“Getting to Clinic Study” – a mixed methods study of families who fail to attend hospital outpatient clinics.

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Author contributions

CACJ contributed to the design of the work, the acquisition, analysis and interpretation of the data; and drafted the manuscript. **RO** contributed to the acquisition, analysis and interpretation of the data and revised the manuscript critically for important intellectual content. **HH** contributed to the design of the work, contributed to the acquisition, analysis and interpretation of the data and revised the manuscript critically for important intellectual content. **All authors**

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gave final approval for the version to be published and agree to be accountable for all aspects of the work.

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ABSTRACT

Objective

Non-attendance rates at paediatric hospital outpatient clinics are high however, parent-reported reasons for non-attendance are poorly understood. We aimed to identify: (1) modifiable system and parent factors that prevent parents from attending paediatric outpatient clinic appointments with their child and (2) parent views on changes that could be made to reduce non-attendance.

Methods

Interviews were conducted with a random sample of parents of children aged 0-18 years who did not attend scheduled new or review outpatient clinic appointments at a metro, tertiary children's hospital in Melbourne, between 01 May and 31 July 2017. Families were excluded if the principal investigator had previously cared for the child in clinic.

Results

50 parents completed an interview. Common factors related to non-attendance were reported as not receiving an appointment letter (n=13, 26%) or text reminder (n=16, 32%); and difficulties making changes to scheduled appointments (n=11, 22%). Parents suggested a number of ways hospitals could reduce non-attendance, including flexible clinic times, reduced waiting periods, cheaper parking, consistent text reminders of upcoming appointment and, overwhelmingly, the ability to reschedule via text, removing the need to telephone the hospital.

Conclusions

The principal reason families struggle to attend appointments is being unaware of appointments, not receiving letters or text reminders. The lack of correct contact details held by the hospital's Electronic Medical Record suggest systems errors in communication are

impacting attendance rates of children in the CCCH clinics, and that addressing these internal issues may increase clinic attendance rates.

Key words

Ambulatory Care; Outpatient Clinics, Hospital; Pediatrics; No-Show Patients

WHAT IS ALREADY KNOWN

1. There are high rates of non-attendance in paediatric outpatient clinics, which has widespread implications for hospital resourcing, access to care for other patients on the waitlist, and for the child's clinical outcomes.
2. Parent-reported reasons for non-attendance are not well understood.

WHAT THIS PAPER ADDS

1. This is the first Australian study to investigate parent perspectives in relation to non-attendance in paediatric outpatient clinics.
2. The most common reasons for non-attendance were hospital not family reasons, including not receiving appointment letters or reminders, suggesting that hospital electronic records and communication errors are unnecessarily contributing to non-attendance rates.
3. Families identified a number of system changes that can be implemented to increase attendance.

INTRODUCTION

Historically, non-attendance rates in paediatric outpatient clinics are high, between 23% and 35%.¹ This has implications for both clinical and service outcomes such as wasted clinical resources, reduced access to clinics for other patients, loss of revenue for service providers, and possible clinical repercussions (i.e. poorer health outcomes) for patients not seen.^{2,3,4,5} The reasons why parents do not go to outpatient appointments with their child remain poorly understood.^{1,6} Understanding the parent's perspective of why they did not attend scheduled appointments is important if we want to develop interventions to improve accessibility for families and reduce non-attendance rates.

Published studies examining non-attendance at hospital outpatient clinics are few, with most conducted in the United Kingdom (UK). These were undertaken in light of the rising cost to the National Health Service (NHS), thought to be in part a consequence of non-attendance. An extensive scoping review was carried out in the UK in 2013 to identify gaps in the available literature around reasons for non-attendance in 0-10 year old children at NHS paediatric health appointments.⁷ It confirmed a lack of available research data despite a wealth of knowledge in regards to adults and non-attendance.

