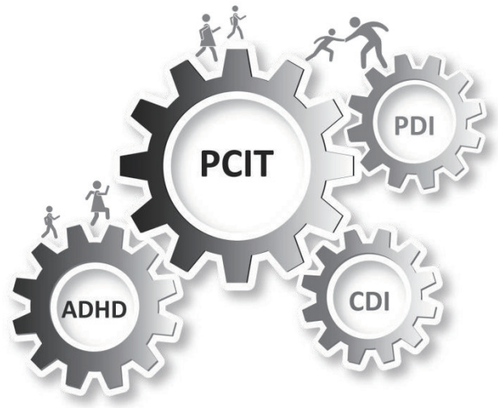
# Parent-Child Interaction Therapy (PCIT) Service in Hong Kong: Effectiveness and Efficacy on Children with ADHD

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Note:
CDI: Child-Directed Interaction
PDI: Parent-Directed Interaction

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# Preface

A decade ago, in 2004, Tung Wah Group of Hospitals (TWGHs) piloted the Parent-Child Interaction Therapy (PCIT) Service, which is a clinically validated treatment model on child abuse and child disruptive behaviour originated from the United States. It aims to assist at-risk child battering families to quit physical punishment, improve parent-child relationship and enhance parenting competency. The PCIT service was first introduced in Tuen Mun in 2004, supported over 200 families over 3 years in Tuen Mun and Tin Shui Wai, the two districts with the highest child abuse rate. In line with The Hong Kong Jockey Club Charities Trust's (the Trust) commitment in strengthening traditional family values and helping promote family health, happiness and harmony, the Trust has supported TWGHs to operate a 3-year project entitled "Parent-Child Interaction Therapy Services" in 2008. The project aimed to prevent child abuse and over 600 high risk families were served from November 2008 to October 2011.With proven success, the Trust has extended its support for the project to 2018. From April 2012 to March 2015, another 609 families were served.

To test the effectiveness and efficacy of the PCIT service in Hong Kong, TWGHs has been collaborating with Professor Cynthia Leung of the Hong Kong Polytechnic University and Dr. Sandra Tsang of the University of Hong Kong to conduct three PCIT studies since 2007. The first research in 2007 "The Outcome and Process Evaluation of the Parent-Child Interaction Therapy in Treating Families with Children with Behavior Problems in Hong Kong", and the second research in 2012 "Parent-Child Interaction Therapy Service in Hong Kong: An Efficacy and Effectiveness Study" , both confirmed that PCIT could significantly reduce the children's behavioral problems, parenting stress and negative emotions, negative parenting practices and use of corporal punishment, and increase positive parenting practices.

Based on the favorable results of two previous local PCIT studies, we conducted a study to assess the impact of PCIT on specific user-group – children with Attention Deficit/Hyperactivity Disorder (ADHD) and caregivers of these children. An RCT study involving 64 parent-child dyads with children clinically diagnosed with ADHD/ADHD features was carried out between 2012 and 2015, in addition to an effectiveness study on 584 parent-child dyads which has completed the PCIT treatment. The purpose of this report is to illustrate the results of these two studies.

We believe that the findings resulted from these evaluative studies would shed light on further developing an indigenous PCIT model in our community, enabling practitioners to better serve our families and children.



## Acknowledgement

We are indebted to many parties and individuals for their contribution and assistance to PCIT services and this research study. First of all, we would like to express our heartfelt gratitude to The Hong Kong Jockey Club Charities Trust for the generous donation for the PCIT service. With the Trust's continuous support since 2008, over 1200 at-risk children and families were able to receive and benefit from this early intervention service.

We are also grateful to have our research consultants Professor Cynthia Leung of the Hong Kong Polytechnic University and Dr. Sandra Tsang from the University of Hong Kong, who have worked closely with us in conducting PCIT studies since 2004. Their expertise and professional input is greatly appreciated. Special thanks also to the PCIT founder and our overseas project consultant Professor Sheila Eyberg of the University of Florida, USA, and our PCIT Master Trainer Professor Cheryl McNeil of the West Virginia University for their unfailing clinical support.

To our PCIT service users, who contributed in the positive outcome of PCIT and provided valuable input in the research, our special thanks. Finally, we would like to express our sincere appreciation to all the PCIT therapists for their devotion in serving at-risk families and contributions in research data-collection process.

Ivan T. L. YIU, JP
Community Services Secretary
Tung Wah Group of Hospitals

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**Parent-Child Interaction Therapy (PCIT) Service in Hong Kong:**
**Effectiveness and Efficacy on Children with ADHD**

## Executive Summary

**August 2015**


**Introduction:** This study mainly examined the efficacy of the Parent-Child Interaction Therapy (PCIT) Service of Tung Wah Group of Hospitals (TWHGs) on children with ADHD features and the effectiveness of the PCIT service from April 2012 to March 2015. The program targeted parent-child dyads with children aged 2 to 7 and having behavior problems. The parents were those admitted to be using corporal punishment, at-risk of child abuse, or experiencing high parental stress.

**Methods:** The program evaluation consisted of two parts. Part A was an efficacy study of PCIT on children with ADHD features and their caregivers using a randomized controlled trial (RCT) design. It involved 64 parent-child dyads randomly assigned to a PCIT intervention group (32 cases) and a wait-list control group (32 cases). Part B was a program effectiveness study involving 584 cases served in the project. Quantitative and qualitative data were collected.

In the efficacy study, the mean age of the target children in the intervention group was 5.51 with more boys (87.5%) than girls (12.5%). The behavioral problem of the children as measured by Eyberg Child Behavior Inventory at pre-intervention in both the intervention and the wait-list control groups fell within the clinical range. There were no significant differences in the socio-demographic characteristics and pre-intervention scores between the two groups.

In the effectiveness study, the mean age of the target children was 4.84 with more boys (72.8%) than girls (27.2%). The majority of these participants (65.8%) were self-referrals.

**Results:** In the Part A efficacy study, analysis was by intention-to-treat and missing data were estimated using multiple imputation. Univariate analysis of covariance (ANCOVA) was used to analyse the data, with group status as independent variable, post-intervention measures as dependent variable, and pre-intervention measure as covariate. Among 32 cases in the intervention group, 25 cases completed the treatment successfully. The success rate is 78.1%. The results indicated that after intervention, the intervention group participants, in comparison with the wait-list control group, had significantly lower child behavior problems, child attention

problems, parenting stress and negative emotions, and less self-report of use of corporal punishment. There were also significant decreases in inappropriate child management strategies and significant increases in positive parenting practices. The intervention group participants were able to maintain these changes three months after completion of intervention.

In the Part B effectiveness study which lasted for three years, 442 of the 584 cases in the project completed PCIT treatment successfully, and the overall success rate was 75.7%. Dependent t test was used to analyse the post-intervention and pre-intervention measures of all the 442 successful cases and five sub-groups among these cases: the established/ high risk child abuse subgroup ($n$ = 18), the special educational needs (SEN) subgroup ($n$ = 194), the language delay subgroup ($n$ = 47), the Autism Spectrum Disorder (ASD)/ASD features/Asperger's syndrome/Asperger features subgroup ($n$ = 17) and the target children aged 7 years or above subgroup ($n$ = 42). The results indicated that child behavior problems, parenting stress and use of corporal punishment were consistently lower at post-intervention in comparison with the pre-intervention scores for all the successful cases and all the five sub-groups. There were also significant decreases in inappropriate child management strategies, and significant increases in positive parenting practices.

Qualitative results collected from focus groups were consistent with the quantitative data. The parents appreciated the direct coaching, and PCIT techniques including labeled praise and time out procedure. The therapists attributed the success to the weekly intervention rhythm, and direct observation and immediate feedback in on-the-spot coaching.

**Discussion:** The results confirmed that PCIT was effective in reducing the children's behavior problems, children attention problems for those with ADHD features, parenting stress and negative emotions, negative parenting practices and use of corporal punishment, and increased positive parenting practices. PCIT was also found to be a promising intervention strategy for established/high risk child abuse cases, children with special educational needs, including language delay, ASD/ASD features/Asperger's syndrome/Asperger features , as well as children aged 7 or above. Future studies should include lager samples to examine the differential impact of PCIT on specific user-groups including families with domestic violence or mental health history. Longitudinal studies to check the maintenance effect of PCIT should also be considered.





# Chapter 1: Background and Objectives

## Introduction and Background

1.1 Supported by a donation of The Hong Kong Jockey Club Charities Trust, Tung Wah Group of Hospitals (TWGHs) offered Parent-Child Interaction Therapy (PCIT) Service to a total of 609 parent-child dyads from April 2012 to March 2015. This non-technical report is prepared to present the evaluation results of this 3-year service project.

1.2 PCIT is an empirically supported and clinically grounded treatment approach for young children, aged 2 to 7 with disruptive and oppositional behaviors, and their parents (Brinkmeyer & Eyberg, 2003; Herschell, Calzada, Eyberg, & McNeil, 2002). It was developed by Dr. Sheila Eyberg of The University of Florida, the United States and was adapted by TWGHs for Chinese families in Hong Kong (Leung, Tsang, Heung, & Yiu, 2009). Local PCIT effectiveness and efficacy studies were completed in 2007 and 2012.

1.3 To investigate the PCIT's impact specifically on children with Attention Deficit/ Hyperactivity Disorder (ADHD) features and to evaluate the project effectiveness, TWGHs in collaboration with Professor Cynthia Leung of The Hong Kong Polytechnic University and Dr. Sandra Tsang of The University of Hong Kong conducted the current evaluation study on the PCIT efficacy on children with ADHD features and their caregivers, and the effectiveness of PCIT service from 2012 to 2015.

## Efficacy and Effectiveness Studies

1.4 The program evaluation consisted of two parts, namely efficacy study and effectiveness study. Both quantitative and qualitative data were collected:

***Part A. Efficacy Study:*** A randomized controlled trial (RCT) design was adopted to examine the PCIT efficacy on children diagnosed with ADHD/ADHD features and their caregivers. It involved 64 parent-child dyads randomly assigned to a PCIT intervention group (32 cases) and a wait-list control group (32 cases), in which PCIT treatment was offered after a 3.5 to 5 months delay;

***Part B. Effectiveness Study:*** 584 closed cases out of the 609 cases served in the period were involved in the analysis of the program effectiveness in the project.

**Participants and PCIT Therapists**

1.5 The participants were parent-child dyads (and in few cases, the main caregivers) served by the PCIT project either in the efficacy study (32 in the intervention group, 32 in the wait-list control group) or the evaluation study (584 in total) from April 2012 to March 2015. The participants were parents (or main caregivers) who expressed concerns about the children's behavior and parent-child relationship. Most of the participants (65.75%) were self-referred while the others were referred by Integrated Family Service Centres, Family & Child Protective Service Units of the Social Welfare Department (SWD), other non-governmental organizations (NGOs), Child Assessment Centres, medical units, schools or preschools, and other service units of TWGHs. All the participating parent-child dyads were assessed by the PCIT therapists to have met the inclusion criteria (children aged 2 to 7 exhibiting externalizing behavior problems in the clinical range as measured by the Eyberg Child Behavior Inventory [ECBI]; parents admitted to be at risk on using corporal punishment or experiencing high parental stress) before receiving the service.

1.6 All PCIT therapists working in TWGHs have received qualification training from the PCIT program in the United States (US), or from Hong Kong PCIT trainers certified by the US PCIT program.

**The PCIT Treatment**

1.7 The PCIT treatment program was delivered in selected social service centres and nursery schools of TWGHs to ensure accessible service coverage all over Hong Kong. There were two major components in the program: Child-Directed Interaction (CDI) sessions on parent-child relationship enhancement, and Parent-Directed Interaction (PDI) sessions on strategies to improve child compliance (Eyberg, 2011), together with pre-, mid-term, post-assessment, and follow-up-assessment. The treatment progress was guided by the regular coding of observations of parent-child interaction using the Dyadic Parent-Child Interaction Coding System – 3rd Edition (Eyberg, Nelson, Duke & Boggs, 2009). Treatment was conducted once a week and each session lasted for approximately one hour. In each week, parents were given "homework sheets" to record their daily practice of the skills at home with their children. Each treatment session started with a 10-minute check-in to review the homework and the current family situation, followed by a five-minute observation by the therapist to assess the parent's mastery of the skills. The therapist then coached the parents on the relevant skills and gave them feedback. The number of treatment sessions offered depended on the parent's mastery of the skills. Once parents met the mastery criteria for the CDI phase, they would proceed to the PDI phase on strategies to improve child compliance. The treatment was performance-based, and ended when the parent had mastered the required skills of the treatment phases. The treatment was conducted in Cantonese. Further service details could be found in the following website: http://pcit.tungwahcsd.org/.

# Chapter 2: Efficacy Study

## Quantitative Study Methodology

### *Design*

2.1 This study adopted a randomized controlled trial (RCT) design. Written consent for participation in PCIT research was obtained from all the participants upon inviting them to complete the questionnaires. This study was approved by the Ethics Committee of The Hong Kong Polytechnic University.

### *Participants*

2.2 The participants included 64 pairs of target parents with children aged between 2 and 7 years old who were diagnosed with ADHD/ADHD features who self-applied or were referred for PCIT. Among them, 32 parent-child dyads were randomly allocated to the intervention group, and 32 dyads were randomly allocated to the wait-list control group, in which PCIT was provided after 3.5 to 5 months. Among the 32 cases in the intervention group, 25 cases completed PCIT treatment successfully (post-intervention ECBI-intensity scores below the cut-off, CDI mastery or both CDI and PDI mastery achieved). The success rate is 78.13%. Among seven drop-out cases, two cases terminated the treatment before completion (one participant quitted because of busy schedule and another one quitted because of health problem), while five cases completed the treatment but failed to yield the post-intervention ECBI-intensity scores below the cut-off and/or to achieve CDI and PDI mastery. Their demographic characteristics are presented in Table 2.1.

