



Understanding New Zealand therapist experiences of Parent-Child Interaction Therapy (PCIT) training and implementation, and how these compare internationally

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ABSTRACT

Objectives: Embedding effective parent training programmes for the treatment of childhood conduct problems into routine clinical practice does not happen spontaneously. Despite the known influence of contextual factors on implementation success, and the centrality of the therapist as a key implementation stakeholder, studies into the therapist experience of receiving training in, and implementing evidence-based manualised parent training programmes are relatively rare. This study sought to understand the training and post-training implementation experiences of Parent-Child Interaction Therapy (PCIT) therapists in New Zealand, and to compare and contrast these with existing research into the experiences of PCIT trainees in the Netherlands (i.e., Niec et al., 2018)

Methods: Fifty-six therapists (a response rate of 67%) completed an anonymous online survey of their experiences of training in, and subsequently implementing Parent-Child Interaction Therapy (PCIT) in New Zealand.

Results: Qualitative and quantitative analyses indicated that therapists experienced barriers to implementation, both internal (“burdened”) and external (“blocked”) yet typically persisted with implementation efforts. Therapist (and other stakeholder) attitudes towards the use of time out with young children was a common barrier to implementation. Therapists described drawing from other - at times incompatible - treatment approaches for children with conduct problems, and in some cases reported using only components of the manualised PCIT protocol. Direct international comparison of New Zealand and Dutch PCIT therapists’ responses demonstrated remarkably similar (and positive) attitudes towards PCIT, and the experience of similar barriers internationally.

Conclusions: Implications for implementation success are discussed.

1. Introduction

Parent-Child Interaction Therapy (PCIT) is a parent training programme, originally designed for the treatment of conduct problems in children aged 2.5–7 years (Eyberg & Funderburk, 2011; Thomas et al., 2017). It was developed in the United States of America by Dr Sheila Eyberg in the 1980s, and its efficacy is well established (see Thomas et al., 2017). While PCIT shares a common theoretical base with other widely known parent training programmes (Kaehler et al., 2016; Reitman and McMahon, 2013), it differs from many in its use of live coaching of parents with their children via a discrete ear-piece, by a highly trained therapist from behind a one-way mirror. In addition,

parent(s) or caregiver(s) and child are seen together, a reflection of PCIT being grounded in attachment theory (Allen et al., 2014; Lieneman et al., 2017).

PCIT is manualised in a session-by-session protocol, though requires parents to achieve mastery of each component before progressing, typically resulting in a course of 12–20 weekly sessions (Eyberg & Funderburk, 2011). PCIT has two phases of therapy – Child Directed Interaction (CDI) and Parent Directed Interaction (PDI). In CDI, parent (s) are taught key relationship enhancement skills, summarised by the acronym PRIDE (labelled Praise, Reflection, Imitation, behavioural Description, and Enjoyment) (McNeil and Hembree-Kigin, 2011). The skills are then repeatedly rehearsed in weekly clinic sessions, refined and

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consolidated by in-the-moment coaching from the therapist, and in daily five-minute parent practice sessions at home. In PDI, parent(s) are taught how and when to utilise effectively stated commands and are taught a prescribed method for addressing child non-compliance, which includes the use of a time out chair, and a time out room for very brief periods (Eyberg & Funderburk, 2011). The therapist then coaches and supports the parent to implement this procedure successfully with their child in the clinic setting, with careful and well-supported generalisation to the home environment and other contexts (McNeil and Hembree-Kigin, 2011).

PCIT has been disseminated to a number of countries internationally in recent years including Australia, Germany, Japan, Hong Kong, the Netherlands, Taiwan, Switzerland, South Korea, and France (Niec et al., 2018). Parent training approaches are thought to generalise well during the process of international dissemination, requiring minimal adaptation to remain effective for families in the country to which they are introduced (Gardner et al., 2016), though effectiveness with, and acceptability to, Indigenous populations requires further consideration (see below).

Training in PCIT is standardised internationally, and involves multiple components, with therapists attending an intensive training, followed by ongoing regular supervision and consultation – thought to represent a gold standard in training therapists in an evidence-based intervention (Frank et al., 2020). Yet practical constraints and high staff turnover often compromise post-training consultation and implementation support (Herschell et al., 2018). In addition, simply receiving training in the delivery of an effective intervention does not guarantee that therapists will integrate the intervention into routine clinical usage (Bauer and Kirchner, 2020; Frank et al., 2020). Due to many factors – at the therapist level, the service level, the system level and even at a policy level – evidence-based interventions may be poorly implemented. In fact, these contextual factors are often more influential on uptake of an intervention than the actual effectiveness of the intervention (Bauer and Kirchner, 2020).

