


BRIEF CLINICAL REPORT

# Guided parent-delivered cognitive behavioural therapy for Japanese children and parents: a single-arm uncontrolled study

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## Abstract

**Background:** Guided parent-delivered cognitive behavioural therapy (GPD-CBT) is an effective low-intensity treatment for childhood anxiety disorder in Western countries and can increase access to evidence-based psychological therapies.

**Aim:** This study aimed to examine its feasibility in a Japanese sample.

**Method:** Twelve children with anxiety disorders and their parents participated in the study, and ten children and parents completed the program. Participants were assessed at pre-, post- and one-month follow-up using a diagnostic interview for anxiety disorders, self- and parent-report measures for anxiety, depression, parental behaviour, and parental anxiety.

**Results:** Four children (40% of completers) were free from their primary diagnoses immediately following the brief treatment, and seven children (70%) at the one-month follow-up. Changes in disorder severity, child and parent reported anxiety symptoms, and child reported depression symptoms were consistent with those found in Western trials of GPD-CBT and of Japanese trials of more intensive CBT for child anxiety disorders that involves both the child and the parent. Moderate increases were also found in child reported parental autonomy behaviours; however, there were only small changes in parent self-reported anxiety.

**Conclusion:** These results support the potential of GPD-CBT to increase access to evidence-based treatments for anxiety disorders in Japanese children.

**Keywords:** anxiety; child anxiety; cognitive behavioural therapy; parents

## Introduction

Cognitive behavioural therapy (CBT) is an evidence-based therapy, effective for treating childhood anxiety disorders in both Western and Eastern Countries (e.g. Ishikawa *et al.*,

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2019). However, few children with anxiety disorders access CBT due to its limited availability. One efficient form of CBT is guided parent-delivered CBT (GPD-CBT) which is a low-intensity intervention for children with anxiety disorders, delivered through their parents. Good outcomes have been achieved for children after only five and a half hours of intervention (four 1-hour face-to-face sessions and four 20-minute telephone sessions) conducted by a therapist with the parent(s) over an eight-week period (e.g. Thirlwall *et al.*, 2013). The effectiveness of GPD-CBT has been examined in previous studies. For example, a randomised controlled study conducted in the UK showed that more children in the GPD-CBT group recovered than children in a wait-list group, with a relative risk of 1.85 (Thirlwall *et al.*, 2013). Nevertheless, studies to date have been conducted in Western countries and the efficacy of GPD-CBT in Eastern countries is unknown.

The purpose of this study was to conduct a preliminary examination of outcomes from and the acceptability of GPD-CBT in Japan.

## Method

Detailed information on the methods is provided in the full version of this paper (see [Supplementary material](#)).

### Participants

Twelve children and parents participated in the study, and ten children and their parents completed the program (children: mean age = 10.1 years,  $SD = 1.6$ ; parents: mean age = 44.8 years,  $SD = 3.58$ ). The study was conducted at the Cognitive Behavioral Therapy Center at Chiba University Hospital, and all participants lived within Kantou area, Japan. The inclusion criteria were as follows: (1) the child's primary diagnosis was generalised anxiety disorder, social anxiety disorder, separation disorder, panic disorder, or specific phobia according to the Anxiety Disorders Interview Schedule for DSM-IV, (2) the child was aged 7 to 12 years, (3) a parent could attend weekly sessions, and (4) both children and parents understood the purpose of the study and provided written consent. The exclusion criteria were as follows: both children and parents (1) presence of psychosis, a current high risk of suicide, substance abuse or dependence, or conduct disorder/anti-social personality disorder; (2) presence of intellectual disability; and (3) presence of autism spectrum disorder.

### Measures

The assessments were conducted at pre-treatment (week 0), post-treatment (week 9), and one-month follow-up (week 13) to children and parents. We used the Japanese-translated version of the measures for each outcome.

### Primary outcomes

In this study, the Anxiety Disorders Interview Schedule for DSM-IV: Child and Parent versions (ADIS-C/P) was administered by a clinical psychologist or a mental health nurse.

