Does Phone Influence Outpatient Access?

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Abstract

INTRODUCTION

Rationing by queue for free health care treatment is probably inevitable in order to provide efficient management of floating numbers of patients. Both inpatient or outpatient long waiting times are cause for much concern and, in recent years, there have been growing demands for more systematic organization of waiting lists and for more rational ordering of waiting priority ([1,2,3,4,5,6,7]).

There is evidence that waiting lists are not managed as perfect queues. Patients are place in the queue in accordance with order of entry in the waiting list, but actual treatment may be provided according to a nonchronological order.

Both in- or outpatient queue management must clearly take into account certain clinical needs, such as differences in severity or urgency. As regards nonclinical factors, however, there is some uncertainty about the role that age and working status ought to play ([8,9,10]) as determinants of priority. Other factors, such as telephone ownership, special pleading for a patient, constant pressure in the form of complaints, even dishonesty, certainly seem too discretionary and must be addressed from a standpoint of fairness and professionalism ([11]).

The role of the telephone as an instrument which potentially discriminates between patients on waiting lists was raised by some English papers in the early nineties ([12,13]). The author indicated, on the one hand, how admission office clerks are able to select patients according to own personal discretion, such as a decision to move potential but untraced patients to the bottom of the list. Conversely, telephone ownership enables patients to be contacted shortly after another patient has cancelled or when a physician has moved an appointment leaving an unexpected place free. Further, new places may become available for outpatients, for example, because of a sudden decrease in inpatient demand (in Italy, some hospital physicians are at once occupied by in- and outpatients), or when, for technical reasons, an appointment has to be held in another building.

This paper is centred on appointments for outpatient investigations and treatment. It aims to address these issues and to examine whether, in practice, telephone ownership or nonownership constitutes a discriminatory factor and whether contacting patients by telephone causes any difference between actual performance of services and original order of appointments.

SETTING

The Geriatric Hospital of Padua, Italy (450 beds), has 4 appointment offices for outpatients: one for the X-Ray Unit (18,791 services in 1997); one for the Diabetology Unit (45,058 services in 1997); one for the Rehabilitation Unit (73,293 services in 1997); and one for the General Outpatient Unit (18,024 services in 1997). The General Outpatient Unit has 6 treatment rooms in which various specialists alternate with each other, for the most part within a state-subsidized scheme, for a few hours per week. The disciplines covered are Neurology, Psychogeriatrics, Rheumatology, Cardiology, Ophthalmology, Geriatrics, minor Surgery, Digestive Endoscopy, and Antalgic Therapy.

The Hospital does not have an Emergency Room, which is instead located at another Hospital within the same Local Health Unit. This is an atypical situation in Italy but it only marginally influences the specialist services at the General Outpatient Unit because of separate provision of Accident and Emergency care. Urgent services are therefore rare and are performed without the need for an appointment, but follow preferential channels. Endeavours are being made to develop explicit qualitative criteria for such services.

Hence, in this setting, waiting list management is based on the traditional principle of “first come, first served” and

seeks to observe queue order. Where possible, endeavours are made to avoid the influence of nonclinical factors. Applicability is entrusted to three female clerks, confirming the tendency towards a strong female presence among low level management (12). Two of these clerks work full-time, one part time and they frequently interact with clinicians and hospital management.

The booking system at the General Outpatient Unit admission office is computerised, although both agenda and computer operate simultaneously, in certain organizational circumstances. This occurs in particular when an unsubstitutable physiscian suddenly becomes unavailable, or in the event of technological breakdown making necessary to pospone appointments. In the same way, new places may become available when booked outpatients do not turn up their appointment thereby making it possible to provide the service to listed inpatients in advance. Organizational flexibility of manual booking to cover unexpected requirements overcomes the rigidity in the computerized system.

METHODS

The study included all patients who, throughout a six-month period in 1998, consecutively made appointments for services at the General Outpatient Unit of the Geriatric Hospital. An analysis was conducted on all cases in which it was necessary to contact patients placed in the various waiting lists by telephone.

Data were collected by the clerks under the systematic control of the chief nurse of the outpatient center. A proforma form was used by the clerks to collect information for each outpatient to be contacted as part of the waiting lists management program (e.g., see table 1). The information collected concerned: age, gender, telephone ownership, reason for telephone contact, booking date, date on which the service was scheduled, actual date. Age, gender, telephone ownership, booking date, date on which the service was scheduled are data collected on a routine basis.

Figure 1

Table 1. Telephone contacts by admission office to search for waiting list patients

Reason	Patients with own telephone			Patients with telephone c/o not own address					
	N.	Successful contact	Queue order maintained	N.		Successful contact		Queue order maintained	
		N.	%	N.	%	N.	%	N.	%
Physician absent	69	69	100	69	100	2	2	100	2	100
Equipment failure	8	8	100	8	100	0	-	-	-	-
Offer of new places	5	5	100	5	100	0	-	-	-	-
Patient cancelled	9	0	0	0	0	0	-	-	-	-
Total	91	82	90	82	90	1	2	100	2	100

Figure 2

Reason	Patients without telephone					Total patients				
	N.	Successful contact		Queue order maintained		N.	Suc cessful contact*		Queue order maintained*	
		N.	%	N.	%		N.	%	N.	%
Physician absent	0	-	-	-	-	71	71	100	71	100
Equipment failure	0	-	-	-	-	8	8	100	8	100
Offer of new places	0	-	-	-	-	5	5	100	5	100
Patient cancelled	0	-	-	-	-	9	0	0	0	0
Total	0	-	-	-	-	93	84	90	84	90

*p: ns (chi-square values)

A simply descriptive data analysis was conducted.

