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Hirani, N; Karafillakis, EN; Majeed, A; (2016) Why children do not attend their appointments: is there a need for an interface between general practitioners and hospitals allowing for the exchange of patients' contact details? *JRSM open*, 7 (8). p. 2054270416648046. ISSN 2054-2704 DOI: <https://doi.org/10.1177/2054270416648046>

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# Why children do not attend their appointments: is there a need for an interface between general practitioners and hospitals allowing for the exchange of patients' contact details?

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## Summary

**Objectives:** A service evaluation project on the reasons why children do not attend their outpatient appointments.

**Design:** Analysis of paediatric clinic lists over two consecutive days. Parents of the non-attenders were identified and their reasons for not attending the appointment were elicited using a survey.

**Setting:** The appointments were scheduled to take place in the Paediatric department at St. Mary's Hospital, London.

**Participants:** Of the 201 appointments scheduled, 49 patients did not attend their paediatric appointment. Telephone contact was successful with 35 parents.

**Main outcome measures:** Parents were asked to verify if their contact details were correct, if they were aware of the appointment and if they had received a reminder. The reasons for non-attendance were explored.

**Results:** Of the 49 non-attenders, correct contact details were held on file for 24 of the patients (49.0%). Of the 35 parents contacted, 18 were aware (51.4%) of their child's appointment.

**Conclusions:** This project revealed that the principal reason for non-attendance is unawareness of the appointment due to incorrect contact details held by the hospital. Potential strategies for reducing non-attendance at this paediatric outpatient clinic include developing a confirmation or reminder system and improved communication with parents. The creation of a new interface between hospitals and GPs would allow hospitals to access patient contact details held by GPs. It would also ensure that hospitals hold up-to-date patient contact details and that appointment details are effectively communicated to parents. The interface would automatically feed through any updated patient details, keeping hospital records current.

## Keywords

DNA, did not attend, non-attendance, paediatric clinic

## Introduction

Failure to attend a scheduled paediatric outpatient appointment following a referral from a hospital

specialist or GP is a well-recognised problem in the UK. This creates important economic challenges, primarily due to a waste of resources such as consultants' time and losses in hospital earnings from referrals by GPs. It can also have clinical repercussions in terms of safeguarding: children who do not attend hospital appointments still require assessment, investigation or treatment and therefore are at risk of avoidable negative health outcomes.<sup>1</sup> Official statistics have shown that in 2012, 12.2% of children failed to attend their scheduled outpatient appointments in England.<sup>2</sup> Non-attendance was found to be a particularly important issue at St. Mary's Hospital in London, where in 2013, 19.1% of children failed to attend their outpatient appointments.<sup>3</sup>

At present there are no national standards in the UK on the management of non-attendance at paediatric outpatient clinics, as it is regulated at a local level by the GP. Hospital guidelines typically mandate informing GPs of non-attendance, so they can review the requirement for a further appointment.<sup>4</sup> The GP can decide whether a further referral is necessary or whether they are able to address the problem in-house without a specialist paediatric opinion.

Various techniques have been trialled to reduce rates of non-attendance. Telephone, mail and text message interventions have all been shown to markedly improve attendance rates, with text messaging proving to be the most cost-effective method.<sup>5</sup> Manual/automated telephone call or text message reminders have been shown to reduce non-attendance rates by up to 34%. Automated reminders were found to be less effective than manual telephone calls (29% vs. 39% reduction in non-attenders of baseline value).<sup>6</sup> Text message reminders are generally well received by families, with 95% of patients' parents choosing to receive a reminder before the

appointment, and only 3% of parents expressing irritation from receiving repeated messages.<sup>7</sup> Improving communication, avoiding religious festivals such as Ramadan, liaising with local community leaders, confirming contact details in outpatient clinics, using telephone reminders and improving signposting reduced non-attendance rates from 34% to 12% in a paediatric department in the West Midlands.<sup>8</sup> However, a randomised controlled trial conducted in 1999 found that sending a copy of the referral letter to parents to aid understanding of the reason for the referral did not improve attendance rates.<sup>9</sup>