The field of implementation science has evolved as awareness grows that context is profoundly influential on whether evidence-based interventions are adopted at all, and if adopted, the extent to which they adhere to the original protocol (Bauer et al., 2015). Implementation science is a discipline devoted to eliminating the research-to-practice gap, and better understanding the methods by which evidence-based interventions can travel the ‘pipeline’ from efficacy trials, to effectiveness trials, to being comprehensively integrated into routine care (Williams and Beidas, 2019; Bauer et al., 2015; Neuman et al., 2020). Studies examining the dissemination and implementation of PCIT to date have typically focussed on system- and service-level variables and influences (e.g., Herschell et al., 2015). Relatively few have explored therapist attitudes and perspectives toward PCIT. Understanding the experiences of therapists both during their training in PCIT and upon their return to the treatment setting is important. While many factors, across several domains, contribute to implementation success or failure in the real world of service delivery, therapists are key stakeholders in the implementation process, and therapist attitudes can influence the success of implementation efforts (Nelson, Shanley, Funderburk, & Bard, 2012; Niec et al., 2018; Leitão et al., 2020). Studies have described optimal PCIT therapist training methods (Herschell et al., 2009; Herschell et al., 2010; Frank et al., 2020), yet few have explored the therapist experience during the training and implementation process. Attention ought to be paid to the therapist experience, and how this experience interacts with other factors, including whether the service/organisation is perceived to be facilitative of the implementation process (Novins et al., 2013) – for example, it has been suggested that therapist experience may only predict implementation success where the service or organisation is less open to implementation (in services that are receptive to implementation, therapist experience may relate less to implementation success) (Asgary-Eden and Lee, 2012). Studies have also highlighted the importance of factors such as therapist access to necessary practical resources,

adequate supervision, and training (Asgary-Eden and Lee, 2012).

Furthermore, as programmes such as PCIT are disseminated, it is important to understand the similarities and differences between therapist experiences and perceptions internationally. Within the field of implementation science, it is often said that ‘context is king’ and it cannot be assumed that implementation strategies that are successful in one context (organisation, setting or country) will be effective in another – indeed, the new setting or population is likely to have different needs and concerns, cultural considerations, or resource availability (Shelton et al., 2020). The introduction of a manualised evidence-based treatment such as PCIT to a new country ought to prompt consideration of the unique context, and experience of therapists in that environment, shaped and informed by therapist experiences in other countries.

Relating to PCIT, therapist experiences of training and implementation have been described in The Netherlands and the USA. Niec et al. (2018) carried out telephone interviews with eighteen Dutch PCIT-trained therapists. Overall, PCIT was acceptable to therapists, who viewed it as a useful intervention for children with conduct problems and described their training experience as positive. However, all therapists had encountered barriers to implementing PCIT, at the agency level (most often, a lack of resources to co-work with another PCIT therapist), and at the family level (specifically, the complexity of needs with which families presented, including parental psychopathology). These authors had earlier carried out similar research – telephone interviews with twenty-nine PCIT trained therapists – in the USA (Christian et al., 2014). They noted that therapists in the USA had also described the complexities with which families presented as a barrier to the use of the manualised PCIT protocol. In addition, US therapists described problems with the required audio/visual equipment, client motivation, and costs associated with training and reimbursement for services as barriers to implementation.

PCIT was introduced to New Zealand/Aotearoa in 2010, when the first cohort of ten therapists was trained by a visiting US-based PCIT Global Trainer, Professor Cheryl McNeil (T. Cargo, personal communication, 20 November 2018). A total of one hundred and six therapists (including the first and second authors) had participated in the initial 40-hour PCIT training in New Zealand at the time of this study. Of note, it wasn’t until March 2019 that a Position Statement was issued by New Zealand’s Ministry of Health, endorsing the use of time out in the context of delivering parent training, including PCIT (Ministry of Health, 2019). Until this time, there had been concern from some service managers that time out was akin to seclusion, which is prohibited within mental health services in New Zealand – the Position Statement explicitly drew a distinction between these practices (Ministry of Health, 2019).

Since the introduction of the programme, studies have explored the real world effectiveness of PCIT in New Zealand, by way of a case series (Woodfield and Lambie, 2019) and the acceptability of PCIT to New Zealand parents generally, by way of qualitative analysis of data from semi-structured interviews (Woodfield and Cartwright, 2020).

There is currently very little published research relating to implementation of PCIT within Indigenous communities. The second author (TC) was the first Indigenous Māori clinical psychologist trained in PCIT and has conducted an open trial of PCIT with Indigenous Māori families to explore the acceptability and utility of PCIT for and with Māori, with results soon to be available to the international research community. Given New Zealand’s unique bicultural position where Māori have their indigenous status acknowledged through Te Tiriti O Waitangi (Treaty of Waitangi) and where all health and social service providers are expected to cater for the unique needs of Māori, this research conducted by, for and with Māori is essential, to ensure a culturally responsive implementation into Māori communities. The understanding and treatment of childhood conduct problems in New Zealand is interwoven with the Indigenous Māori experience of Colonisation and requires sensitive consideration (e.g., Durie, 2005; Cherrington, 2009; Cram and Kennedy, 2010). As such, it is beyond the scope of this paper to draw conclusions

around the suitability of PCIT for Māori.

This study aims to better understand the training and post-training experiences of PCIT therapists in New Zealand, and the impact of these experiences on implementation. It also aims to compare and contrast these experiences and attitudes with previous research into the experiences of PCIT trainees in the Netherlands (i.e., Niec et al., 2018). It is hypothesised that (1) PCIT-trained therapists experience post-training barriers to the use of PCIT with families, and that (2) these barriers detract from the likelihood of therapists using PCIT in their practice.

2. Methods

2.1. Participants

All 104 health professionals who had completed the five-day initial PCIT training in New Zealand (i.e., excluding the first two authors) were invited to participate in an anonymous online survey. Names and contact details were obtained from the second author (TC). In many cases this information was out of date, as PCIT training began in New Zealand in 2010 and the survey was distributed in July 2019. Attempts to obtain current contact information relied upon the authors' awareness of therapists' current employment setting, and an online search of publicly available information.