### Secondary outcomes

Secondary outcomes include the following measures: (1) the Spence Children's Anxiety Scale – Child (SCAS-C) to assess anxiety symptoms in children, (2) the Spence Children's Anxiety Scale – Parent (SCAS-P) to assess parent-reported anxiety symptoms in children, (3) the Child Depression Inventory (CDI) to assess child self-reported depressive symptoms, (4) the

**Table 1.** Mean, standard deviation and effect size of outcomes

Outcome	Pre	Post	Follow-up	Pre to post		Pre to follow-up	
	Mean (SD)	Mean (SD)	Mean (SD)	Paired <i>t</i> -test	Effect size ( <i>g</i> )	Paired <i>t</i> -test	Effect size ( <i>g</i> )
CSR	6.7 (0.82)	3.8 (1.81)	3 (2.26)	.001	-1.37	.001	-1.36
SCAS-C	42.5 (21.52)	35.6 (19.66)	32.3 (17.07)	.263	-0.34	.024	-0.77
SCAS-P	39.5 (16.55)	28.6 (16.66)	30.8 (11.31)	.166	-0.43	.139	-0.46
CDI	17 (4.4)	14.6 (4.9)	14.4 (4.67)	.187	-0.41	.235	-0.36
Care/rejection	2.56 (1.24)	2.44 (1.74)	2.67 (1.22)	.728	-0.11	.681	0.13
Control/autonomy	-1.44 (2.01)	-2.67 (1.41)	-2.22 (1.72)	.010	-0.99	.173	-0.44
STAI	48.3 (10.33)	46.1 (10.19)	47.2 (13.32)	.233	-0.36	.678	-0.12

CSR, Clinical Severity Rating; SCAS-C, Spence Child Anxiety Scale-Child version; SCAS-P, Spence Child Anxiety Scale-Parent version; CDI, Child Depression Inventory; STAI, State-Trait Anxiety Inventory.

Parental Bonding Instrument – Brief Current Version (PBI-BC) to investigate children’s perceptions of parental behaviour (care/rejection and control/autonomy), and (5) the State-Trait Anxiety Inventory (STAI) to assess parents’ trait anxiety.

### Acceptability measures

The Client Satisfaction Questionnaire (CSQ-8) was conducted with parents to assess treatment satisfaction. We also asked participants to answer the following five questions with scores ranging from 1 to 5: (1) explanation comprehension; (2) required time; (3) degree of burden; (4) convenience; (5) possibility of continuation after the program.

### Treatment

We developed a Japanese version of GPD-CBT based on the English online version (Hill *et al.*, 2022) as this consisted of more concise text than the original book-based version (Thirlwall *et al.*, 2013). Each parent received weekly sessions lasting a total of six hours over eight weeks (five 1-hour face-to-face sessions and three 20-minute telephone sessions). As the Japanese version of GPD-CBT is based on the online version of GPD-CBT (Hill *et al.*, 2022), it contains one extra face-to-face session compared with the original book-based version (Thirlwall *et al.*, 2013). Only parents (mother 80%, father 20%) attended the sessions and delivered the CBT techniques with their children as a homework task.

### Results

Two pairs of parents and children did not complete GPD-CBT. No adverse events were reported during the study. For primary and secondary outcomes, a paired *t*-test was used to compare the score before and after treatment. We also calculated Hedges’ *g* to report the effect size for each measure. The absolute effect size was interpreted as small (0.20–0.49), medium (0.50–0.79), or large (0.80 and above) (Cohen, 1988).

### Primary outcomes

Four children (40% of completers) were free from their primary diagnosis at post-treatment, and seven children (70%) were free from their primary diagnosis at the one-month follow-up. Table 1 shows the mean, standard deviation, and effect size for the outcome measures at each time point.

There was a large reduction in the mean CSR score which decreased by 2.9 from pre- to post-treatment, and 3.7 from pre- to follow-up-treatment.

### **Secondary outcomes**

As shown in Table 1, there were small to medium reductions in the SCAS-C and SCAS-P from pre-treatment to post-treatment and follow-up, and small reductions in CDI scores from pre-treatment to post-treatment and follow-up. For the control/autonomy score in PBI-BC, the effect size was large for pre- to post-treatment and small for pre- to follow-up treatment. The effect size for the STAI was also small for pre- to post-treatment.

### **Utility measures**

The mean total score for the CSQ-8J was good: 25.4 ( $SD = 4.7$ ). The mean scores for each utility measure were as follows: explanation comprehension (mean = 4.8,  $SD = .42$ ), required time (mean = 4.6,  $SD = .7$ ), degree of burden (mean = 4,  $SD = .94$ ), convenience (mean = 3.7,  $SD = .95$ ), and possibility of continuation after the program (mean = 4.4,  $SD = .7$ ).

