

**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 (Tung Wah) 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 involves 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. 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 larger 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.