The reasons why patients do not attend their hospital appointments are still not fully understood. Hon found in 2005 that high rates of non-attendance to a paediatric dermatology clinic were attributed to a resolution of symptoms before the appointment,<sup>10</sup> whilst forgetfulness was the primary reason in a study by Cusini in 2008.<sup>11</sup> Factors including the perception of the health of one's child and the severity of their symptoms can influence a parent's decision to take their child to a hospital appointment.<sup>12</sup>

This study was undertaken to improve current understanding of the reasons why children do not attend their outpatient appointments. By clearly identifying the reasons for non-attendance, there can be a more concerted effort for potential intervention to help reduce non-attendance rates locally. This could result in more patients being seen in a timely manner, increased hospital revenue, and most importantly from a patient perspective, reduced waiting times and improved overall patient experience.

## Methods

Clinic lists from the paediatric outpatient department at St. Mary's Hospital were obtained from two consecutive days in October 2013. St. Mary's Hospital is a teaching hospital located in central London and is part of the Imperial College Healthcare NHS Trust. Non-attenders were identified and their telephone numbers retrieved from the Imperial College Healthcare NHS Trust's Integrated Computerised Hospital Information System. Up to six attempts to contact each non-attender's parents by telephone were made; three attempts during working hours and three attempts out of hours. When the contact details were found to be incorrect, the parents did not answer the telephone or the call went directly to an answering service, alternate contact details were sought from their GP. A further six attempts to contact either parent using the new telephone numbers were made. If contact was made with the parent who did not have any involvement in bringing their child

to the paediatric appointment, then contact was made with the alternate parent.

When telephone contact was successful, the parent was asked 12 fixed questions regarding the non-attendance (Appendix 1). A GP trainee working in the paediatric team at St. Mary's Hospital conducted all the surveys. The GP trainee introduced himself as a current trainee conducting a service evaluation of the paediatric outpatient service. Verbal consent to use their information without breaching their confidentiality was obtained. The survey lasted between 5 and 10 min. Survey findings and comments were anonymised using participant numbers.

The parent was asked to verify their contact details and they were then questioned on their awareness of the appointment. If they remembered their child's appointment, they were asked whether they had received a reminder. They were questioned about their perceptions of the rationale and the importance of the referral, and their reasons for non-attendance. The parent was also asked to give their opinions about the mode in which they would like to receive reminders for future appointments.

## Results

A total of 201 paediatric outpatient appointments in 25 clinics of various specialties were identified through the clinic lists of St Mary's Hospital. Out of these, 49 patients (24.4%) had not attended their appointment.

Of the 49 non-attenders, 28 children were newly referred (57.1%) and 21 were follow-up patients (42.9%). The Integrated Computerised Hospital Information System yielded correct contact details for 24 of the patients (49.0%), with 11 incorrect contact details (22.4%). Telephone contact with a parent was successful in 35 of the 49 non-attenders (71.4%). Of the non-attenders, 24 were males and 11 were females. Contact was not made with 14 parents (28.6%). Of the 35 parents contacted, 18 were aware of their child's appointment (51.4%) and 17 were unaware (48.6%), 9 were newly referred (25.7%) and 26 were follow-up patients (74.3%). In the latter group, 14 patients had previously missed a paediatric outpatient appointment (53.8%). Eleven parents confirmed having received a text message (31.4%), whilst 24 denied receiving a reminder (68.6%). Of the latter group, correct contact details were available for 16 of the 24 parents (67%).

Being unaware of the outpatient appointment was found to be the principal reason for non-attendance (Table 1). Forgetting about the appointment, unexpected issues at home and the child being sick were other reasons for non-attendance. Also, 80% of

**Table 1.** Reasons why children did not attend their outpatient appointment.

Reason for non-attendance	Number of children
Unaware of appointment	17
Forgot appointment	5
Child was unwell	4
Went to the wrong hospital	2
Unexpected issues at home	5
Not willing to miss school	1
Clash with another appointment	1

parents who forgot about the appointment denied receiving a text message reminder.

Of the 35 parents contacted, two (5.7%) believed that the GP might have been able to deal with the child's problem and that referral to a specialist was not necessary. In total, 21 parents (60.0%) preferred receiving reminders about future appointments in the form of a text message or telephone call, ideally 1–2 days before the appointment. The remainder of the parents felt that the initial appointment letter was sufficient notification.

