# Why are vulnerable children not brought to their dental appointments?

D. Simons,*[1] N. Pearson[1] and A. Dittu[1]

VERIFIABLE CPD PAPER

**IN BRIEF**

- Raises awareness about the extent of the problem of children not being brought to dental appointments.
- Identifies potential strategies which could facilitate children's attendance, through engagement with the families.
- Shares suggestions that other dentists may want to introduce to their practices.

PRACTICE

A considerable number of children under 16 years of age, with an oral healthcare need, are not brought to their Barts Health Special Care Community Dental Service (BHSCCDS) appointments. The BHSCCDS needed to understand more about why parents/carers (parents) were failing to bring their children, in order to identify appropriate strategies to reduce the non-attendance. Thus, an audit was conducted to assess the number, frequency and reasons for all missed appointments (MA); this included feedback conversations with dental staff and parents. Information obtained from this cohort of high-risk children's families through personal, respectful and supportive contact improved understanding of the parents' individual and collective issues and lead to recommendations that could reduce the number of MA in the future.

## INTRODUCTION

The policy document from the British Society of Paediatric Dentistry on dental neglect[1], defines it as 'the persistent failure to meet a child's basic oral health needs, likely to result in the serious impairment of a child's oral or general health or development'. The policy outlines the need for regular dental care for children to enable them to benefit from preventive interventions and early diagnosis and treatment of dental disease. It explains young children are dependent on parents or carers to meet these needs and that oral disease can have a significant impact on the health of children; consequences of disease include severe pain, loss of sleep, time off school and interference with playing and socialisation.[1] The policy highlights a feature of particular concern: that is the failure of parents to respond to offers of acceptable and appropriate treatment. In some instances, failed dental appointments can indicate family vulnerability and potential threats to children's welfare, thereby raising questions about child safeguarding. The policy states the most vulnerable children are: 'disabled children', 'looked-after children', those from 'homeless families, travelling families, refugees and asylum seekers, and children of parents with chronic health or mental health needs';[1] the exact 'special care' children for whom the BHSCCDS provides dental care for, in the inner London areas of Tower Hamlets and City and Hackney. The BHSCCDS sees children on referral from general dental practitioners, healthcare workers, social services, outreach programmes, special schools and self referral if the child meets the special care criteria.

A challenge the BHSCCDS faces in providing dental treatment for these children is overcoming the problems of poor attendance. The service agrees with the policy document that dental treatment planning should be 'realistic and achievable'.[1] Unnecessary demands should not be placed on the family to attend multiple appointments where it is avoidable nor to travel long distances for dental care when it could be provided locally, either in fixed clinics or from a mobile dental unit.[2] If dental anxiety is thought to be the underlying reason for failure to complete treatment, then an appropriate choice of anxiety management techniques is available[1] and inhalation sedation is often used. However, within the service, approximately 12% of children's dental appointments are missed (missed appointments [MA]); either cancelled on the day or failed. This is comparable to the 12.2% of hospital outpatient appointments for children and young people in England not attended;[3] high MA rates in NHS dental practice[4] and 11% lost appointments in dental practice for children in Sweden.[5]

MA are problematic not only because they incur financial costs to health services, increase waiting times and are potentially detrimental to family-provider relationships, but also because children often still require treatment and so are at risk of avoidable negative health outcomes. Children have a fundamental right to access healthcare and do not themselves choose to miss appointments. However, BHSCCDS does not assume that a MA is always an indication of neglect or raise a safeguarding concern. There may be valid reasons for the failure to attend: families may not receive appointments or they change their address, and special care children with multiple health needs often need to attend multiple appointments at diverse locations. Previous research has reported that paediatric outpatient non-attendance is more likely in lower socioeconomic groups[6] and in families with 'diffuse social problems'. Appointment-related factors are also important: with non-attendance less common in specialist clinics, such as cardiology, longer waiting times increase missed appointments, and non-attenders are more likely to travel by means other than car, have longer journey times, have more appointments per year, or receive their appointment by post rather than in person.[5,6] Non-attendance has been related to parents' perceptions: for example, when they disagree with the need for referral, are fearful of consequences such as unwanted diagnoses, or believe the costs of attending outweigh the benefits. Parental beliefs about children's health seem particularly important, with 'child now well' the most commonly reported reason for non-attendance in one study.[7] A Cochrane review reported that parents usually made a conscious decision