Despite extensive efforts, twenty therapists were not able to be contacted, due to an inability to source current contact details, being absent on long term leave (e.g., parental leave, indicated by an email auto-reply), or no longer residing in New Zealand with no available contact details. As such, the survey invitation reached eighty-four therapists. Fifty-six therapists completed the online survey within the study period – a response rate of 66.67%. With a sample size of 56, we expected to be able to find effect sizes of $\phi = 0.433$ or greater at the 5% level with 90% probability using logistic regression.

The demographic characteristics of respondents are described in

Table 1
Participant Characteristics (n = 56).

Gender	
Female	51 (91.1%)
Male	4 (7.1%)
Not stated	1 (1.8%)
Principal Ethnicity	
NZ European	39 (69.6%)
NZ Māori	5 (8.9%)
Other	5 (8.9%)
NZ European and Other	3 (5.4%)
Chinese	3 (5.4%)
Indian	1 (1.8%)
Profession (Three respondents endorsed more than one profession)	
Clinical Psychologist or Psychologist	34 (60.7%)
Psychotherapist	6 (10.7%)
Nurse	6 (10.7%)
Clinical Social Worker	6 (10.7%)
Psychiatrist	5 (8.9%)
Occupational Therapist	2 (3.6%)
Paediatrician	1 (1.8%)
Current employment (One respondent endorsed more than one employment setting)	
Child mental health services (ICAMHS)	32 (57.1%)
Private practice	10 (17.9%)
Non-Government Organisation	5 (8.9%)
Child protection services	4 (7.1%)
Ministry of Education	3 (5.4%)
Non-clinical role	3 (5.4%)
Other	3 (5.4%)
Not currently employed	1 (1.8%)

Table 1.

Twenty-nine therapists (51.8%) reported having changed agency or service since their initial PCIT training. The majority (twenty-three therapists; 41.1%) had changed agency once since their PCIT training, though six therapists (10.7%) had changed agency twice or more. Eighteen therapists (32.1%) were in a situation where they had remained employed in the same agency, but had changed their role within the agency since training – in many cases this represented a change to working with younger (or older) children, or a promotion to an administrative or managerial role. Despite this, the majority (forty therapists; 71.4%) reported currently treating children aged 2–6 years presenting with Disruptive Behaviour Disorders – an average of 3.4 of these cases per week (range: 1 to 14).

2.2. Measures

The online survey was based on the 'Clinician Use of and Satisfaction with PCIT' (CUSP) interview schedule (Niec and Christian-Brandt, 2014). The CUSP was initially described in Christian et al. (2014)'s series of phone interviews with twenty-nine PCIT-trained therapists in the Midwestern USA. It was later used in Niec et al. (2018)'s phone interviews with eighteen PCIT-trained therapists in the Netherlands. The CUSP interview schedule was obtained from the authors and used with permission. It required some adaptation for the online survey format (namely, reducing the length) and the New Zealand context (minor changes to terminology). Changes were kept to a minimum, particularly with likert scale items and categories of barriers to implementation, to allow for international comparison. For the current survey, Qualtrics - an online survey platform - was chosen due to its security and functionality. The survey is available in Appendix A.

2.3. Procedure

The study protocol was reviewed and approved by the relevant institutional ethics boards. In late July 2019, an email was sent to the eighty-four therapists for whom contact details were available, inviting their participation in the study and providing a link to the online survey. Two weeks later, a reminder email was sent. The survey closed five weeks after it began. Participants were offered the opportunity to enter a draw for one of four \$NZD50 store vouchers if the survey was completed within five weeks of the distribution date. Care was taken to preserve anonymity, and participants were assured of this – for example, an anonymised raffle was created within Qualtrics in order that participant responses were not linked to their name or contact details provided for the draw. Ensuring anonymity was particularly important given the relatively small professional community in New Zealand.

2.4. Data analyses

2.4.1. Quantitative data

A two-sided exact binomial test was performed to determine whether the majority of therapists were implementing the full PCIT programme. A series of Welch's unequal variances t-tests were performed to compare responses to likert scale items between Niec et al. (2018)'s study, and the current survey. To account for the multiple comparisons being made, p values were adjusted using Holm's method (Holm, 1979). A series of univariate logistic regressions with Wald tests were carried out to test whether the following factors affected the probability of a therapist implementing the full PCIT programme:

- Experiencing barriers in:
 - o support (e.g. a lack of support from colleagues or managers)
 - o client group served (e.g. no children with behaviour problems in appropriate age range)
 - o personal beliefs (e.g. culturally inappropriate, or discomfort with aspects of PCIT)

- o availability of continued training and/or support in PCIT
- o availability of necessary equipment for PCIT (e.g. sound equipment, suitable rooms)
- Professional background of the therapist, dichotomised to psychologist/non-psychologist (psychologists with multiple professional backgrounds were included in the psychologist group in this study)
- Attitudes towards PCIT:
 - o easy/straightforward to deliver
 - o helps keep families in treatment
 - o decreases child disruptive and oppositional behaviours
 - o enjoyable to implement
- Attitudes towards PCIT training:
 - o materials were clear and thorough
 - o received enough training to implement PCIT effectively
 - o confidence in current ability to implement PCIT

A small number of therapists did not answer the attitudinal questions (2–3 (3.6–5.4%) missing responses for each question). Responses that were missing were omitted from the analysis.