### *Measures*

2.3 The intervention group participants were requested to provide their socio-demographic information at pre-intervention stage, and complete a set of questionnaires before (pre-intervention), mid-term, immediately after the program (post-intervention), and three months after intervention (follow-up). The wait-list control group participants completed the same set of questionnaires twice, with an interval of about 3.5 to 5 months (pre-intervention and post-intervention). The questionnaires were all in Chinese and included the following seven sections:



a. Socio-demographic Information

The information included the child's age, sex, schooling, the participant's age, sex, educational attainment, occupation, marital status, family type, household income and Comprehensive Social Security Assistance (CSSA) status.

b. Eyberg Child Behavior Inventory (ECBI, Eyberg & Pincus, 1999)

The ECBI contains 36 items on disruptive behavior (e.g. noncompliance and temper tantrums), and yields an Intensity Scale and a Problem Scale. The Intensity Scale measures the frequency of various behaviors on a 7-point scale, and the Problem Scale measures whether some specific behaviors are considered by parents to be problematic (yes = 1, no = 0). Higher scores indicate a higher frequency of disruptive behavior and parental concern. The Chinese version of the ECBI has been validated with good reliability (.94 and .93) for both scales (Leung, Chan, Pang, & Cheng, 2003). The clinical cut-off of ECBI-intensity is 131 and that of ECBI-problem is 15.

c. Parenting Stress Index (Short Form) (PSI, Abidin, 1990)

This scale consists of 36 questions that measure three factors of parenting stress: parental distress (PD), which measures the impaired sense of parental competence and depression; parent-child dysfunctional interaction (PCDI), which measures dissatisfaction with the parent-child interaction; and difficult child (DC), which measures the behavioral characteristics of the child. A total score can be calculated, with a higher score representing a higher level of parenting stress. The Chinese version of this scale has been examined in Hong Kong and shown to have an overall reliability of .89 (Lam, 1999). However, Hong Kong norms for the PSI have not been established.

d. Depression, Anxiety and Stress Scale (DASS, Lovibond & Lovibond, 1995)

This is a self-report instrument with 42 items measuring the negative emotions of depression, anxiety and stress. For the purposes of this study, the short form of the DASS was used (DASS-21). The scale has been validated with Hong Kong Chinese participants aged 18 or older and is the only measure reflecting negative emotions among Chinese (Taouk, Lovibond, & Laube, 2001). Each of the three subscales (depression, anxiety, stress) of the DASS-21 contains seven items. Participants indicate on a 4-point Likert scale how much each statement applies to them over the past week. Response categories comprise: did not apply to me at all=0, applied to me to some degree, or some of the time=1, applied to me to a considerable degree, or a good part of the time=2, and applied to me very much, or most of the time=3,

respectively.

e. Child Behavior Checklist (CBCL, Leung et al., 2006)

This scale consists of 120 problem items to be completed by parents. The items can be summed up to form eight syndrome scales (Withdrawal, Somatic Complaints, Anxious/Depressed, Social Problems, Thought Problems, Attention Problems, Delinquent Problems, and Aggressive Behavior) and a Total Problem Score, Internalizing Problem Score and Externalizing Problem Score. It has been validated for use with Chinese in Hong Kong (Leung et al., 2006).

f. Dyadic Parent-Child Interaction Coding System: Abbreviated Version (3rd Edition) (DPICS-III, Eyberg et al., 2009).

The intervention group participants were assessed by PCIT therapists using the DPICS-III on four occasions: before (pre-intervention), mid-term, immediately after the completion of the PCIT program (post-intervention), and three months after intervention (follow-up). The wait-list control group participants were assessed by PCIT therapists twice, with an interval of about 3.5 to 5 months (pre-intervention and post-intervention). The DPICS-III is used to assess the quality of parent-child interactions through observations of parent-child dyads in a clinical setting. The DPICS-III parent categories coded for this study include Behavioral Description (BD), Reflective Statement (RF), Labeled Praise (LP), and Command/Question/ Negative Talk (C/Q/NTA). The Chinese version of the DPICS-III parent categories were translated by PCIT therapists and reviewed by two local PCIT trainers and their project supervisor. The inter-rater reliability (Kappa) for BD, RF, LP, C/Q/NTA was above .70.

To reach the CDI mastery skill level, the parent has to demonstrate the following skill level during the 5-minute observation: 10 Behavioral Descriptions, 10 Reflective Statements, 10 Labeled Praises and less than 3 Commands/Questions/Negative Talk.

g. Frequency of Corporal Punishment

The frequency of use of corporal punishment during the past seven days was also recorded at the four assessment points.

***Procedures***

2.4 The participants were randomly assigned to either the intervention or wait-list control group using random numbers generated by a random number table. The intervention group participants completed the questionnaires before (pre-intervention), mid-term, immediately after the program (post-intervention), and three months (follow-up) after intervention. The wait-list control group participants completed the questionnaires within a 3.5 to 5 month interval (pre-intervention and post-intervention). All participants were assessed by DPICS-III by the trained PCIT therapists at the same sessions when they completed the questionnaires.

**Qualitative Study Methodology**

2.5 After completing the study, a convenience sample of 13 participants from various service districts were invited to participate in focus group discussions to understand their experience of the program. Seven of such participants had children with ADHD challenges. Five PCIT therapists coming from the PCIT core team of the project were also invited to participate in a focus group discussion to understand their insights in conducting the program. The focus group discussions were facilitated by the first or second author, and PCIT therapists (with no therapists in the focus group of her own clients), using the same focus group discussion guide developed for the purpose. All discussions were tape-recorded and transcribed verbatim for content analysis.

**Quantitative Study Results**

***Socio-demographic characteristics and pre-intervention measures of the intervention and wait-list control groups (Table 2.1)***

2.6 There were no significant differences in the socio-demographic characteristics and pre-intervention scores between the intervention group and the wait-list control group (Tables 2.1 and 2.2). All reliability estimates (Cronbach's Alpha) were above .70, except pre-intervention CBCL Attention problems.

Table 2.1: Socio-demographic Characteristics of the Participants

| | Intervention group ($n$ = 32) | Control group ($n$ = 32) |
|---|---|---|
| Socio-demographic Characteristics | Number (%) | Number (%) |
| Sex of target child - male | 28 (87.5%) | 25 (78.1%) |
| Sex of target child - female | 4 (12.5%) | 7 (21.9%) |
| Target child with confirmed ADHD | 14 (43.8%) | 10 (31.3%) |
| Target child with ADHD features | 18 (56.3%) | 22 (68.8%) |
| Education level of target child – nursery/kindergarten | 24 (75.0%) | 21 (65.6%) |
| Education level of target child - primary | 8 (25.0%) | 11 (34.4%) |
| Marital status – married/ de facto | 28 (87.5%) | 27 (84.4%) |
| Marital status – single/separated/ divorced | 4 (12.5%) | 5 (15.6%) |
| Family type - nuclear | 21 (65.6%) | 23 (71.9%) |
| Family type - extended | 7 (21.9%) | 5 (15.6%) |
| Family type – single parent | 4 (12.5%) | 4 (12.5%) |
| Relationship of participant with child - mother | 29 (90.6%) | 28 (87.5%) |
| Relationship of participant with child - father | 3 (9.4%) | 4 (12.5%) |
| Employment status of participant – in employment | 13 (40.6%) | 14 (43.8%) |
| Employment status of participant – not in employment | 19 (59.4%) | 18 (56.3%) |
| Education level of participants – more than 9 years | 21 (65.6%) | 25 (78.1%) |
| Education level of participants –9 years or less | 11 (34.4%) | 7 (21.9%) |
| Family monthly income – HK$20,000 or above | 14 (43.8%) | 12 (37.5%) |
| Family monthly income – HK$19,999 or below | 18 (56.3%) | 20 (62.5%) |
| Social security status - no | 30 (93.8%) | 26 (81.3%) |
| Social security status - yes | 2 (6.3%) | 6 (18.6%) |
| | Mean ($SD$) | Mean ($SD$) |
| Age of target child (years) | 5.51 (1.29) | 5.43 (1.31) |
| Age of participant (years) | 37.52 (4.34) | 37.13 (5.27) |

***Difference between the intervention and wait-list control group in post-intervention measures (Table 2.2)***

2.7 The efficacy of the PCIT was investigated through comparison of the post-intervention scores of the intervention and wait-list control groups. Analysis was by intention-to-treat and missing data were estimated using multiple imputation. Univariate analysis of covariance (ANCOVA) was used to analyse the data, with group status as independent variable, post-intervention measures as dependent variable, and pre-intervention measure as covariate.

a. Child behavior problems

For parent report on child behavior problems, the ECBI-intensity ($p$ < .001) and ECBI-problem ($p$ < .001), CBCL-Attention problems ($p$ = .002), CBCL-Internalizing Problem ($p$ < .001), CBCL-Externalizing Problem scores ($p$ < .001) of the intervention group were significantly lower than the wait-list control group at post-intervention.

b. Parenting stress and negative emotions

For parent report on parenting stress, the PSI-total scores of the intervention group were significantly lower than the wait-list control group ($p$ < .001) at post-intervention. The former group also reported less negative emotions of depression, anxiety and stress as measured by DASS-total scores ($p$ = .001) at post-intervention.

c. Corporal punishment

The intervention group participants reported less use of corporal punishment at post-intervention, compared with the wait-list control group participants ($p < .001$).

d. Dyadic Parent-Child Interaction (DPICS) measures

As there were only 31 intervention group participants with complete post-intervention data, multiple imputation (5 imputations) was used to estimate missing data. With regard to PCIT therapists' observation of parent-child interaction, there were significant increases in DPICS positive interaction (Behavioral Description, Reflective Statement, and Labeled Praise), as well as significant decreases in Command/Question/Negative Talk among intervention group participants at post-intervention, compared with the wait-list control group ($p <.001$).

***Comparison between pre-intervention, post-intervention and follow-up scores of the Intervention Group (Table 2.2)***

2.8. Repeated measures ANOVA was used to examine the change of the intervention group participants from pre-intervention, to post-intervention and at follow-up. The analyses were based on participants with complete data on these measures.

a. Child behavioral problems and parenting stress (Table 2.2)

For child behavior problems as measured by ECBI-intensity ($p < .001$) and ECBI-problem ($p < .001$), CBCL-Attention problems ($p < .001$), CBCL-Internalizing Problem ($p < .001$), CBCL-Externalizing Problem scores ($p < .001$), parent report of parenting stress measured by PSI ($p < .001$), and emotional distress as measured by DASS ($p = .011$), except for DASS, all post-intervention and follow-up scores of the participants were significantly lower than the pre-intervention scores. The result indicated that the intervention gains could be maintained in the 3-month follow-up.

b. Dyadic Parent-Child Interaction (DPICS) measures (Table 2.2)

For DPICS positive interaction (Behavioral Description, Reflective Statement and Labeled Praise), the post-intervention and follow-up scores of participants were significantly higher than the pre-intervention scores ($p < .001$). For Command/ Question/Negative Talk, the post and follow-up scores of the participants were significantly lower than the pre-intervention scores ($p < .001$). Regarding the use of corporal punishment, the post-intervention and follow-up scores of participants were significantly lower than the pre-intervention scores ($p < .001$). The results also indicated that the intervention gains could be maintained in the 3-month follow-up.

Table 2.2: Pre-intervention, Mid-term[a], Post-intervention and Follow-up Scores[b]

| | Intervention group (n = 32) | | Wait-list Control group ($n$ = 32) | | Reliability |
|---|---|---|---|---|---|
| Measures | Mean | *SD* | Mean | *SD* | |
| Pre-intervention ECBI-Intensity | 165.06 | 24.32 | 166.53 | 20.04 | .85 |
| Mid-term ECBI-Intensity | 140.70 | 31.64 | | | .94 |
| Post-intervention ECBI-Intensity | 114.81 | 30.34 | 159.31 | 18.93 | .95 |
| Follow-up ECBI-Intensity | 110.58 | 14.25 | | | .82 |
| Pre-intervention ECBI-Problem | 18.84 | 8.50 | 20.50 | 7.34 | .91 |
| Mid-term ECBI-Problem | 15.67 | 9.19 | | | .93 |
| Post-intervention ECBI-Problem | 8.78 | 9.07 | 19.44 | 7.47 | .95 |
| Follow-up ECBI-Problem | 6.37 | 4.90 | | | .77 |
| Pre-intervention CBCL-Attention Problems | 5.88 | 1.79 | 5.91 | 1.61 | .51 |
| Mid-term CBCL-Attention Problems | 4.97 | 2.19 | | | .70 |
| Post-intervention CBCL-Attention Problems | 3.88 | 2.32 | 5.41 | 2.06 | .78 |
| Follow-up CBCL-Attention Problems | 3.37 | 1.64 | | | .70 |
| Pre-intervention CBCL-Internalizing Problem | 20.06 | 8.78 | 21.00 | 11.38 | .89 |
| Mid-term CBCL- Internalizing Problem | 16.93 | 9.44 | | | .90 |
| Post-intervention CBCL-Internalizing Problem | 11.69 | 7.86 | 20.44 | 10.60 | .91 |
| Follow-up CBCL-Internalizing Problem | 10.21 | 6.36 | | | .79 |
| Pre-intervention CBCL-Externalizing Problem | 27.88 | 8.55 | 27.03 | 7.88 | .88 |
| Mid-term CBCL- Externalizing Problem | 22.83 | 10.31 | | | .93 |
| Post-intervention CBCL-Externalizing Problem | 16.94 | 9.91 | 24.94 | 7.94 | .93 |
| Follow-up CBCL- Externalizing | 15.00 | 7.10 | | | .89 |

| Problem | | | | | |
|---|---|---|---|---|---|
| Pre-intervention PSI-total | 115.72 | 16.14 | 123.75 | 17.91 | .91 |
| Mid-term PSI-total | 106.27 | 19.76 | | | .94 |
| Post-intervention PSI-total | 95.22 | 20.18 | 124.34 | 18.62 | .96 |
| Follow-up PSI-total | 95.32 | 15.74 | | | .91 |
| Pre-intervention DASS- total | 19.53 | 17.71 | 23.38 | 16.33 | .96 |
| Mid-term DASS-total | 17.53 | 13.93 | | | .96 |
| Post-intervention DASS-total | 12.94 | 11.47 | 24.00 | 16.94 | .97 |
| Follow-up DASS-total | 11.21 | 8.89 | | | .95 |
| Pre-intervention DPICS-BD | 0.75 | 1.78 | 0.44 | 0.72 | NA |
| Mid-term DPICS-BD | 12.40 | 4.30 | | | NA |
| Post-intervention DPICS-BD | 10.80 | 3.22 | 0.22 | 0.42 | NA |
| Follow-up DPICS-BD [c] | 11.33 | 3.36 | | | NA |
| Pre-intervention DPICS-RF | 2.53 | 3.76 | 2.13 | 2.45 | NA |
| Mid-term DPICS-RF | 10.30 | 4.14 | | | NA |
| Post-intervention DPICS-RF | 9.84 | 4.69 | 1.84 | 2.45 | NA |
| Follow-up DPICS-RF [c] | 9.94 | 3.00 | | | NA |
| Pre-intervention DPICS-LP | 0.16 | 0.45 | 0.13 | 0.34 | NA |
| Mid-term DPICS- LP | 10.63 | 2.80 | | | NA |
| Post-intervention DPICS- LP | 10.27 | 3.03 | 0.06 | 0.25 | NA |
| Follow-up DPICS- LP [c] | 10.50 | 1.15 | | | NA |
| Pre-intervention DPICS-Positive | 3.43 | 4.91 | 2.69 | 2.78 | NA |
| Mid-term DPICS-Positive | 33.33 | 8.62 | | | NA |
| Post-intervention DPICS-Positive | 25.66 | 14.36 | 2.03 | 2.74 | NA |
| Follow-up DPICS- Positive [c] | 31.78 | 4.52 | | | NA |
| Pre-intervention DPICS-C/Q/NTA | 14.72 | 10.02 | 16.25 | 9.62 | NA |
| Mid-term DPICS- C/Q/NTA | 0.93 | 0.98 | | | NA |
| Post-intervention DPICS-C/Q/NTA | 1.30 | 2.74 | 14.03 | 8.33 | NA |
| Follow-up DPICS- C/Q/NTA | 1.28 | 1.13 | | | NA |
| Pre-intervention Corporal Punishment | 1.31 | 1.75 | 1.88 | 2.09 | NA |
| Mid-term Corporal Punishment | 0.53 | 1.11 | | | NA |
| Post-intervention Corporal Punishment | 0.13 | 0.34 | 1.81 | 2.15 | NA |
| Follow-up Corporal Punishment [d] | 0.00 | 0.00 | | | NA |



[a] $n$ = 30 (intervention group)
[b] $n$ = 19 (intervention group)
[c] $n$ = 18 (intervention group)
[d] $n$ = 32 (intervention group)

***Achievement of reliable changes in child behavior and parenting stress (Table 2.3)***

2.9 There were significant differences between the intervention group and wait-list control group in the achievement of reliable changes in ECBI-intensity ($p < .001$), ECBI-problem ($p < .001$), PSI-total ($p < .001$), CBCL-Attention problems ($p = .005$), CBCL-Internalizing Problems ($p = .020$) and CBCL-Externalizing Problems ($p = .001$). More participants from the intervention group were able to achieve reliable changes in ECBI-intensity, ECBI-problem and PSI-total than those in the wait-list control group. The details are in Table 2.3.