## Discussion

Over the course of the two days, almost a quarter of patients did not attend their specialist paediatric appointment at St. Mary's Hospital, which is double the national average of 12.2%.<sup>1</sup> This may reflect the hospital's location in an area (inner-London) with high population mobility and marked variations in socio-economic status in its catchment area. Non-attendance without notification creates substantial financial costs to the NHS and may have clinical implications to non-attenders and other patients on waiting lists.<sup>13</sup> Non-attendance also raises safeguarding issues, as children who miss appointments with NHS services may be more at risk of physical or emotional abuse.

A large proportion of the contact details for children held by St. Mary's Hospital's database was found to be incorrect. As a result, more than half of the parents in this study were unaware of their appointment, and did not receive an appointment reminder by post or text message. This may go some way to explain why the majority of non-attenders were newly referred patients, as contact details for the follow-up patients are more likely to have been correct. Not attending a previous appointment did not

seem to have a significant effect on whether a patient would attend their subsequent appointment.

Text message reminders have been shown to improve attendance rates to paediatric clinics,<sup>5</sup> but holding correct mobile telephone numbers is essential to provide this service. This may be an issue for parents not wishing to share their mobile telephone numbers. In this project, less than a third of the parents confirmed that they had received a reminder text message. This was despite the Integrated Computerised Hospital Information System holding correct contact details for almost half the patients, which suggests possible problems with the text message reminder service itself. Receiving a reminder text message was clearly a relevant issue for the parents who forgot about their child's appointment.

The two parents who did not believe that a specialist consultation with a paediatrician was necessary were unaware of the referral. Although Hon found that sending a copy of the referral letter to parents did not improve attendance rates,<sup>12</sup> informing parents of the purpose of the referral might help decrease non-attendance. Despite the majority of parents wishing to be reminded of future appointments (60%) via text message or telephone in this study, this figure was not as high as in other studies.<sup>7</sup>

In addition to the routine text message reminder sent one week before every appointment, all parents who preferred a further reminder opted to receive it 1–2 days before the appointment. The use of a second text message reminder may incur an additional expense with minimal gain, especially given that a previous study found no difference in non-attendance rates when text message reminders were sent a day before the appointment.<sup>6</sup>

## Conclusions

A large number of patients in this study did not attend their hospital paediatric appointments at St. Mary's Hospital. This was principally explained by unawareness of the appointment and not receiving the original appointment letter due to incorrect contact details held by the hospital. The results of this study are consistent with previously documented findings regarding non-attendance, which were found to be due to a combination of institutional factors (commonly administrative) and patient factors, such as parents forgetting about the appointment.<sup>13</sup>

In order to guarantee that hospitals hold correct contact details for patients, GPs need to ensure that parents' correct contact details are communicated to the hospital when referring for a specialist opinion. This requires parents to notify their practice of any changes in their contact details. Parents could also be

encouraged to notify hospitals directly of changes in their contact details. This would help to reduce the number of patients who do not receive appointment details or reminders, and may reduce non-attendance rates. In turn, this would improve the overall patient experience, and lead to more efficient clinics with a reduction in waiting times.<sup>14</sup>

Potential strategies for reducing non-attendance at outpatient clinics include confirmation or reminder systems and improved communication processes with parents.<sup>4</sup> To ensure that up-to-date contact details are held by hospitals and therefore ensure that appointment details are relayed on to parents, the creation of a new interface between hospitals and GPs, which would allow hospitals to access contact details held by GPs, could be considered. The interface would allow contact details held by hospitals to be monitored and updated when a practice receives any revisions from patients. These details can be utilised to send appointment letters to the patient's home address and to send reminders by text message, which would contribute to reducing non-attendance rates. However, in order for the system to work and to reduce non-attendance to outpatient clinics, GPs would need to ensure they hold the patient's up-to-date contact details. One way to achieve this could be to confirm a patient's details at the GP practice every time a referral to a specialist is made. However, the limited time constraints for consultations faced by GPs might hinder the practical implementation of such an intervention. Some practices allow changes of address to be notified to the practice via the practice website, which may be a more straightforward process for patients.