2.4.2. Qualitative data

In reviewing the qualitative data, it was apparent that there was considerable coherence and overlap between responses to two survey items in particular: Q19, which asked participants to describe the nature of barriers they had encountered post PCIT training, and Q23, which offered an unstructured opportunity for participants to share additional thoughts on aspects of using PCIT post training, in the ‘real world’. Also of note when reviewing the qualitative data, participant comments relating to each of the categories of barriers in Q19 overlapped considerably, for example, participants referred to PCIT supervision in relation to the ‘Support’ category, and also the ‘Availability of continued training and/or supervision’ category. As such, the decision was made to amalgamate the qualitative responses to these two items. After amalgamating this material, verbatim responses were uploaded into NVivo 12. Braun and Clarke’s (2006) widely used methodology was used to guide a thematic analysis of the data set by the first author (MW). Specifically, this initial, exploratory coding process looked for content and meaning of units of data in the responses. The data appeared to fall naturally into two domains, with several subthemes (see Results, below). While the representativeness of these domains or themes was discussed and consolidated within the research team, a formal process of establishing inter-rater reliability was not carried out, as is considered to be “problematic in relation to qualitative research” by the authors of this thematic analysis methodology, as they view this as more in keeping with a quantitative, rather than qualitative approach (Braun and Clarke, 2014: 1).

3. Results

Of the fifty-six therapists who began the survey, fifty-five completed the survey, with the majority completing the survey in ten minutes or less.

3.1. Intervention preferences generally, and PCIT acceptability and usage

Participants described using a wide range of treatment packages and modalities in their work with children 2–6 years of age who presented with Disruptive Behaviour Disorders, summarised in Table 2.

Twenty-five (44.6%) participants reported currently using (cf. general intervention preferences, above) the full PCIT manualised protocol with clients. In relation to the question of whether the majority of therapists trained in PCIT are implementing PCIT, there was no evidence of a majority in either direction (therapists using / not using PCIT) ($p = 0.69$). An additional eleven therapists (19.6%) reported having last delivered PCIT to a client within the previous two years, and nineteen

Table 2

General intervention preferences with 2–6 year old children with DBD.

<i>N.B. (in several cases, more than one intervention was endorsed)</i>	
PCIT – full protocol	26 (46.4%)
Circle of Security	10 (17.9%)
Incredible Years	9 (16.1%)
PCIT – components only (i.e., not the complete manualised protocol)	9 (16.1%)
Triple P	6 (10.7%)
Family Therapy (unspecified)	5 (8.9%)
Tuning Into Kids	1 (1.8%)
Other	Play therapy; Psycho-education; Parent-infant psychotherapy (unspecified); PCIT-Toddler; Video feedback (unspecified); therapeutic work with parent(s) alone (e.g. trauma, psychotherapy); Cognitive Behavioural Therapy with child and/or parent(s); Dyadic Developmental Parenting (DDP); Parent And Child Therapy (PACT).
N/A – not currently treating these clients.	16

therapists (33.9%) described not having delivered PCIT for more than two years. Of those currently delivering PCIT to clients, caseloads contained an average of 2.4 PCIT clients per week (Range 1–7; Mode: 2; Median: 2).

Attempts were made to determine whether particular professional disciplines were more (or less) likely to use the full PCIT protocol (vs. components of the protocol) after training. Due to the over-representation of psychologists in the sample, professional discipline was dichotomised into ‘psychologist’ and ‘non-psychologist’. Univariate logistic regression provided no evidence of a difference in implementation of the full PCIT protocol between therapists who were psychologists and those who were not ($\chi^2(1) = 0.96, p = 0.33$).

The survey contained an item relating to how many therapists jointly deliver PCIT to each family, to attempt to ascertain the extent to which therapists co-work when delivering PCIT to families (and consequently receive informal implementation support). Responses suggested that this question was frequently misunderstood as referring to the number of therapists in the service who deliver PCIT (for example, one response was “five to six”). As such, data were not analysed further. Regarding attitudes toward co-working, twenty-nine therapists (51.8%) indicated that co-working with another PCIT therapist is very important, twenty-one therapists (37.5%) suggested that this is useful if possible but not essential, and six therapists (10.7%) did not respond.

Participants communicated their perception of PCIT, and their experience of the training they had received, through two sets of ten likert scales, which were used verbatim from the CUSP to allow for international comparison. Table 3 presents data from the present study alongside Niec et al. (2018)’s data from PCIT trainees in the Netherlands. The cohorts were very similar in their responses to items. Statistically significant differences were apparent in relation to only three items (“I find PCIT... increases child disruptive and oppositional behaviours”; “I found PCIT training materials to be clear and thorough”; “I use / plan to use PCIT regularly with families of children with conduct problems”).

3.2. Impact of therapist attitudes toward PCIT on likelihood of implementation

Each likert scale variable was treated as a continuous variable in the logistic regression, with –2 corresponding to “strongly disagree” to 2 corresponding to “strongly agree”. Estimates are therefore odds ratios for a one-step increase in the likert scale towards agreement (e.g. “strongly disagree” to “somewhat disagree”).

There was no evidence of an association between implementation of

Table 3
Therapist perceptions of PCIT – international comparison.

