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ORIGINAL RESEARCH

Feasibility and acceptability of internet-delivered parent-child interaction therapy for rural Australian families: a qualitative investigation

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ABSTRACT:

Introduction: Parent–child interaction therapy (PCIT) is an evidence-based parent management training program for the

treatment of childhood disruptive behaviour disorders (DBDs). In Australia, however, due to a lack of services in regional, rural and remote areas, the program is not accessible to all families who might benefit. Preliminary evidence demonstrates that telehealth technologies can be leveraged to deliver PCIT via internet (I-PCIT) to urban families. It is not known, however, to what extent I-PCIT is acceptable and effective for regional and remote families, who are traditionally underserved and face a range of stressors unique to living outside major cities. The present study represents the first qualitative investigation into the experience of I-PCIT for rural or regional Australian families.

Methods: Qualitative interviews were conducted with 10 parents who were living in regional, rural and remote areas of New South Wales (NSW), Australia, and who were referred to an I-PCIT program for treatment of DBD in a child aged 2–4 years.

Results: Thematic analysis yielded two pre-treatment themes: motivation for seeking treatment and barriers to previous service access. Three overarching themes were identified in post-treatment interviews: positive outcomes, valuable program components and challenges and acceptability of internet delivery. Results demonstrate that consumers from regional, rural and remote NSW view I-PCIT as an acceptable and effective treatment of childhood DBD, bolstering preliminary evidence about the utility of internet technologies to deliver the high-quality results of PCIT. While internet connection issues were a hindrance to treatment for some participants, all parents reported meaningful positive outcomes for both child and parents.

Conclusion: The study highlights that I-PCIT effectively expands the reach of mental health services to Australian communities that previously could not access clinic-based parenting services.

Keywords:

Australia, disruptive behaviour disorders, parent–child interaction therapy, parent training program, parenting, telehealth.

FULL ARTICLE:

Introduction

Childhood disruptive behaviour disorders (DBD), typified by oppositionality, emotional dysregulation and conduct problems, are a prevalent class of mental health disorders in youth[1], and often the start of a trajectory towards poor psychiatric outcomes across the lifespan[1-6]. Internationally, the recommended standard of care for childhood DBDs is parent-training based behaviour therapy[7,8], of which parent–child interaction therapy (PCIT)[9] has been identified as one of the most effective programs. With underpinnings in both social learning and attachment theories, PCIT comprises two distinct, sequentially delivered phases: child-directed interaction (CDI) and parent-directed interaction(PDI)[10]. The CDI phase aims to cultivate a warm, responsive parent–child relationship by improving positive parenting skills, reducing negative parenting statements (eg criticisms, commands) and utilising differential attention to reinforce appropriate child behaviours[10]. In the PDI phase, parents are taught effective discipline strategies through coaching to give direct commands followed by consistent, developmentally appropriate consequences[10]. Both phases involve the observation of parent–child play sessions through a one-way mirror, while the parent is coached, in vivo, using a wireless 'bug-in-the-ear' device. By receiving in-the-moment feedback from a supportive coach, the parent is able to develop skills in real-life situations with their own child. PCIT is a mastery-based program and so treatment length varies depending on the rate of parent skill acquisition, with an average of 12–16 treatment sessions[11].

While a robust evidence-base spanning more than 40 years demonstrates the efficacy of PCIT[12-15], the program is unfortunately not available to all families who might benefit. In Australia, there are pervasive inequities in health provision across urban and rural communities[16,17], with Australians living in regional and remote areas of Australia less likely to access health services compared to those living in major cities[18,19]. These disparities are likely to result from a combination of factors including a lack of specialised mental health workforce and staff retention difficulties in rural towns[20], as well as structural issues (eg travel distance to service and associated expense) and attitudinal factors (eg concerns about stigma and privacy)[21]. With regard to PCIT, there are few trained PCIT clinicians or clinics in rural and remote areas[22]. In order to receive the PCIT intervention, regional and remote families would therefore need to travel to a metropolitan PCIT clinic, which could be up to 1000 km away, adding stressors of travel, temporary accommodation, time away from work and other family members, and associated costs. Given that clinic-based PCIT is a weekly commitment over a 3–9-month period, this modality is clearly not feasible for most rural and remote families.

