# Missed appointments in primary care: questionnaire and focus group study of health professionals

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## SUMMARY

Background: The issue of missed appointments in primary care is important for patients and staff. Little is known about how missed appointments, and the people who miss them, are managed in primary care, or about effective strategies for managing missed appointments. Aims: To understand the perceptions of primary care staff as to why patients miss appointments, to determine how these perceptions influence their management, and to explore the merit of different management strategies.

Design of study: A postal questionnaire survey and focus group interviews.

Setting: General practices in Yorkshire.

Results: Missed appointments were regarded as an important problem. Patient factors rather than practice factors were perceived as most important in causing missed appointments. Intervention strategies appeared to be driven by perceptions of why patients miss appointments. Negative attitudes, embodied in terms such as 'offenders' to refer to those who missed appointments were prevalent, and favoured intervention strategies included punishing the patient in some way. Receptionists believed that general practitioners should address the issue of the missed appointment with the patient. General practitioners felt guarded about addressing missed appointments with their patients in case it affected the doctor–patient relationship.

Conclusion: People who miss appointments were viewed negatively by primary care staff, and most of the reasons for missed appointments were focused on patients. These beliefs underpinned intervention strategies aimed mainly at punishment. Since there is no evidence base concerning interventions that are effective in reducing missed appointments, these negative attitudes may not be beneficial to staff or their patients.

Keywords: appointments and schedules; focus groups; general practice; missed appointments; primary health care.

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## Introduction

\*HE issue of people who fail to keep appointments in I primary care is important for patients and staff. Between 4% and 12% of appointments are missed. The reaction of primary care staff to missed appointments may vary from relief at the prospect of catching up with the administrative or clinical workload, to anxiety relating to whether or not to initiate contact with a potentially vulnerable patient who misses an appointment, and to annoyance at the time wasted.<sup>2,3</sup> However, negative attitudes towards missed appointments appear to predominate, as borne out by the recent host of letters and comments in the professional media.4-6 Negative perceptions and the choice of some management approaches may occur because of threats to medical autonomy, a challenge to the patient-professional relationship, or a lack of compliance with therapeutic regimens. A belief that missed appointments waste resources may also contribute. However, all calculations of the likely cost of missed appointments, for example, that by the Doctor Patient Partnership, which estimated that £185 million worth of time with general practitioners (GPs) is lost each year,7 are based on the questionable premise that missed appointment time is simply wasted.

One American study from secondary care found that physicians' responses to missed appointments, in terms of following up patients, were determined by a complex mixture of influences; for example, their perceived risk of an adverse outcome.<sup>8</sup> Further, although attitudes are likely to affect management strategies to reduce missed appointments, little is known about how missed appointments, and the people who miss them, are managed in primary care.<sup>9</sup> There is only limited evidence regarding effective strategies for managing missed appointments, <sup>9</sup> despite guidance from some quarters.<sup>10</sup> The study reported here aims to understand primary healthcare professionals' perceptions of why patients miss appointments, to determine how these perceptions influence their management, and to explore the merit of different management strategies.

## Method

The study consisted of two stages. First, a questionnaire survey of general practices was undertaken. The results from this were used in the second stage, which used focus groups with primary care staff to explore issues in greater detail. We used the combined methodology for complementary reasons and to gain greater understanding, with more breadth and depth. By doing so we aimed to quantify opinion within the general practice community concerning

Keighley.

## HOW THIS FITS IN

#### What do we know?

Missed appointments in general practice are common and are often perceived by healthcare professionals to be associated with wasted resources.

## What does this paper add?

Missed appointments are regarded as an important problem by primary care staff, and patient factors rather than practice factors were perceived as the most important cause. Perceptions of why patients miss appointments drive intervention strategies. Those patients who miss appointments tend to be viewed as criminal, and favoured actions include punishing the patient in some way.

missed appointments, since no other similar data exist. This provided us with findings that were then explored in greater depth in the focus groups. The survey also provided a useful sampling frame for the focus group study.

