deputising service to request medical help out of hours who were asked to attend a primary care centre. The study terminated when 1000 patients had agreed to attend (200 from each centre). 1000 patients not agreeing to attend were also sampled.

Results—The attendance rate varied from 8.9% to 52.3% in the five centres. The overall standardised attendance rate was 22.4%. The attendance rate was highest in children under 5 (465/2380, 19.5%) and fell with increasing age. Of the 1000 sampled non-attenders, 403 said that they had no transport and 345 said that they were too ill to attend. Those who attended were seen by the doctor more quickly. There was no significant difference between the groups in the number who received a prescription (810 attenders v 820 non-attenders, $P=0.57$) or who were admitted to hospital (59 v 52, $P=0.5$). Satisfaction with the service among those who attended was very high; 95% (694/731) said that they would be prepared to attend under similar circumstances in the future.

Conclusion—Most patients are not able or prepared to attend a central facility for primary care out of hours. Substantial cultural change will be necessary and careful consideration given to planning if such centres are to provide a major part of out of hours care.

Introduction

Home visiting out of hours is increasingly unpopular among general practitioners for three main reasons: being on call is tiring,¹ calls are often regarded as unnecessary,^{2,4} and fears about personal safety.⁵ The demand from the public, however, is rising.⁶ The British government's insistence that general practitioners retain 24 hour responsibility for patient care has resulted in intense discussion about how this service should be provided. Establishment of a network of centralised primary care centres has been proposed. Patients requesting care out of hours would be invited to attend the centres rather than receive a home visit from the doctor. However, anecdotal reports of existing services have suggested that few patients agree to attend, and little is known about who might attend or their perception of these facilities.

We studied the demography, social circumstances, and clinical details of 1000 patients who agreed to attend and 1000 patients who did not agree to attend out of hours primary care centres in five places in the United Kingdom. We also surveyed the satisfaction of those who agreed to attend.

Subjects and methods

We conducted a cross sectional survey of all patients or informants telephoning a deputising service switchboard to request medical care out of hours in Ruislip, Bradford, Nottingham, Newcastle, and Leicester. All have primary care centres operated by a commercial deputising service (Healthcall). At the time of the study the centres had been functioning for between two months and one year. Except for the centre in Ruislip, which serves an area to the north of London, all centres are situated within 2 miles (3.2 km) of the centre of each city. The centres were open Saturday 1200 to 1000 pm, Sunday 800 am to 1000 pm, and Monday to Friday 700 pm to 1000 pm according to demand. They were staffed by one duty deputising general practitioner and a receptionist.

The switchboard telephonist noted the time of call, basic demographic details, and presenting symptoms for all callers and unless it was a clear emergency, asked the patient to attend the centre rather than receive a home visit from the doctor. If this invitation was declined, the reason was noted. In common with other deputising service activities, doctors were not allowed to give telephone advice unless specifically requested.

The doctor recorded the time when the patient was seen (at home or in the centre) and noted details of diagnosis, advice, treatment, or hospital admission. As they left the centre patients were handed a satisfaction questionnaire together with a prepaid envelope for returning it. The questionnaire was modified from extensively field tested instruments developed for use by family health services authorities.⁷ Subjects were sent a single postal reminder.

The study ended in each centre when 200 callers had agreed to attend. The records of a sample of 200 non-attenders during the same period were then selected systematically in order to compare the characteristics of the two groups. For example, if 600 patients were unable to attend during this period, the details of every third patient were extracted. Directly standardised rates were used to calculate overall attendance rates in order to reflect the different overall numbers of patients seen in each centre.

We analysed census data to obtain a sociodemographic profile of the study population. The postcodes of the 1000 attenders and 1000 non-attenders were matched to appropriate enumeration districts (200 households/400 people) and then analysed by small area statistics with the SASPAC package. We used the central point of the electoral ward in which each centre was situated to estimate the distance from the centre to the home of the attenders and non-attenders. Diagnoses were coded by using the Royal College of General Practitioners 1984 classification⁸ and treatments from the chapter headings of the *British National Formulary*.⁹

Results

During the study (November 1993 to February 1994) the attendance rate at each of the centres was 8.9%, 12.1%, 18.1%, 20.7% and 52.3%. The overall standardised attendance rate was 22.4%. The proportion of men and women was not significantly different

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TABLE I—Numbers (percentages) of patients attending out of hours primary care centre according to age

Age	No calling service	No (%) attending
0-4	2380	465 (19.5)
5-14	1023	165 (16.1)
15-29	1065	151 (14.2)
30-39	615	118 (19.2)
40-49	340	45 (13.2)
50-64	458	29 (6.3)
65-74	263	18 (6.8)
75-84	224	8 (3.6)
≥85	79	1 (1.3)

TABLE II—Reasons given for not attending out of hours centre

Reason stated	No of non-attenders (n=1000)
No transport	403
Too ill	345
Outright refusal	48
Too far to travel	33
Dependent relative	33
Other*	26
No reason recorded	112

*Concerns about taking a child out into the cold, not enough money for transport, fear of getting lost, and having consumed too much alcohol to drive the patient.