[1]Barts Health Community Dental Services, Barts Dental Services and OMFS, London
*Correspondence to: Debra Simons
Email: Debra.Simons@bartshealth.nhs.uk

Refereed Paper
Accepted 10 June 2015
DOI: 10.1038/sj.bdj.2015.556
©British Dental Journal 2015; 219: 61–65

about attending, balancing the perceived advantages and disadvantages of doing so, and their assessment of the severity of the child's illness was crucial in this.[8]

The target for MA set by the BHSCCDS commissioners is 7.5% and the BHSCCDS has a number of strategies in place to try and attain this, such as letters, text reminders, and 'ring and reminds', but the rate remains high. The BHSCCDS needed to understand more about why parents were failing to bring their children to booked appointments in order to identify appropriate strategies to reduce the MA rate. A retrospective audit was proposed to assess the number, frequency and reasons for MA; affecting children at a large six-surgery site, for the 12 month period (1 August 2013 to 31 July 2014) using clinical records, appointment records and feedback from dental staff and parents. Obtaining parental feedback was core to the service audit, as Darzi[9] proclaimed: 'If quality is to be at the heart of everything we do, it must be understood from the perspective of patients'. The white paper Equity and excellence: liberating the NHS[10] focused on an NHS 'genuinely centred on patients and carers' and that 'gives citizens a greater say in how the NHS is run'. Patient feedback is crucial to the BHSCCDS, the role of the patient is no longer as a passive recipient of care, and the NHS encourages patient involvement in the design, planning and delivery of health services. The real test of performance must be the views and experiences of its users. By asking patients in a rigorous, systematic fashion about their experiences of care and treatment, healthcare services can be accurately measured and improvements made.

The aim of this service audit was to measure the BHSCCDS MA rate against the MA target and to develop recommendations, to attain the target which would be actioned and then re-audited for success or failure. It was hoped that seeking information from this cohort of high-risk children's families through personal, respectful and supportive contact would improve the services understanding of the individual and collective issues parents face, and may decrease anxiety that parents may have about seeking care for their children.

## METHODS

From the patient database the date and details of all child dental appointments, type of treatment, MA information, dentists seen, contact details and how they had been reminded about the appointment were recorded. Data were excluded if there was any missing information. A BHSCCDS staff member, trained in patient feedback techniques, attempted to contact parents of all children with a MA in the 12-month period, on at least three occasions, by mobile phone, and using a structured format with open ended questions recording the reasons parents gave for MA. The parents were also specifically asked what the BHSCCDS could do to encourage them to bring their children to appointments. A mobile phone was used as the clinic phone numbers are withheld and past experience has shown that withheld numbers are not answered by parents. As a consequence audio recording could not be done and the information was recorded by both the interviewer and an assistant listening in. The notes were compared for correctness. The parent was told that their feedback was being noted anonymously. The data were stored anonymously on an Excel spreadsheet on a password protected computer and were analysed to identify any themes. The findings were presented to all clinical and non-clinical BHSCCDS staff to ascertain their feedback on the MA rate and how to reduce it to attain the 7.5% target. The collective recommendations from parents and staff were collated and implemented where possible. A re-service audit is planned for 2015. Ethical approval was not sought for the audit and service evaluation according to Health Research Authority guidelines.[11]

**Table 1 Pattern of appointments for the 103 children who miss appointments but did attend**

| The appointment scenario | Pattern of MA | Range of allocated appointments |
|---|---|---|
| 68 (66%) children completed treatment | 482 appointments booked<br>142 (29.5%) failed<br>54 (11.2%) cancelled | 2–14<br>1–5<br>0–4 |
| 27 (26%) children still under treatment | 163 appointments booked<br>48 (29.5%) failed<br>16 (9.8%) cancelled | 1–18<br>1–3<br>0–5 |
| 8 (7.7%) started treatment but failed to complete | 31 appointments booked<br>17 (54.8%) failed<br>2 (6.5%) cancelled | 2–8<br>1–3<br>0–1 |