Special emphasis was laid on establishing whether accessibility to the Hospital by patients on waiting lists was in any way influenced by telephone ownership or by the use of this instrument by admission office staff.

RESULTS

In the six-month period considered, 6704 appointments were made at the admission office of the General Outpatient Unit, corresponding to over 11,000 services. Only 9 patients cancelled their appointment at least one day in advance, while as many as 466 patients did not attend their appointment without giving notice.

The patients were 62% female and 38% male, with a mean age of 62 ± 17 years. The mean wait in the queues was 29 days (SD=45; range 1-180 days).

6458 patients (96%) reported owning a telephone at home, while 247 (4%) did not own one. 175 of these provided the telephone number of a family member and 56 the number of

the nursing home of residence. In only 16 cases subjects were unable to provide any telephone number. Over the test period it was necessary on a total of 93 occasions (1%) to telephone patients placed on outpatient waiting lists for the reasons listed in Table 1. In 91 cases (98%), the patient owned the telephone, in 2 cases (2%) the telephone belonged to a family member and in no case did the patient have no contact number. In the 9 cases (10%) of patients who had duly cancelled their appointment at least one day prior to the established date (all in possession of a telephone), the admission office clerks were able to cover the newly available places with the first patients who came to the appointment desk, without contacting the next patients on the list. In all other cases (90%), patients were able to be contacted in sufficient time by telephone and then received the service, observing chronological queue order. The total queue jumping rate was therefore 0.13/100 waiting patients.

DISCUSSION

The findings of this study seem to confute the hypothesis that telephone ownership is a discriminatory factor with respect to patients in queues. Almost all booked patients (96%) did in fact report possessing a telephone at home, while only 0.2% were unable to provide a telephone contact. On the contrary, in routine practice, the telephone proved to be a valid guarantee of queue-order maintenance.

Interpretation of this work must, however, take account and recognize some of its limitations. The first such consideration concerns the low frequency of booked patients (1% of the total number of appointments) who needed to be contacted by telephone. This frequency is a function of factors which are partly controllable and depend on internal organization, and of largely uncontrollable factors connected with user cancellations. Careful human resource management, level of organizational flexibility and cooperativeness by physicians are undoubtedly factors able to guarantee continuity in the supply of services, thereby reducing the need for telephone contact.

The phenomenon of patient cancellations is, by contrast, more complex. Our sample includes as many as 466 patients (7%) who did not attend their appointment without giving notice. Clearly, had the latter patients punctually cancelled their appointments, the same number of new places would have been made available and have represented the same potential number of telephone contacts to add to the 9 cases which, in our survey, were cancelled at least one day in advance. Moreover, these were the only cases of queue jumping in our study. The queue was altered in these cases because the admission office clerks, using a system with the 'lowest energy consumption', covered these places with the first patients who came to make new appointments.

Cancellations and nonperformance of services are a well-known, widespread phenomenon which is not easy to solve. It is somewhat disconcerting to hypothesize that patients no longer wish for a service or no longer need it, or have already received it from other health facilities. In some cases the ailment may, instead, have improved and other patients may have learned to live with it. It is not, however, possible to avoid hypothesizing that clinical indications for part of services are actually scientifically inappropriate. Ad hoc analyses in this respect are naturally required.

An additional consideration concerns the very high frequency of users who report possessing a telephone at their own home (96%). This is probably explained by the fact that Padua is situated in the Veneto region of Italy, which is one of the most highly economically developed areas of Europe in terms of small-medium industry. Attention should nonetheless be drawn to the estimate that telephone coverage for residents in Padua stands at 94% ([14]) and the expected number of patients without a telephone would consequently have been lower. This is probably a selection bias: a socio-economically selected population of patients (about 2%) who have no phone are unable to access health services. This may reduce the external validity of the findings, but only in part, since the test sample is drawn from a vast, consecutive series of patients who have freely chosen to contact a public hospital which is easy to access, being located in the city centre, and offers outpatient services to citizens of all ages. Account should also undoubtedly be taken of the present telephone ownership trend in citizens in western countries, which tends towards almost total coverage.

Third, the mean waiting time on the various lists of 29 days can be considered relatively low. This has very likely given rise to positive results, since there is undoubtedly a correlation between waiting list size and the cancellation phenomen.

Fourth, the prospective study design may have induced particular commitment by admission office clerks. Considering, for example, that two patients who were not at home, were traced by a sort of "Sherlock Holmes" use of the phone book, this hypothesis cannot be excluded. The ususal procedure for occupying available places is to follow chronological queue order. Clearly it is not always possible

to check clerks behaviour. In any event, in this study the booking and summarizeing printouts were examined, thereby enabling part of the data to be controlled. Nevertheless, the only complaints made by health service users over the last three years have only been related to excessive waiting time on some lists. No other waiting list issues were raised.

All these considerations slightly diminish the external validity of the findings, although their internal validity is not brought into question. Despite these limitations, the work does cast light on one definite issue in waiting list management, namely the paucity of literature on nonclinical factors which can affect queue management. This prospective and consecutive case series show that, although a small part of the population not in possession of a telephone may not have been included in the study, telephone-related cases of inverting queue order are uncommon if there is careful management by clerks.

It is likely that the rising trend in health technology usage will continue to grow in the future, as will the introduction of more and more sophisticated applications. It is nonetheless likely that, while health expenditure in western countries will continue to rise, the ratio between health resources and needs expressed by the population will become more and more unfavourable. It is not hard to imagine how a health policy of rationing by queue will become an increasingly central strategy in future health systems.

Lastly, it should be strongly emphasized how waiting lists are a neglected matter ([15]) and much research is needed in order to improve knowledge and promote fair and effective management.

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