TABLE III—Time between telephoning for help and consultation with doctor

Time (minutes)	No of attenders (n=1000)	No of non-attenders (n=1000)
<30	291	159
<60	644	461
<90	789	691
<120	857	822
<180	921	953

Mann-Whitney U test: mean rank of attenders=863.99, mean rank of non-attenders=1137.01; $P<0.001$.

among attenders and non-attenders. Table I shows the proportion attending in each age group, which decreased from 19.5% of the under 5s to 4.9% of those aged 75 or over. Patients were no more likely to be able to attend in the morning, afternoon, or evening. Table II gives the reasons for not attending the centre among those who received a home visit. These were mainly not having any transport and a perception that the patient was too ill to attend.

Table III shows the time between telephoning for help and consulting the doctor at the centre (including a mean wait of 12 minutes at the centre), or the doctor arriving at the home of the caller. Patients attending the centres were seen significantly more quickly.

Five hundred and sixty two of 981 (57.3%) patients who lived within 5 km of the centres, 353 of 739 (47.8%) who lived 5-10 km from the centre, and 85 of 280 (30.4%) who lived more than 10 km from the centres attended for treatment ($\chi^2=65.53$, $P<0.001$). The attenders lived an average distance of 5.9 km from the centres and the sampled non-attenders an average of 6.5 km.

Table IV gives the diagnosis of the examining doctor and table V the outcome of the consultation for the attenders and sampled non-attenders. There was no significant difference in the number who received a prescription or who were admitted to hospital between the groups. Twenty two attenders and one of the non-attenders requested a repeat prescription but had no acute illness.

Table VI shows aggregated selected 1991 census variables for the wards of residence of the attenders and sampled non-attenders. There was little difference between the groups except that attenders were slightly more likely to live in wards with a higher proportion of owner occupation and access to a car.

Seven hundred and thirty one of the patients who attended returned their satisfaction questionnaire in the reply paid envelope provided. Table VII summarises the responses given in the four areas of satisfaction explored and overall perceptions. Comments were offered by 329 (45%) respondents in the designated space at the end of the questionnaire, and these mainly praised the speed with which the patient was seen. A common theme was that the doctor's time was being used more efficiently, and that this gave more time for explanation during the consultation. However, some expressed concern that the choice of a home visit should remain in the control of the patient, especially for those who were too ill to attend or for whom transport was a problem, and others were

TABLE IV—Category of diagnosis recorded by doctor after consultation

Category of diagnosis	No of attenders (n=1000)	No of non-attenders (n=1000)
Respiratory system	371	432
Gastrointestinal system	131	163
Ear infection	118	60
Genitourinary system	72	58
Skin	53	32
Non-specific viral infections	51	78
Complications of pregnancy	5	7
Other	199	170

$\chi^2=41.96$, $df=6$; $P<0.0001$.

TABLE V—Outcome of consultation in 1000 attenders and non-attenders of out of hours centre

Outcome of consultation	Attenders (n=1000)	Sample of non-attenders (n=1000)	χ^2 value	P value
Referred to hospital	59	52	0.46	0.5
Advice only	131	128	0.04	0.84
Treatment prescribed	810	820	0.33	0.57
Antibiotic	478	422	6.34	0.01
Analgesic	80	109	4.91	0.03
Oral rehydration therapy	29	53	7.32	0.01

TABLE VI—Percentages of attenders and 1000 sampled non-attenders in selected census categories

Census variable	Attenders	Sample of non-attenders
Households lacking exclusive use of bath or inside toilet or both	1	1
Households of black, Indian, Pakistani, or Bangladeshi ethnic groups	11	11
Age under 5 years	7	7
Different address one year before census	10	11
Households with no dependent relatives	53	54
Economically active men and women unemployed	6	7
Households with more than one person per room	6	6
Households without access to a car	36	39
Households not owner occupied	33	37
Pensioners living alone	15	15
Households of one adult with dependent children	4	5
Households headed by:		
Economically active unskilled manual worker	3	3
Person of social class IV or V	18	19

TABLE VII—Response to satisfaction questionnaire among 731 attenders

	No (%) of attenders
Telephone information received:	
Directions given clear	562 (77)
Satisfied with information given*	695 (95)
Accessibility:	
Travelled by car	679 (93)
No problems encountered getting to the centre	653 (90)
Waiting time:	
Waited less than 30 minutes to be seen	681 (93)
Satisfied with speed seen*	710 (97)
Condition of premises:	
Overall welcome	713 (98)
Satisfied with privacy in waiting area*	685 (94)
Overall satisfaction:	
Compared with seeing a doctor at home, how did you feel about coming to the centre?	
I was happy to come to the centre	372 (51)
I didn't mind either way	229 (31)
I would rather have been seen at home	89 (12)
I would much rather have been seen at home	34 (5)
No response	7 (1)
If you needed a doctor in similar circumstances in the future, would you be prepared to come to the centre again?	
Yes	694 (95)
No	28 (4)
No response	9 (1)

*Includes those responding fairly satisfied and very satisfied.

critical of the change in nature of out of hours care and the new requirement to travel.