**Table 2 Mobile phone contact with parents**

| | Contact scenario |
|---|---|
| 81 (49%) unable to contact | 28 (17%) unable to contact as no number or line was dead. |
| | 55 (33%) tried to contact 3 times, 8 no answer and 47 left voicemail |
| 83 (51%) were contacted | 18 (30%) of the parents of children who never attended |
| | 38 (56%) of the parents of children who completed treatment |
| | 21 (78%) of the parents of children who were in treatment |
| | 6 (75%) of the parents of children with incomplete treatment |

## RESULTS

A total of 1,789 appointments were booked for 467 children (average age 9.1 years, 244 [52%], females 223 [48%] males) in the BHSCCDS clinic over the 12-month period, of which 374 (21%) were MA, (286 [16%] were not attended and 88 [5%] were cancelled on the day), approximately a loss of 280 clinical hours.

One hundred and sixty-four of these children (35%) had at least one MA (average age 9.1 years, 83 [51%] females, and 81 [49%] males). For the 303 (65%) children who were brought to all their appointments, they had 658 appointments, an average of 2.2 per course of treatment (range 1–11). For the 35% with MA, 757 appointments were booked, an average 4.6 appointments per course of treatment (range 1–18).

Sixteen parents cancelled (9.8%) their child's first appointment and then rebooked, 49 (29.9%) failed the first appointment and never rebooked, seven (4.3%) failed the first two appointments and never rebooked, four (2.4%) failed the first three appointments and never rebooked and one (0.6%) failed the first four appointments and never rebooked, so 61 (37%) children were never seen by the BHSCCDS.

One hundred and three children had MA but still attended and the pattern of their appointments can be seen in Table 1. The MA pattern was not related to the day of the week, morning or afternoon, the type of treatment, use of inhalation sedation, or the dentist seen. The MA was not related to whether the reception staff spoke to the parent to remind them, left messages or were unable to contact them.

All 164 parents were contacted by mobile phone, of which 83 (51%) were available for feedback, and the scenarios are presented

**Table 3 Feedback from parents of the 61 children who never attended**

| Number of parents (%) | Parent feedback themes |
|---|---|
| 6 (33%) | 'didn't get the appointment' |
| 4 (22%) | 'the appointment wasn't needed'<br>'he wasn't in pain anymore so didn't need the appointment' |
| 4 (22%) | 'forgot' |
| 4 (22%) | Said they had attended but our records showed they hadn't |

**Table 4 Feedback from parents of the 103 children who had attended**

| Number of parents (%) | Parent feedback themes |
|---|---|
| 14 (7%) | Said they hadn't missed an appointment, or couldn't remember missing one |
| 27 (33%) | Said they had cancelled in advance when our appointments system showed 'failed to attend' |
| 63 (76%) | Said they just forgot |
| 6 (7%) | Said they didn't bring the child as they were no longer in pain, so didn't need appointment |

**Table 5 Methods through which parents requested appointment booking and reminders**

| Reminder method | Number of parents (total 83 interviews) (%) |
|---|---|
| Text | 42 (50.6%) |
| Phone call | 33 (39.8%) |
| A second appointment card via post | 3 (3.6%) |
| Phone call and text reminder | 5 (6%) |

in Table 2. The responses from parents of children who were never brought to any appointments (61) are in Table 3 and those from parents of children who had attended (103) are in Table 4.

Sixteen MA occurred when the parent reported their child was ill. They didn't cancel, just failed to attend and 71 (85%) of parents recollected that they got reminder calls or messages for appointments. The verbal feedback from parents as to why children were not brought to appointments was mostly about forgetting appointments: *'sorry I forgot', 'oh! did I miss an appointment? Must have forgot [sic]', 'don't remember missing appointments but may have, I remember cancelling 1 or 2 as ****** unwell. I prefer phone call reminders. I love the service, the dentist was very patient with my daughter', 'I have problems bringing ******* to appointments. I work and have other children with things to go to, I would prefer text as often can't answer phone', 'I was unwell and couldn't bring ******* to appointment, I got another one in the post and he is still coming', 'I didn't know I had failed appointment....I will rebook', 'I forgot appointment but was contacted by reception and rebooked...', 'I was busy. Hopefully will come to next one and you phoned me each time...', 'We had family problems, I am bringing him now', and 'it was his Dad's fault, I told him, but he forgot.....'.*