Table 2.3: Achievement of Reliable Changes

| Measures | Achievement of reliable changes | Intervention group ($n$ = 32) | | Wait-list control group ($n$ = 32) | |
|---|---|---|---|---|---|
| | | Number | Percentage | Number | Percentage |
| ECBI-Intensity | Achieved | 29 | 90.6% | 6 | 18.8% |
| | Did not achieve | 3 | 9.4% | 26 | 81.3% |
| ECBI-Problem | Achieved | 24 | 75.0% | 5 | 15.6% |
| | Did not achieve | 8 | 25.0% | 27 | 84.4% |
| PSI-total | Achieved | 12 | 37.5% | 0 | 0.0% |
| | Did not achieve | 20 | 62.5% | 32 | 100.0% |
| CBCL-Attention Problems | Achieved | 19 | 59.4% | 8 | 25.0% |
| | Did not achieve | 13 | 40.6% | 24 | 75.0% |
| CBCL-Internalizing Problem | Achieved | 9 | 28.1% | 2 | 6.3% |
| | Did not achieve | 23 | 71.9% | 30 | 93.8% |
| CBCL-Externalizing Problem | Achieved | 17 | 53.1% | 4 | 12.5% |
| | Did not achieve | 15 | 46.9% | 28 | 87.5% |

***ECBI cut-off status before and after intervention (Table 2.4)***

2.10 For ECBI-intensity, in the intervention group, among those ($n$ = 32) whose pre-intervention scores were above the cut-off (131 or above), the scores of 25 participants (78.1%) were below the cut-off at post-intervention. For the wait-list control group participants ($n$ = 32), only two (6.3%) displayed this change. McNemar test could not be performed because the pre-intervention scores of all participants were above the cut-off.

2.11 For ECBI-problem, for the intervention group, among those ($n$ = 19) whose pre-intervention scores were above the cut-off (15 or above), the scores of 13 participants (68.4%) were below the cut-off at post intervention. Among those whose pre-intervention scores were below the cut-off ($n$ = 13), the score of one participant (7.7%) was above the cut-off at post-intervention. McNemar test results were significant ($p$ = .002). For the wait-list control group, among those ($n$ = 27) whose pre-intervention scores were above the cut-off, the scores of four participants (14.8%) were below the cut-off at post intervention. Among those whose pre-intervention scores were below the cut-off ($n$ = 5), the score of one participant (20.0%) was above the cut-off at post-intervention. McNemar test results were not significant ($p$ = .375).

Table 2.4: ECBI Cut-off Status Before and After Intervention

| | Intervention group ($n$ = 32) | | Wait-list control group ($n$ = 32) | |
|---|---|---|---|---|
| | ECBI-Intensity | | | |
| | Pre –intervention | | | |
| | Below cut-off | Above cut-off | Below cut-off | Above cut-off |
| Post-intervention: Below cut-off | 0 | 25 | 0 | 2 |
| Post-intervention: Above cut-off | 0 | 7 | 0 | 30 |
| | ECBI-Problem | | | |
| | Pre –intervention | | | |
| | Below cut-off | Above cut-off | Below cut-off | Above cut-off |
| Post-intervention: Below cut-off | 12 | 13 | 4 | 4 |
| Post-intervention: Above cut-off | 1 | 6 | 1 | 23 |



***Achievement of CDI and PDI mastery***

2.12 At post-intervention, there were 28 participants in the intervention group who have achieved both CDI and PDI mastery. There were four participants who could not achieve CDI and PDI mastery. These four participants were regarded as drop-out cases. The reasons for drop-out included busy schedule ($n$ = 2), improvement in children behavior ($n$ = 1) and health problem ($n$ = 1).

Note: Analysis by medication status is not reported as there were only six cases on medication. The sample size was too small for power.

**Qualitative Study Results**

2.13 Seven parents with children with ADHD were invited by convenience sampling to attend the post-intervention focus group sharing. A number of main themes from the data were identified. The original Chinese quotes are in Appendix 1.

***Changes in the children and participating parents***

2.14 The participating parents reported they were driven by their children's behavior, emotional and communication problems to seek PCIT service. After successfully completing the multi-session intervention, they noticed positive changes in their children and themselves. Some parents had more behavior management skills to handle their children's temper tantrums or misbehavior. The children were better at expressing themselves. Improved communication between the parent-child dyads created better dyadic relationship and some even enjoyed more time playing together, aside from not having to use corporal punishment any more. Below are some typical examples:

> The child (son) has some problems in communication, such as throwing temper tantrum without reason and not following instructions, so need to find some ways to fix these problems. (Group 1: 4B)
> I have learned how to discipline him and how to communicate with him⋯(Group 1: 27B)

> My son was very active since he was little. He would charge on baby walker. I still carried him by holding him against my chest all the time up to 2 years and 7 months old. When he was 2 years and 9 months old, he started school but could

not stay in queue… (Group 2: 17E)
I think this has been a big change to the child (son)… (Group 2: 171E)

There are some changes. She (daughter) used to cry easily at home for no reason. It drove me crazy, and I spanked her and threw things. Since I came to this class, I use time-out chair which is helpful and she restrains. It is now better, and she has improvement in self-discipline now. (Group 1: 57C)

He (son) has improved a lot comparing to a few years ago before training. The relationship with mother has also improved, because there is interaction in the process… (Group 2: 23D)

I think that she (daughter) controls her temper very well, because she will not hit others and no more screaming. She can negotiate with me instead, so she keeps saying "no, I do not like you to do that". I think she can control her temper. She may bargain with me by saying "I hope to do it, can you let me do it" I am quite satisfied. (Group 2: 37B)

I have not spanked him (son) since I joined this service… (Group 1: 24A)

Yes. I am irritated less often, but am spending more time on understanding him (son) and playing with him… (Group 1: 45B)

I once was inspired when he (son) called and told me that there were bad comments from teacher written on his student handbook again. I was angry at first, but I suddenly realized that he took the initiative to tell me and I should praise him for that. I then praised them for his improvement calmly… (Group 2: 45D)

***PCIT delivery format***

2.15 The participating parents appreciated direct instructions from trusted therapists to improve their child management skills. They were also eager to retain the skills learnt in PCIT and asked for extended classes, and formalizing peer support. They explained their experience as follows:

I think it is good to have earbud to listen to instruction, so I know what to do. If it is done afterwards, I would have missed it then… (Group 2: 111D)



This is very good as it is a direct experience comparing to seminar. (Group 2: 126C)

Can there be some classes afterwards? Since we may forget. (Group 2: 227D)

We can form a group, for sharing different problems and supporting each other. (Group 2: 265C)

***Responses of other family members***

2.16 The parent-child dyads normally live with other family members, and PCIT casts direct or indirect impact on these family members too. Some parents applied successful skills from one child to the other, while some parents became more confident and assertive in righting the wrong child-management of other family members. Some described the responses of other family members as follows:

Since I taught the elder son with this skill and got improvement, it is so good that my daughter was also benefited from it. (Group 1: 26A)

I told my family members such as grandma and grandpa that they spoiled the son and how he should be disciplined instead… (Group 1: 27B)

***The therapists' experiences***

2.17 As this is the first time that cases with ADHD challenges were included in PCIT evaluation in Hong Kong, it is important to collect the practice wisdom from the therapists who delivered PCIT to the dyads. The five therapists identified that some parents and children responded very well to the strategies to contain and reduce the children's impulsive misbehaviors and to win their cooperation. Slowing down also enabled them to feel the love and patience from their care-givers, and this often fostered further cooperation. Compared with improvements in behavior and emotion, the therapists found the improvement in attention was more subtle. Perceived clinical improvement on attention was not as strong as shown in the quantitative data, and further research with a larger sample will be needed to ascertain the therapeutic impact. They reported that:

I have a client, a boy aged 4. He has diagnosed with both ADHD and ODD. He came to the session with parents and they practiced together. He was impulsive. He wanted to punch me and to spit at me. It showed that when the parents could practise the technique cohesively…he realized his parents love him. He knew that there was no way out but to cooperate, or he would have his time-out chair… (Therapist A73)

Through playing with toys, we can see that child do care and love parent. This leads the parent to realize that the child is not bad in every aspect, but only has difficulties in the self-controlling or in school. When parent realized the child's love, parent-child bonding is developed. Parents will become less stressful even though the real problem has not been fully solved yet. This is especially obvious on children with ADHD, they experience less scolding from their parents which in return helps the children to improve their attitude, and parents will also become less stressful. (Therapist C54)

To me, the use of PCIT on attention part of ADHD might not be effective. As we knew that it was mainly due to physiological factors… (Therapist C84)

Attention is rather abstract… I do think that it was difficult to have significant progress on attention. (Therapist C86)

Regarding the attention part, I think we have gap between our expectation and parents'. For example, when we were observing the behaviors of the child when they were playing in the room, we could see some improvement in their attention, though it might not be very obvious, but the attention span became longer or stay in the room for longer, but parents would focus more on children's attention on their homework. It is difficult to replicate this progress to homework… (Therapist B89)



**Conclusion on Efficacy Study**

2.18 To summarize, the present efficacy study had confirmed that the PCIT intervention on a group of parents with children aged 2 to 7 who were diagnosed with ADHD/ADHD features had significantly

a. reduced child behavior problems,
b. reduced child attention problems,
c. reduced parenting stress and negative emotions,
d. reduced negative parenting practices,
e. increased positive parenting skills, and
f. reduced the use of corporal punishment.

2.19 Moreover, the above treatment gains could be maintained at least for three months. A higher percentage of participants in the intervention group were able to achieve reliable changes in child behavior and parenting stress, compared with the wait-list control group.

2.20 Such quantitative results were reinforced in consideration of the parents' articulate appreciation of the service, collected in three focus group discussion conducted after the parents have completed their case treatment. The parents admitted they benefitted from the direct coaching from the PCIT therapists in the process of dealing with their children in the PCIT sessions. They acquired more skills in communicating with and better understanding of their children, and child behavior problems reduced when parent-child relationship improved. Some parents were eager to maintain their learning through PCIT and requested extension of the services and enhanced peer support after completing the case services.

2.21 The PCIT intervention is thus found to be a promising parent intervention for children aged 2 to 7 diagnosed with ADHD/ADHD features and having behavior problems in Hong Kong.

# Chapter 3: Effectiveness Study

## Quantitative Study Methodology

### *Participants*

3.1 During April 2012 to March 2015, a total of 609 cases were being served and 584 cases were closed by May 2015. The 609 cases included 247 children with SEN problems like Language Delay, Attention Deficit Hyperactivity Disorders and Autistic Spectrum Disorder, as well as 29 cases known or at risk of Child Abuse. The majority of the 584 closed cases (65.75%) were self-referrals. The referral details are presented in Table 3.1. The demographic characteristics of the participants are shown in Table 3.2.

3.2 Among the 584 cases, 442 cases had completed PCIT treatment successfully (post-intervention ECBI-intensity scores below the clinical range, achieved CDI mastery, or achieved both CDI and PDI mastery). The overall success rate of PCIT treatment is 75.7%. Among the successful cases, there were 298 who could achieve CDI and PDI mastery, and 144 who could achieve CDI mastery only. The number of sessions attended by the successful cases is shown in Table 3.3.

3.3 A total of 142 cases dropped out from the service. The details are shown in Table 3.4. There were more relatives and fathers as participants among the drop-out cases ($p$ = .017). There were more participants on CSSA among the drop-out cases, compared with the successful cases ($p$ = .029). There were more participants who were married or in a de-facto relationship among the successful cases, compared with the drop-out ones ($p$ = .020). Among the drop-out cases, there were more participants with education 9 years or less ($p$ = .038). There were more nuclear families among the successful cases whereas there were more single-parent families and grandparent-grandchildren only families among the drop-out cases ($p$ = .010). There were more target children attending primary schools among the drop-out cases ($p$ = .010). The age of the participant ($p$ = .029) and the age of the target child ($p$ = .007) of the drop-out cases were older than those of the successful cases. The pre-intervention ECBI-intensity scores ($p$ = .003), ECBI-problem scores ($p$ = .003), PSI total scores ($p$ < .001) and DASS total scores ($p$ < .001) of the drop-out cases were higher than those of the successful cases. The details are in Table 3.5.



