

# Attrition in Parent-Child Interaction Therapy: A Clinical Study

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## ABSTRACT

Parenting interventions have been found effective in reducing maladaptive child behaviours (e.g., Hembree-Kigin & McNeil, 1995); however, high attrition rates in these programs are often reported (e.g., Kazdin & Mazurick, 1994). This suggests the need to better understand and address the causes of attrition. The archival files from 29 families who participated in a clinical Parent-Child Interaction Therapy program were examined to find the attrition rate across treatment, and to identify the reasons given for leaving the program before completion. A high attrition rate of 69% ( $n = 20$ ) was found. A qualitative data revealed that the most common reason for attrition was the parent did not have the time to participate in treatment (40%,  $n = 8$ ). A further problem was identified in that 35% ( $n = 7$ ) of program drop-outs did not attend a single treatment session after completing program intake. A post hoc review of qualitative data revealed that the most common reason for leaving the program within this specific group, was that an alternative treatment was sought (57%,  $n = 4$ ). Other common reasons for attrition are discussed. Possible solutions to decrease attrition, such as offering time-saving incentives or more convenient program formats, are suggested.



Short-term evidence-based parenting interventions have been found effective in reducing maladaptive child behaviours and in preventing the onset of conduct disorder (e.g., CIHI, 2009; Hembree-Kigin & McNeil, 1995). Unfortunately, high attrition rates in these interventions are often reported (e.g., Kazdin & Mazurick, 1994). In order to ensure that as many children as possible can benefit from parenting interventions, a better understanding of the rates and causes of attrition within clinical programs is needed.

Parent-Child Interaction Therapy (PCIT; Eyberg, 1988) is a short-term evidence-based parenting intervention, developed to treat severely maladaptive and disruptive behaviours, such as aggression and non-compliance, in children

aged 2-7 (Hembree-Kigin & McNeil, 1995). PCIT is conducted in-office and consists of two phases through which a parent is coached while interacting with the child. Parent coaching is conducted by two trained therapists who discreetly observe the parent-child interaction from behind a two-way mirror. The therapists communicate with the parent through an ear-bug, offering the parent in-vivo guidance in the use of positive parenting practices. The discreet nature of the therapist observation allows the child to interact more naturally with the parent (Hembree-Kigin & McNeil, 1995).

The first phase is called child-directed interaction (CDI), and the parent is coached to follow the child's lead and to give ample attention and praise for prosocial behaviours. The second phase is called parent-directed interaction (PDI), and the parent is coached to guide the child's behaviour by using consistent and effective commands and discipline. The program is typically completed over 8-14 weekly one-hour sessions, and parent are considered to have completed treatment is once both phases of the program have been mastered (Hembree-Kigin & McNeil, 1995).

Completion of PCIT effectively reduces maladaptive child behaviours within both clinical and normative ranges, and has displayed both short-term and long-term effects (e.g., Boggs et al., 2004; Hood & Eyeberg, 2003). However, as the treatment requires a large amount of parent time and participation, high attrition rates are often found (e.g., Boggs et al., 2004). While families who complete treatment see large improvements in child behaviour, families who drop-out do not see such improvements (Boggs et al., 2004). Further, similar benefits are not seen when candidate families seek alternative treatment in lieu of PCIT, such as in-school services (Boggs et al. 2004). This suggests the importance of reducing attrition rates by identifying and addressing the barriers which prevent families from completing treatment.

The aim of this paper is to summarize the attrition rate and reasons given for leaving treatment early, found in a clinical PCIT program.

**TABLE 1**  
Distribution of Drop-Outs by Attrition Group

ATTRITION GROUP	%	N
Completed intake, did not attend any session	35%	7
Dropped-out during CDI, only attended 1 treatment session	20%	4
Dropped-out during CDI, attended more than 1 treatment session	30%	6
Completed CDI, dropped out during PDI	15%	3

**TABLE 2**  
Reasons Cited for Leaving Treatment Among Treatment Drop-Outs

REASON GIVEN FOR LEAVING TREATMENT	%	N
Parent too busy to take part in therapy	40%	8
Parent returned to workforce	25%	5
Insufficient access to child or change in child custody	20%	4
Alternative treatment sought	15%	3
Parent unable to find childcare for other children while attending therapy	10%	2
Parent unable to continue do to medical reasons or pregnancy	10%	2
Parent unable to continue do to personal or marital problems	5%	1
Parent unwilling to participate in therapy	5%	1
Treatment not progressing fast enough	5%	1
Parent chose to continue self-directed therapy at home	5%	1
No reason given	5%	1

Note. All percentages based on participants who left treatment before completion ( $n = 20$ ). Some families ( $n = 9$ ) gave multiple reasons for leaving. All 'parent(s) return to workforce' frequencies are also represented in the 'family too busy to take part in therapy and/or homework' group.