Only two parents had negative comments: *'treatment took too long, would rather start treatment at first visit and not just exam. We are more likely to miss appointments if there are more of them' and 'took too long to get an appointment so went to another dentist'.*

The recommendations from parents focused on how they wished to be both contacted and reminded about the appointments (Table 5). The recommendations from staff are presented in Table 6.

## DISCUSSION

There are obvious methodological difficulties in identifying the reasons for non-attendance in primary care. By definition, patients have not cooperated with an appointment system and so may feel less than comfortable participating in feedback which asks them the reasons why. Indeed, it may appear confrontational if not handled sensitively. The idea of using a mobile phone with a number that was visible and not withheld was used for this very reason. The staff member, who phoned the parents, was very experienced in conducting patient feedback surveys, dealing with vulnerable patients and communities.

The average age and sex of the children who had MA matched those who had no MA and so it was valuable to ascertain why these particular children were not brought to all their appointments. It was seen from the audit that when children had MA it took twice as many appointments to complete a course of treatment. Feedback in this audit was obtained from phone interviews with 51% of the parents whose children had MA, and so is a representative sample of these families. The most common reasons vulnerable children missed appointments were: parents forgot, the child was ill or the appointment was no longer needed. This agrees with past research carried out by Cosgrove,[12] which followed up 40 patients who failed to attend by visiting them at home within 24 hours of missing their appointment. The most common reasons for default were not being well enough to attend the surgery, resolution of symptoms and forgotten/muddled appointments.[12]

Appointment systems can be a barrier to healthcare and non-attendance may be a reflection of difficulty of access to services. Where there are problems in accessing healthcare, waiting lists for appointments get longer and this in turn leads to increased non-attendance. Appointment systems may be difficult to use for members of communities in areas of social deprivation or low socioeconomic class. Some patients have less predictable, chaotic lifestyles that are not easily compatible with a structured system. It has been shown that in deprived parts of the UK, there was little explicit support among parents for the restoration of asymptomatic carious primary teeth. Patients exempt from dental charges (mainly children) are more likely to fail to attend dental appointments.[13] Whereas the attendance of children may be outside their control, the authors of that study hypothesised that factors such as poverty may be an important influence in whether these patients feel able to attend for their appointments.

A big MA group was first appointments (61 children who never attended) and 41% of these had no valid contact number. The service audit revealed that lots of mobile numbers given by parents were non-functional. This suggests more contact details, for example, school contact details or other family member contact details, are required before appointments are booked, as well as confirmation that the appointment is still required and how parents want to be reminded. However, lots of children who miss appointments do then attend. The MA rate at 12–15%, was focused on 35% of the children (with MA rates of 30–50%), yet despite this they still often completed a course of treatment. Izard[14] showed that

a small proportion of patients can comprise a disproportionately large amount of no-shows, implying that focusing on these patients might improve overall no-show rates. It maybe hypothesised that missing appointments is just 'normal' for these families. The patient most likely to miss an appointment is one who is young, comes from a low socioeconomic group, has a large, unstable family and has previously broken appointments.[15] In addition, this patient will most likely have no significant ongoing relationship with a single clinician, may have been scheduled for the appointment at a distant time, may have forgotten about the appointment or thought it was scheduled for another time, and will feel little sense of urgency about keeping the appointment. Improved communication between patient and clinician combined with personal interest and attention may produce a positive effect on the appointment-keeping behaviour.

