Evaluation of Parents' Experience of Remote Consultations since COVID-19 Pandemic

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Abstract

Background: Remote consultation is a form of telemedicine, and its selective use has been in existence in various forms and shapes for the last few decades. Remote consultations were used widely in the United Kingdom (UK) during the Covid-19 pandemic to reduce the risk hospitals and healthcare settings posed to transmission of the virus. We explored the experiences of parents of paediatric patients at Queen's Hospital Burton (QHB), who had remote consultations during the pandemic, to determine how successfully the service was provided.

Methods: This was a qualitative study involving semi-structured interviews of parents of paediatric patients at QHB, UK. During the interview, three key themes explaining experience or signifying areas of improvement for the delivery of remote consultations emerged. The themes were, technology concernments, service concerns and doubt.

Results: All parents expressed satisfaction with the service and the preference for video consultations over telephone was also made clear. Some drawbacks were noted about the service and all respondents made it clear that they do not view remote consultations as a permanent substitution for face-to-face consultations.

Conclusion: Overall, majority of the parents denoted mainly positive experiences with remote consultations. The findings of this study therefore conclude that the delivery of remote consultations by clinicians at QHB was sufficient and supports the continued use of remote consultations for paediatric outpatients at this hospital in the future.

Keywords: Telemedicine, Remote, Children, Clinic, Consultations

Introduction:

Remote consultations (telephone and video consultations) are a form of telemedicine and its use within the NHS dates to the 1990s [1]. The World Health Organisation (WHO) defines it as the delivery of health care services by an electronic means for the remote diagnosis and treatment of disease and injury in patients, with the interests of improving the health of individuals and their communities [2]. The increased use of remote consultations in the United Kingdom has been slow despite many healthcare systems recommending the shift to a digital approach [3]. However, present day use of remote consultations has substantially increased since the start of COVID-19 pandemic after recognition of the risk hospitals and healthcare settings posed to transmission of the virus.

Traditionally, the main outcomes of remote consultations have been to provide clinical care, resolve regional barriers and improve patient outcomes [2]. However, since the pandemic started, these aims have changed. The rapid rise in remote consultations within the NHS is due to two main factors. The first one relates to reducing patient flow through healthcare facilities and the second to limit infectious exposures. COVID-19 can spread through both indirect and direct means [4]. This increases the likelihood of patients contracting COVID-19 as a nosocomial infection. Nosocomial infections may be caused by microorganisms and viruses acquired while in the hospital [5]. The clinician, who may come into contact with a series of patients with varying degrees of vulnerability, is an excellent possible vector for carriage and transmission of COVID-19 within the hospital [5].

The current research focuses on the perspectives of parents of children who have had remote consultations since the pandemic. There are likely to be inconsistencies and differences in the experiences of patients as opposed to experiences of the parents. This is likely because, the parents were not seeking direct help for their own conditions. This study explored the experiences of parents of paediatric patients at Queen's Hospital Burton (QHB), who had remote consultations during the pandemic, to determine how successfully the service was provided. The current study used a methodology that allowed for the investigation of not just the experiences, but also how the parents interpreted these encounters. By analysing parental experience of paediatric outpatient clinic consultation at QHB who used remote consultation, an evaluation of the service standards was achieved.

We present this qualitative study in accordance with the COREQ checklist (Suppliamentry file).

Methods:

Study design:

This service evaluation examined the experience of remote consultations (telephone and video consultations) offered to the parents of paediatric outpatients at QHB. The evaluation aimed to establish how well QHB delivered remote consultations by analyzing the experiences of the parents in order to deduce what improvements can be implemented to enhance service delivery. The team providing remote consultation included the Paediatric clinic medical and nursing staff at QHB within the University hospitals of Derby and Burton NHS Foundation trust.

Setting: How were the participants approached?:

Purposive random sampling obtained a relatively homogenous sample of participants who were parents of paediatric outpatients at QHB. Study information was given to all the participants including the explanation of the purpose of the interviews and informed/voluntary consent was obtained prior to the interviews. Participants were taken to a private room to conduct their interviews face to face after attending any required clinic appointments.

Inclusion Criteria:

All patients and parents included in the service evaluation had experienced at least one form of remote consultation since the COVID-19 pandemic.

Exclusion Criteria:

Patients/parents who had used any form of remote consultation prior to the pandemic were excluded from the data. The data obtained during the pilot interview was also excluded from the final data analysis.