The current body of knowledge has instead focused on describing rates of non-attendance, officially reported in England as 12.2% in 2012 with 19.1% identified in London in 2013.⁶ The focus also included the implementation and appraisal of management strategies used to support increasing attendance such as text reminders, phone calls and letters.⁷ These initiatives have been shown to improve attendance rates,^{7,8} with the most success coming from the use of short message service (SMS).^{9,10} One study suggested that the scheduling of appointments relative to the day of the week also impacts attendance with non-attendance rates being significantly higher at the beginning of the week relative to the end.¹¹

The present study aims to improve our understanding of parent-reported factors that are related to non-attendance in paediatric outpatient clinics in Australia. We aim to contribute to our understanding of the hospital and family factors associated with non-attendance at outpatient

clinics at the Royal Children's Hospital (RCH) in Melbourne. Flow on benefits of addressing non-attendance may include a reduction in potential health risks for children not seen, reduced waiting times with more efficient use of clinic appointment slots, and reduced financial burden on the hospital arising from decreased revenue due to non-attendance.

METHODS

Design and Participants

A semi-structured telephone interview study was conducted with parents of children aged between 0-18 years who failed to attend an appointment at one of the Centre for Community Child Health outpatient clinics at RCH, between 01 May and 31 July 2017 (see Table 1 for included clinics). These clinics see children with predominantly developmental and behavioural (i.e. non acute) problems. Both New and Review appointments were included during the period, reflecting the overall ratio of 1:4, New:Review failure to attend appointments, at this time. A random sample of eligible parents were contacted until the desired sample size of 50 parents had been reached. Families were excluded if the child had been seen previously by the principal investigator (n=8), or if they had insufficient English to complete the interview (n=6). Ethics approval was obtained from the RCH Human Research Ethics Committee (HREC 37160A).

Procedures

Families were selected using a random list generated by a data analyst who was independent of the study. The principal investigator (CACJ) telephoned families to invite them to complete the semi-structured interview via telephone. Informed consent was obtained from parents/guardians on behalf of themselves and their child, and further information on the study was posted to any families who requested this. Where parents consented, they were offered to complete the interview at the time of the phone call or during a scheduled, mutually agreeable time. Non-identifiable data were entered in real time into the study-designed database.

Measures

The 18-item telephone questionnaire (Appendix 1) was modified from a UK study.⁶ The questionnaire asks parents to clarify how the hospital confirmed the appointment with the family (e.g. by letter, SMS etc.); the content and timing of the reminder; whether or not the parent felt that the appointment was needed; whether or not the parent had tried to contact the hospital and if yes, any difficulties experienced in doing so; the parent's overall reasons for non-attendance; any concerns regarding the interaction of the family and the clinician they were engaged with; and the parent's views on what would help them attend appointments in future.

The child's home postcode was used to measure family socio-economic status based on the Socio-Economic Indexes for Areas (SEIFA).¹² The SEIFA Index of Relative Socio-Economic Advantage and Disadvantage (IRSAD) is a score based on census data standardised across geographic areas, and includes the economic (e.g. household income; rent and mortgage rates) and social conditions (e.g. education; employment; health problems) of people and households within an area. It has a national mean of 1000 and a standard deviation of 100, where lower scores indicate greater disadvantage, and higher scores represent greater advantage.

Sample size

The proposed recruitment period had a non-attendance rate of 19.2% (325/1688) with approximately 3/4 consisting of Review appointments and 1/4 of New appointments. We aimed to recruit a sample size of approximately 50 parents to identify common and consistent themes as to why parents fail to attend scheduled outpatient clinic appointments. Recruitment ceased once saturation was reached in the responses provided by families.

Data analysis

Data are reported using simple descriptive statistics (e.g. number and proportion of parents) for quantitative data. For open-ended questions (e.g. "Is there anything we can do to help you come to future appointments?"), common qualitative themes were extracted from the responses using an inductive content analysis, where we listened to families responses and categorised these

into common themes. Non-identifiable representative quotes are included to reflect the comments made by families.

RESULTS

Of the 265 parents who were eligible during the recruitment period, 80 were unable to be contacted and the principal investigator did not contact 105 because the required sample size of 50 parents had been reached. Of those families contacted, 20 declined participating, 6 were excluded because they were non-English speaking, 1 was excluded because they had already completed the survey for a sibling and 3 were excluded because they were unable to be contacted to reschedule a suitable time to complete the survey. The final sample consisted of 11 New and 39 Review appointments.