Table 3.1: Source of Referrals ($n$ =584)

| Source | Number | Percentage |
|---|---|---|
| Social Welfare Department (SWD)-IFSC | 59 | 10.10% |
| Social Welfare Department (SWD)-FCPSU | 41 | 7.04% |
| Non-governmental organizations (NGOs) | 27 | 4.62% |
| Medical settings | 33 | 5.65% |
| Schools | 27 | 4.62% |
| Other units of TWGHs | 13 | 2.22% |
| Self-referral | 384 | 65.75% |

Table 3.2: Demographic Characteristics of All Participants ($n$= 584)

| Socio-demographic Characteristics | Number | Percentage |
|---|---|---|
| Sex of target child - male | 425 | 72.8% |
| Sex of target child - female | 159 | 27.2% |
| Education level of target child – no education | 37 | 6.3% |
| Education level of target child - kindergarten | 425 | 72.8% |
| Education level of target child - primary | 122 | 20.9% |
| Relationship of participant with child - mother | 466 | 79.8% |
| Relationship of participant with child - father | 100 | 17.1% |
| Relationship of participant with child - others | 18 | 3.1% |
| Family type - nuclear | 432 | 74.0% |
| Family type - extended | 74 | 12.7% |
| Family type – single parent | 73 | 12.5% |
| Family type – grandparents and grandchildren only | 3 | 0.5% |
| Family type - others | 2 | 0.3% |
| Marital status – married/ de facto/re-married | 489 | 83.7% |
| Marital status – single/separated/ divorced/widowed | 95 | 16.3% |
| Participant in employment | 239 | 40.9% |
| Participant not in employment | 345 | 59.1% |
| Participant education – 9 years or less | 189 | 32.4% |
| Participant education – more than 9 years | 395 | 67.6% |
| Family monthly income – HK$19,999 or below | 367 | 62.8% |
| Family monthly income – HK$20,000 or above | 217 | 37.2% |
| Social security status - yes | 97 | 16.6% |
| Social security status - no | 487 | 83.4% |
| | Mean | *SD* |
| Age of target child (years) | 4.84 | 1.59 |
| Age of participant (years) | 37.63 | 6.94 |

Table 3.3: Total Number of Sessions Attended by Successful Cases

| Sessions | *n* | Mean | *SD* | Minimum | Maximum |
|---|---|---|---|---|---|
| CDI Session - Intake | 442 | 1.89 | 0.78 | 1 | 4 |
| CDI Session - Didactic | 442 | 1.02 | 0.12 | 1 | 2 |
| Session - CDI | 442 | 6.81 | 2.35 | 1 | 17 |
| PDI Session – Didactic | 298 | 1.05 | 0.21 | 1 | 2 |
| Session - PDI | 298 | 7.07 | 2.82 | 1 | 19 |

Table 3.4: Reasons for Drop Out (*n* = 142)

| Reasons | Number | Percentage |
|---|---|---|
| Health problems (emotion and mental problems) | 17 | 11.97% |
| Marital problems | 8 | 5.63% |
| Busy schedule | 49 | 34.51% |
| Distance of centre from home | 6 | 4.23% |
| Time clashes with other training for child | 11 | 7.75% |
| Child could not benefit from PCIT based on diagnosis made later | 17 | 11.97% |
| Improvement in child behavior | 4 | 2.82% |
| Services considered no longer necessary | 17 | 11.97% |
| Others | 13 | 9.15% |

Table 3.5: Socio-demographic Characteristics and Pre-intervention Scores of Successful Cases and Drop-out Cases

| | Successful cases (*n* = 442) | | Drop-out cases (*n* = 142) | |
|---|---|---|---|---|
| Socio-demographic Characteristics | Number | Percentage | Number | Percentage |
| Sex of target child - male | 322 | 72.9% | 103 | 72.5% |
| Sex of target child - female | 120 | 27.1% | 39 | 27.5% |
| Education level of target child - no education | 31 | 7.0% | 6 | 4.2% |
| Education level of target child - kindergarten | 331 | 74.9% | 94 | 66.2% |
| Education level of target child - primary | 80 | 18.1% | 42 | 29.6% |
| Relationship of participant with child - mother | 361 | 81.7% | 105 | 73.9% |
| Relationship of participant with child - father | 72 | 16.3% | 28 | 19.7% |
| Relationship of participant with child - relative | 5 | 1.2% | 8 | 5.6% |
| Relationship of participant with child –step parent | 2 | 0.5% | 0 | 0.0% |
| Relationship of participant with child –foster parent | 2 | 0.5% | 1 | 0.7% |
| Family type - nuclear | 336 | 76.0% | 96 | 67.6% |
| Family type - extended | 55 | 12.4% | 19 | 13.4% |
| Family type – single parent | 50 | 11.3% | 23 | 16.2% |
| Family type – grandparents and grandchildren only | 0 | 0.0% | 3 | 2.1% |
| Family type - others | 1 | 0.2% | 1 | 0.7% |
| Marital status – married/ de facto | 379 | 85.7% | 110 | 77.5% |
| Marital status – single/ separated/ divorced/widowed | 63 | 14.3% | 32 | 22.5% |
| Employment status of participant – in employment | 189 | 42.8% | 50 | 35.2% |
| Employment status of participant – not in employment | 253 | 57.2% | 92 | 64.8% |
| Education level of participant – more than 9 years | 309 | 69.9% | 86 | 60.6% |
| Education level of participant –9 years or less | 133 | 30.1% | 56 | 39.4% |
| Family monthly income HK$19,999 or below | 269 | 60.9% | 98 | 69.0% |
| Family monthly income HK$20,000 or above | 173 | 39.1% | 44 | 31.0% |
| Social security status - yes | 65 | 14.7% | 32 | 22.5% |
| Social security status - no | 377 | 85.3% | 110 | 77.5% |
| | Mean | *SD* | Mean | *SD* |
| Age of target child (years) | 4.74 | 1.53 | 5.15 | 1.72 |
| Age of participant (years) | 37.27 | 6.03 | 38.74 | 9.13 |
| Pre-intervention ECBI-Intensity | 156.88 | 20.51 | 163.32 | 26.62 |
| Pre-intervention ECBI-Problem | 17.75 | 7.30 | 19.89 | 8.11 |
| Pre-intervention PSI-total | 115.16 | 18.31 | 123.30 | 18.35 |
| Pre-intervention DASS-total | 17.44 | 12.26 | 23.81 | 14.82 |
| Pre-intervention corporal punishment | 1.31 | 1.78 | 1.31 | 1.71 |

| | | | | |
|---|---|---|---|---|
| Pre-intervention Labeled Praise | 0.28 | 0.93 | 0.27 | 1.11 |
| Pre-intervention Behavioral Description | 0.75 | 1.89 | 0.71 | 2.29 |
| Pre-intervention Reflective Statement | 2.85 | 5.73 | 1.94 | 2.81 |
| Pre-intervention Command/Question/Negative Talk | 17.25 | 12.22 | 15.79 | 13.38 |

***Measures***

3.4 All the participants of the project were requested to complete a set of questionnaires, including socio-demographic information, at pre-intervention, ECBI, PSI-SF and DASS-21 before (pre-intervention), mid-term, immediately after the program (post-intervention) and three months after intervention (follow-up). The DPICS-III is also used to assess the quality of parent-child interaction at the four assessment points. For details of these scales and the DPICS, please refer to Chapter 2 (section 2.3) of the efficacy study.

3.5 Therapy Attitude Inventory (TAI) (Hembree-Kigin, & McNeil, 1995)

At post-intervention, all participants were requested to fill in the Therapy Attitude Inventory (TAI) for measuring satisfaction towards the service. This is a 10-item questionnaire on client satisfaction with the PCIT. Participants rated their satisfaction on a 5-point scale from 1, indicating low satisfaction, to 5, indicating high satisfaction.

***Procedure***

3.6 The participants were requested to provide their socio-demographic data before intervention, and to complete a set of questionnaires before (pre-intervention), mid-term, immediately after program (post-intervention), and three months after intervention (follow-up). They were assessed by DPICS-III by the therapists at the same sessions when they completed the questionnaires.

3.7 The treatment was performance-based and normally ended when the participants had mastered the required skills of the two treatment phases ("relationship enhancement" and "strategies to improve child compliance"), and the child's behavior was below clinical range as defined by ECBI-intensity scores.





However, for some cases demonstrating skill mastery of the CDI phase (relationship enhancement) with children's behavior intensity scores dropping below the clinical range of ECBI, the cases would also be terminated upon the participants' request.

**Quantitative Study Results**

***Comparison of child behavior problems and parenting stress and use of corporal punishment between pre-intervention and post-intervention among cases who have successfully completed PCIT program (Table 3.6)***

3.8 A total of 442 cases successfully completed the program. Dependent t test results indicated that the ECBI-intensity and ECBI-problem scores, PSI-total scores, DASS-total scores as well as use of corporal punishment, were consistently lower at post-intervention in comparison with the pre-intervention scores ($p$ <.001).

Table 3.6: Comparison Between Pre-Intervention and Post-Intervention Scores Among Participants ($n$=442)

| | Pre | | | Post | | |
|---|---|---|---|---|---|---|
| Measures | Mean | SD | Reliability | Mean | SD | Reliability |
| ECBI-Intensity | 156.88 | 20.51 | .81 | 104.98 | 16.28 | .84 |
| ECBI-Problem | 17.75 | 7.30 | .88 | 5.48 | 5.26 | .87 |
| PSI-total | 115.16 | 18.31 | .92 | 95.06 | 17.40 | .93 |
| DASS-total[a] | 17.55 | 12.22 | .94 | 10.97 | 9.42 | .94 |
| Corporal punishment | 1.31 | 1.78 | NA | 0.03 | 0.19 | NA |

[a]$n$ = 432

***Changes in Dyadic Parent-Child Interaction (DPICS) measures between pre-intervention and post-intervention (Table 3.7)***

3.9 Dependent t test results indicated that the post-intervention scores on Labeled Praise, Behavioral Description and Reflective Statement were significantly higher than the pre-intervention scores (p <.001). The post-intervention scores of Command/ Question/ Negative Talk were also significantly lower than the pre-intervention scores (p<.001).

Table 3.7: Change in DPICS-III Measures Among Participants (*n*=442)

| | Pre | | Post | |
|---|---|---|---|---|
| DPICS | Mean | SD | Mean | SD |
| Labeled Praise | 0.28 | 0.93 | 10.60 | 1.63 |
| Behavioral Description | 0.75 | 1.89 | 11.32 | 2.64 |
| Reflective Statement | 2.85 | 5.73 | 10.42 | 3.31 |
| Command/Question /Negative Talk | 17.25 | 12.22 | 0.90 | 1.73 |

***Achievement of reliable changes***

3.10 Among the 442 successful cases, 395 (89.4%) were able to achieve reliable change in ECBI-intensity; 321 (72.6%) were able to achieve reliable change in ECBI-problem; and 191 (43.2%) were able to achieve reliable change in PSI total scores.

***ECBI cut-off status before and after intervention (Table 3.8)***

3.11 There were 427 participants with pre-intervention ECBI-intensity scores above the cut-off, and the post-intervention scores of all of these participants were below the cut-off. For ECBI-problem scores, among the 293 participants whose pre-intervention scores were above the cut-off, the post-intervention score of 272 (92.8%) were below the cut-off. Among the 149 participants whose pre-intervention ECBI-problem scores were below the cut-off, the post-intervention scores of two (1.3%) were above the cut-off.

Table 3.8: Cut-off Status Before and After Intervention

| | | ECBI-Intensity | |
|---|---|---|---|
| | | Pre-intervention | |
| | | Below cut-off | Above cut-off |
| Post-intervention | Below cut-off | 15 | 427 |
| | Above cut-off | 0 | 0 |
| | | ECBI-Problem | |
| | | Pre-intervention | |
| | | Below cut-off | Above cut-off |
| Post-intervention | Below cut-off | 147 | 272 |
| | Above cut-off | 2 | 21 |





***Participant satisfaction***

3.12 Participant satisfaction was measured using the TAI. The majority of the participants indicated high satisfaction with the program. For details, please refer to Table 3.9.

Table 3.9: TAI Scores (*n* = 433)

| | | Low satisfaction | | | High satisfaction | |
|---|---|---|---|---|---|---|
| Items | | 1 | 2 | 3 | 4 | 5 |
| 1 | Learning new and useful discipline techniques | 1 (0.2%) | 0 (0.0%) | 82 (18.9%) | 183 (42.3%) | 167 (38.6%) |
| 2 | Learning new and useful techniques for teaching my child new skills | 1 (0.2%) | 2 (0.5%) | 91 (21.0%) | 200 (46.2%) | 139 (32.1%) |
| 3 | Relationship between myself and my child | 0 (0%) | 0 (0%) | 7 (1.6%) | 229 (52.9%) | 197 (45.5%) |
| 4 | My confidence in my ability to discipline my child | 0 (0%) | 0 (0%) | 8 (1.8%) | 303 (70.0%) | 122 (28.2%) |
| 5 | Improvement of the major behavior problems that my child presented at home before the program | 0 (0%) | 0 (0%) | 4 (0.9%) | 209 (48.3%) | 220 (50.8%) |
| 6 | Improvement of my child's compliance to my commands or requests | 0 (0%) | 0 (0%) | 5 (1.2%) | 230 (53.1%) | 197 (45.7%) |
| 7 | The progress my child has made in his/her general behavior | 0 (0%) | 6 (1.4%) | 9 (2.1%) | 309 (71.4%) | 108 (25.2%) |
| 8 | Degree to which the treatment program has helped with other general personal or family problems not directly related to the child | 0 (0%) | 0 (0%) | 9 (2.1%) | 188 (43.4%) | 236 (54.5%) |
| 9 | Feelings towards the type of program that was used to help me improve my child's behaviors | 0 (0%) | 0 (0%) | 19 (4.4%) | 163 (37.6%) | 251 (58%) |
| 10 | My general feeling about the program I participate in | 0 (0%) | 0 (0%) | 1 (0.2%) | 98 (22.6%) | 334 (77.1%) |

**Effectiveness of PCIT with Child Abuse Cases**

3.13 The sample included 13 established child abuse cases and 16 high risk cases which were established in multi-disciplinary case conference (MDCC) on child abuse and were being followed up by Family and Child Protective Service Units (FCPSU) or Integrated Family Service Centres (IFSC). Among these 29 cases, 18 cases (62.1%) successfully completed the PCIT treatment program.

***Comparison of child behavior problems and parenting stress and use of corporal punishment between pre-intervention and post-intervention among child abuse cases who have successfully completed PCIT program (Table 3.10)***

3.14 Among the 18 successful cases in the child abuse group, dependent t test results indicated that the ECBI-Intensity ($p$ <.001) and ECBI-Problem ($p$ <.001), PSI total scores ($p$ <.001), DASS total scores ($p$=.006) as well as the use of corporal punishment ($p$=.015), were consistently lower at post-intervention in comparison with the pre-intervention scores.

Table 3.10: Comparison Between Pre-intervention and Post-Intervention Scores Among Child-Abuse Cases ($n$ = 18)

| | Pre | | Post | |
|---|---|---|---|---|
| Measures | Mean | SD | Mean | SD |
| ECBI-Intensity | 153.61 | 21.36 | 99.22 | 18.61 |
| ECBI-Problem | 19.17 | 8.93 | 6.11 | 5.76 |
| PSI-total | 119.17 | 17.13 | 99.00 | 18.72 |
| DASS-total | 22.61 | 13.33 | 13.39 | 9.70 |
| Corporal punishment | 1.56 | 2.81 | 0.00 | 0.00 |

***Changes in Dyadic Parent-Child Interaction (DPICS) measures between pre-intervention and post-intervention (Table 3.11)***

3.15 Among the 18 successful cases in the child abuse group, dependent t test results indicated that the post-intervention scores on Labeled Praise, Behavioral Description and Reflective Statement were significantly higher than the pre-intervention scores ($p$< .001). The post-intervention scores of Command/Question/Negative Talk were also significantly lower than the pre-intervention scores ($p$ <.001).



Table 3.11: Change in DPICS-III Measures Among Participants ($n$=18)

| | Pre | | Post | |
|---|---|---|---|---|
| DPICS | Mean | SD | Mean | SD |
| Labeled Praise | 0.94 | 2.36 | 10.89 | 1.84 |
| Behavioral Description | 2.50 | 4.54 | 11.61 | 2.30 |
| Reflective Statement | 3.28 | 3.79 | 11.11 | 3.32 |
| Command/Question /Negative Talk | 14.06 | 8.91 | 1.33 | 1.14 |

***Achievement of reliable changes***

3.16 Among the 18 cases, 16 (88.9%) were able to achieve reliable change in ECBI-intensity; 12 (66.7%) were able to achieve reliable change in ECBI-problem; and 9 (50.0%) were able to achieve reliable change in PSI total scores.