## Questionnaire study

We conducted a postal questionnaire survey of all general practices in Yorkshire. A short questionnaire was developed and successfully piloted for clarity and face validity with a group of GPs outwith our geographical sampling area. We used questions with 5-point Likert scales allowing a neutral or uncertain response. The questionnaire was sent to one GP per practice, identified using random number tables based upon the number of GPs per practice. The questionnaires were accompanied by a covering letter. Established strategies were employed to maximise response. 11,12 These included pre-paid return envelopes and second and third reminders to non-responders after 2 and 4 weeks, respectively. Questionnaires were returned to the University of Leeds and analysed using SPSS. The areas covered by the questionnaire are shown in Box 1.

## Focus groups

Focus groups were used to explore health professionals' reasons for their current management of people who miss appointments.<sup>13</sup> A pragmatic approach to recruitment was undertaken where respondents were deliberately chosen to reflect the range of views expressed in the questionnaire survey. We held four focus groups, each with between six and eight participants. Two of these groups were with 'naturally occurring' practice teams, encompassing doctors, nurses, managers, and reception staff who worked together. The other two groups were single profession (one with doctors and one with reception staff/practice managers) with members from different practices purposively sampled to reflect the range of management approaches. We envisaged that by using such an approach we would obtain a rich dataset, reflecting the range of perceptions and opinions from different professional groups, at the same time being sensitive and aware of the power dynamics within each group. Such power dynamics, where appropriate, were specifically managed by the facilitators, who relied on their

- Respondents were asked if they had an appointment system (since practices that never have appointments cannot, by definition, have missed appointments).
- Whether missed appointments were perceived as a problem in their practice.
- Whether their practice displayed notices about missed appointments, deliberately overbooked surgeries, or undertook any other methods of encouraging patients to keep appointments.
- Opinions relating to a series of 13 statements (directly informed by the literature) relating to missed appointments.
- Agreement with a series of strategies they would be in favour of using (charging patients, improving facilities for making and cancelling appointments, providing patients with aide-mémoires, displaying notices, and deliberately overbooking surgeries).
- Whether they wished to opt out of being invited to take part in the focus group study.

Box 1. Areas covered by the questionnaire.

professional backgrounds in doing so. The topic guide was informed by the literature and the data from the questionnaire study, and covered two broad areas: perceptions of, and the reasons why, people miss appointments; the types of management strategies, their rationale and their perceived effectiveness. Respondents were encouraged throughout the running of the groups to address other issues relevant to the subject that were not specifically asked by the facilitators. The groups were facilitated by one of the research team, and observed by the other. The interviews were audio-taped and transcribed, with the consent of participants. The data were then analysed using thematic analysis, facilitated by the Framework approach.<sup>14</sup> Themes were generated from the data and validated by regular discussions between members of the research team. Respondent validation was not undertaken in this study owing to financial constraints and the resources needed to

## Results

## Questionnaire study

Four hundred and eighty-two questionnaires were sent out and 361 (74.9%) were returned. Of these, 25 responders stated that they did not have an appointment system, leaving 336 for analysis. Of the 304 responders who replied to the question, 'do you regard missed appointments as a problem in your practice?', 136 (44.7%, 95% confidence interval [CI] = 39.1 to 50.5) replied 'yes', 105 (34.5%, 95% CI = 29.2 to 40.2) replied 'sometimes', and 63 (20.7%, 95% CI = 16.3 to 25.7) replied 'no'. In response to the question asking GPs to score the importance of a number of statements they felt most likely explained why patients missed appointments, statements blaming the patient, such as 'patient forgot about the appointment' or 'patient couldn't be bothered' were most commonly scored as important (Table 1).

One hundred and eighty-one of the 328 respondents (55.2%, 95% CI = 49.6 to 60.6) reported that their practices displayed notices in the waiting room of the number of recent

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Table 1. Importance of statements in relation to missed appointments.