Interviewer:

All the interviews were conducted by one interviewer (RAO) who was a student at the School of Medicine @ Nottingham University United Kingdom at the time of data collection. Relevant articles were consulted by the interviewer prior to conducting the interviews. The articles have been signposted in the text and detailed in the reference section.

Informed consent:

Participants were taken to a private room to conduct their interviews after attending any required appointments and were reminded that they could withdraw from the interview at any given point. Participants were also asked to sign an informed consent form to gain written consent. Ethical approval was not required as this was classed as service evaluation project.

Sample size justification:

Bowling [6] and Smith and Osborn [7] recommend including three to six participants in an Interpretative phenomenological analysis (IPA) study. Six participants were interviewed as part of this study one of which was for the pilot interview. The small-scale sample size was appropriate for IPA's idiographic approach, which selects the most useful subjects for information about the phenomenon that is being studied [7]. The data from two out of the six interviews were not included in the final analysis because one of them was for the pilot study and the other omitted since entirely different themes appeared. Thus the final sample size of this IPA study was 4. Parents of children who have used various forms of telemedicine related remote clinic consultation prior to COVID-19 were excluded from this study.

Analysis:

All interviews were recorded with the participants' consent and transcribed verbatim. For the transcription of interviews, the analytic approaches for IPA provided by Smith et al [8] were used as a guide. Additionally, transcripts were read over several times to become familiar with the accounts. This ensured that sustained interactions with the text occurred to capture the content and ambiguity of participant meanings, which are essential in IPA [9]. Before moving on to the next transcript, an ideographic technique was employed, and each transcript was thoroughly analysed.

Results:

Participants:

All interviewees were white British and parents of the patients. Five mothers and one father were interviewed with the average age being 48 (range: 44 - 55 years)
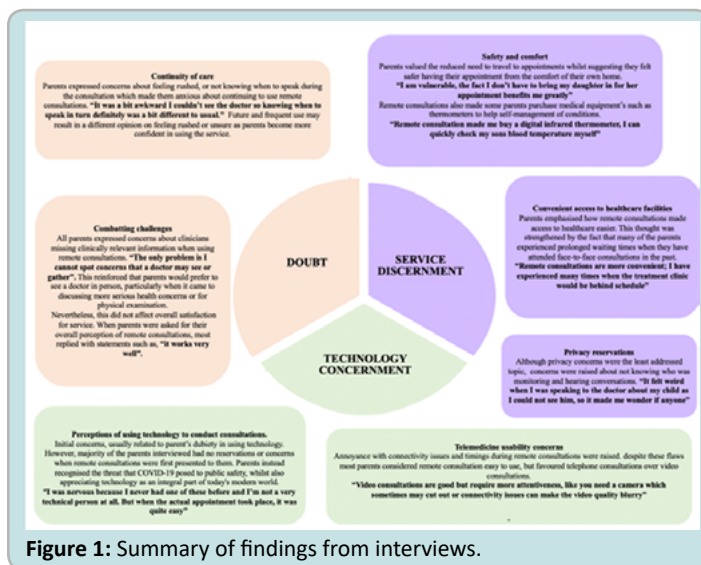
Analytic procedures:

Given the limited amount of research surrounding this subject, the study took a qualitative approach. Qualitative research in medicine apprehends the patients/parents' perspectives of healthcare, to enable professionals and providers to understand how patients and parents perceive healthcare services [10]. Semi-structured interviews were used which explored the lived experience of the participants and how they understood them [11]. Semi-structured interviews are fair and adaptable, as the investigator can ask questions in their area of interest but can also choose to explore the psychological world of the participant [11]. As a result, the interview schedule allows for flexibility, and the interviewer is free to pursue new pathways that were not initially anticipated but driven by the respondent's interests and concerns [11]. Because of these characteristics, semi-structured interviews are seen to be an excellent approach to collect ample data about participants' experiences and the interpretations they associate with them. This is especially significant when investigating an under-researched topic [12].

Furthermore, phenomenological research aims to place a variety of inputs, such as observations and measurements, into context while taking into account the participants' perceptions and experiences [13]. IPA is a methodological framework used for analysing significant life events from the viewpoint of individuals9. IPA incorporates three major elements: phenomenology, hermeneutics, and ideography, all of which are based on

physiological research principles [9]. IPA gives an understanding of how to look at and comprehend initial recollections and subsequent reflections developed as part of a lived experience and this is the phenomenology. IPA recognises the researcher's interpretative role, as well as the notion that the analytic account is always a collaborative effort between the participant and the researcher. This is referred to as a "double hermeneutic" as emphasized by Smith [9] the second theory underpinning IPA, in which the researcher tries to comprehend the participant's endeavour to grasp their own personal and social experience.