Telehealth presents a unique opportunity to expand the reach of child and family mental health services[23]. Telehealth is the use of telecommunication technologies to exchange healthcare services across geographic, time and social barriers, and facilitate treatment where clinician and client are not able to be in the same location[24]. Live video-teleconferencing (VTC) has proven particularly efficacious for mental health interventions, as VTC can facilitate the verbal and non-verbal real-time communication requirements of therapy using high-quality audio and visual transmissions[23,25,26]. PCIT is particularly amenable to remote delivery given its utilisation of live coaching during parent–child play sessions[27]. Using VTC, the PCIT therapist is able to deliver the preliminary didactic teaching sessions and subsequent coaching sessions remotely by observing the parent and child through the computer screen, instead of a one-way mirror, and speaking to the parent using bluetooth wireless headset technology.

There is preliminary evidence of the effectiveness and acceptability of internet-PCIT (I-PCIT). Individual case studies have demonstrated that internet delivery can be an effective modality for adapted versions of PCIT[28,29] and there has been one randomised controlled trial to assess efficacy on a larger scale[30]. In a study by Comer et al, 40 children aged 3–5 years with DBDs were

randomly allocated to either clinic-based PCIT or I-PCIT[30]. Both treatments yielded significant improvements in child DBD symptoms but I-PCIT was associated with a higher rate of 'excellent response'. Participant retention was high in both conditions (70%), there were no differences in parent-reported treatment satisfaction, and treatment gains were maintained at 6 months post-treatment in both conditions. Significantly, I-PCIT was associated with fewer perceived barriers to treatment. While Comer et al's study demonstrated the effectiveness of I-PCIT, it is important to note that the sample comprised participants who lived in close proximity to the recruitment sites (two metropolitan US cities) and it is not known to what extent these findings generalise to rural and remote families, which are traditionally underserved and face a range of stressors unique to living outside major cities; or to families living in an Australian rural and remote context.

Taken together, it is clear that while there is a large body of evidence demonstrating the efficacy of PCIT delivered in its standard in-clinic format[12,15], and preliminary evidence attesting to the effectiveness of I-PCIT for urban families[30], little is known about the effectiveness and acceptability of I-PCIT for families living in regional and remote areas of Australia. The present study represents the first qualitative investigation into the experience of I-PCIT for rural or regional Australian families. The study enhances understanding of experiences across a number of domains, including parenting a child with challenging behaviours in regional and remote areas, barriers to access, feasibility and acceptability of I-PCIT, effectiveness of I-PCIT for child and parent, and challenges of the program.

Methods

Participants and procedure

Participants in this study were parents (n=10) with a child aged 2–4 years referred to a community-based child behaviour treatment clinic located in south-western Sydney. The sample comprised one man and nine women, ranging in age from 22 to 45 years. All participants lived in a regional, rural or remote area of the Australian state of New South Wales (NSW). The participants lived an average of 310 km from the capital city, Sydney (range 150–800 km). Seven participants lived in a regional centre (population >21 000) and three lived in a smaller rural town (population >10 000). Eight of the ten participants were married or living with their partner, and two were single. Six participants were university educated. One participant was born in Poland and spoke Polish in the home; the remainder were born in Australia. One participant was employed full-time, four were part-time, one was casual, and four were not employed. Two of the participants were reporting about the same child as they were married to one another and had participated in the I-PCIT program together. Of the nine children participating in I-PCIT, seven were male.