The characteristics of the sample are provided in Table 1. Across both New and Review groups, most children were male, with a mean age of 3.4 years in the New group and 8.4 years in the Review group. Family socioeconomic status (SEIFA) was similar to the national mean; with the two groups having a mean of 971.9 (New; SD = 67.4) and 1003.7 (Review; SD = 70.2). One in 5 (23%) of the Review group had previously not attended scheduled clinic appointments in the study period.

Hospital system factors associated with non-attendance

One in four parents (26%, n=13/50) reported that they did not receive an appointment letter for their child's appointment, and one in three (32%, n=16/50) did not receive a text reminder. Overall, 24% of parents (n= 3/11 New and 9/39 Review) reported being unaware of the appointment. Parents reported receiving reminder texts more than three days before the scheduled appointment in approximately half of the cases (47%, n=16/34), with the majority reporting the timing of the reminder as being 'good', (88%, n=30/34). Seven families could not recall when the text message was sent.

Two thirds of parents (62%, n=6/11 New and 25/39 Review) had attempted to contact the clinic to change their appointment and of these, the majority (90%, n=28/31) attempted to contact the

clinic by telephone. Three families reported attempting to text. The largest proportion of families who had attempted to change their appointment reported attempting to do so before the scheduled date (39%, n=12/31); one attempted to change their appointment on the day; and 6 attempted to do so after their child's appointment. A further 9 could not recall when they had tried to change the appointment and another 3 did not clarify this. Of the 31 families attempting to contact the clinic, 11 (35%) reported having difficulties changing their appointments.

Table 2 provides representative quotes from families regarding each of the factors relating to non-attendance. These are briefly discussed here. The general theme identified from open responses suggested that gaining access to the correct service was very challenging when calling the provided Specialist Clinic Call Centre number.

Families reported reception staff often struggled to direct them through to the correct clinic because they were not familiar with the clinics or doctors requested and families often experienced long wait times (> 45 minutes) on the telephone. However, once through to the correct outpatient clinic desk, the staff were described as warm, friendly and helpful.

Most families reported having a good understanding of why the referral was generated by the referrer and the vast majority reported needing to be seen by a paediatrician with issues they felt were unable to be managed by their general practitioner.

Family factors associated with non-attendance

Most reasons for non-attendance were due to hospital system factors described above but there were some family related factors, largely outside the control of the hospital. These included: the family forgot the appointment (n=9), or was unaware of the appointment (n=8); family illness (n=7), travel barriers including traffic congestion, costs and lack of off-street parking (n=6), did not feel the appointment would change anything (n=2), or were not engaged in the treatment plan (n=2).

Parent suggestions to improve non-attendance

We asked parents what the hospital could do to help them get to future appointments and identified the following themes: more flexibility to change appointments if required, being able to text to reschedule an appointment instead of telephoning, and changing clinic times to the weekend or after hours to accommodate work hours of parents. Parents also wanted a mechanism to know if the clinician was running behind schedule. Table 3 includes representative quotes from families regarding suggested improvements.

We asked if families thought there were things the hospital could do to assist in making it easier to let clinic staff know the appointment was no longer required. The overwhelming response was 'yes' in regard to improving the current system to cancel and reschedule appointments. Families would like the ability to text their need for re-scheduling or cancelling an appointment, thus avoiding the need to call directly.

DISCUSSION

In a sample of 50 parents who had not attended an appointment at a paediatric hospital outpatient clinic, we found that hospital-based factors such as difficulties with changing scheduled appointments and the lack of correct patient details being held in the Electronic Medical Records database were the most common reasons for non-attendance. Further, parent factors such as forgetting and being unaware of upcoming appointments were common.

These results are consistent with previous work completed in the UK,⁶ where common reasons for non-attendance included being unaware of appointments (51%) and not receiving an appointment letter or text reminder secondary to incorrect contact details being held by the hospital (22.4%). However, in contrast to two studies examining health professionals views as to why parents do not attend,^{5,13} we found very little evidence for reasons such as parental belief that the appointment was not needed (only 2/50 reported this in our sample) or that parents lacked motivation to attend (only 2/50 parents reported that they were not engaged in their child's treatment plan).