In their feedback, the dental staff suggested pragmatic methods of appointment scheduling to reduce the disruptive effect of the MA, by predictive overbooking, elimination of the automatic reappointing of patients who have previously broken appointments and arranging an interview with the patients with the highest number of repeated MA. DuMontier et al.[15] distributed a scripted discourse to receptionists, to be delivered to patients who miss appointments when they next contacted the clinic. The discourse communicated three points: making patients aware of their frequent MA, describing the effects on the clinic and the patient's health, and negotiating a commitment from the patient to improve appointment adherence. Clinicians also discussed these points with the patients, which provided insight not only into why patients found it difficult to keep appointments but also into their lives, giving the authors a sense of the struggle the patient faced in managing the complexity of family, money, emotional and physical health, and the patients' difficulties associated with the inability to schedule appointments in advance.

As highlighted in this service audit, parent's forgetfulness was one of the main reasons that children were not brought to appointments and their feedback requested repeat reminders in a variety of formats. Modes of communicating reminders for appointments to patients in the BHSCCDS already include face-to-face communication, postal messages, calls to landlines or mobile phones, and mobile phone messaging. The Cochrane review[8] showed that mobile phone text messaging reminders increase attendance at healthcare appointments compared to no reminders or postal reminders.

**Table 6 Staff suggestions**

| Theme | Recommendations |
|---|---|
| Clinic flexibility/ mobile dental units | Late night appointments, half-term school clinics<br>Saturday clinics, expanding use of the mobile dental unit<br>New patient clinics, with two dentists in two surgeries with appointments 20 minutes apart, patients to attend 15 min before to complete registration. |
| Interaction with other health care workers/schools | Copy appointments to GDP, GP and school nurse<br>Ask GDP/referrer if patient has MA with them<br>More engagement<br>MA letter to referrer/GP/GDP |
| Processes | Patient pathway manager who follows patients through the service<br>Referral form to ask how patient wants to be contacted: text, phone, letter, email<br>Correct contact details confirmed when referral received<br>More strongly worded/more specific appointment letter and give information on the effect of MA on the service<br>Make letter personal, say '.... is looking forward to seeing patient'<br>An updated missed appointment policy for children which is sensitive to personal circumstances which precipitated the failure to attend (eg illness, personal stressors)<br>Reception role defined<br>Check contact details at each appointment<br>Shortest time between referral and appointment<br>Translated letters<br>Transport service? |
| At first appointment | Outline importance of treatment to parents on the day of the examination<br>Clinic boards to show number of MA each week<br>Parent contract<br>Dentist really engaging with parent about child's treatment needs and the importance of them attending<br>Initial appointment with Dental Nurse who collects information on diet, discusses prevention, and then go to Dentist. Overbook.<br>Attempt to still see them if they are late |

However, this may still be insufficient; eg, as a result of this audit, eight parents requested appointments for their children and were booked directly by dental staff during that conversation, followed up with a letter and a reminder phone call, yet only two appointments were kept.

This service audit was undertaken so BHSCCDS could examine patterns of attendance/MA and use feedback/parent engagement to improve uptake of dental care for the benefit of the child. Non-attendance is a complex issue and there are a lot of other factors involved that are not able to be addressed by a simple service audit. The interviewer took care not to challenge the reasons given by parents for MA because an audit is not a way to address or investigate changing parental values or beliefs. The aim in this first MA service audit was to identify reasons or barriers to attendance, address them and then re-audit. The children seen by BHSCCDS are 'special care' and their vulnerability to dental neglect by missing appointments and repeated non-attendance means BHSCCDS has a very robust safeguarding system in place and works closely with school nurses and health visitors, doctors, schools, social workers and the Barts Health safeguarding team. However, caution is needed as there is no baseline data for missed dental appointments among the 'healthy' child population and whether the 21% MA rate determined in this study is high or low. Therefore, it cannot be determined whether MA occur more frequently in families where there are concerns about safeguarding. Powell and Appleton[16] suggest reconceptualising child and young person DNA (did not attend) to WNB (was not brought) leading to 'positive interventions to safeguard and promote the welfare of children that go beyond the missed appointment to a move towards the child-centric practice'. They recommend that the healthcare team 'assess the reason for the WNB and consider its significance from the child's perspective. 'This means assessing the child or young person's needs, their possible vulnerability and the risk to their health and well-being.' The target of 7.5% may be unachievable but a re-audit will provide further valuable information. Negotiations with commissioners for a more appropriate target may be required for this vulnerable group.