Parents were contacted by researchers at two time points: pre-treatment, following the completion of an initial I-PCIT clinical assessment session; and post-treatment, after discharge from the I-PCIT program. Parents could opt into either or both of the pre-treatment or post-treatment interviews. Six parents completed a pre-treatment interview (referred to in this article as participants 1–6) and seven parents completed a post-treatment interview (three of whom had also completed a pre-treatment interview; referred to as participants 3, 4, 6 and 7–10). One of the three parents who completed a pre- but not post-treatment interview dropped out of the program following the initial assessment session, and the other two were still in treatment at the time of data analysis. The four parents who completed a post- but not pre-treatment interview did not complete the pre-treatment interview for logistical reasons (eg a suitable time for the interview could not be arranged prior to commencing treatment). Interviews were conducted from January to November 2018, all as one-on-one semi-structured interviews via telephone, with a researcher familiar with the I-PCIT program. Interview duration was 20–40 minutes and interviews were recorded using a digital recording device. The pre-treatment interview comprised standardised questions about the target child's behaviour, the parent's experience of having a child with disruptive behaviours and the family's previous experience of access to parenting services. The post-treatment interview comprised standardised questions concerning the participant's experience of I-PCIT, and outcomes of the program. The semi-structured interview format allowed consistent questioning across the domains of interest, while allowing the researcher to be responsive to the participant's experience, and further probe any relevant discussion points. Development of the interview schedule was guided by the first author, based on the emergent research on I-PCIT and the established literature regarding PCIT. After completion of each interview, participants received a $40 gift voucher as compensation for their time. The audio-taped interviews were transcribed verbatim by a member of the research team, and de-identified to maintain participant confidentiality. Data collection continued at each time point until theoretical saturation was reached, such that no new relevant themes were emerging from the data[31].

Analysis

Interview data were analysed via thematic analysis, with an essentialist-realist theoretical framework[32]. Through this inductive theoretical lens, data were analysed on a semantic level, without interrogation for latent or 'hidden' meanings beyond the participants' explicit statements[32,33]. Transcripts were double coded; each line of data was analysed and an initial code was applied. Researchers then met to collate and compare the coded transcripts. Identified themes were discussed and a hierarchy of themes and subthemes was developed; themes for pre- and post-treatment interviews were developed separately. These themes were then reviewed by the wider research team, refined and labelled. Interview excerpts that best represented each theme were selected for inclusion in the results. To maintain confidentiality, names have been excluded from all excerpts.

Ethics approval

Ethics approval for this project was granted by the South Western Sydney Local Health District Research Ethics Committee (HREC/16/LPOOL/639) and all participants gave informed consent prior to

participation.

Results

Parents who completed pre-treatment interviews (*n*=6) discussed two major themes: motivation for seeking treatment and barriers to previous service access.

Pre-treatment theme 1: Motivation for seeking treatment

Child behaviour and impact on siblings: All six parents stated that their motivation for engaging parenting services was concern about their child's disruptive behaviours including aggression, emotional dysregulation, violence to others and self (eg hitting, kicking, scratching), tantrums, excessive crying, running away, separation anxiety and non-compliance. One of the primary concerns of parents who completed the pre-treatment interview was the impact of the target child's behaviour on siblings. All parents voiced concerns about violence directed toward siblings, such as hitting and scratching and, as one participant articulated, the toll that violence between siblings inflicted on the parents:

> *The biggest concern has been her aggression towards her little sister … We feel like we can't relax … We have to be hypervigilant. [The siblings] can't go into a room by themselves without us being [close by] so that we can stop anything that happens. (Participant 6)*

Three parents also expressed concern about siblings being deprived of parental attention or activities, due to the problem behaviours of the target child**.** All parents stated that their child's behaviours were impacting parent wellbeing, as articulated by one participant:

> *It's very stressful. I just start doubting myself as mum … and sometimes I just think that because of her tantrums and because of my tiredness … I lose my patience, and it's just a little bit stressful, and disappointing, I'm disappointed with myself, because I just want to be the best mum for her, and it's heartbreaking when she starts crying or when she throws a tantrum that develops into like 10 minutes crying on the floor. (Participant 1)*