	Scale of importance from 1 to 5					
Statement	1. Not at all important (%)	2. (%)	3. (%)	4. (%)	5. Very important(%)	Total <sup>a</sup> (%)
Patient forgot about the appointment	3.7	6.5	19.7	40.6	29.5	325
Patient couldn't be bothered	11.2	12.1	27.1	26.8	22.7	321
Patient's symptoms were better	7.5	14.0	26.5	36.4	15.6	321
GP initiated follow-up appointment no longer deemed necessary by patient	6.6	17.7	31.9	30.6	13.2	317
Patient in hospital at the time	28.8	31.6	13.6	13.0	13.0	316
Patient too ill to attend	15.8	33.2	25.8	13.7	11.5	322
Patient overslept	16.4	23.8	29.1	23.2	7.4	323
Appointment had been cancelled by patient (practice administrative error)	30.6	31.2	17.6	13.6	7.1	324
Patient unable to get time off work	13.9	27.0	36.0	18.9	5.0	322
Patient had transport difficulties	10.2	28.2	34.4	22.6	4.6	323
Appointment was not with doctor of choice	e 23.7	31.4	26.3	14.1	4.5	312
Patient unable to get there because of the weather	16.7	33.7	30.3	16.1	3.1	323
Patient had family commitments	12.7	29.5	37.0	18.0	2.8	322
Appointment was at an inconvenient time	14.6	36.0	32.0	14.9	2.5	322

<sup>&</sup>lt;sup>a</sup>Not all respondents answered each question.

appointments missed, and 15/329 (4.6%, 95% CI = 2.6 to 7.4) responders reported that their practices deliberately overbooked surgeries to allow for missed appointments. The responses to the question, 'which of the following, if any, would you be in favour of?', are summarised in Table 2. Nearly half of responders indicated that they would consider charging patients for the missed appointment.

## Focus group study

There were 29 participants (11 GPs, 1 practice nurse, 10 receptionists and 7 practice managers). Data emerged under three main themes: reasons why appointments are missed, attitudes concerning those who miss appointments, and what interventions might work. Direct quotes are provided

Table 2. Responses to the question 'which of the following, if any, would you be in favour of?'

Ontion	Yes n (%)	No n (%)	Total <sup>a</sup> n (%)
Option	11 (70)	11 (70)	11 (70)
Charging patients for missed appointments	98 (47.8)	107 (52.2)	205 (100.0)
Improving facilities for making and cancelling appointments	124 (64.6)	68 (35.4)	192 (100.0)
Providing patients with aide- mémoires (e.g. reminder cards /cancellation procedures)	161 (81.3)	37 (18.7)	198 (100.0)
Displaying notices in the waiting room of the number of recent appointments missed	168 (84.0)	32 (16.0)	200 (100.0)
Deliberately overbooking surgeries to allow for missed appointments	9 (4.4)	195 (95.6)	204 (100.0)

<sup>&</sup>lt;sup>a</sup>Not all respondents answered each question.

with respondent information [group number / D = doctor; R = receptionist; M = manager; N = nurse / text number]. Reasons why appointments are missed. Forgetting was regarded as a major cause. Often, forgetting was perceived to be a genuine one-off mistake that anyone can, and does, make. It was perceived to be related to age, anxiety, and to having 'lot on their mind'. Forgetting an appointment was associated with a perception of appointments being regarded as unimportant, or the patient appearing to be 'poorly focused' at the time of appointment making.

The inability or disinclination to cancel appointments, that were not going to be attended, was perceived as a major issue. Receptionists reported that many patients phoned late to cancel, but there was little understanding as to why many patients did not cancel. When asked specifically how easy it was for patients to cancel, only brief comments were forthcoming. It was acknowledged that phone lines could be busy, making it difficult to cancel, but this was widely held to be an unjustified excuse. While embarrassment and feeling ashamed were mentioned as possible reasons for not cancelling, most respondents attributed the failure of patients to cancel to either 'ignorance' or a lack of respect or responsibility.

Resolution of symptoms and patients being elsewhere (for example, at a hospital appointment) were also suggested as a cause of some missed appointments. Opinions were divid-

<sup>&#</sup>x27;I think they are a bit ignorant. I think they think there's always someone there to fill the slot.' [2/R/21.]

<sup>&#</sup>x27;I think it boils down to the sense of responsibility. I don't think they have that sense of responsibility where they think "I'll cancel my appointment".' [3/R/82.]

ed as to the influence that the time from making the appointment to the actual appointment had on missed appointments. There was a belief that some appointments were booked 'just in case' and that this explained missed appointments that were booked for the same or the next day.