This is the first study, to our knowledge, to investigate Australian parents' perspectives in relation to non-attendance at paediatric outpatient clinics, thus contributing substantially to

current understanding. The study did however, have some limitations. Our sample size was relatively small so we were unable to conduct analyses to identify factors associated with statistically significant non-attendance. We recruited parents who had failed to attend an appointment 3-6 months prior and so their reporting may be subject to recall bias. Our results may not be reflective of general medicine / specialty outpatient clinic non-attendance and non-English speaking families.

The results of this study show that reasons for non-attendance are many and that both hospital and parent-based factors are responsible for increased non-attendance rates. The possible implication for clinicians and hospital managers is the opportunity to apply cost effective changes to increase attendance rates. The use of SMS has been shown to be cost effective and successful in reducing non-attendance,^{9,10} although this service is of no value if the organization does not have correct contact details for families to receive the scheduled appointment details.⁶ Ensuring contact details are correct at every point of contact from referral source and during direct interaction with families at each appointment may improve this situation. It has been suggested that a direct interface between the tertiary setting and the primary care physician could provide automatic updates when families change their contact details, providing up to date information without the need for families to contact hospitals to update their details.⁶

Comments made by families suggest that changing the SMS response to avoid the need for families to call the hospital to reschedule will improve attendance rates. Allowing a text response to reschedule and receive a call back from an allocated reception staff could be more financially viable than the current situation where consultants are sitting in empty rooms being paid for their time. Of note, our hospital has since instigated a system whereby families can re-schedule their clinic appointments online, without needing to telephone the hospital. It would be interesting to measure the impact of this on non-attendance in outpatient clinics.

This work provides direction for future changes to improve attendance rates in outpatient clinics. Whilst our findings might need to be replicated in larger samples and extended to different types of clinics, addressing hospital factors as suggested above may be the ideal first

step in reducing non-attendance, saving hospital costs, and improving access to care for those children who need it.

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TABLES

Table 1. Sample Characteristics

	New (n = 11)	Review (n = 39)
Child Characteristics		
Age at appointment date, years, <i>mean (SD)</i>	3.4 (3.8)	8.4 (5.0)
Gender, <i>male, n (%)</i>	6 (17.1)	29 (82.9)
Socioeconomic status, <i>mean (SD)</i>	971.9 (67.4)	1003.7 (70.2)
Previous non-attendance during study period, <i>n (%)</i>	1 (10.0)	9 (90.0)
Clinic of scheduled appointment		
Development / Behaviour, <i>n (%)</i>	2 (8.7)	21 (9.1)
Communication, <i>n (%)</i>	0	0
Encopresis / Enuresis, <i>n (%)</i>	0	6 (100)
Learning Difficulties, <i>n (%)</i>	0	3 (100)
Sleep, <i>n (%)</i>	4 (44.4)	5 (55.6)
Unsettled Babies, <i>n (%)</i>	5 (55.6)	4 (44.4)

Table 2: Representative quotes from participating families for factors relating to non-attendance.

Factor	Example quotes
Difficulty contacting the clinic to change appointments	<p><i>“Well because it is not a direct line, they don't seem to know who you are talking about, might go to a couple of different desks before you get to right one.” (ID 233)</i></p> <p><i>“Takes a very long time when getting through the general line, it is much better when you get <a direct> number, it is much faster.” (ID 145)</i></p>
Difficulty reaching the correct clinic	<p><i>“My son has multiple appointments at X and contacting the main switch to get in contact with Dr X can be infuriating, they often don't even know the behavioural clinic.” (ID 112).</i></p>
Long waiting times on the phone	<p><i>“I tried to contact the hospital before appointment, It was really difficult to call the clinic to reschedule because I had to call back and sometimes you can be on the line for a long time, I was on hold for 45 min once.” (ID 125)</i></p> <p><i>“The call back system is really hard, you can often be on the line for up to half an hour, I know it is a busy place and it's big... but I know all the numbers and prompts now after calling so many times.” (ID 138)</i></p> <p><i>“Long waiting times to get through so often hang up.” (ID 106)</i></p>

Table 3: Representative quotes from participating families regarding suggested improvements that would aid attendance in future.