Impact on self and relationships: All six parents identified that their child's disruptive behaviours were linked to negative impacts on themselves or their relationships, with examples including stress, exhaustion, decreased parenting confidence, feeling overwhelmed and isolated, blaming themselves for the child's negative behaviours, and disruption to the relationship between co-parents/partners, family and friends. Five parents also suggested that their relationship with the target child was compromised due to coercive patterns of behaviour. For example:

> *[My experience of parenting is] rough, exhausting, just mentally draining … By the end of the day I'm so exhausted and I just think, 'oh goodness, how am I going to do this? How am I going to tackle tomorrow? How can I help her? What can I do for her to make things easier?'… It's just getting so exhausting and I need help. (Participant 1)*

Pre-treatment theme 2: Barriers to previous service access

Despite the significant negative impacts of their child's behaviour, parents had not previously accessed clinical support or parenting services regarding the child's behaviour. All parents lived in rural and/or regional areas, and specifically discussed service limitations in their area. One participant noted that primary care services, such as GPs, were available, but that referrals to specialist services were either difficult to acquire or, as four participants commented, such referrals required extensive travel.

When discussing barriers to treatment, three parents specifically identified that a lack of knowledge about developmentally appropriate behaviour (or in other words, poor understanding about whether or not their child's disruptive behaviour was normal), impeded them from seeking services:

> *Interviewer: 'So this behaviour was evident … why was it that you didn't seek treatment?'*
>
> *Participant 1: ' … I thought that it was quite normal for them to be reacting that way, and the age that they both were at that stage, it was just like, perhaps this is just what they go through.'*

In the post-treatment interviews (*n*=7), three overarching themes were identified: positive outcomes, program components (valuable treatment components and challenges) and acceptability of internet delivery.

Post-treatment theme 1: Positive outcomes

Of the parents who completed post-treatment interviews, five parents completed both CDI and PDI components, and stated that I-PCIT met or exceeded their expectations. The two parents that participated in the program together completed only the CDI treatment component because they and the therapist decided that PDI was not developmentally appropriate for the child at the time of treatment. While three parents had initial reservations or 'concerns' about I-PCIT, all seven parents reported that the program yielded positive outcomes.

Positive outcomes for child: ***Decreased disruptive child behaviour*** All parents discussed a reduction in their child's disruptive behaviours following I-PCIT. Parents noted specifically that their children were having fewer tantrums or 'meltdowns', showing decreased levels of aggression, and decreased oppositionality:

> *The aggression has definitely gone down … we were a little bit in shock, because there was just no aggression happening, and we just couldn't believe it. It was amazing, it was like a miracle had occurred. … So many ways it's helped. (Participant 6)*
>
> *To be honest, I didn't believe that we could have come as far with the change in [our child] … I didn't think that he was actually going to be able to be focused, or listen to what I say, or during his meltdowns … I didn't believe that could actually be changed … It has definitely helped us with the communication and the meltdowns. Everything [the therapist]*

said that it can help with, it did help with our family. (Participant 3)

Improved child emotional regulation All seven parents spoke of improvements in their child's ability to regulate emotions, with four describing their children after the program as being more 'calm' or 'well-behaved'. Four participants said that their child had shown improvements in social functioning:

[child] has just gotten so much out of [I-PCIT] after having so much trouble … He's been doing this for 15 weeks now, and he's a completely different child. … [child]'s behaviour is totally different. And it's not just us noticing it. His teachers at school notice it, his grandparents that he doesn't see very often noticed it. He's just so much more calm now. And he can play with other children so much more nicely, and he has heaps of friends at school now rather than just playing with the same kid over and over and over. Definitely helped him become more calm. (Participant 10)

Improved child self-esteem Four parents reported particular improvement in their child's self-esteem. These parents noted a direct association between the CDI phase of the program (in particular, the skill of providing labelled praises for the child) and subsequent improvements in their child's confidence and positive affect.