## RECOMMENDATIONS

If a parent makes an appointment and then fails to bring their child, how should the BHSCCDS respond? Time and limited resources are used up by pursuing non-attenders but should we behave paternalistically or in a way that breaches that parent's autonomy? The recommendations produced from this service audit and staff feedback aim for a patient-centred focus, to address the three main reasons parents gave for their vulnerable children missing dental appointments; forgotten appointments, appointment no longer needed and child illness.

They were broadly in two main categories:

- **Increased engagement with parents:** Before booking any appointments, aim to reduce perceived barriers by enhanced communication, explaining the service and the importance of oral health, using personalised letters, contacting support networks for the families and increasing parent motivation (for example, increased patient information and oral health advice)
- **Organisational changes:**

1. Overbook new patient clinics and run them simultaneously so two dentists can work as a team to reduce lost clinical time.
2. Reduce the time between referral and booked appointment
3. Collect more patient information from the referrer
4. Repeat reminders (letter, email and telephone)
5. Introduce extended clinic hours and patient pathway reorganisation, including changes in recall systems.

The results from this audit confirm that although the BHSCCDS does a lot to encourage patients to keep appointments more needs to be done. Re-audit and further feedback from parents and staff after recommendations are put in place will be conducted.


1. Harris J C, Balmer R C, Sidebotham P D. British Society of Paediatric Dentistry: a policy document on dental neglect in children. *Int J Paed Dent* 2009; **14:** 1–8.
2. Simons D, Pearson N, Evans P. A pilot of a school-based dental treatment programme for vulnerable children with possible dental neglect: the Back2School programme. *Br Dent J* 2013; **215:** E15.
3. NHS Information Centre for Health and Social Care Hospital Outpatient Activity. April 2011–March 2012: Provider Level Analysis. Online information available at http://www.hscic.gov.uk/catalogue/PUB09379 (accessed July 2015).
4. British Dental Association. Failure to attend. Online information available at https://www.bda.org/dentists/policy-campaigns/research/workforce-finance/gp/Documents/failure_to_attend_research_2010.pdf#search=failure%2520to%2520attend (accessed July 2015).
5. Hallberg U, Camling E, Zickert I, Robertson A, Berggren U. Dental appointment no-shows: why do some parents fail to take their children to the dentist? *Int J Paediatr Dent* 2008; **18:** 27–34.
6. McClure R J, Newell S J, Edwards S. Patient characteristics affecting attendance at general outpatient clinics. *Arch Dis Child* 1996; **74:** 121–125.
7. Andrews R, Morgan J D, Addy D P, McNeish A S. Understanding nonattendance in outpatient paediatric clinics. *Arch Dis Child* 1990; **65:** 192–195.
8. Gurol-Urganci I, de Jongh T, Vodopivec-Jamsek V, Atun R, Car J. Mobile phone messaging reminders for attendance at healthcare appointments. *Cochrane Database Syst Rev* 2013; 12.
9. Lord Darzi. *High quality care for all – NHS next stage review final report.* London: Department of Health, 2008.
10. *Equity and excellence: Liberating the NHS.* NHS White Paper. London: Department of Health, 2010.
11. Health Research Authority. Defining research. 2013. Guidance available online at http://www.hra.nhs.uk/documents/2013/09/defining-research.pdf (accessed July 2015).
12. Cosgrove M P. Defaulters in general practice: reasons for default and patterns of attendance. *Br J Gen Pract* 1990; **40:** 50–52.
13. Reekie D, Devlin H, Worthington H. The prevention of failed appointments in general dental practice. *Br Dent J* 1997; **182:** 139–143.
14. Izard T. Managing the habitual no-show patient. *Fam Pract Manag* 2005; **12:** 65–66.
15. DuMontier C, Rindfleisch K, Pruszynski J, Frey J J 3rd. A multi-method intervention to reduce no-shows in an urban residency clinic. *Fam Med* 2013; **45:** 634–641.
16. Powell C, Appleton J V. Children and young people's missed health care appointments: Reconceptualising 'Did Not Attend' to 'Was Not Brought'- a review of the evidence for practice. *J Res Nurs* 2012; **17:** 181–192.