There was considerable discussion regarding specific groups of patients most likely to miss appointments. Younger patients were perceived to miss more compared with older people, and to be more troublesome by repeatedly missing appointments. They were regarded as having chaotic lives, having short-term health problems, lacking respect and responsibility, and valuing appointments less than older patients. Patients living in more deprived areas were perceived to lack responsibility and miss more appointments.

"... people that DNA [did not attend] tend to be the people that are deprived financially anyway and whether it's because they end up waiting around for other things, I don't know, they just don't seem to have any sense of responsibility ...' [3/R/11.]

Other patients perceived to miss more appointments were those with mental illness. This was attributed to anxiety and poor concentration leading to forgetting, confusion, an inability to wait at the surgery, and delusional problems. However, there were more positive attitudes towards this group.

"... maybe somebody is depressed or under stress and as a result they are not concentrating anyway. They get anxious and then genuinely forget because they have got so many things on their mind and so many other worries." [1/D/23.]

Attitudes towards those who miss appointments. There were mixed views regarding how the 'lost' time of the missed appointment was used and valued. Some doctors highlighted positive effects, such as more time for other patients, tea breaks, catching up with paperwork, and not running behind. Others articulated annoyance, because time was wasted or working patterns disrupted.

- "... one doctor, she is always full, so it's just a case of "well it gives me a 5-minute breather to catch up or whatever". The other one, he will say, "Well I did my letters". They have always got something to do, they are not basically sat there as such, but I think the general feeling is it matters ...' [3/R/97.]
- '... it has a knock-on effect on people who do arrive, it disrupts the rest of your surgery or disrupts the rest of your day.' [1/D/15.]

The reception staff felt particularly frustrated by missed appointments. This was because they felt unable to provide other patients who would attend with the appointments they needed, partly because of missed appointments. Their frustration was exacerbated by the abuse they received.

'... it's not being taken seriously and we all felt we were just being put upon. We were trying to be amenable and keep offering times and everything like that, and you just slowly felt you were being abused basically.' [4/D/27.]

Negative attitudes towards people who missed appointments stemmed from beliefs that they often displayed 'antisocial behaviour'; such as verbal abuse, manipulating the system, and excessive service use.

'We have a family ... that are manipulative, devious, abuse the system, they ring up several times a week and usually ask for visits to the house and the mother of this family DNA'd a lot recently ...' [4/D/63.]

Health professionals recognised that some appointments were missed for 'genuine' reasons, implying that others were for 'non-genuine reasons'. The acceptability of the reason was closely allied to feelings towards the person missing the appointment: more understanding was shown to older people, the mentally ill, and those with young children. At times, this bordered on forgiveness.

'Obviously, with some people it's genuine, they have genuinely forgot, but you can usually tell by looking in the notes and see if it's a one-off or whether they have done it on a regular basis.' [1/N/12.]

Surprise and amazement at some behaviour was encountered, especially from receptionists. Judgmental and derogatory comments occurred when responders had little explanation for the behaviour, an example being comments such as 'I would never do that', and 'some people'. Negative views were expressed about people who missed appointments. Throughout the groups there were references to 'repeat offenders'.

- "... them that don't pay for their prescriptions ... they are the biggest offenders." [1/R/186.]
- ' ... you see their names and you think "well they won't come".' [ 1/N/28.]

What interventions might work. It was regarded as important that some form of control had to be gained by practices and that health professionals needed to be seen to be doing something. Calls for strategies to reduce missed appointment rates were made in the realisation that, at least for some people some of the time, it is impossible to do anything about it. This led to a widespread, but not universal, view that educating, penalising, and punishing were needed. Two main types of interventions, to reduce missed appointments and to address previously missed appointments, were discussed. Waiting area notices that informed patients of the number of missed appointments were commonly used. While these

missed appointments were commonly used. While these were regarded as effective and important, they were perceived as possibly having an impact on the wrong people.