### **Discussion**

We found a large decrease in the clinical severity of the child's primary anxiety diagnosis after GPD-CBT which was comparable to that observed in a clinical study conducted in the UK (Hedges'  $g = 1.59$ ; Creswell *et al.*, 2017) and in a study where CBT was directly delivered to Japanese children and their parents (Hedges'  $g = 1.27$ ; Ishikawa *et al.*, 2019). Although the immediate post-treatment remission rate for the primary outcome was smaller than that in previous studies of GPD-CBT (50%) and in studies where CBT was directly delivered to children suffering from anxiety disorder (50%) (Ishikawa *et al.*, 2019; Thirlwall *et al.*, 2013), the remission rate increased to 70% within one month after treatment. This post-treatment improvement is consistent with other trials of GPD-CBT (e.g. Thirlwall *et al.*, 2013) and may reflect the fact that GPD-CBT is a short program, here it only consisted of six hours of treatment, and parents are likely to need time to practise and implement the strategies in their child's daily life.

The size of the decrease in anxiety and depressive symptoms in our study was mostly consistent with previous studies. The results showed a small to medium effect size for SCAS-C and CDI, which is consistent with a prior study of GPD-CBT and a study of more intensive CBT conducted with Japanese children (Creswell *et al.*, 2017; Ishikawa *et al.*, 2019; Thirlwall *et al.*, 2013). Unexpectedly, the effect size for parent-reported child anxiety symptoms was smaller than that reported in prior studies (Creswell *et al.*, 2017; Ishikawa *et al.*, 2019). It has previously been suggested that Japanese mothers tend to think of themselves as less competent than European American mothers and fail to attribute their success in parenting to their abilities (Bornstein and Cote, 2004). As GPD-CBT is delivered by parents, this tendency might lead parents to under-estimate the change in their child's anxiety symptoms.

This was the first study to report changes in parents' trait anxiety and parental behaviours following GPD-CBT. Although the effect size for parent's trait anxiety was small, medium to large changes were found in child reported parental control/autonomy behaviour. This is consistent with one of the aims of GPD-CBT wherein therapists encourage parents to promote their child's autonomy (Thirlwall *et al.*, 2013).

Our findings suggest that a Japanese version of GPD-CBT was acceptable for Japanese parents as evident in the participating parents expressing high satisfaction with the GPD-CBT program. The mean ratings of other utility measures were also high, ranging from 3.7 to 4.8 on 5-point rating items. However, the fact that there were two drop-outs in this study must be

considered. As such, although most parents were satisfied with the Japanese version of the GPD-CBT program, improvements and updates of the program may be needed to maximise its acceptability.

The major advantage of the Japanese version of GPD-CBT is that it can be delivered to children with anxiety disorders at a low cost. We delivered GPD-CBT with only six hours of therapist contact and children did not need to attend sessions. This compares to a CBT program for Japanese children involving an average of 10 sessions with both the child and the parent (including boosters) which are each 60 to 120 minutes long (Ishikawa *et al.*, 2019).

### Limitations

The limitation of this study was a small single-armed study with only a one-month follow-up. A randomised controlled trial with a longer follow-up period is necessary to examine the efficacy of GPD-CBT for Japanese children and their parents.

### Conclusion

Despite these limitations, this study suggests that a Japanese version of GPD-CBT is acceptable to Japanese parents and is a promising step towards treating children's anxiety disorders using a low-intensity parent-delivered program. Further randomised controlled trials are required to examine the efficacy and effectiveness of GPD-CBT in Japanese parents with clinically anxious children.

**Supplementary material.** To view supplementary material for this article, please visit: <https://doi.org/10.1017/S1352465822000704>

**Data availability statement.** The datasets generated during and/or analysed during the current study are available from the corresponding author on reasonable request.

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**Conflicts of interest.** C.C. receives royalties for sales of books relating to the treatment approach described in this paper, but those books were not used in the current study. The authors have declared that they have no other competing or potential conflicts of interest.

**Ethical standards.** Authors have abided by the Ethical Principles of Psychologists and Code of Conduct as set out by the BABCP and BPS. This trial was approved by the Institutional Review Board of Chiba University Hospital (reference number: G2019012) and was registered in the national UMIN Clinical Trials registry (ID: UMIN000038324; [https://rctportal.niph.go.jp/en/detail?trial\\_id=UMIN000038324](https://rctportal.niph.go.jp/en/detail?trial_id=UMIN000038324)). Written informed consent was obtained from both parents and children.

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