***ECBI cut-off status before and after intervention (Table 3.12)***

3.17 There were 17 (94.0%) participants with pre-intervention ECBI-intensity scores above the cut-off, and the post-intervention scores of these 17 participants were below the cut-off. For ECBI-problem, among the 11 participants whose pre-intervention scores were above the cut-off, the post-intervention scores of 9 (81.8%) were below the cut-off. The details are in Table 3.12.

Table 3.12: Cut-off Status Before and After Intervention

| | | ECBI-Intensity | |
|---|---|---|---|
| | | Pre-intervention | |
| | | Below cut-off | Above cut-off |
| Post-intervention | Below cut-off | 1 | 17 |
| | Above cut-off | 0 | 0 |
| | | ECBI-Problem | |
| | | Pre-intervention | |
| | | Below cut-off | Above cut-off |
| Post-intervention | Below cut-off | 7 | 9 |
| | Above cut-off | 0 | 2 |

**Effectiveness of PCIT on Children with Special Educational Needs (SEN)**

3.18 There were 257 children with confirmed diagnosis for special educational needs. Among them, 194 cases successfully finished PCIT program with complete data. The following analyses will include analysis on all children with SEN, and the sub-group analysis of children with language delay ($n$ = 60), and Autism Spectrum Disorder (ASD)/ASD features/Asperger's Syndrome/Asperger features ($n$ = 32). Among the former group, there were 47 successful cases, and among the latter group, there were 17 successful cases.

3.19 Among the children with SEN, there were 55 children diagnosed with ADHD and 41 diagnosed with ADHD features. As the efficacy of PCIT with children with ADHD or ADHD features have been reported in Chapter 2, analysis for this group will not be repeated in this chapter. The number of children with other SEN categories is too small for sufficient power and separate analyses of these children were not performed.

***Comparison of child behavior problems and parenting stress and use of corporal punishment between pre-intervention and post-intervention among participants with children with SEN who have successfully completed the PCIT program (Table 3.13)***

3.20 Among the 194 successful cases in the SEN group, dependent t test results indicated that the ECBI-intensity and ECBI-problem scores, PSI-total scores, DASS total scores as well as use of corporal punishment, were consistently lower at post-intervention in comparison with the pre-intervention scores ($p$<.001).

3.21 For the 47 successful cases in the language delay group, dependent t test results indicated that the ECBI-intensity and ECBI-problem scores, PSI total scores, DASS total scores as well as use of corporal punishment, were consistently lower at post-intervention in comparison with the pre-intervention scores ($p$ <.001).

3.22 For the 17 successful cases in the Autism Spectrum Disorder (ASD)/ASD features/Asperger's Syndrome/ Asperger features group, dependent t test results indicated that the ECBI-intensity ($p$ <.001) and ECBI-problem ($p$ <.001) scores, PSI-total scores ($p$ <.001), DASS-total scores ($p$ =.001) as well as use of corporal punishment ($p$ <.001), were consistently lower at post-intervention in comparison with the pre-intervention scores.

Table 3.13: Comparison Between Pre-Intervention and Post-Intervention Scores Among Participants with Children with Special Educational Needs (SEN)

| | SEN group ($n$ = 194) | | | | Language delay group ($n$ = 47) | | | | ASD/ASD features/Asperger's Syndrome/ Asperger features ($n$ = 17) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pre | | Post | | Pre | | Post | | Pre | | Post | |
| Measures | Mean | *SD* | Mean | *SD* | Mean | *SD* | Mean | *SD* | Mean | *SD* | Mean | *SD* |
| ECBI-intensity | 157.69 | 19.94 | 106.24 | 15.58 | 161.28 | 19.43 | 106.72 | 14.96 | 149.82 | 25.74 | 107.59 | 15.58 |
| ECBI-problem | 17.87 | 6.77 | 5.74 | 5.22 | 18.19 | 7.71 | 4.85 | 4.85 | 17.23 | 5.11 | 6.94 | 7.83 |
| PSI-total | 117.25 | 18.20 | 96.91 | 16.85 | 119.26 | 20.66 | 98.23 | 19.34 | 122.29 | 19.85 | 103.47 | 15.41 |
| DASS-total[a] | 17.69 | 12.29 | 11.30 | 9.80 | 17.60 | 12.57 | 11.70 | 10.86 | 21.00 | 14.38 | 13.12 | 11.87 |
| Corporal punishment | 1.30 | 1.80 | 0.02 | 0.14 | 1.23 | 1.70 | 0.00 | 0.00 | 1.12 | 1.05 | 0.00 | 0.00 |

[a]$n$ = 190 for SEN group

***Changes in Dyadic Parent-Child Interaction (DPICS) measures between pre-intervention and post-intervention (Table 3.14)***

3.23 Among the 194 successful cases in the SEN group, dependent t test results indicated that the post-intervention scores on Labeled Praise, Behavioral Description and Reflective Statement were significantly higher than the pre-intervention scores ($p$ < .001). The post-intervention scores of Command/Question/Negative Talk were also significantly lower than the pre-intervention scores ($p$ <.001).

3.24 For the 47 successful cases in the language delay group, dependent t test results indicated that the post-intervention scores on Labeled Praise, Behavioral Description and Reflective Statement were significantly higher than the pre-intervention scores ($p$ < .001). The post-intervention scores of Command/Question/Negative Talk were also significantly lower than the pre-intervention scores ($p$ <.001).

3.25 For the 17 successful cases in the Autism Spectrum Disorder (ASD)/ASD features/Asperger's Syndrome/ Asperger features group, dependent t test results indicated that the post-intervention scores on Labeled Praise, Behavioral Description and Reflective Statement were significantly higher than the pre-intervention scores ($p$ < .001). The post-intervention scores of Command/Question/Negative Talk were also significantly lower than the pre-intervention scores ($p$ <.001).

Note: Due to the skewed nature of the data and the small sample size, Wilcoxon Signed Rank tests were also performed. The results were similar to the dependent t test results.

Table 3.14: Changes in DPICS-III Measures

| | SEN group ($n$ = 194) | | | | Language delay group ($n$ = 47) | | | | ASD/ASD features/Asperger's Syndrome/Asperger features ($n$ = 17) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pre | | Post | | Pre | | Post | | Pre | | Post | |
| DPICS | Mean | *SD* | Mean | *SD* | Mean | *SD* | Mean | *SD* | Mean | *SD* | Mean | *SD* |
| Labeled Praise | 0.28 | 0.93 | 10.69 | 1.26 | 0.26 | 1.34 | 10.55 | 0.93 | 0.29 | 0.59 | 10.41 | 0.80 |
| Behavioral Description | 0.62 | 1.28 | 11.11 | 1.97 | 0.77 | 1.49 | 10.98 | 1.53 | 0.59 | 1.12 | 11.06 | 1.43 |
| Reflective Statement | 2.52 | 3.31 | 10.47 | 3.36 | 2.28 | 3.28 | 10.36 | 3.60 | 2.71 | 3.04 | 9.88 | 3.64 |
| Command/ Question/ Negative Talk | 16.44 | 12.03 | 0.84 | 1.18 | 16.89 | 13.09 | 0.87 | 1.19 | 17.24 | 8.51 | 0.94 | 1.20 |

***Achievement of reliable changes***

3.26 Among the 194 successful participants in the SEN group, 178 (91.8%) of the participants were able to achieve reliable change in ECBI-intensity; 142 (73.2%) were able to achieve reliable change in ECBI-problem; and 86 (44.3%) were able to achieve reliable change in PSI total scores.

3.27 Among the 47 successful cases in the language delay group, 45 (95.7%) were able to achieve reliable change in ECBI-intensity; 35 (74.5%) were able to achieve reliable change in ECBI-problem; and 22 (46.8%) were able to achieve reliable change in PSI total scores.

3.28 Among the 17 successful cases in the Autism Spectrum Disorder (ASD)/ASD features/Asperger's Syndrome/ Asperger features group; 14 (82.4%) were able to achieve reliable change in ECBI-intensity; 13 (76.5%) were able to achieve reliable change in ECBI-problem; and 6 (35.3%) were able to achieve reliable change in PSI total scores.

***ECBI cut-off status before and after intervention (Table 3.15)***

3.29 Among the 194 successful participants in the SEN group, there were 190 (97.9%) participants with pre-intervention ECBI-intensity scores above the cut-off. All of their post-intervention scores were below the cut-off. For ECBI-problem scores, among the 126 participants whose pre-intervention ECBI-problem scores were above the cut-off, the post-intervention scores of 118 (93.7%) participants were below the cut-off. The details are in Table 3.15.

3.30 Among the 47 successful cases in the language delay group, the pre-intervention ECBI-intensity scores of 46 participants were above the cut-off, and all of their ECBI-intensity scores were below the cut-off at post-intervention. For ECBI-problem, among the 29 participants whose pre-intervention scores were above the cut-off, the post-intervention scores of 26 (89.7%) participants were below the cut-off. The details are in Table 3.15.

3.31 Among the 17 successful cases in the Autism Spectrum Disorder (ASD)/ASD features/Asperger's Syndrome/Asperger features group, the pre-intervention ECBI-intensity scores of 15 participants were above the cut-off, and all of their ECBI-intensity scores were below the cut-off at post-intervention. For ECBI-problem, among the 11 participants whose pre-intervention scores were above the cut-off, the post-intervention scores of 10 (90.9%) of the participants were below the cut-off. The details are in Table 3.15.

Table 3.15: Cut-off Status Before and After Intervention

| | SEN group ($n$ = 194) | | Language delay group ($n$ = 47) | | ASD/ASD or features/Asperger's Syndrome/Asperger features ($n$ = 17) | |
|---|---|---|---|---|---|---|
| | ECBI-Intensity | | | | | |
| | Pre-intervention | | | | | |
| | Below cut-off | Above cut-off | Below cut-off | Above cut-off | Below cut-off | Above cut-off |
| Below cut-off | 4 | 190 | 1 | 46 | 2 | 15 |
| Post-intervention | | | | | | |
| Above cut-off | 0 | 0 | 0 | 0 | 0 | 0 |
| | ECBI-Problem | | | | | |
| | Pre-intervention | | | | | |
| | Below cut-off | Above cut-off | Below cut-off | Above cut-off | Below cut-off | Above cut-off |
| Below cut-off | 67 | 118 | 18 | 26 | 6 | 10 |
| Post-intervention | | | | | | |
| Above cut-off | 1 | 8 | 0 | 3 | 0 | 1 |





**Effectiveness of PCIT with Target Children Aged 7 Years or Above Cases**

3.32 There were 67 target children aged 7 years or above at the time of pre-assessment. Among these 67 cases, 42 (62.7%) successfully completed the PCIT treatment program.

***Comparison of child behavior problems and parenting stress and use of corporal punishment between pre-intervention and post-intervention among target children aged 7 years or above who have successfully completed PCIT program (Table 3.16)***

3.33 Among the 42 successful cases where the target children were aged 7 years or above, dependent t test results indicated that the ECBI-intensity and ECBI-problem scores, PSI total scores, DASS total scores as well as use of corporal punishment, were consistently lower at post-intervention in comparison with the pre-intervention scores ($p$ <.001).

Table 3.16: Comparison Between Pre-Intervention and Post-Intervention Scores Among Target Children Aged 7 Years or Above Cases ($n$ = 42)

| | Pre | | Post | |
|---|---|---|---|---|
| Measures | Mean | SD | Mean | SD |
| ECBI-intensity | 157.14 | 19.67 | 104.76 | 16.58 |
| ECBI-problem | 18.69 | 6.06 | 5.62 | 5.21 |
| PSI-total | 117.38 | 14.42 | 98.79 | 16.28 |
| DASS-total | 18.55 | 10.86 | 11.90 | 9.11 |
| Corporal punishment | 1.02 | 1.42 | 0.00 | 0.00 |

***Changes in Dyadic Parent-Child interaction (DPICS) measures between pre-intervention and post-intervention (Table 3.17)***

3.34 Among the 42 successful cases in the target children aged 7 years or above group, dependent t test results indicated that the post-intervention scores on Labeled Praise, Behavioral Description and Reflective Statement were significantly higher than the pre-intervention scores ($p$<.001). The post-intervention scores of Command/Question/Negative Talk were also significantly lower than the pre-intervention scores ($p$ <.001).

Table 3.17: Change in DPICS-III Measures Among Participants (*n*=42)

| | Pre | | Post | |
|---|---|---|---|---|
| DPICS | Mean | SD | Mean | SD |
| Labeled Praise | 0.21 | 0.65 | 10.67 | 0.95 |
| Behavioral Description | 0.24 | 0.53 | 11.24 | 3.16 |
| Reflective Statement | 1.76 | 2.64 | 10.38 | 3.37 |
| Command/Question /Negative Talk | 13.21 | 8.90 | 1.05 | 1.19 |

***Achievement of reliable changes***

3.35 Among these 42 cases, 39 (92.9%) were able to achieve reliable change in ECBI-intensity; 35 (83.3%) were able to achieve reliable change in ECBI-problem; and 16 (38.1%) were able to achieve reliable change in PSI total scores.

***ECBI cut-off status before and after intervention (Table 3.18)***

3.36 There were 40 (95.2%) participants with pre-intervention ECBI-intensity scores above the cut-off, and the post-intervention scores of these 40 participants were below the cut-off. For ECBI-problem scores, among the 34 participants whose pre-intervention scores were above the cut-off, the post-intervention scores of 31 (91.2%) were below the cut-off. The details are in Table 3.18.

Table 3.18: Cut-off Status Before and After Intervention

| | | ECBI-Intensity | |
|---|---|---|---|
| | | Pre-intervention | |
| | | Below cut-off | Above cut-off |
| Post-intervention | Below cut-off | 2 | 40 |
| | Above cut-off | 0 | 0 |
| | | ECBI-Problem | |
| | | Pre-intervention | |
| | | Below cut-off | Above cut-off |
| Post-intervention | Below cut-off | 8 | 31 |
| | Above cut-off | 0 | 3 |





**Qualitative Study Results**

3.37 A convenience sample of 13 parents who completed PCIT were invited for focus group discussions to understand their experiences and perceptions of the program. Three focus groups were conducted and they were facilitated by the first or second authors, and other PCIT therapists (who were not the therapist of the focus group participants). A PCIT therapist focus group including five therapists was also conducted and was facilitated by the second author. The discussions were tape recorded and transcribed verbatim. The original quotes are in Appendix 2.

***Views and experiences of the participants***

**a. Changes in child behavior**

Participants reported they sought or were referred to PCIT service because their children were rebellious to instructions or even violent. Parenting was frustrating and disturbed the parents' emotion. PCIT helped the children to better express themselves instead of bursting into temper, and parent-child relationship was eased.