'The DNAs are put on the notice board saying how many each week. Some of the people are shocked, those are

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the people who regularly attend. The others [the ones who do not attend] don't bother at all.' [2/R/7.]

Health professionals reported that they had either already changed systems to prevent booking a long time in advance or were considering doing so. There was consensus that, while open surgeries eliminated missed appointments, they introduced other problems that were not universally welcomed. However, high rates of missed appointments contributed to practices changing, at least in part, to openaccess systems. The option to overbook to compensate for missed appointments was met with an overwhelming response that patients would all turn up at once. The notion that the practices themselves might contribute, (for example, due to difficulty in cancelling) was resisted, although there were views that some changes and improvements could be made.

Addressing multiple missed appointments in the next consultation was used as a strategy to prevent further missed appointments. Receptionists felt strongly that the onus was on doctors to educate within the consultation and that this was the most effective strategy because they felt that patients listened to doctors. Doctors explained why they addressed the issue in some consultations, (for example, if a missed appointment was recent) but not in others, (for example, if it was a 'not one-off and genuine' occurrence or because they 'don't challenge "druggies"'). Strategies for addressing previously missed appointments included 'gentle prodding', neutral questions, such as, 'what went wrong, what happened?', asking them to ring next time, catching them 'on the hop' when they least expect to be challenged, and threatening removal.

Only occasionally did health professionals actively follow up patients who had missed an appointment. This was mainly because of a belief that it was only rarely needed or helpful. Such follow up was reserved for patients with known serious physical or mental health problems and others not known to miss appointments normally.

The writing of letters to patients who missed appointments was widely undertaken to prevent further missed appointments. Various tactics were used, including: asking for reasons ('politely asking why'), education ('please cancel in future'), explanation (as to why missed appointments are important), and threats about further actions (removal from the doctor's list). Each practice had its own policy for how and when letters were sent. Letters were generally regarded as effective.

Fining patients for missing appointments was generally seen as a good idea, along with a belief that punishment could be effective. The desire for punishment rather than education seemed to drive this. Many practical difficulties in the implementation of such a system were identified, including the belief that many offenders would be exempt from charges and that the system would be difficult to administer.

'... the sort of people, because of their social circumstances, they get everything free anyway, so I can't see that that [the fine] would make any difference whatsoever.' [4/D/75.]

Removal of patients for repeatedly missing appointments

was regarded as the last resort, but an action that most GPs were prepared to undertake. This was discussed predominantly in a punitive context. Threatened, rather than actual, removal was more common.

'I feel quite comfortable about it [removal]. I think we are extremely generous, I think we bend over backwards really. I think a lot of other doctors wouldn't stand for it and get rid of them earlier, because it's our only recourse, we can't penalise them in any other way. It's all that's left.' [1/D/273.]

It was recognised that the consequence of removal was that patients simply swapped GPs, but it was still felt to be an effective strategy in certain situations.

## Discussion

This is the first study of the views of primary care staff on missed appointments. The findings highlight how perceptions have driven interventions. The focus groups provided data regarding the negative stereotypical image that many health professionals hold regarding people who miss appointments, and the reasons for this. The main reasons were disruption of practice working patterns and the ways receptionists were prevented from doing their job properly. Appointment problems have previously been identified as a cause of stress to receptionists. <sup>15</sup> A clear demarcation between 'genuine' and 'non-genuine' mistakes was apparent, and had a major influence over patient management. Words such as 'offenders' were used predominantly by those who experienced the stress of arranging appointments with patients.

Consistent with the notion of 'criminality', favoured actions included punishing the patient. This is a new finding, in that previous work divides interventions into reminders, reducing perceived barriers, and increasing motivation with no mention of punishment.16 Almost half of the respondents agreed that they would like to charge patients who missed appointments. In the focus groups, the idea of charging for missed appointments was viewed positively, even though it was recognised that it would be fraught with problems. In the focus groups it was clear that the receptionists, who felt that they bore the brunt of the problem, believed that doctors should address the issue within consultations. The doctors were more guarded about this, being keen to maintain doctor-patient relationships. It may be that the 'within-consultation' interventions described are to some extent tokenistic, allowing GPs to demonstrate that 'something is being done' to alleviate the frustration of the receptionists.