Lastly, IPA may be used as a fractional outline that encourages researchers to construct studies that take after less common pathways or not compelled by endorsed techniques with the use of small, purposively-selected and carefully-situated samples [8]. This outlines the final theory that underpins IPA: Ideography. The impact of ideography can be seen in the intricate investigation of phenomena from a comprehensive or individual perspective as experiences were analysed separately.

Three broad themes were identified, technology concernments, service discernment and doubt (Figure 1). Themes were recurrent in all respondents for their perceptions of using remote consultations during the pandemic. These themes were additionally categorised into sub-themes.

Figure 1: Summary of findings from interviews.

Technology Concernments:

This theme explored the parents lack of control over the threats the pandemic posed to patient safety, and perceptions that parents had when given the option to use Telemedicine. Two subordinates speak to this core theme, 'Perceptions of using technology to conduct consultations' and 'Telemedicine usability concerns". R1 specifically noted that "Initially I was nervous because I never had one of these before and I'm not a very technical person at all. But when the actual appointment took place, it was quite "easy" (R1). The conflict between wanting to use remote consultations but being sceptical of it due to it using technology has been made very evident by the parental narratives. This factor feeling is important towards using remote consultation particularly in terms of how "easy" or "difficult" parents would find the process. In terms of Telemedicine usability concerns, 3 parents commented on the efficiency remote consultation brought into light: "Because I am not that sort of

person to go on any computers or anything, I say it is so easy to do once you get into the swing of it, I don't even see why remote consultations don't take place more often… It's not complicated at all" (R3). This reinforces the ease of remote consultations found by some parents. This instance also links to the second core theme of usability concerns. The connection between finding the process easy and questioning why its use has not been normalised suggests a pattern of optimism.

Service discernment:

This theme explored the ideas of safety and comfort, convenient access to healthcare facilities and privacy reservations. Most of the parents valued the reduced need to travel to appointments to discuss their child's health and felt safer having their appointment from the comfort of their own home. "I am glad because I am vulnerable, and I am more likely to get COVID-19 so the fact I don't have to bring my daughter in for her appointment benefits me greatly (R1)" This suggests that due to an underlying health condition R1 was fearful of contracting COVID-19. However, the option for R1 to conduct her consultation from home was relieving. Convenient access to healthcare facilities was highlighted further by R4. "I have found remote consultations better when it comes to the doctors sticking to the allocated appointment times (R4)". Nearly all the patients in this study described their annoyance when it came to prolonged waiting times when attending face to face appointments. Remote consultations challenged this thought. Privacy challenges involved when using Telemedicine caused concern to R4. Concerns were expressed regarding not understanding who was monitoring and hearing the conversation. "It felt weird when I was speaking to the doctor about my child as I could not see him, so it made me wonder if anyone else was listening to the conversation (R4)". No other issues surrounding this topic were expressed during interviews, indicating that privacy reservations were not a major concern.

Doubt:

The last theme analysed the extended use of remote consultations and how patients perceived challenges of using remote consultations. 3 parents in this study had an enthusiastic approach to the continued use of remote consultations. They expressed concerns about feeling rushed, or not knowing when to speak during the consultation. "It was a bit awkward as during the remote consultation, I couldn't see the doctor so knowing when to speak in turn definitely was a bit different to usual (R2)". Despite this, it is important to note that parents are responding to their experiences of doubt based on their initial perception of remote consultation. Future and frequent use may result in a different opinion on feeling rushed or unsure as parents become more confident in using the service. Moreover, video consultations might also improve communication between the clinician and the parents/patients. All parents expressed concerns about clinicians missing clinically relevant information when using remote consultations. "The only problem is I cannot spot concerns that a doctor may see or gather during face to face appointment (R4)". "What if during a video consultation, the particular rash or problem does not show up… as well on camera that really worries me (R3)". This reinforced that parents of paediatric patients would prefer to see a doctor in person, particularly when it came to discussing more serious health concerns or for physical examination. Nevertheless, the above

concerns did not affect the patient's overall satisfaction for the use of remote consultations since the pandemic. When parents were asked for their overall perception of remote consultations, most replied with statements such as, "It works very well, it is a good way to combat the challenges we are facing in society at the moment (R3)".