Overall, I find PCIT ...	New Zealand trainees					Dutch trainees (Niec et al. (2018))					p	p (adjusted)
	Mean	SD	Min	Max	N	Mean	SD	Min	Max	N		
Easy and straightforward to deliver	4.00	0.95	2	5	54	4.00	0.84	2	5	18	1.00	1.00
Helps to keep families in treatment	4.00	0.73	3	5	53	3.83	0.62	3	5	18	0.34	1.00
Decreases child disruptive and oppositional behaviours	4.57	0.64	3	5	53	4.50	0.62	3	5	18	0.68	1.00
Increases family drop-out from treatment	2.42	0.97	1	5	53	2.06	0.54	1	3	18	0.06	0.95
Reduces the number of families returning to my agency for additional services	3.23	0.99	1	5	53	3.39	0.70	2	4	18	0.46	1.00
Increases warm and secure interactions between parents and children	4.53	0.77	2	5	53	4.56	0.51	4	5	18	0.85	1.00
Increases child disruptive and oppositional behaviours	1.77	1.14	1	5	53	1.33	0.49	1	2	18	0.03*	0.51
Lowers parental stress	4.13	0.69	2	5	52	4.17	0.51	3	5	18	0.80	1.00
Enjoyable to implement	3.85	1.03	2	5	53	4.11	0.76	2	5	18	0.26	1.00
Complicated and difficult to implement	2.28	1.01	1	5	53	2.33	0.91	1	4	18	0.85	1.00
Training and Acceptability of PCIT												
I found PCIT training materials to be clear and thorough	4.30	1.06	1	5	54	3.78	0.81	2	5	18	0.04*	0.65
Assessment of my skills as a PCIT therapist are beneficial to my training	3.96	1.14	1	5	53	4.22	0.55	3	5	18	0.19	1.00
I learned useful techniques that help me more effectively administer PCIT to families	4.42	0.99	1	5	53	4.28	0.46	4	5	18	0.42	1.00
I feel that I have received enough training to enable me to implement PCIT effectively	3.96	1.11	1	5	53	4.06	0.42	3	5	18	0.58	1.00
My PCIT training experience has been worthwhile, and I would recommend it	4.42	0.95	1	5	53	4.50	0.51	4	5	18	0.65	1.00
I feel confident in my current ability to administer PCIT	3.79	1.08	1	5	53	4.11	0.47	3	5	18	0.09	1.00
PCIT is an appropriate treatment for young children with behaviour problems	4.40	1.04	1	5	53	4.67	0.49	4	5	18	0.15	1.00
I feel committed to the behaviour principles on which PCIT is based	4.26	1.09	1	5	53	4.61	0.61	3	5	18	0.10	1.00
I feel comfortable implementing PCIT as a treatment for children's conduct problems	4.09	1.16	1	5	53	4.28	0.46	4	5	18	0.33	1.00
I use / plan to use PCIT regularly with families of children with conduct problems	3.60	1.26	1	5	53	4.50	0.51	4	5	18	<0.0001*	0.0013

1 = Strongly Disagree, 2 = Somewhat Disagree, 3 = Neither Agree nor Disagree, 4 = Somewhat Agree, 5 = Strongly Agree.

1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree.

the full PCIT programme and the items “I find PCIT easy and straightforward to deliver” ($\chi^2(1) = 2.0, p = 0.16$), “I find PCIT enjoyable to implement” ($\chi^2(1) = 1.1, p = 0.297$), and “I find PCIT decreases child disruptive and oppositional behaviours” ($\chi^2(1) = 1.0, p = 0.3232$).

Regarding the item “I find PCIT helps to keep families in treatment”, there was evidence that agreement with the statement is associated with higher likelihood of PCIT programme implementation, with a 2.5 times (95% CI: 1.1, 6.0) higher odds of implementing the full PCIT programme

Table 4
Nature of implementation barriers encountered – international comparison.

Barrier category	Endorsed by number (%) of New Zealand trainees	Endorsed by (%) of Dutch trainees in Niec et al. (2018)
Support e.g., lacking support from colleagues, managers or supervisor.	24 (42.9%)	17%
Client group served e.g., no children with behaviour problems in the appropriate age range, families resistant to PCIT.	18 (32.1%)	78%
Personal e.g., culturally inappropriate, or discomfort with other aspects of PCIT.	10 (17.9%)	33%
Availability of continued training and/or supervision in PCIT.	15 (26.8%)	28%
Availability of necessary sound equipment, suitable clinic rooms and/or toys.	23 (41.1%)	33%
Other barrier (refer below)	20 (35.7%)	

for each step of the likert scale ($\chi^2(1) = 4.8, p = 0.029$). It ought to be acknowledged that therapists who reliably implement PCIT may be more likely to encounter situations where PCIT has helped to keep families in treatment. Regarding their training experience, there was no evidence that those therapists who found the “PCIT training material to be clear and thorough” were more likely to implement the full PCIT programme ($\chi^2(1) = 1.9, p = 0.17$) nor those who agreed that they had “received enough training to enable [them] to implement PCIT effectively” ($\chi^2(1) = 0.06, p = 0.81$).