> My child (son) was rebellious, and we had poor relationship. And I had poor emotion, so I talked to social worker and was referred to this service… (Group 2: 7A)

> He (son) did not listen to instruction, very violent… (Group 2: 9A)

> I think he (son) improves in behavior and emotion. He still has temper, but he will not shout and scream now… (Group 2: 31A)

**b. Changes in participating parents**

The participants reported PCIT helped them to better understand and address their children's concerns and interests. Parent-child relationship improved and the parents felt more competent in solving problems and managing their children's emotions and behaviour:

> I learned to take their (son and daughter) perspectives after this play. (Group 1: 69E)

> I control my temper better because our relationship improved… I am less stressful… (Group 2: 55A)

I learned the right way to solve problems. When I have problem now, I do not feel so helpless. I can use specific skills according to different situations… (Group 3: 10B)

When he (son) is naughty, we will use the skills. The control of emotion is better. Instead of being irritated, it can be done calmly and he knows the consequences. (Group 3: 30B)

**c. Changes in parent-child relationship**

Consistent with the TAI results when 98% of those participants who completed the program said parent-child relationship improved, some focus group participants reported enhanced communication created more understanding. They could spend time in playing and other enjoyable activities. There were noticeable improvements in parent-child relationship:

I learned the skill here. My relationship with the child has improved. We understand each other. You need to communicate more and the child will understand you. We found the way to become calmer emotionally. (Group 1: 65E)

He (son) thinks that mummy dedicated a period to play with him. He has the feeling of being valued. It is easier to communicate in the process of playing, and has consolidated the parent-child relationship. (Group 3: 45B)

**d. Changes in the behavior of other family members**

Participants could observe changes in the behavior of other family members, as a result of conveying what they learnt in PCIT to them. Some family members adjusted their behavior when the participants applied PCIT strategies effectively:

I told my husband what skills the worker had taught, and he used them occasionally… (Group 2: 68A)

Since I taught the elder son with this skill and got improvement, it is so good that my daughter also benefited from it. (Group 1: 26A)

I told my family members such as grandma and grandpa that they spoiled the son and how he should be disciplined instead… (Group 1: 27B)



**e. The PCIT techniques**

The participants were appreciative of many PCIT techniques, including time-out chair, and praising the child for showing adaptive behavior:

I think time-out chair is effective. In the past, I only scolded him (son) but he did not listen. I can now explain to him or praise him for other thing after he calms down with the time-out chair… (Group 2: 29A)

**f. The PCIT delivery format**

The participants were positive about the delivery format. They liked to be directly guided by the therapists while they were struggling with the child while attempting the PCIT prescribed activities. Some think the benefits will be enhanced if both parents can come for PCIT training:

If both parents come to the workshop, the result would be better… (Group 1: 230E)

I think the use of earbud is very good, but it would be even better if it is wireless, because my son once spotted it and asked what I was listening to… (Group 2: 115A)

**g. The PCIT therapists**

The participants were very positive about the PCIT therapists. They found the therapists were not only professional and competent in knowledge and skills, but also showed great care to the case families they serve and have been positive and encouraging in the PCIT process:

Every worker is really great… (Group 1: 346C)

Attentive and patient, keeps reminding me… (Group 2: 128E)

She (worker) is very professional and very spontaneous. (Group 2: 165A)

The workers led well. They would attend to the issue right away. They always encouraged us by saying “you said it nicely” to encourage us and to increase our confidence. (Group 3: 117B)

They (workers) paid a lot of attention to your problems, and they have invested a lot into the course. (Group 3: 131B)

**h. Difficulties experienced by the participating parents**

Though the participating parents were positive on the whole, there were some who experienced difficulties. Some found it hard to complete the homework with the required intensity and frequency. But many have claimed they already tried their best:

I cannot do it (homework) on a daily basis because sometimes I do not want to do it in a hurry. Though it only takes 5 minutes, it is not enough to set up things; usually it will take 15 to 30 minutes…so I could only do 3 times a week. (Group 2: 150A)

***Views and experiences of the PCIT therapists***

**a. Usefulness of PCIT**

With their experience in conducting PCIT, the therapists could identify a number of areas where PCIT was found to be effective. They opined that the weekly rhythm and direct observation and immediate feedback designs in PCIT worked very well with most cases. Many parents achieved improvements in parenting attitudes and perspectives and were very keen to learning and maintaining the new skills and strategies which worked so well to improve their relationship with their children:

Of course it is useful. It is relatively more direct and effective when compare with other service. It helps most of the families especially in terms of parent-child relationship and discipline. (Therapist C2)

One of the best things is that, apart from its direct coaching, is the weekly meeting which is even more frequent than meeting their case workers… (Therapist A3)

In the coaching room…the 5 minutes DPICS can reveal the difficulties the family are facing…One-way mirror coaching model can provide a full picture of the difficulties the family is facing. (Therapist D7)

The best thing is that they follow phrase by phrase as we teach them. The parents' mindset can be changed under such intensive coaching. So they can use these techniques back home...it can really help to change the parent-child relationship. (Therapist E8)

Through playing with toys, we can see that child do care and love parents. This leads the parent to realize that the child is not bad in every aspect, but only has difficulties in the self-controlling or in school. When parent realized the child's love, parent-child bonding is developed. Parents will become less stressful even though the real problem has not been fully solved yet. (Therapist C54)

**b. Conditions necessary for success**

The PCIT therapists also maintained that engaging the parents' commitment to complete PCIT by giving them concrete in-session successful experiences in child management were very important for the success of the program.

When we meet the parents, we need to confirm if they can manage. They need to have commitment to spare some time for parent-child play time on a daily basis… (Therapist B9)

When the parent realizes that she can say it by herself in the play room and the feedback from the child is positive, her confidence is strengthened. She improves in both self-confidence and parenting. (Therapist D12)

**c. Difficulties experienced by therapists**

The PCIT therapists also identified some difficulties in upkeeping the quality and impact of PCIT on individual cases. Some parents were not ready to learn, improve self-control, or to practise what was learnt in the sessions. Some wrongly expected that PCIT could help their children do better with school studies, but this is more related to education pressure in Hong Kong than PCIT. PCIT is a multi-session intervention and might not be able to deal with high risk crises. Expectation management of the therapists and the parents are both very important.

There are some situations that cannot be followed such as waking up in the morning for school… (Therapist E37)

It will be better if the parents are willing to use, to learn and to cooperate with us. It is frustrating if they reject every suggestion we made… or if the parents themselves have hot temper and they cannot control their own emotion. (Therapist E42)

Some parents hoped that PCIT could help their children to do better at school and receive fewer complaints but unfortunately, it might not be the case… the schools imposed a lot of pressure to the families and parents were frustrated when they received such complaints which made it difficult for them to continue the treatment. (Therapist D50)

I think every parent and child is different. It is now involving more parents of children with SEN, and more parents with domestic violence…I think it becomes more and more complicated. (Therapist A134)

We do feel the difficulties for parents especially under some difficult situations where PCIT might not be helpful in those high risk moments. As such, we need to prepare their mindset and handle their own emotion… (Therapist E40)

**d. Therapists manpower issues**

Last, but not the least, the therapists pointed out that more workers would be needed to ensure PCIT services quality. More personnel is needed to handle the long waiting list for services, and to run needed adjunct services (e.g. engagement of other family members through family activities to align them to the PCIT approach) to secure the improvements after intervention. The therapists also need time for case discussion and professional development so that their practice wisdom can be crystallized for wider and more effective dissemination.

Manpower resource has always been an issue… (Therapist C111)

Queuing…I think it is all due to lack of manpower. I felt guilty of not providing the prompt service to those children with ADHD, though they were thankful for our services once they started… (Therapist C113)

It all relates to manpower resources. In fact, we think we should provide those children with ADHD with additional service. Unfortunately our times were used up on providing the PCIT treatment. It is very difficult to offer these children and parents with extra group trainings. (Therapist D143)



**Conclusion on Effectiveness Study**

3.38 In the overall service effectiveness study using the 584 cases closed in the present PCIT project, 75.7% of the parent-child dyads had completed the treatment with satisfactory outcome. The findings indicated that PCIT intervention had significantly

a. reduced child behavior problems,
b. reduced parenting stress,
c. reduced negative parenting practices,
d. increased positive parenting skills, and
e. reduced the use of corporal punishment.

3.39 The overall participant satisfaction was very positive, as consistently indicated by the TAI findings and the focus group comments. PCIT has been found to be an efficacious treatment for Chinese parents with parenting stress and children with behavioral problems locally in Hong Kong.

3.40 PCIT was also found to be effective with established child abuse and high risk cases. Despite the small sample, the results suggested that PCIT could be a promising intervention strategy for these cases. Moreover, PCIT was effective with children with SEN, including children with ADHD, language delay and ASD features. The results suggested that PCIT has been a useful strategy for supporting parents with young children with SEN.

3.41 There were some differences between the successful and drop out cases. Among the drop-out cases, there were more families on CSSA, more father and relatives as participants, more single/separated/divorced/widowed participants and more single-parent and grandparent-grandchildren only families. The target participants and children among these cases were older. Their pre-intervention scores of ECBI-intensity, ECBI-problem, PSI total and DASS total were also higher. The effectiveness of PCIT should be interpreted taking these into consideration.

3.42 Based on the positive result of the RCT study and the present overall service effectiveness study, it is recommended that PCIT service should be extended to more at-risk families as an early intervention against child battering, and as a timely support for families with children with SEN challenges.

# Chapter 4: Conclusions, Limitations and Recommendations

## Conclusions

This report presented the findings on two studies on PCIT service from 2012 to 2015.

4.1 The efficacy study confirmed that PCIT intervention on a group of 32 parents with children aged 2 to 7 years old with diagnosis of ADHD features and having behavior problems at clinical range of ECBI had significantly reduced child behavior problems, reduced child attention problems, parenting stress and negative emotions, negative parenting practices, and the use of corporal punishment as well as increased positive parenting skills. The treatment gains could be maintained for at least three months after the intervention was completed. The quantitative findings were supported by positive qualitative findings reported in focus groups of participating parents and PCIT therapists. The study demonstrates the potential of PCIT for treating young children with ADHD features.

4.2 The effectiveness study involving 584 parent-child dyads who completed the PCIT also demonstrated that over 75.7% of them had completed the treatment with satisfactory outcome. 99.7% parents who completed the program were highly satisfied with the treatment. PCIT had significantly reduced child behavior problems, parenting stress, negative parenting practices and increased positive parenting skills. The quantitative results were consistent with the qualitative findings collected in focus groups involving participating parents and PCIT therapists. Differentiate impact of PCIT on known child-abuse and high risk cases, children with SEN and children aged 7 or above were also examined. PCIT is found to be effective with all these groups of children and parents.

## Limitations of the PCIT Project and Studies

4.3 Although the project results were favorable, there were some service limitations worthy of mention. First, measures to reduce the drop-out rate are necessary because the effectiveness study highlighted that the potential drop-out families are more likely to be vulnerable families, including single parents, children with more behavioral problems, and parents with higher stress as well as negative emotion. Second, the follow-up assessment data was limited because many participants considered it was unnecessary to attend a follow-up session. As it was even harder to recruit drop-out participants of the service for the follow-up measures, the majority of participants for follow-up assessment were those who completed the treatment successfully. Third, literature reported the cases with father involving in treatment had significant improvement at follow up comparing with uninvolved-father families (Bagner, Eyberg 2003). Therefore, despite the increased number of father participation in the project, there were still rooms for recruiting more fathers. Lastly, there were rising number of parents with depression, children with SEN, older children and domestic violence cases that had increased the case complexity. They became more demanding on the PCIT therapists in terms of more advanced PCIT techniques, extended child development knowledge and more versatile family counseling skills to make the treatment successful. Extra information on ADHD was added on top of didactic notes used in PCIT to enhance parents' understanding on their children special needs.

4.4 In terms of research, there were some limitations that need to be addressed. In the efficacy study, the target children under study include those with ADHD features and formally diagnosed ADHD. Although there is no one age that ADHD is diagnosed, it is common in Hong Kong to put the children in formal ADHD diagnosis after they enter primary school when their symptoms become more apparent in such structured environment. Separate analysis on children with diagnosed ADHD groups is therefore not available due to inadequate samples recruited in PCIT service. Because few of the children with ADHD features were prescribed medications, effect of medicine on the PCIT efficacy on these children could not be examined. In the effectiveness study, though there was a larger sample, comparison of the effectiveness of PCIT within subgroups (e.g. families with domestic violence, parents with health problems) was not available since the sample size of each subgroup was still too small. Furthermore, both quantitative and qualitative study analysis is based on successful cases with complete data only. Finally, the outcome measures were completed by the participating parents, most of them mothers, but not their school personnels or other family members. The measure of the generalization of treatment effect in school and in family was far from adequate.

**Recommendations on Improving PCIT Services**

***Retaining the potential drop-out families***

4.5 To appeal for the implementation of work-life balance policy

Drop-out families are potentially more at-risk with their vulnerable family background. The exploration of reasons of drop-out is thus crucial to retain these families and help reduce their risk. Among the drop-out cases, the most common drop-out reason as reported by the parents was "Busy schedule" (34.51%). Many working parents reported that they had limited after-work time due to long working hours and with these limited parent-child-together time with children, they were busy to handle the children's academic issues under the demanding educational environment in Hong Kong. These challenges were more apparent for some children with SEN in primary school because of their difficulties in learning. To encourage these families to benefit from the full course of PCIT treatment, PCIT therapists have extended their operation hours to cater for their needs. The authors and the Tung Wah PCIT team appeal for the implementation of work-life balance policy to these participants' employers to release their employees for treatment services. The education pressure in Hong Kong should also be addressed. More free time between parents and children is vital for children's long-term healthy psychosocial development.

4.6 To provide supplementary service for families lacking support in child care

For parents with more than one child or lack of support from their extended families, some of them could not attend the full course of PCIT treatment. Supplementary services such as community child care support, home visitation by volunteers and PCIT alumni, and parent mutual groups are needed by parents.

4.7 To identify the service gap for children with ASD

There were 17 drop-out participants who reported their drop-out reason being "Child could not benefit from PCIT based on diagnosis made later" (11.97%). Among these 17 participants, 70% of their children were diagnosed with ASD after the treatment had been started. In the present PCIT service, children with ASD are not in the inclusive criteria of serving targets because the treatment is not targeted to reduce their specific social communication and interaction deficits, and their restricted, repetitive patterns of behaviors. Further investigation on these drop-out cases in this group will be meaningful to understand the service gap for children with ASD.



4.8 To conduct follow-up assessment for drop-out cases

Some drop-out participants claimed that after joining the service, they realized they do not need the service. It is recommended to request all drop-out cases to attend an exit interview, and to complete the TAI and ECBI at the time of drop-out and to follow up on these families after three months to review the children behavior and their parenting needs. In view of the low attendance of drop-out cases in follow-up assessment and in focus group, incentives may be considered to encourage participation.

4.9 To provide enrichment program for participants with emotional needs

The participant's health problem, especially mental health problems like depression, was found to interfere with their regular attendance in PCIT treatment and homework practice. Extra counseling or relaxation groups targeting parental depression are recommended to assist these participants.