Discussion:

The present study sought to explore the experiences of parents of young children who have had remote consultations since the pandemic started. IPA approach of the interview data revealed three core themes, 'Technology concernments', 'Service discernment" and 'Doubt'. Scepticism in using remote consultations was exacerbated by the parents' lack of confidence in their ability to use technology and adapt to the new service. The parents' doubts were sparked by these experiences, which posed questions about the efficacy of remote consultation in thoroughly evaluating health conditions. As a result, parents insinuated that the suggested changes would significantly increase their confidence in the service.

Since previous studies had found similar results [14], the present studies theme of doubt was anticipated. However, the current study discovered that optimism was also rooted in the concept of doubt. A study conducted by Lee etal [14] investigated patient perceptions of Telemedicine for type 2 diabetes treatment using a qualitative approach. While the participants in their study had a more positive experiences with telemedicine than the parents, the report was constrained by the fact that the sample included patients who were new to Telemedicine as well as patients who had previously used telemedicine. Thus, since four of the patients in the sample were frequent Telemedicine users, a more favourable attitude toward Telemedicine could have developed prior to their inclusion in the research. This could potentially be the reason why with the concept of doubt in their study was not as distinctive compared to the present study as the study inadvertently introduced bias which skewed the findings [6].

In the present study, parents discovered that cues were difficult to visualise by using telephone consultations. This indicates that when clinicians undertake remote consultation, more empathy is needed to avoid patients being cut off or not knowing when to talk. The overall usage of Telemedicine was discussed in Car and Sheikh's systematic review [15] which summarised key challenges and benefits of Telemedicine. The study found that video consultations help patients pick up on visual signals. Since parents had proposed this to enhance the service, clinicians could opt for increased use of video consultations over phone consultations to combat this issue.

Strengths and Limitations:

The use of theoretical framework and exploratory nature of the study to guide investigation, comprehension and interpretation facilitated the main strengths of this study in understanding the parents' experience of using remote consultations since the pandemic. The study reached depth and the findings on the perceptions of remote consultations cohered with other Telemedicine studies available in the wider literature [10,14,16].

The sample size can also be seen as strength as small sample sizes in IPA ensures the best analysation of experiences [7]. The outlook of all parents was individual, but also similar, which was

expected. The research gathered the true experiences of parents and results were accurately depicted by the interview data gathered, analysed, and presented. However, the researcher's singularity may be considered as a weakness of the study [6]. Supplementary research and other researchers working on this topic may have come to different conclusions about the parents' lived experiences of Telemedicine since the pandemic. Therefore, multiple perspectives on interpreting interview findings may have been observed if more researchers were involved. Despite this, the flaw was mitigated by thorough transcript data analysis and a narrative that relies on evidence from quotes to pillar the experience from respondents directly [7]. Authors acknowledge that the mean age of interviewees was 48 years which is relatively high. This can decrease the generalisation of the study results to population of all ages.

Moreover, although the research followed a rigorous analysing and documenting process, it was difficult to differentiate one's own perceptions from the consumers of telemedicine the researcher was studying. This proved challenging since experience of Telemedicine was experienced by the researcher herself. Nonetheless, keeping in mind the guidelines of IPA, precautions were taken to keep other perspectives out of the study and completely represent participants' understanding.

Conclusion:

The present study adds to the knowledge of Telemedicine and experiences with remote consultations since COVID-19 pandemic. Recently, there has been a surge of research into remote consultations due to the public health challenge posed by COVID-19. In the light of this, the current study is a timely addition to the research field. Whilst previous studies have highlighted the advantages of remote consultation, only the present study denotes key areas for change, based on the lived experience.

In conclusion, the service of remote consultations provided by QHB was carried out effectively and met the aims of providing remote healthcare during the pandemic. The study therefore supports the continued use of remote consultations for paediatric outpatients at QHB. The experiences outlined in the study are both instructive and enlightening. The relevance of this research will be determined over time, but it is hoped that the results can be used to help clinicians deliver remote consultations as effectively as possible.

What is already known on this topic?:

Patients find remote consultations/telemedicine convenient and effective for discussing their clinical conditions. However, they would not deem remote consultation superior to face-to-face consultation. Lack of research on patient experience using remote consultations across various healthcare settings indicates that Telemedicine has not yet been widely adopted enough across the National Health Service in the United Kingdom.

What this study adds?:

This qualitative research expands on existing evidence on Telemedicine as well as its use during COVID-19 pandemic. It supports the growing concurrence that Telemedicine can aid increasingly accessible healthcare to a variety of patients. In addition, information about the advantages and characteristics of remote consultations is provided by the parents of paediatric patients seeking treatment for a variety of conditions.

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