3.3. Experience of implementation barriers – Quantitative data

Categories of barriers to implementation of PCIT after training were composed according to Niec et al. (2018)’s classification to allow for international comparison (see Table 4). In the current sample, the majority of participants endorsed having encountered one barrier category (Twenty-three participants, 41.1%) or two barriers (Twelve participants, 21.4%). Notably, eighteen participants (32.1%) reported having encountered barriers across three or more categories.

Table 4 describes the nature of the barriers therapists encountered during implementation after training in PCIT. Data from the current sample are presented alongside data from the Netherlands.

With the current sample, univariate logistic regressions indicated

Table 5
Barriers to implementation post training – qualitative data.

Domain	Theme and supporting/representative quote(s)
Blocked (Factors external to therapist)	<p>Suitable clients unavailable “...at times there will be no children referred in that age range or with those difficulties”</p> <p>Suitable clients available, but unable to access “My caseloads as allocated to me are mainly teenagers” “blocked out of initial work post training due to scheduling” “limits on PCIT caseload...”</p> <p>Equipment and resources “We had one [set of] toys / clinic room / equipment available at the time across all the PCIT therapists” “At times equipment fails and availability of rooms [is limited] due to it being a shared facility” “Some of the practicalities were a bit difficult”</p> <p>Challenges of clinic-based model “socioeconomic barriers for families attending regular clinics” “major barrier has been multiple children and no [childcare] to support attendance at sessions. Transportation is also a MAJOR commitment for many [families].”</p>
Burdened (Factors internal to therapist)	<p>Therapist perception of PCIT as unsuitable “Often need to augment it - support caregiving sensitivity to child attachment needs, parental attributions, teaching emotional regulation skills to older children” “the lack of capacity to address emotional and relational [aspects] within the framework if applies in its purest form was a barrier for my use”</p> <p>Perceived as intensive, resource-heavy “Lack of staffing ...[and]... high level of referrals affect service capacity/willingness to offer an intensive treatment” “It would still be difficult to use PCIT even if I was working with younger children, due to time constraints” “I find it difficult... to make the case for [PCIT] specifically, particularly compared to other competing interventions that are less resource-intensive to set up.”</p> <p>Time out strategy not well accepted by families “Retention can be difficult for some parents who find seeing their child upset too distressing.” “Parents not wanting to do the discipline stage”</p> <p>Time out strategy not well accepted by colleagues/peers “Many other professionals have strong views about time out and behavioural interventions with children who have experienced trauma and this can be a barrier” “Not from colleagues, manager, or supervisor, but rather from external sources criticising PCIT very openly and scathingly”</p> <p>Time out strategy not well accepted by therapist themselves “I have become uncomfortable about the use of time out by PCIT. For the children I see with trauma histories - this is entirely inappropriate” “I found the time out a more helpful intervention with older children, had to be careful that it didn’t end up exacerbating anxiety in younger children” “this form of parenting, use of time out and adult directed phase of the treatment is no longer considered suitable for my clientele group. I prefer TBRI (Trust-Based Relational Intervention)” “I come from an attachment framework and struggle with some of the aspects of PCIT”</p> <p>Feeling professionally isolated “I initially started as the only PCIT therapist in my service... in my experience it would be too difficult to do PDI solo.” “Lacking support from colleagues, in them being super busy, so find you carry the case by yourself”</p> <p>Concerned about impact of PCIT use on colleagues “The amount of noise heard from outside the room has been disturbing for other clients and therapists” “Lack of understanding of colleagues. Like frustration for using a room for longer than a 1 h slot” “Safety considerations for... other clients/therapists in a private practice – e.g., when needing to use time out”</p> <p>Perceive supervision or training to be insufficient “Could do with more regular supervision” “I’d have liked a follow up training...”</p>

that there was no evidence of a difference in self-reported rates of PCIT implementation between those who described experiencing a lack of support from colleagues, managers or supervisors and those who did not ($\chi^2(1) = 0.2, p = 0.65$), those who endorsed the 'client group served (i.e. no suitable clients)' barrier category ($\chi^2(1) = 0.04, p = 0.84$), those who endorsed having experienced personal barriers (e.g. discomfort with aspects of PCIT) ($\chi^2(1) = 0.06, p = 0.81$), those endorsing the barriers of availability of continued training and supervision ($\chi^2(1) = 1.4, p = 0.24$) and availability of necessary sound equipment and rooms ($\chi^2(1) = 2.1, p = 0.15$).

3.4. Implementation barriers – Qualitative data

As outlined earlier, verbatim responses provided by participants in relation to two related items were amalgamated. The qualitative data was analysed as described earlier and appeared to fall naturally into two broad domains. The first included descriptions of barriers that were practical or logistical and were related to factors outside of the therapist's control such as insufficient equipment or lack of access to suitable clients – this category was named "Blocked". The second domain included all barriers related to factors 'internal' to therapists, such as beliefs, perceptions, views or attitudes – including therapist perspectives on the perceptions of other parties (e.g. clients or colleagues). This domain was named "Burdened". It is acknowledged that these domains are likely to be inter-related and are not mutually exclusive. These domains, along with themes within the domains and supporting quotes, are presented in Table 5. External factors tended to relate to equipment availability, families having difficulty accessing the clinic, and a lack of suitable clients – either through inadequate referrals, or through having no control over clients seen. Internal factors included therapists perceiving that PCIT was "intensive" and demanding on their own skills, and on their colleagues (use of rooms, noise). The PDI phase of PCIT, particularly the use of time out, was described as a barrier, with poor acceptability to colleagues, families and some therapists themselves.