Given the increasing reliance on technology in the NHS, the role of email reminders would serve as the next most logical tool, in addition to the well-established routes of text messages and letters. The efficacy of such alternative means of communication with patients should be investigated further, even though many patients might not wish to share the e-mail addresses in fear of receiving unwanted promotional and non-clinical emails. Documenting an accurate, and often complex and unfamiliar email address by a receptionist may prove an additional hurdle when using this method as a mode of communication; there is likely to be a higher margin of error when documenting this compared to a telephone number. There is little doubt that combining these various modes of communication will provide the best opportunity of relaying important information relating to upcoming outpatient appointments, and ideally, a triangulation of different communication services should be used. However, care should be taken not to overwhelm parents, who are likely to be regularly bombarded with unwelcome forms of

electronic communication in their everyday lives, with multiple electronic messages.

Notwithstanding the results from this study, various factors might have affected reliability. The study was performed over the course of two days. Further testing over a longer period of time could be conducted to determine a trend of non-attendance and to strengthen the results. Furthermore, the study was carried out during the school term and many consultants commented that attendance is generally higher during school holidays and lower during term-time, as parents are sometimes reluctant to take their children out of school to attend hospital appointments. The sample size was relatively small, with only 35 parents included in the study. Given these limitations, it is not possible to make generalisations about other paediatric and adult outpatient clinics at this stage. A comparison to paediatric non-attenders in the same hospital, in different hospitals within London and nationally could be carried out in order to corroborate trends and views.

#### Declarations

**Competing interest:** None declared

**Funding:** This is an independent paper, produced without specific funding support.

**Ethical approval:** Ethical approval is not required as this is a service evaluation project and not considered to be research. The aim of this project is to determine how well the current service is performing in order to benefit the people using the service and help inform local decision-making. Contrary to a research project, participants were not randomised to different groups and the findings were not considered to be generalisable. The fact that ethical approval is not required is supported by the following link: <http://www.hra.nhs.uk/research-community/before-you-apply/determine-whether-your-study-is-research/>

**Guarantor:** AM

**Contributorship:** NH developed the concept for the research and the paper, collected and analysed the data, and finalised the text. EK and AM edited and finalised the paper.

**Acknowledgements:** The Department of Primary Care and Public Health at Imperial College London is grateful for support from the National Institute for Health Research (NIHR) Collaboration for Leadership in Applied Health Research & Care (CLAHRC) Scheme, the NIHR Biomedical Research Centre scheme, the Imperial Centre for Patient Safety and Service Quality and NHS Employers.

**Provenance:** Not commissioned; peer-reviewed by Hajira Dambha

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### Appendix 1. Telephone survey

Child's name: Hospital number:  
 Telephone numbers:  
 Address:

Clinic Consultant or speciality:  
 Appointment type: *New* or *Follow-up*  
 Previous DNA: *Yes* or *No*

1. Are your contact details correct? *Yes* or *No*
2. Did you know about your child's clinic appointment?  
  
*Yes* or *No* or *Does not want to participate in study*
3. Did you receive a reminder of the appointment?  
*Yes* or *No*  
  
 If *Yes*, when did you receive it?..... What form was it in: *Text* or *Call* or *Letter*
4. Why was your child referred to the clinic?.....
5. On a scale of 1-10, how necessary do you think the appointment was (1 - unnecessary, 10 - necessary)?  
 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10
6. What was the reason you were unable to attend your appointment?.....
7. Did you attempt to contact us? *Yes* or *No* If *Yes*, how and when?.....
8. Do you think an appointment with a paediatrician is still necessary? *Yes* or *No*
9. Do you think your GP could have dealt with this problem? *Yes* or *No*
10. In general, how would you like to be informed about future clinic appointments?  
  
*Text* or *Call* or *Letter* or *Other*: specify.....
11. Would you like additional reminders about that appointment?  
  
*Yes* or *No* If *Yes*, when would you like them?.....
12. Is there anything you feel we could do to help you come to future appointments?  
  
*Yes* or *No* If *Yes*, specify.....