Discussion

This study has shown that most patients who request medical care out of hours are not able or not prepared to attend a centralised primary care centre. However, there was a wide variation in attendance rates both geographically and demographically, and this presents several interesting questions.

FACTORS AFFECTING ATTENDANCE

The most common reason stated for not attending was not having a car available. However, although we realise that population statistics do not directly infer characteristics of individuals, the census data suggested that car ownership was almost equally prevalent in the electoral wards of residence of attenders and non-attenders. Of course a car may not be available for reasons other than non-ownership. Prioritisation of transport for travel to an out of hours centre versus other household activities will need to be considered if patients are going to be asked to attend for treatment.

Many patients in this study felt that they were too ill to attend, although those who received a home visit were no more likely to receive any prescribed treatment or to be admitted to hospital than those who attended. Morbidity in this study was similar to that previously reported in analyses of deputising workload,¹⁰ with an expected seasonal prevalence of respira-

tory illness. The number of prescriptions issued was also comparable with those reported in other deputising studies, although the hospital admission rate in our study was slightly lower.^{11 12} Disparity between doctors' and patients' perceptions of severity of illness out of hours has often been cited as a source of dissatisfaction by both parties.

Between 90% and 95% of patients contacting medical services out of hours expect a home visit, and 19% expect to be admitted to hospital.^{11 13} However, urban doctors deal with a third of out of hours requests by giving telephone advice,¹⁴ and general practitioners often feel that out of hours requests for care are unnecessary.²⁴ Clearly the appropriateness of this new type of service may be perceived differently by doctors and patients, and this could lead to conflict.

The likelihood of attending fell with increasing age and the largest group of attenders were young children brought by their parents. Many parents described relief at being able to see a doctor so quickly. However, parents regarded this service as an adjunct to traditional home care, and several made the point that the choice of attending should lie in the control of the patient.

Attendance rates at the centres varied from 8.9% to 52.3%. Seasonal factors may have influenced attendance as the centre with the highest rate was mainly studied over the Christmas holiday, when more relatives might have been available to provide transport or care for dependent relatives. Many patients said that this was their first experience of the service and familiarity may be needed before it becomes acceptable. However, the centre that had been operating for the shortest duration had the lowest attendance rate, the two that had been operating longest recorded attendance rates of only 18.1% and 20.7%.

Location of the facility may also be relevant. The centre with the highest attendance rate was close to a major landmark probably well known to all patients in the vicinity. The effect of clustering of population, however, was less obvious. Though overall, attenders had less distance to travel than non-attenders, in the centre with the highest attendance rate the attenders had further to travel. Other authors have shown that the uptake of primary and secondary care medical services is inversely related to distance from residence and additionally influenced by individual transport difficulties.^{15 16} These factors need to be considered when planning future services.

ACCEPTABILITY OF SERVICE

Satisfaction with the service among all those who attended was high and exceeds that previously reported with deputising services.^{11 17} Only 5% of those who attended said that they would not be prepared to attend in similar circumstances in the future. Even among the 17% who stated that they would have preferred a home visit, 80% said that they would be prepared to come again. In particular, the time to arrival and short waiting time at the centres was perceived by attenders as a big advantage. For the non-attenders, the interval between requesting and receiving a visit was longer than that previously reported.¹⁰⁻¹² However, this may have been affected by a seasonal demand, which was 25% higher during the study period compared with one year previously.

Key messages

- Out of hours primary care centres have been suggested as a way to relieve the load of out of hours care
- In this study only 22% of those calling for medical help agreed to attend
- The main reasons for non-attendance were lack of transport and believing they were too ill to travel
- Those who attended were seen quicker and were highly satisfied with the service
- A substantial cultural change will be necessary before centres can be widely adopted

Other authors have reported that a shorter waiting time for an out of hours visit is also significantly correlated with satisfaction,¹¹ and a comparative study controlled for time to consultation would be interesting.

Centralised facilities have been proposed for primary medical care out of hours. However, while they are highly satisfactory to those who attend, most patients will still request a home visit. There are problems of access for those without private transport, and many patients feel that travel is inappropriate at a time of illness. If this service is to be successful, there must be a substantial cultural change in expectations of the delivery of primary medical care out of hours and detailed consideration given to location, time of operation, and presentation of the service. Government and the medical profession will need to examine these issues carefully before adopting this service as a model for the future.

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