3.5. PCIT training, supervision and professional development

Almost all participants reported having engaged with PCIT supervision or other professional development activities after their initial five-day training, with PCIT supervision (71.4%), attending a PCIT-specific training day or workshop (46.4%) and reading recent PCIT research (also 46.4%) being the most commonly endorsed activities. Participants had also attended PCIT interest groups (44.6%) and joined the PCIT International listserv email group (19.6%). Only two respondents (3.6%) had attended a PCIT International conference. Of note, 17.9% of participants did not respond to this item, possibly a reflection of its position toward the end of the survey.

Almost all respondents described the PCIT supervision they had received as helpful, useful and supportive. Several contributed that they would like to receive more supervision. In relation to particularly useful elements of PCIT supervision, respondents referred to the importance of regularity and consistency. They also described as important the case discussions (particularly in relation to adaptations for specific client presentations), video reviews of client work, PCIT coding practice, input from senior therapists, and peer support.

3.6. Cultural aspects

Responses to the item "Given that PCIT was developed in the United States of America, what cultural adaptations would you suggest could make it more acceptable to New Zealand families / whanau?" have been retained, and will be analysed and interpreted at a later date by an Indigenous Māori-led team, including one of the present authors (TC).

4. Discussion

The results of this anonymous online survey of the first 104 therapists who had trained in Parent-Child Interaction Therapy in New Zealand suggest that while experiencing barriers in the clinical setting was common, it did not necessarily detract from the likelihood of the therapist implementing PCIT. This is in keeping with existing research suggesting that therapist factors may influence implementation in conjunction with - and in relation to - other factors, such as the amenability of the organisation to implementation (Asgary-Eden and Lee, 2012). A supportive organisation may be more likely to provide adequate resources, training and supervision, or lower clinical case-loads, which facilitates therapist implementation (Asgary-Eden and Lee, 2012; Jackson et al., 2017).

Twenty-five of the fifty-six participants (44.6%) reported currently using PCIT in their work. However, allowing for survey non-responders and those not able to be contacted, this proportion could be as low as 24% (25/104). In considering the sustainability of PCIT implementation, the time since training is a relevant factor and, in this study, this varied from relatively recent training to receiving PCIT training nine years previously. This invites the question of how best to conceptualise and measure successful implementation and sustainment of a manualised protocol in a community setting – an area of interest to the implementation science field (Hailemariam et al., 2019). Also, the reach of PCIT in New Zealand may be modest – therapists who use PCIT described seeing an average of 2.4 PCIT clients per week and given that several therapists reported co-working PCIT cases, many of these may have been 'counted' twice. Though it ought to be acknowledged that several participants described experiencing externally imposed limits to the number of families to whom they could deliver PCIT.

Therapist perceptions of PCIT – its effectiveness, ease of use, its ability to engage families – and PCIT training experiences also did not appear to influence the likelihood of implementing PCIT. New Zealand therapist attitudes and perceptions were remarkably similar to Niec's (2018) sample of Dutch PCIT trainees, with only relatively small statistically significant differences in relation to 3 of twenty items. NZ therapists endorsed the item 'I found training materials to be clear and through' more strongly than Dutch therapists – possibly due to PCIT originally being an English language intervention and many therapists in NZ having English as a first language. Relating to the item 'I use / plan to use PCIT regularly with families of children with conduct problems', differences here may relate to the length of time post PCIT training between the two samples. There was more variation (SD and range) in the New Zealand data set, resulting from some (though few) 'negative' responses. The Dutch trainees tended to be less extreme in their ratings – possibly at least in part a reflection of the different methodologies involved in collecting these data, and their influence on the likelihood of extreme responses – in New Zealand, an anonymous online survey with the likert scale presented visually, and in the Netherlands an identifiable phone interview with the scale described orally.

Also, while not formally statistically compared, anecdotally therapists in both the Dutch and New Zealand samples appeared to view co-working PCIT cases as important where possible. It may be that co-working with another PCIT therapist provides a degree of informal implementation support – the ability to jointly problem-solve audio-visual equipment problems (referred to by participants in both samples), advocate for PCIT delivery within a service context (several participants described having encountered opposition in this regard) or better meet the needs of families presenting with complex difficulties (again, referenced by participants in both samples). The advantages of co-working with clients presenting with complex needs have been described elsewhere (Woodfield and Lambie, 2019), though not in relation to informal implementation support, which could be an interesting domain to explore in future.

Another finding that invites further exploration was the proportion of therapists (16.1%) who reported preferring to use components of