***Serving child abuse cases***

4.10 To enlist referring social workers in supporting participants' needs

In the study, 18 out of the 29 established child abuse and high risk cases (62.1%) have met the skills mastery standard of PCIT with child behavior problems as measured by ECBI dropping out of the clinical range. This indicated that PCIT can be considered as an effective early intervention for families with child abuse. Clinical experience showed that the referring social workers' support on participants' emotion and other family needs contribute much to the favorable treatment outcome.

4.11 To increase participants' motivation in attending PCIT treatment

Most of these participants were referred by FCPSU or IFSC social worker. Their motivation in attending the treatment was highly affecting their continuous commitment to complete the full course of PCIT treatment. To better engage them to the service, adopting motivation interviewing techniques and sharing of ex-abuser on their positive changes in PCIT at intake stage may be further explored.

***Supporting children with special educational needs and their parents***

4.12 To support children with ADHD with specialized PCIT protocol and additional attention training

Parents with children having SEN constituted 42% of the PCIT service users in this study. Children with ADHD and ADHD features constituted the largest portion (37%) of these cases. Parents of these participating children reported decrease in children's hyperactive-impulsive behaviors and emotion outburst, and use of corporal punishment. Parent-child interaction and confidence in parenting after treatment have improved. The favorable results in the efficacy study indicated that PCIT can be a promising treatment to young children diagnosed with ADHD or ADHD features. The adapted practice of PCIT has important implication on further developing related services provide to these children and families. Extra psycho-education sessions on ADHD and tailor-made coaching skills have been developed to serve children with ADHD. These adaptations and PCIT therapists' practice wisdom should be gathered to become an adapted/a specialized PCIT protocol for ADHD in future. While most of the parents had high regards towards PCIT, clinical experience indicated PCIT therapists are recommended to offer more time or new training strategies to address children's attention problems. Collaboration with other professionals such as pediatricians, psychiatrists, and clinical psychologists is also important.

4.13 To support children with language delay with PCIT standard protocol

The success rate for children with language delay was 78.3%. The positive result suggested that PCIT could be an effective treatment to reduce their disruptive behaviors and enhance positive communication with parents.

4.14 To support children with ASD with PCIT and other specific social and emotion trainings

Most of the children with ASD were diagnosed after the treatment had been started. In this study, PCIT was found to be effective with this group of children but the success rate is lower than that of other SEN subgroups (53.1%). The result indicated that PCIT could be effective in improving some compliance issues for children with ASD. However, the relatively low success rate also suggested a need of specialized support to this target group. Specific trainings on social ability and emotion regulation are also essential to enhance their social and communication deficits.

***Supporting parents and children aged 7 years or above***

4.15 To support older children with adapted PCIT protocol

In this research, some children have applied for the service when they were 7 years old, but could only access the service one year or more later due to the long waiting list. To explore the treatment result of these school-aged children in elementary primaries, a subgroup of children aged 7 years old or above was singled out for more detailed analysis. The success rate of these cases is 62.7%, which is lower than that of younger children subgroup. Yet, PCIT is still demonstrated to be able to improve parent-child relationship as well as enhancing parents' technique in gaining children's compliance. Clinical experience indicated that adaptation on standard PCIT was necessary for older children. Special strategies and techniques like use of specific coaching statements, choice of toys and back-up for time-out should further be considered and refined.

**Recommendation on Research on PCIT**

4.16 Longitudinal studies on the maintenance effect of PCIT have been well documented overseas. It is worthwhile to assess the maintenance of the PCIT services in the local content.

4.17 Larger samples should be used for future efficacy and evaluation studies to examine the differential impact of PCIT on specific user-groups e.g. those with domestic violence history; parents with physical and mental health problems. There should also be a closer examination on the relationship between gender and age with PCIT service.

4.18 In this 3-year project, duration of PCIT treatment is about 17.5 sessions on average. How to further modify PCIT into a shorter treatment modality to meet the help seeking characteristics of the local community is worth exploring.

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# Appendix 1: Part A: Efficacy Study Focus Group Discussion Excerpts (English and Chinese)

***Changes in the children and participating parents***

The child (son) has some problems in communication, such as throwing temper tantrum without reason and not following instructions, so need to find some ways to fix these problems. (Group 1: 4B)
I have learned how to discipline him and how to communicate with him…(Group 1: 27B)

覺得個小朋友（子）有啲溝通上嘅問題啦，即係好似會無啦啦發脾氣呀，又會唔聽話呀，有啲問題，好似即係睇下搵啲方法，睇下有無啲咩方法，即係去幫佢糾正返啲問題。(Group 1: 4B)
學識點樣教佢呀，即係同佢溝通呀…(Group 1: 27B)

My son was very active since he was little. He would charge on baby walker. I still carried him by holding him against my chest all the time up to 2 years and 7 months old. When he was 2 years and 9 months old, he started school but could not stay in queue… (Group 2: 17E)
I think this has been a big change to the child (son)… (Group 2: 171E)

我個仔呢就細細個呢好活躍嘅，坐車仔就一坐落去就標出嚟，成兩歲七個月呢我都捫佢喺心口，成日捫住佢，因為返學，佢報咗名返學，兩歲九個月返學，去到排唔到隊… (Group 2: 17E)
我覺得呢個俾啲小朋友（仔）轉變好大… (Group 2: 171E)

There are some changes. She (daughter) used to cry easily at home for no reason. It drove me crazy, and I spanked her and threw things. Since I came to this class, I use time-out chair which is helpful and she restrains. It is now better, and she has improvement in self-discipline now. (Group 1: 57C)
有啲改變嘅，以前一返到屋企郁下又喊呀，都唔知做咩係咁好容易就係度喊囉，聽到煩呢又打佢（女）又擲嘢呀，仲更加令到我成個人癲哂咁呢，就嚟到上堂。之後就而家，話咩「暫停櫈」呀都會用嘅，佢都會驚，而家都好喇，呢一兩次佢就自覺咗好多喇，知道係咩咁樣。(Group 1: 57C)

He (son) has improved a lot comparing to a few years ago before training. The relationship with mother has also improved, because there is interaction in the

process… (Group 2: 23D)
比起以前嗰幾年啱啱發現呀，或者接受 training 之前呢，（仔）係明顯咁樣好咗好多。咁同媽咪嘅關係亦都好咗，因為真係喺個過程裡面真係互動啦… (Group 2: 23D)

I think that she (daughter) controls her temper very well, because she will not hit others and no more screaming. She can negotiate with me instead, so she keeps saying “no, I do not like you to do that”. I think she can control her temper. She may bargain with me by saying “I hope to do it, can you let me do it” I am quite satisfied. (Group 2: 37B)
我就覺得佢（女）情緒方面其實控制得好咗好多架喇。其實，因為起碼郁手呀同埋…嗰啲無啦，而家，大嗌嗰啲都無喇，而家轉化咗可能會喊就同我講數嗰啲，所以就轉咗話成日唔好呀，我唔鐘意你咁樣嗰啲囉，咁我都覺得其實佢起碼控制到自己情緒已經好咗架喇，佢都係同我叫做而家講數啫，「我希望咁做，你俾我做啦」，我已經覺得都好好架喇。(Group 2: 37B)

I have not spanked him (son) since I joined this service… (Group 1: 24A)
自從用咗呢個服務之後呢，我都好耐無打過佢（仔）喇… (Group 1: 24A)

Yes. I am irritated less often, but am spending more time on understanding him (son) and playing with him… (Group 1: 45B)
係呀。自己又勞少啲氣，不過就花多啲時間了解佢（仔），同佢玩囉要… (Group 1: 45B)

I once was inspired when he (son) called and told me that there were bad comments from teacher written on his student handbook again. I was angry at first, but I suddenly realized that he took the initiative to tell me and I should praise him for that. I then praised them for his improvement calmly… (Group 2: 45D)
咁有一次我突然間叮一聲，跟住佢（仔）喺電話度話俾我聽，我又俾老師寫手冊喇，咁佢主動自己講我聽，咁我就嗰剎那突然之間醒覺，我要即刻讚佢，即係我其實係好嬲嘅，又寫到咁但係嗰剎那係自動自覺話，嘩你真係好喇，你進步喇，你話俾媽咪聽自己無改手冊咁樣，即係嗰剎那我係好心平氣和咁樣同佢講… (Group 2: 45D)

***PCIT Delivery format***

I think it is good to have earbud to listen to instruction, so I know what to do. If



it is done afterwards, I would have missed it then… (Group 2: 111D)
即係有耳機聽住，令我知道應該點做，因為如果你事後講返俾我聽，咁可能我都已經 miss 咗咁樣囉… (Group 2: 111D)

This is very good as it is a direct experience comparing to seminar. (Group 2: 126C)
講座同 practice 嘅分別囉，即時體驗到，所以非常之好。(Group 2: 126C)

Can there be some classes afterwards? Since we may forget. (Group 2: 227D)
其實會唔會中間會有啲課程咁樣俾返我哋呢？因為真係會唔記得嘅。(Group 2: 227D)

We can form a group, for sharing different problems and supporting each other. (Group 2: 265C)
大家好似一個小組，互相分享，其實喺唔同層面度，大家都會遇到唔同困擾係度呵，即係互相支持囉，我哋會更加明白大家。(Group 2: 265C)

***Reponses of other family members***

Since I taught the elder son with this skill and got improvement, it is so good that my daughter was also benefited from it. (Group 1: 26A)
因為我教大仔用咗呢個方法呢，好咗之餘呢，阿妹又跟住呢，順帶之下呢，阿妹又有得著，係囉好好呀呢個。(Group 1: 26A)

I told my family members such as grandma and grandpa that they spoiled the son and how he should be disciplined instead… (Group 1: 27B)
我會話返俾我啲屋企人聽，即係譬如呀嫲、阿公呀嗰啲，縱到佢好犀利，我要話返俾佢聽唔係我講嘅，係嗰服務啲人講，話應該點樣教佢（仔）… (Group 1: 27B)

***The therapists’ experiences***

I have a client, a boy aged 4. He has diagnosed with both ADHD and ODD. He came to the session with parents and they practiced together. He was impulsive. He wanted to punch me and to spit at me. It showed that when the parents could practise the technique cohesively…he realized his parents love him. He knew that there was no way out but to cooperate, or he would have his time-out chair… (Therapist A73)

我都試過有一個仔，四歲仔啦，佢唔止有 ADHD，仲有 ODD，但係喺個過程裡面，佢又係呀父母一齊嚟啦，咁其實都見到佢哋一齊做，個仔其實都有啲 impulsive，即係例如佢都會想打我啦，或者想吐我口水，佢都試過嘅，但係真係喺過程入面你會見到，當父母真係能夠一致地去運用呢樣嘢嘅時候呢…佢知道爸爸媽媽錫佢，同埋佢知道無位走呀，佢知道原來我合作就只係得呢個方法，唔合作就會變咗坐「暫停櫈」…(治療師 A73)

Through playing with toys, we can see that child do care and love parent. This leads the parent to realize that the child is not bad in every aspect, but only has difficulties in the self-controlling or in school. When parent realized the child's love, parent-child bonding is developed. Parents will become less stressful even though the real problem has not been fully solved yet. This is especially obvious on children with ADHD, they experience less scolding from their parents which in return helps the children to improve their attitude, and parents will also become less stressful. (Therapist C54)
譬如話玩玩具嘅時候，好多時小朋友其實係錫家長嘅，所以嗰個部份可以引發返家長體會到原來小朋友佢唔係全部都唔好，佢只係響一啲控制上面啦，或者係學業上面啦，佢有困難啫，但其實佢都係愛錫我呀，嗰個 bonding 建立返，咁其實嗰家長都會鬆少少，咁雖然實質嗰個困難都係未解決到，即係有部分解決唔到啦，但我覺得小朋友對家長個態度，其中我覺得響 ADHD 嗰班小朋友上面呢，係明顯嘅，可能個原因係佢哋成日都俾家長鬧，所以一嚟到嘅時候家長已經少鬧佢，其實見嗰個態度好啲啦，家長會覺得輕鬆少少…(治療師 C54)

To me, the use of PCIT on attention part of ADHD might not be effective. As we knew that it was mainly due to physiological factors… (Therapist C84 )
PCIT 用喺 ADHD 身上啦，我始終覺得 attention 係我哋做唔到個部份嚟嘅，因為始終係…我哋知道佢個生理成份比較大呀… (治療師 C84)

Attention is rather abstract… I do think that it was difficult to have significant progress on attention. (Therapist C86)
注意力呢係比較抽象啲我覺得…咁我就覺得 attention 係難啲有比較大進展囉。(治療師 C86)

Regarding the attention part, I think we have gap between our expectation and parents'. For example, when we were observing the behaviors of the child when they were playing in the room, we could see some improvement in their attention, though it might not be very obvious, but the attention span became longer or stay in the room for longer. However, parents would focus more on children's attention on their homework. It is difficult to replicate this progress to homework… (Therapist B89)
我諗 attention 嗰個位呢，就係我哋同家長個期望都係有啲分別，即係譬如我哋睇，第一我哋喺觀察室裡面睇小朋友去玩玩具啦，咁其實我哋都睇到小朋友嗰個專注力其實有所改善嘅，雖然未必好明顯嘅，但係時間可以長一啲，或者佢可以玩耐少少先至離開間房再出出入入呢一啲嘅部分，但係家長容易啲可以睇到功課上面嘅專注力，而呢一樣嘢我哋會覺得較難將佢嗰個進度帶返去喺功課上面… (治療師 B89)

## Appendix 2: Part B: Effectiveness Study Focus Group Discussion Excerpts (English and Chinese)

***Views and experiences of the participants***

a. Changes in child behavior

My child (son) was rebellious, and we had poor relationship. And I had poor emotion, so I talked to social worker and was referred to this service… (Group 2: 7A)
我就係有一段時間就嗰個小朋友（仔）好反叛，同佢嗰個關係好差，咁就自己情緒又好差，咁咪搵社工傾，社工就介紹我有呢度囉… (Group 2: 7A)

He (son) did not listen to instruction, very violent… (Group 2: 9A)
佢（仔）唔聽指令呀，好暴力咁樣… (Group 2: 9A)

I think he (son) improves in behavior and emotion. He still has temper, but he will not shout and scream now… (Group 2: 31A)
行為方面呀，我覺得佢（仔）情緒上好咗…佢都會發脾氣，但係就唔會大吵大鬧咁誇張… (Group 2: 31A)

b. Changes in participating parents

I learned to take their (son and daughter) perspectives after this game. (Group 1: 69E)
玩完呢個遊戲之後就有個得著，識得企喺小朋友（仔和女）個角度諗下佢。(Group 1: 69E)

I control my temper better because our relationship improved… I am less stressful… (Group 2: 55A)
自己嘅情緒改善咗，可能因為同佢（仔）嘅關係好咗啦…自己個壓力都少咗… (Group 2: 55A)

I learned the right way to solve problems. When I have problem now, I do not feel so helpless. I can use specific skills according to different situations… (Group 3: 10B)
覺得學到方法，即係對於我哋覺得有個正確嘅解決方法，禁我哋遇到問題嘅時候，都無咁徬徨，都可以睇咩情況，就用…有針對性咁用啲方法… (Group 3: 10B)