He really enjoyed [CDI], just having that one-on-one time, either with myself or my husband. He felt good, and … it helped him in his confidence, because we were praising him more, and it was showing him that we were giving him some undivided attention. I thought it was a good confidence booster, for me but also for [my child]. (Participant 4)

Improved child compliance All five parents who completed the PDI phase of the program stated that they had experienced significant improvements in child compliance as a result. Parents all noted that this compliance was a result of consistent implementation of the discipline sequence, and that their child continued to be responsive to the parent-directed techniques after discharge from I-PCIT:

The results [of PDI] were very very quick, so it all worked really really well. I had that happen last night … I asked him to do something, and then I went silent, and then he followed through immediately … And he knew straight away it was PDI, it was parent-directed … It was all calm, it was all great, but he knew straight away, like an instant. (Participant 4)

It was like a bit of magic dust flown over the house (laughs) … When I use the language and I use the words and I have the tone of voice [used in PDI … and [child]'s demanding, 'I want chocolate' … [I say] ' … [child], please come and stand next to me' … It just stops the whole thing, and she looks at me, and she recognises [the sequence]. (Participant 6)

Positive outcomes for parents: When reflecting on their child's behavioural outcomes, all parents also discussed positive outcomes for themselves and the family.

Parenting confidence increased via skill acquisition All seven parents stated that their parenting competence had increased. Four identified impacts on new feelings of confidence and empowerment, and four spoke of newfound calmness. Parents all attributed these improvements to skill acquisition over the course of the program:

I've got new skills that I can use in situations rather than not knowing what to do … It helped me to be much calmer, that's for sure. I still get angry and have mummy tantrums, which I'm working on, but if I focus on just doing the things … instead of focusing on getting frustrated, it definitely helps me be calmer as a parent. (Participant 6)

[The I-PCIT program] impacted me by giving me some self-awareness as to the style of parenting I was doing, and the impact that has on my child, and therefore the relationship with my wife and family. Being exposed to a particular way of parenting, a structured and evidence-based way of parenting, it helped to realise that parenting is not just something that you do, you have to learn it as well. (Participant 8)

Improved parent–child relationship All seven parents stated that they have a closer relationship with their child since completing I-PCIT. Parents ascribed these relationship improvements to greater insight into their child's behaviour and behavioural triggers, improved communication, increased quality time spent with the child, greater parental reflective capacity and compassion, decreased conflict in the relationship, and clearer boundaries:

[My child and I] have a much closer relationship now. Much better. Rather than having to have a go at him all the time I can actually spend some time with him. (Participant 10)

My relationship with [my child] has gone from horrible to great … I can just sit down with [my child] and just give him a cuddle, rather than back, a long time ago, there was almost always some tension, and I was always trying to be one step ahead. But now it's a lot more relaxed … We actually have a proper relationship now, rather than before it was just cranky. It's just a lot better, happier. (Participant 9)

It's just helping in our connection, helping us be more connected. (Participant 7)

Improved partner relationship and parental wellbeing All seven parents also stated that the program had impacted their relationship with their partner/co-parent. Four parents noted particular improvements in the distribution of parenting responsibilities, and three discussed the benefits of implementing a unified parenting approach. Three parents identified that the parenting team were now 'on the same page' since I-PCIT.

Parents also identified that improvements in child behaviour had alleviated family stress and improved parent wellbeing. Participant 9 stated, for example, that she is 'less stressed' and 'happier', and participant 6 stated '[my partner and I] could both feel a weight off our shoulders'. Parents identified that these improvements in child behaviour and parent wellbeing resulted in a more harmonious

family dynamic:

> *It's helped us to come to a more common understanding of parenting. (Participant 8)*

> *[My relationship with my partner] is a lot less strained, because I'm not yelling as much … Because [child's name]'s gotten so much better our lives have gotten so much easier. (Participant 9)*

Post-treatment theme 2: Treatment components

Valuable treatment components: ***Therapeutic relationship*** The importance of a supportive therapeutic relationship was discussed by all parents. Parents described the clinicians as 'knowledgeable' (participant 3), 'supportive' (participants 3 and 4), 'understanding' (participants 3, 6 and 9), 'generous' (participant 8), 'reassuring' (participant 3), 'professional' (participant 10), 'calm' (participants 4 and 10), 'warm' and 'welcoming' (participant 10), 'patient' (participants 4 and 9), 'flexible' (participant 9), 'non-judgemental' (participants 7 and 9), and 'positive' (participant 4). Parents identified that the clinicians' traits, and the establishment of an effective rapport, aided their progression through the program:

> *The [clinicians] were fabulous … They were just great, they were just so patient, so easy going, they were understanding … It wasn't judgemental, it was just great. They were actually there to help, they helped out so much, they changed our life really. I loved, like I honestly just loved it all. I think it was because the [clinicians] were just so great, it was just such an easy experience. (Participant 9)*

> *I think what helped increase my confidence was the trust that the therapist put in us as parents, for us to make decisions. (Participant 7)*

Expert knowledge Six parents noted that access to expert knowledge and an evidence-based program was essential to their positive experience of the I-PCIT program. Parents identified that this support helped them to overcome some feelings of isolation and uncertainty about parenting that they experienced prior to I-PCIT.

> *It was great actually to have the support of [the clinician], someone who works with kids and knows kids. Some support to guide me through steps and to help with my son. (Participant 3)*

> *The support with [I-PCIT] was amazing, and it was a relief not to have to google constantly in my spare time, trying to find out what to do. I had lots of questions with conflicting information … So I was able to just email [the clinicians] and say, 'what about this, and what do you say about that?' And that was huge, because I was able to get lots of information back with evidence … It was just really good having them there to listen and understand and answer questions. (Participant 6)*

Challenges: ***Skill acquisition*** When reflecting on challenges of the I-PCIT program, three parents discussed challenges they experienced with skill acquisition during the CDI/PDI phase, and in the consistent application of the skills after discharge.

> *[CDI] was a bit difficult at times, it was challenging, I think. Trying to fit in something that was structured and formal and trying to make it natural. I found it difficult, personally. (Participant 8)*

Two parents cited time constraints as the most significant obstacle to effective implementation. This included difficulties finding time to consistently apply the principles learnt with their children in daily life.

Post-treatment theme 3: Acceptability of internet delivery

Access: All seven parents noted the benefits of internet-delivered PCIT, six of whom discussed geographic isolation as a barrier to service access, the absence of local parenting programs, and the scarcity of 'professional support' in their regional and rural hometowns. All parents noted that the family would not have been able to participate in the program were it not for internet delivery, which allowed them access to expertise not available in their community.

> *We don't really get too many services where we are. Being able to do it by correspondence, it was so versatile, given that we are six hours away from [the clinic] … We couldn't do that every week without the skype and I think it worked well (Participant 3)*

> *It was really good, because it virtually has us in the room with therapists … The proof is clear that the results were there, and everything worked … It still worked as if we were there in person. (Participant 4)*

> *I felt it was excellent that we could have the program in our own home, over the internet. I was grateful for that, because we often miss out on things, being here … It allowed us to access [the program] without travelling to Sydney … Definitely, we couldn't have had access to it otherwise … It's accessing a population which otherwise can't access those services, because we live in the country. So I think it's a really good thing if that service can be available to other people too. (Participant 7)*

Home environment: Another primary benefit identified by all parents was the utility of completing the program in their own home. Parents stated the internet delivery was 'easy' (participant 9), 'convenient' (participant 10), and 'versatile' (participant 3), and parents conveyed that they and their child were able to be more 'relaxed' (participant 3) as they were executing the program in their familiar home environment. In addition, three parents articulated that it was beneficial working with a clinician in the home context where the child's problematic behaviours were most prevalent:

> *When we're out and about we don't have any of these issues, [child] is just too engaged in other activities or visiting people … So it was good to still be in the environment where everything goes down, which is the home environment. (Participant 6)*

That we could do it in my own home, and [my child] was in his normal, natural environment where he would usually muck up. (Participant 9)

Technological requirements: There was significant variability in parents' experience of the technological aspects of I-PCIT. Five of the six participants who completed a post-treatment interview reported difficulties with the internet connection or using the video-conferencing technology. Participants who experienced significant issues with their regional internet connection were provided with a Telstra 4G internet 'dongle', which allows high-speed internet access for mobile devices. Parents reported that this supplement alleviated many of the connection issues:

There were some times, before I got the dongle, where the internet froze up and we'd have to repeat the call, get it back on the call, get it on the phone. So it was interrupting the play scenarios, interrupting our session as such, so that sort of threw things a bit in terms of momentum. It improved when we got the dongle … then things started working better, and it really made a difference. (Participant 4)

Two parents reported that the internet delivery was straightforward, 'easy' (participant 3) and that they were 'quite happy' (participant 8) with the technological requirements.

Discussion

Internationally, this is the first qualitative evaluation of parents' experience of I-PCIT. Results demonstrate that consumers from regional and rural areas of NSW view I-PCIT as an acceptable and useful treatment of childhood DBD, bolstering preliminary evidence about the utility of internet technologies to deliver the high-quality results of the PCIT program.

Pre-treatment results suggested that parents' primary motivations for seeking treatment were behaviour of the target child and the negative impacts on other members of the family. Despite these significant challenges, no parents had previously accessed clinic-based parenting services. Consistent with previous research about barriers to health care in regional and remote areas of Australia[20,21], participants cited service limitations in their rural area, lack of knowledge about developmentally appropriate behaviour, and structural barriers such as time and costs associated with travelling to a major city for clinic-based treatment.

Post-treatment results indicated that parents experienced positive outcomes and numerous benefits from the I-PCIT program, including improvements in child behaviours, parental wellbeing, and the parent–child relationship and marital relationship. These results are in line with the robust evidence-base demonstrating the effectiveness of PCIT[12,15] and preliminary evidence demonstrating the efficacy of I-PCIT[28-30]. Additionally, all parents spoke of the supportive therapeutic relationship established despite the physical distance, and the fact that this was instrumental to their positive experience throughout the program.

Parents were very positive about the convenience and ease of internet-delivered treatment. Some parents also discussed the particular advantages of targeting problem behaviours in the home, where the child's disruptive behaviours were most common and severe. Importantly, all parents stated that internet delivery allowed their family to participate in a program they would not otherwise have been able to access.

Parents' experience of the I-PCIT program, however, was not without challenges. Varying levels of difficulty with the technological aspects of internet delivery, primarily inconsistent internet connections, were reported. All participants who discussed technological difficulties, however, said that issues ceased when they received supplementary technical support from the research team (ie where needed, families were mailed internet 'dongles', which provide high-speed internet access). These challenges notwithstanding, all parents reported meaningful clinical improvements for both child and parent, suggesting that internet connectivity issues did not interfere with the overall implementation or outcomes. Furthermore, that these technology issues were able to be solved remotely, without the provider burden of a home visit for equipment setup or assessment, demonstrates feasibility of I-PCIT delivery for families in remote and very remote areas.

This study was the first qualitative evaluation of parent perceptions of the I-PCIT program, delivered to families in rural or remote Australia. One limitation was the lack of sample diversity, with the majority of participants reporting high levels of education. Further studies should be conducted with larger and more representative samples in order to better understand the feasibility and acceptability of the program among clients of a broader range of sociodemographic backgrounds. Another limitation relates to the fact that, while there was some overlap of participants who completed the pre- and post-treatment interviews, some completed only one or the other. Future research should study families who dropped out of the program, because insights from these parents may be informative as clinicians and services seek to understand issues related to engagement and retention.

Conclusion

Limitations notwithstanding, these results offer insight into the experience of parenting a child with DBDs in remote areas, as well as the benefits and challenges of undergoing the I-PCIT program. While internet connection issues were clearly a challenge, all parents reported meaningful positive outcomes for both child and parents. The study suggests that I-PCIT may be a feasible and acceptable way to utilise telehealth technologies to expand the reach of mental health services to Australian communities that previously could not access clinic-based parenting services. Wider implementation and quantitative evaluation of I-PCIT in regional and remote Australia is indicated.\

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