PCIT, rather than the full manualised protocol. To our knowledge, this implementation behaviour has not been described in the extant PCIT literature. A significant theme in the qualitative data related to poor acceptability (to colleagues, clients, and the therapists themselves) of the PDI phase, specifically the use of time out with young children. After having completed a five-day training in PCIT, therapists continued to hold concerns about the use of time out, and the impact of time out on the attachment relationship between parent and child. This perception of time out is not unique to the NZ context (Dadds and Tully, 2019). Given these concerns, it may be that those therapists who reported using only components of PCIT are teaching and coaching parents in CDI skills alone. Therapist adaptations of evidence-based treatments are commonplace, and are often an attempt to compensate for a dissonance between the characteristics of the setting in which the treatment was developed, and the nature of the implementation setting (Shelton et al., 2020). Therapist-driven adaptations may also – importantly – seek to ensure that the treatment is culturally acceptable and appropriate for the population being served (Cabassa and Baumann, 2013; Baumann et al., 2015; Lau et al., 2017). Cabassa and Baumann (2013) suggest that there are a number of forces influencing and shaping both how a treatment is developed, and the implementation process – factors that are social, cultural, political and historical. Adaptations may involve tailoring the presentation of material, terminology or language, or adapting the pacing of a programme to meet the needs of clients and/or improve engagement – these types of adaption often suggest therapists' active engagement with the treatment (Lau et al., 2017). Alternatively, adaptations may involve re-ordering a manualised protocol or omitting core treatment components – as appears to have been the case in our sample – which may reflect disengagement from the structure or components of the treatment (Lau et al., 2017). Ideally, adaptations ought to be anticipated and planned for, as keeping the evidence-based treatment's core effective components intact is essential to reduce the risk of fidelity drift and possible impact on treatment effectiveness (Shelton et al., 2020; Lau et al., 2017).

It is possible that there is a role for an adjunct training module – perhaps via online delivery to enhance uptake – or further post-training supervision that specifically addresses therapist concerns around the use of time out. This material would usefully be informed by recent publications and existing resources on the use of time out, developed in acknowledgement of therapist and family concerns about the technique (e.g., Quetsch et al., 2015; Dadds and Tully, 2019; Larzelere et al., 2020). However it is acknowledged that one implementation intervention component is unlikely in and of itself to bring about significant change in implementation behaviour (Bauer et al., 2015).

Another somewhat surprising finding was the use of a variety of other intervention packages described by therapists working with young children with disruptive behaviour. At times, these did not share a common theoretical basis with PCIT (e.g. the Circle of Security intervention) and advocated for differing, potentially incompatible parenting strategies, such as those which are 'exclusively positive' and do not include time out (see Larzelere et al., 2020). While it was not explored in the current study, it may be useful for future research to explore the possibility that therapists are selecting palatable or appealing (perhaps in terms of acceptability to parents, or ease of use, or perceptions of effectiveness) components of several manualised interventions and integrating these in their work. And, more crucially, the extent to which and manner by which this decision-making influences implementation.

A strength of this study was the relatively high response rate, and the detailed responses (for an online survey format) provided by participants. This may be partly attributable to the small professional community in New Zealand, and a degree of goodwill towards the researchers. Conversely, participant responses may have been tempered by an awareness that the authors would view the responses. This is despite assurances of confidentiality and practical steps to dissociate participant responses from identifiable details. There were other limitations to this methodology, namely attitudes and perspectives can be

difficult to fully capture in an online survey, particularly given the importance of keeping the survey brief to encourage completion. Additionally, the CUSP measure – on which the current survey was based – has limited psychometric support, which is a particularly relevant consideration given that item analysis was undertaken. Also, it may have been useful to augment therapist self-report of implementation barriers and PCIT usage with additional objective measures, and/or more comprehensively ascertain the extent to which therapist-expressed beliefs, attitudes, cognitions and perspectives aligned with their implementation behaviour. While in this study, therapist perceptions did not appear to impact on likelihood of implementation, this could be a product of several factors including a relatively small sample size. A related difficulty was that the majority of participants were very positive about PCIT, leaving few participants in the 'negative' group for attitudinal questions where the dichotomy was adopted and explored in terms of influence on likelihood of implementation. Though, due to the relatively small population as a whole (104 trainees), this is difficult to avoid.

It is also possible that this sample represents a group of highly engaged and highly positive trainees and may not be representative of the New Zealand PCIT trainee population (though it ought to be acknowledged that the Dutch and US trainees, while small samples, were also highly positive). In New Zealand, PCIT training was voluntary, and available to those who indicated an interest and were supported by their service to attend the training. This, in and of itself, implies some degree of interest or openness at the therapist level, and support or willingness to implement at the service level. It would be interesting to compare characteristics and perceptions of those who chose to train in PCIT, versus those who were unwilling or unable to train in it. Attention could also usefully turn to how and why therapists persist with implementation despite experiencing barriers. Contexts or settings where implementation had been particularly successful could be the focus of a detailed case study – perhaps informed by an Appreciative Inquiry (Cooperrider and Whitney, 2005) lens or similar.

Effective parent training interventions for the treatment of childhood conduct problems are now widely available internationally. Programmes have oftentimes encountered blockages in the implementation pipeline and in many instances have not become established as a sustained component of routine clinical care (Bauer et al., 2015). As Forgatch and colleagues have suggested, "learning how to install proven (parent training) programs in community practice settings is the challenge of the next quarter century" (Forgatch et al., 2013; p. 682). Work must continue to better understand therapist experience of the implementation process, and how this experience interacts with other factors to ensure that proven programmes are routinely available to children and families in need.

Author contributions

MW: designed and executed the study, wrote the paper. TC and IL: collaborated with the study design and edited the paper. DB: Ran statistical analyses and edited paper.

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Declaration of Competing Interest

MW and TC are Level 1 and Level 2 (respectively) trainers for PCIT International, though receive no remuneration from PCIT International for these roles. IL and DB have no affiliation to PCIT International. No further competing interests to declare.

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Appendix A. Supplementary material

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.chidyouth.2020.105681>.

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