**TABLE 3**  
Reasons Cited for Leaving Treatment in Families Who Did Not Attend Any Session

REASON GIVEN FOR LEAVING TREATMENT	%	N
Alternative treatment sought	57%	4
Family too busy to take part in therapy	43%	3
Insufficient access to child or change in child custody	14%	1
Parent unable to find childcare for other children while attending therapy	14%	1
Parent unable to continue do to medical reasons or pregnancy	14%	1
Parent unwilling to participate in therapy	14%	1

Note. All percentages based on participants who left treatment after completing intake, but did not attend any treatment sessions ( $n = 7$ ). Some families ( $n = 3$ ) gave multiple reasons for leaving.

## Method

### Procedure

Data for this study was obtained from the 2007-2009 archival files of a clinical PCIT program run through the British Columbia Ministry for Children and Family Development. The program was run by two Masters level therapists who received in-depth training in the administration of the program. The program was offered during normal working hours and was provided free of charge.

Treatment was conducted based on the PCIT protocols suggested by Hembree-Kigin and McNeil (1995) with two exceptions: two children older than 7-years at intake were excepted into the program; and the mastery of each phase was determined based on therapist discretion. As a clinical program which serves the community, these exceptions were made in order to help as many families referred for treatment as possible, and to reflect the needs of the program participants.

All families were referred for treatment by a medical or mental healthcare provider. Only families who showed initial interest to enter treatment, and who completed intake, were used for this study. A family could choose to end treatment at any point during the program, rather than complete the program. If a family chose to leave treatment before completion, a short telephone interview was conducted to determine the family's reasons for leaving.

### Participants

Data was collected from the archival files of 29 mother-child dyads who had previously participated in the program. The children were aged 20 months to 99 months at intake ( $M = 55.42$  months,  $Mdn = 50.00$  months,  $SD = 17.86$ ), and 83% ( $n = 24$ ) were male.

### Measures

**Attrition Rate.** The amount of treatment completed at the time of program exit was obtained from the files of each family. A program attrition group was assigned to each family as follows: 1) attended intake, but did not attend any treatment sessions; 2) dropped-out during CDI, attended only one treatment session; 3) dropped-out during CDI, attended more than one treatment session; 4) completed CDI, dropped out during PDI; 5) completed treatment.

**Reasons for Attrition.** Qualitative data was obtained concerning the reasons given for attrition, from the files of all the families who did not complete treatment.

### Results

Of the 29 families who showed interest in the program and completed intake, only 31% completed treatment ( $n = 9$ ), yielding a 69% attrition rate ( $n = 20$ ). A summary of the number of families per attrition group can be found in Table 1. No relationship was found between program completion and either child sex,  $\chi^2(1, n = 29) = 2.72, p = .099$ , or age at intake ( $r = -.173, n = 29, p = .370$ ).

A chi-square goodness of fit test confirmed that participants were more likely to have dropped-out during treatment than to have completed the program  $\chi^2(1, n = 29) = 4.17, p = .041$ . However, participants were no more likely to have dropped out during any one time-point (as measured by attrition group) across treatment  $\chi^2(3, n = 20) = 2.00, p = .572$ . Further, no relationship was found between the time-point at program exit and either child sex,  $\chi^2(3, n = 20) = .381, p = .944$ , or age at intake ( $r = -.067, n = 20, p = .780$ ).

### Qualitative Analysis of Attrition

A qualitative analysis revealed that the most common reason for attrition was that the parent became too busy to continue treatment (40% of drop-outs,  $n = 8$ ). Of these parents, the majority (63%,  $n = 5$ ) cited a return to the workforce as the reason they became too busy to continue with treatment. A summary of all the reasons given for leaving

treatment before completion can be found in Table 2.

It was also found that of the families who did not complete treatment, 35% ( $n = 7$ ) did not attend a single treatment session after completing program intake. As such, a post hoc review of qualitative data was done to identify the reasons that participants in this group gave for exiting the program. The most common reason that a family did not attend a single treatment session was that the family chose to seek an alternative treatment instead, followed by the parent having become too busy to attend treatment. A summary of all the reasons given for leaving treatment among participants in this group, can be found in Table 3.

### Discussion

This study found that of the 29 families who were referred for treatment and completed intake in a clinical PCIT program, only nine completed treatment. This yielded a relatively high attrition rate of 69%, larger than the 12-47% reported by similar studies of parenting intervention programs (Berkovits et al., 2010; Kazdin & Mazurick, 1994; Phillips et al., 2008; Prinz & Miller, 1994). Most of these studies, however, were conducted in University laboratory settings, rather than in clinical settings (e.g., Berkovits et al., 2010; Kazdin & Mazurick, 1994; Prinz & Miller, 1994). As such, the large attrition rate found in the current study suggests the importance of identifying and addressing the possible treatment barriers found within clinical samples.