The response to the questionnaire was high. The combination of both naturally occurring practice focus groups and single profession focus groups ensured that we had a rich dataset. Questions remain about the truthfulness of the findings. Respondents may have used the groups (and indeed the questionnaires) to air prejudices and negative attitudes and to inflict unqualified attribution bias. The While our sampling strategy aimed to minimise this, we were especially vigilant in the groups to explore carefully sensitive issues, especially in the context of the complex power dynamics within general practices. However, our own experiences as clinicians confirm

that many of the beliefs and perceptions that arose from our data do indeed reflect those of contemporary practice. Lastly, the study was conducted among primary care staff from one geographical region only. However, we have no reason to believe that staff from Yorkshire would differ in important ways to those from elsewhere in the United Kingdom.

Our results indicate that practices are undertaking a number of interventions to attempt to reduce missed appointments. This is in keeping with Sharp and Hamilton's conclusion that locally-based solutions are needed, but that such new systems should be the subject of research and development. 18 The findings reported here should be considered with those from a parallel study of patients' perspectives of missed appointments;19 the main finding from this was that patients cited practice factors and their own forgetfulness as the main reasons for missing appointments.

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## References

- 1. Neal RD, Lawlor DA, Allgar VL, et al. Missed appointments in general practice: retrospective data analysis from four practices. Br J Gen Pract 2001; 51: 830-832
- Waller J, Hodgkin P. General practice: demanding work. Abingdon: Radcliffe Medical Press, 2000.
- Hamilton W. General practice non-attendance. Br J Gen Pract 1999; **49**: 644
- Merry A. Time to penalise those who miss appointments [letter].
- GP 1999; 10 Sep: 28.
  Scott ME. Something ust be done about DNA time-wasters [letter].
- Pulse 1999; 21 Aug: 24.

  King L. Time for GPs to charge for missed appontments [letter]. GP 1999; 23 Jul.
- Beecham L. Missed GP appointments cost NHS money [News extra]. BMJ 1999; **319:** 536
- Smoller JW, McLean RYS, Otto MW, Pollack MH. How do clinicians respond to patients who miss appointments? *J Clin* Psych 1998; 59: 330-338.
- George A, Rubin G. Non-attendance in general practice: a systematic review and its implications for access to primary health care. Fam Pract 2003; 20: 178-184.
- Nottingham LMC. Difficult patients guidance for GPs and their staff. Nottingham: Nottingham LMC, 1999.
- Kaner EFS, Haighton CA, McAvoy BR. 'So much post, so busy with practice so, no time': a telephone survey of general practitioners' reasons for not participating in postal questionnaire surveys. Br J Gen Pract 1998; 48: 1067-1069.
   Barclay S, Todd C, Finlay I, et al. Not another questionnaire!
- Maximizing the response rate, predicting non-response bias in postal questionnaires of GPs. Fam Pract 2002; 19: 105-111.
- Barbour RS. Using focus groups in general practice research. Fam Pract 1995; 12: 328-334.
- 14. Ritchie J, Spencer L. Qualitative data analysis for applied policy research. In: Bryman A, Burgess RG (eds). *Analyzing qualitative data*. London: Routledge, 1994: 173-194.
- 15. Eisner M, Britten N. What do general practice receptionists think and feel about their work? Br J Gen Pract 1999; 49: 103-106.
- 16. Macharia WM, Leon G, Rowe BH, et al. An overview of interventions to improve compliance with appointment keeping for
- medical services. *JAMA* 1992; **267**: 1813-1817.
  Billig M. Henri Tajfel's 'cognitive aspects of prejudice' and the psychology of bigotry. *Br J Soc Psychol* 2002; **41**: 171-188.
  Sharp DJ, Hamilton W. Non-attendance at general practices and
- outpatient clinics. BMJ 2001; 323: 1081-1082
- 19. Neal RD, Hussain M, Lawlor DA, et al. Missed appointments in general practice: a prospective controlled study to determine the reasons for, and the outcomes of, missed appointments and the mental ill health of patients who miss appointments. Final Report. Leeds: University of Leeds, 2001.

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