When he (son) is naughty, we will use the skills. The control of emotion is better. Instead of being irritated, it can be done calmly and he knows the consequences. (Group 3: 30B)
當佢（仔）比較曳曳嘅時候，我哋就會用返嗰套方法…首先情緒啦，情緒方面就會控制得比較好啲囉，唔似以前阿媽都忮埋，噤你點樣可以冷靜處理佢呀？但而家唔係啦，我哋都可以用返個套，咪可以好冷靜咁處理囉，而且佢都知道嗰隻模式喇，佢都知道後果係點喇。(Group 3: 30B)

c. Changes in parent-child relationship

I learned the skill here. My relationship with the child has improved. We understand each other. You need to communicate more and the child will understand you. We found the way to become calmer emotionally. (Group 1: 65E)
我覺得嚟完之後搵到方法，同小朋友個關係係好咗啲，開始大家明白大家，你要多啲同佢溝通，佢會明白你講乜嘢，同埋個人會靜啲，個情緒方面會好咗啲，係搵到個方法。(Group 1: 65E)

He (son) thinks that mummy dedicated a period to play with him. He has the feeling of being valued. It is easier to communicate in the process of playing, and has consolidated the parent-child relationship. (Group 3: 45B)
佢覺得媽咪專門俾一段時間陪佢（仔）玩玩具，對佢自己感覺會覺得好受重視，而且大家玩嘅過程中又容易溝通，真係，親子關係會緊密啲。(Group 3: 45B)

d. Changes in the behavior of other family members

I told my husband what skills the worker had taught, and he used them occasionally… (Group 2: 68A)
但係我平時有時都會講返姑娘教啲技巧俾我老公聽，佢有時都會用… (Group 2: 68A)

Since I taught the elder son with this skill and got improvement, it is so good that my daughter also benefited from it. (Group 1: 26A)
因為我教大仔用咗呢個方法呢，好咗之餘呢，阿妹又跟住呢，順帶之下呢，阿妹又有得著，係囉好好呀呢個。(Group 1: 26A)

I told my family members such as grandma and grandpa that they spoiled the son and how he should be disciplined instead… (Group 1: 27B)
我會話返俾我啲屋企人聽，即係譬如呀嫲、阿公呀嗰啲，縱到佢好犀利，我要話返俾佢聽唔係我講嘅，係嗰服務啲人講，話應該點樣教佢（仔）… (Group

1: 27B)

e. The PCIT techniques

I think time-out chair is effective. In the past, I only scolded him (son) but he did not listen. I can now explain to him or praise him for other thing after he calms down with the time-out chair… (Group 2: 29A)

「暫停櫈」嗰樣嘢，我覺得都有效，好過以前佢（仔）唔啱就淨係鬧佢，但係佢又唔聽，而家俾佢坐陣，然後等佢自己冷靜咗再同佢講返，或者再搵返另一樣嘢讚下佢… (Group 2: 29A)

f. The PCIT delivery format

If both parents come to the workshop, the result would be better… (Group 1: 230E)

如果係父母雙方嚟呢，我覺得係更加好嘅，即係爸爸媽媽一齊嚟… (Group 1: 230E)

I think the use of earbud is very good, but it would be even better if it is wireless, because my son once spotted it and asked what I was listening to… (Group 2: 115A)

我覺得個耳機係好好嘅，但係如果可以無線就更加好，因為我個仔曾經問過，見到我戴住，咦你聽咩呀… (Group 2: 115A)

g. The PCIT therapists

Every worker is really great… (Group 1: 346C)

個個姑娘都好犀利… (Group 1: 346C)

Attentive and patient, keeps reminding me… (Group 2: 128E)

細心又耐心，提醒我啦… (Group 2: 128E)

She (worker) is very professional and very spontaneous. (Group 2: 165A)

好專業，同埋我覺得佢(姑娘)個腦轉數好快。(Group 2: 165A)

The workers led well. They would attend to the issue right away. They always encouraged us by saying “you said it nicely” to encourage us and to increase our confidence. (Group 3: 117B)

(姑娘) 帶領得幾好，有咩問題佢都會即時講，而且經常好懂得鼓勵我哋：「呀你講得好好喎」，增強我哋嘅自信心，當時係覺得幾受鼓舞。(Group 3: 117B)



They (workers) paid a lot of attention to your problems, and they have invested a lot into the course. (Group 3: 131B)

因為佢哋兩位(姑娘)完全好重視你呢個問題，呢個課程佢地都投入咗好多。(Group 3: 131B)

h. Difficulties experienced by the participating parents

I cannot do it (homework) on a daily basis because sometimes I do not want to do it in a hurry. Though it only takes 5 minutes, it is not enough to set up things, usually it will take 15 to 30 minutes…so I could only do 3 times a week. (Group 2: 150A)

我做唔到日日(做功課)，有時即係又唔想好趕嘅情況下做啦，雖然話五分鐘啦，但係呢都擺得出嚟嘅時候呢，五分鐘係唔夠喉，通常都十五分鐘或者有時半個鐘…咁變咗可能一個禮拜做得係三次咁樣。(Group 2: 150A)

***View and Experiences of the PCIT therapists***

i. Usefulness of PCIT

Of course it is useful. It is relatively more direct and effective when compare with other service. It helps most of the families especially in terms of parent-child relationship and discipline. (Therapist C2)

當然都係有用啦…係比其他去參與其他服務係直接同埋嚟得有效嘅嘢樣樣，所以都仍然覺得係幫到好大部份求助嘅家庭，響個親子關係或者管教問題上面。(治療師 C2)

One of the best things is that, apart from its direct coaching, is the weekly meeting which is even more frequent than meeting their case workers… (Therapist A3)

佢其中一個有用嘅地方呢，除咗佢係直接指導之外呢，就真係呢我哋每一個禮拜見佢哋呀，咁其實呢我諗我哋每一個禮拜見佢呢，有時比起佢 case worker，我哋見得仲多… (治療師 A3)

In the coaching room…the 5 minutes DPICS can reveal the difficulties the family are facing…One-way mirror coaching model can provide a full picture of the difficulties the family is facing. (Therapist D7)

喺 coaching room…其實譬嗰五分鐘 DPICS，就好見得到其實佢哋係乜嘢困難…咁我諗喺嗰個 one-way mirror 個 coaching 模式係令我哋闊啲去了解個家庭嘅困難。(治療師 D7)

The best thing is that they follow phrase by phrase as we teach them. The parents’ mindset can be changed under such intensive coaching. So they can use these

techniques back home...it can really help to change the parent-child relationship. (Therapist E8)
咁佢哋可能唯一嚟到我哋個度最好嘅呢，真係佢有得實質埋身去一句一句跟住我哋去講囉…我哋密集咁…個個禮拜去提佢啦佢哋就會改變到佢哋自己嘅一啲諗法，連佢個 mindset 都可以轉變到，咁佢哋就真係可以返到屋企係 OK 嘅…咁佢先至真係可以轉變到個親子關係。(治療師 E8)

Through playing with toys, we can see that child do care and love parents. This leads the parent to realize that the child is not bad in every aspect, but only has difficulties in the self-controlling or in school. When parent realized the child's love, parent-child bonding is developed. Parents will become less stressful even though the real problem has not been fully solved yet. (Therapist C54)
譬如話玩玩具嘅時候，好多時小朋友其實係錫家長嘅，所以個個部份可以引發返家長體會到原來小朋友佢唔係全部都唔好，佢只係響一啲控制上面啦，或者係學業上面啦，佢有困難啫，但其實佢都係愛錫我呀，個個 bonding 建立返，咁其實個家長都會鬆少少，咁雖然實質個個困難都係未解決到，即係有部分解決唔到啦…(治療師 C54)

j. Conditions necessary for success

When we meet the parents, we need to confirm if they can manage. They need to have commitment to spare some time for parent-child play time on a daily basis… (Therapist B9)
見家長都要同佢傾清楚，其實佢哋可唔可以應付得到，即係每一日其實都去抽一啲時間同小朋友做親子遊戲嘅情況，都想佢哋有一個 commitment 喺度先… (治療師 B9)

When the parent realizes that she can say it by herself in the play room and the feedback from the child is positive, her confidence is strengthened. She improves in both self-confidence and parenting. (Therapist D12)
當佢自己都喺遊戲室發現佢自己原來講得到，而小朋友個反應都係正面嘅時候，就令佢個個信心會強啲啦…咁變相令到個家長嘅自信心或者管教個方面個能力都提升。(治療師 D12)

k. Difficulties of therapists

There are some situations that cannot be followed such as waking up in the morning for school… (Therapist E37)
有啲場景真係無辦法跟到佢哋去，譬如朝頭早起身返學… (治療師 E37)



It will be better if the parents are willing to use, to learn and to cooperate with us. It is frustrating if they reject every suggestion we made… or if the parents themselves have hot temper and they cannot control their own emotion. (Therapist E42)
如果個家長肯用、肯學、肯配合我哋嘅會好啲，如果佢樣樣都落閘…或者佢自己脾氣都係好暴躁嘅，高低起伏好大嘅，咁佢自己都會話其實我自己都控制唔到呀，見到佢咁我都忺。(治療師 E42)

Some parents hoped that PCIT could help their children to do better at school and receive fewer complaints but unfortunately, it might not be the case… the schools imposed a lot of pressure to the families and parents were frustrated when they received such complaints which made it difficult for them to continue the treatment. (Therapist D50)
嗰啲家長希望藉住個 PCIT 令佢喺學校嗰度嘅投訴少啲，但呢個就正正係 PCIT 未必幫到我哋囉…但係可能學校各方面又帶嚟俾啲家庭好大壓力，即係我覺得家長們喺接收學校一啲投訴嗰個沮喪呢，亦都令佢喺去繼續堅持個療程方面嗰度呢，係都有艱難。(治療師 D50)

I think every parent and child is different. It is now involving more parents of children with SEN, and more parents with domestic violence…I think it becomes more and more complicated. (Therapist A134)
但我覺得係事實上個個家長同個個小朋友都唔同嘛，咁而我覺得而家係包多咗 SEN 嘅家長啦，多咗家長係 domestic violence…我覺得係越嚟越複雜。(治療師 A134)

We do feel the difficulties for parents especially under some difficult situations where PCIT might not be helpful in those high risk moments. As such, we need to prepare their mindset and handle their own emotion… (Therapist E40)
同埋有陣時我覺得佢都真係難搞，因為係都牽涉好多環境上面嘅嘢，而且嗰個都真係一個起 crisis 嘅環境，而我覺得 PCIT 係幫唔到咁多嘅喺嗰啲位，喺咁高危嘅時機…咁所以只可能做嘅就係改變家長嗰個心態，同埋嗰刻佢處理佢自己嗰個情緒囉… (治療師 E40)

l. Therapists manpower issues

Queuing…I think it is all due to lack of manpower. I felt guilty of not providing the prompt service to those children with ADHD, though they were thankful for our services once they started… (Therapist C113)

排隊囉...但係其實我覺得人手唔夠...我自己有時覺得...好愧疚。其實...明知佢有 ADHD 但係唔能夠及早俾個 service 佢，咁當然等到佢哋嘅時候，其實佢哋都會好多謝我哋去提供個服務啦... (治療師 C113)

It all relates to manpower resources. In fact, we think we should provide those children with ADHD with additional service. Unfortunately our times were used up on providing the PCIT treatment. It is very difficult to offer these children and parents with extra group trainings. (Therapist D143)
呢樣牽涉人手，頭先提到人手呀...其實我哋都覺得好多配套額外要俾呢班 ADHD 小朋友，但係我哋見 case 都用晒啲時間呢，其實想好密集咁開個組俾小朋友我哋都好困難，又或者家長。(治療師 D143)

Manpower resource has always been an issue… (Therapist C111)
人手不嬲都唔夠... (治療師 C111)



## TWGHs Parent-Child Interaction Therapy Service
## 東華三院親子互動輔導服務

### 總辦事處　Main Office

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| 東華三院家庭成長中心<br>九龍黃大仙竹園南邨貴園樓地下 109-110 室<br>電話：2267 6322 | TWGHs Centre on Family Development<br>Unit 109-110, Kwai Yuen House, Chuk Yuen South Estate, Kowloon<br>TEL : 2267 6322 |

### 其他服務單位　Other Service Centres

以下單位須先以電話預約安排接見 電話 : 2267 6322
Prior telephone booking of appointment for the following centres　Tel : 2267 6322

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| 東華三院屯門綜合服務中心<br>新界屯門井財街 27 號井財街政府服務大樓 2 樓及 3 樓<br>電話：2441 2042 | TWGHs Tuen Mun Integrated Services Centre<br>2/F & 3/F, Tseng Choi Street Government Services Complex, 27 Tseng Choi Street, Tuen Mun, N.T.<br>TEL : 2441 2042 |
| 東華三院賽馬會天水圍綜合服務中心<br>新界天水圍天恒邨停車場大廈 6 字樓 2 號單位<br>電話：3165 8824 | TWGHs Jockey Club Tin Shui Wai Integrated Services Centre<br>Unit 2, 6/F, Tin Heng Carpark Building, Tin Heng Estate, Tin Shui Wai, N.T.<br>TEL : 3165 8824 |
| 東華三院賽馬會大角咀綜合服務中心<br>九龍大角咀通州街 28 號頌賢花園商場 9 號<br>電話：2392 2133 | TWGHs Jockey Club Tai Kok Tsui Integrated Services Centre<br>Shop No. 9, G/F, June Garden, 28 Tung Chau Street, Tai Kok Tsui, Kowloon<br>TEL : 2392 2133 |
| 東華三院賽馬會沙田綜合服務中心<br>新界沙田火炭樂景街 2 至 18 號銀禧薈 5 樓 502A-503 號舖<br>電話：2699 4100 | TWGHs Jockey Club Shatin Integrated Services Centre<br>Shop 502A & 503, 5/F, Jubilee Square, 2-18 Lok King Street, Fo Tan, Shatin, N.T.<br>TEL : 2699 4100 |
| 東華三院余墨緣綜合服務中心<br>九龍深水埗富昌邨富潤樓服務設施大樓 5 樓 | TWGHs Yu Mak Yuen Integrated Services Centre<br>Level 5, Fu Yun House, Ancillary Facilities Block, Fu Cheong Estate, Shamshuipo, Kowloon |
| 東華三院陳嫻幼兒園<br>九龍秀茂坪秀明道秀富樓地下 2 樓 | TWGHs Chan Han Nursery School<br>Unit No. 2, G/F, Sau Fu House, Sau Ming Road, Sau Mau Ping (I) Estate, Kowloon |
| 東華三院洪王家琪幼兒園<br>新界粉嶺祥華邨祥和樓 104-108, 113-115 號地下 | TWGHs Hung Wong Kar Gee Nursery School<br>Units No. 104-108, 113-115, G/F, Cheung Wo House, Cheung Wah Estate, Fanling, N.T. |
| 東華三院香港鑪峯獅子會幼兒園<br>新界葵盛西邨第 10 座地下 | TWGHs Lions Club of the Peak, Hong Kong Nursery School<br>G/F, Block 10, Kwai Shing West Estate, N.T. |