Overall, the most common reason for leaving treatment before program completion was that the parent became too busy to take part in therapy, followed by the parent's return to the workforce. These findings differ from similar studies which have reported logistical complaints, such as trouble finding transportation or childcare, as the dominant reason for leaving treatment (e.g., Boggs et. al., 2004; Prinz & Miller, 1994).

The fact that attrition in the current study was chiefly attributed to the parent's inability to find the time to participate, presents a difficult barrier to tackle. Offering time-saving incentives, such as an inexpensive meal while the parent and child interact during treatment, may free-up time that the parent may otherwise spend on family chores (such as cooking dinner).

Another option may be to offer PCIT in a more convenient format, such as by conducting the treatment in-home using a portable closed-circuit camera, instead of a two-way mirror. This would reduce the time that a parent must spend on travel to and from treatment. Alternatively, PCIT also could be offered through other convenient modalities, such as by connecting the family and therapist through online video-conferencing. Interestingly, a study by Berkovits et al. (2010) also found that offering a modified self-guided version of PCIT was therapeutically effective in a subclinical sample, and yielded a substantially lower attrition rate compared to an in-office version.

Most families stated a return to the workforce as their

reason for no longer having the time to attend treatment. This may be best addressed by offering PCIT at more convenient times, such as during evenings or weekends. Other logistical complaints, such as lack of childcare, may be best addressed by offering PCIT at locations that could offer free or discounted childcare during therapy sessions.

The largest attrition group was represented by families who did not attend any treatment session. This was considered especially worrisome. As such, a post hoc analysis was done to better understand the reasons that these families did not attend any treatment sessions after completing program intake. The most common reason was that the family chose to seek alternative treatment. Although all the families initially showed interest in the program, these parents may have later decided to seek a different treatment that would better suit their personal needs or their family's requirements. Unfortunately, Boggs et al. (2004) found that families who are candidates for PCIT, but seek alternative treatment instead, do not show the same long-term improvements in child behaviour. While this may indicate of the benefits of PCIT itself, it may also point to the characteristics of parents who are willing to participate in their child's therapy, compared to those who are not.

Some limitations occurred as part of this study. First, the small sample size limits the generalizability of the findings. Second, the lack of experimental control and the self-selecting nature of participant attrition or completion, reduces the ability of this study to draw causal relationships. Last, the telephone interviews used to ascertain a family's reason for attrition were not completed anonymously, so some of the reasons for leaving treatment may have been censored or concealed by the parent.

Overall, this study suggest that a larger than average attrition rate may occur in clinical PCIT programs. This presents a problematic situation as a large number of the families referred for treatment will not receive the benefits associated with program completion, such as short-term and long-term decreases in maladaptive child behaviours (e.g., Boggs et al., 2004). Further research using larger sample sizes is needed to confirm the high attrition rate found in clinical samples. Future research should also aim to empirically test and confirm ways to reduce attrition, in order to ensure that as many children as possible can benefit from clinical parenting intervention programs.

## Résumé

Les interventions de parentage ont été trouvées efficaces dans la réduction des comportements d'enfant mal adapté (p. ex. Hembree-Kigin et McNeil, 1995); cependant, les taux d'attrition élevés dans ces programmes sont souvent signalés (p. ex. Kazdin et Mazurick, 1994). Cela suggère la nécessité de mieux comprendre et de s'attaquer aux causes de l'attrition. Les dossiers d'ar-

chives de 29 familles qui ont participé à un programme clinique de thérapie d'interaction parent-enfant ont été examinés pour trouver le taux d'attrition entre le traitement, et de cerner les raisons données pour quitter le programme avant l'achèvement. Un taux d'attrition élevé de 69 % ( $n = 20$ ) a été trouvé. Les données qualitatives ont révélé que la plupart des raisons communes pour l'attrition étaient que le parent n'avait pas le temps de participer au traitement (40 %,  $n = 8$ ). Un autre problème a été décelé dans le sens où 35 % ( $n = 7$ ) des décrocheurs du programme n'ont pas assisté à une seule séance de traitement après avoir été admis au programme. Un examen spécial a posteriori des données qualitatives a révélé que la plupart des raisons communes pour quitter le programme au sein de ce groupe précis, étaient qu'un traitement alternatif a été cherché (57 %,  $n = 4$ ). D'autres raisons communes d'attrition font l'objet de discussion. Des solutions possibles pour diminuer l'attrition, comme d'offrir des incitatifs qui permettent d'économiser du temps ou des conditions de prestation du programme mieux adaptées, sont suggérées.



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