Factor	Example quotes
More flexibility in appointment times	<p><i>“Good timing of appointment with flexibility is what is needed.”(ID 233)</i></p> <p><i>“Weekend appointments would be helpful, especially when you need to take time off work to get to clinic.” (ID 67)</i></p>
A way to know if the clinician was running behind schedule	<p><i>“Yes, I think attending the appointments is hard because the clinic is always running behind with long waiting times impacting on work, everyone tries to get early morning appointment, it would be great if you could have a mechanism of allowing parents to know if they are behind with times, it is really good that desk staff will allow you to come back when appointments are running late so you can at least get coffee.”(ID 125)</i></p>
An easy way to let the clinic know the appointment is no longer required or needs to be rescheduled	<p><i>“Need an option to say ‘no’ without having to call. It would be easier to have number 1 for yes, 2 for no and 3 for reschedule and then staff to call back. ... Just the ability to text no or reschedule and not have to call to do this otherwise”(ID 106)</i></p> <p><i>“If families could text and get a response when they want to change appointments, so they don't have to stay on the phone so long.”(ID 37)</i></p> <p><i>“The call back system is really hard. ... I know the girls at the desk finish at 4.30pm, I guess they don't want to work until 6 pm, but it makes it really hard when you need to change an appointment and you think about it and then you can't do anything because things are closed.”(ID 138)</i></p>

“If you could text back to change appointments that would be great.” (ID 233)

APPENDICES

Appendix 1: Telephone Script

- Hello, my name is [name] and I am calling from the Royal Children's Hospital. Can I please ask who I am speaking with? (Confirm parent).

We are doing a study to better understand why some families cannot get to their outpatient clinic appointments. The study involves answering some questions on the phone about why you could not get to [child's name] appointment in [month]. It will take about 10 minutes and all your answers will be confidential. A participant information sheet is available to further explain the project. This will be either e-mailed or mailed to you.

Would you like to take part in the study now? Parent: Yes or No

If 'yes' – great, let's begin.

If no – That is fine. Would you like to take part at another time when it is easier to speak?" Parent: Yes or No. If no, thank your time. <If yes, schedule a mutually convenient time>.

- Appointment type – New or Follow-up
 - Previous non-attendance : 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
 3. Did you receive a letter to tell you where the appointment was? Yes or No (Branching Qn) if No go to Qn 5.
 4. Did the letter tell you when (date and time) the appointment was? Yes or No (Branching Qn) if No go to Qn 5.
 5. Did you receive a reminder of the appointment? Yes or No (? Branching Qn) if No go to Qn 13

If yes what form was it in: text or letter or call?

6. Did the reminder tell you where the appointment was?
7. Did the reminder tell you when (date and time) the appointment was?
8. How many weeks or days before the appointment did you receive the reminder?
9. Do you think that was good timing? Yes or No
If no, can you say when would be the best time to get a reminder?
10. Did you attempt to contact The Royal Children's Hospital about the appointment?
Yes or No
 - If yes how did you try?
 - If yes, when did you try?
11. Were there any difficulties contacting us? If yes, can you say what difficulties?...
12. Do you know why your child was referred to the clinic? Yes or No, Specify.....
13. On a scale of 1-10, how necessary do you think the appointment was (where 1 – unnecessary, 10- necessary)?
1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10
14. Do you think an appointment with a Paediatrician is still necessary? Yes or No
15. Do you think your GP could have dealt with this problem? Yes or No
16. Is there anything we can do to help you come to future appointments? Yes or No.
Specify.....
17. What was the main reason you were unable to attend the appointment? (Drop down List)
 - Forgot
 - Unaware of Appointment
 - Barriers to physically attending appointment – transport / financial / location of service
 - Child no longer needs appointment
 - Unhappy with clinic staff
 - Unhappy with the hospital system
 - Other, please say....
18. Finally, some parents are not happy with the service the doctor provided in the clinic.
Was this a problem for you? (for review FTAs only)

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Author contributions

CACJ contributed to the design of the work, the acquisition, analysis and interpretation of the data; and drafted the manuscript. **RO** contributed to the acquisition, analysis and interpretation of the data and revised the manuscript critically for important intellectual content. **HH** contributed to the design of the work, contributed to the acquisition, analysis and interpretation of the data and revised the manuscript critically for important intellectual content. **All authors** gave final approval for the version to be published and agree to be accountable for all aspects of the work.

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