

# The training and nurturing support for mothers study

<b>Submission date</b> 04/02/2020	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered
		<input checked="" type="checkbox"/> Protocol
<b>Registration date</b> 16/03/2020	<b>Overall study status</b> Completed	<input checked="" type="checkbox"/> Statistical analysis plan
		<input type="checkbox"/> Results
<b>Last Edited</b> 24/04/2023	<b>Condition category</b> Mental and Behavioural Disorders	<input type="checkbox"/> Individual participant data
		<input type="checkbox"/> Record updated in last year

## Plain English summary of protocol

### Background and study aims

Attention deficit hyperactivity disorder (ADHD) is characterised by higher levels of inattentive, hyperactive and impulsive behaviours. Children with ADHD have difficulty taking turns, are frequently forgetful, talk excessively, often appear not to be listening when spoken to, and tend to interrupt and intrude on others in group activities, conversations and classroom discussions. Parenting a child with ADHD is especially demanding. Parents of children with ADHD report elevated levels of parenting stress and depression, which impacts negatively on their parenting practices. Interactions between parents and children with ADHD have been shown to be more negative and controlling than those of parents of typically developing children. Furthermore, mothers' experiencing high levels of distress often lack the motivation or organisational skills to parent their child in a consistent way. Addressing the psychological needs of parents' of children with ADHD would seem, therefore, to be an important treatment target together with strategies to manage the children's symptoms of ADHD. However, the majority of available programmes focus on teaching behaviour modification/parenting skills to parents.

To date, only a small number of studies have directly targeted the psychological difficulties parents of children with ADHD face. Group-based programmes for parents of children with behaviour problems, including ADHD, have been shown to result in positive changes in mother's perceptions of their child's behaviour. However, most group-based treatments report minimal effect on the core symptoms of ADHD as they target the parental management of overt oppositional behaviours rather than the impairments underlying ADHD in the child. The New Forest Parenting Program (NFPP) was developed specifically for children with ADHD, targeting the core symptoms of the disorder including attention, impulse control, and self-organisation. The Parent Stress Management Programme was also specifically developed to target parental well-being of parents of children with ADHD. Well Parent Japan is a modified hybrid programme which contains information and education about ADHD, four sessions from the Parent Stress Management Programme targeting both stress and mood difficulties and a culturally adapted Japanese version of the New Forest Parenting Programme. The Well Parent Japan intervention has been evaluated in a small scale study and has been shown to be helpful at reducing child symptoms and behaviours, enhancing parental well-being and parenting practices immediately after the end of the intervention.

The aim of this study is to extend the results of this small scale trial to a much larger trial run at three different hospitals in Japan, evaluating the Well Parent Japan intervention in routine

ADHD clinics and comparing it to treatment as usual (what those clinics usually offer). The study will also aim to evaluate the intervention both immediately after mothers have received it, but also at a three-month follow-up to explore the impact of Well Parent Japan on child behaviour, symptoms, impairment and impact on the family, parental well-being, parenting practice and maternal emotional relationships. There will also be an economic evaluation to establish how much it costs to delivery Well Parent Japan in routine Japanese health care settings, and to also determine how cost-effective the intervention is.

Who can participate?

Japanese mothers of children with a diagnosis of ADHD aged 6-12, whose children are associated with the hospital clinics at the three study sites (Fukui University Hospital, Fukui, Japan Kurume University Hospital, Fukuoka, Japan and Ryukyu University Hospital, Okinawa, Japan

What does the study involve?

Participants are randomly allocated into one of two groups. Those in group 1 (intervention group) take part in 13 two-hour sessions of a group parent training programme for Japanese mothers of children with ADHD aged 6 to 12 (5 sessions of parent stress reduction and 8 sessions of the NFPP). Those in group 2 (treatment as usual) will continue to receive whatever is offered by their hospital clinic. All participants are asked to complete questionnaires at all three timepoints and also take part in observations while helping their child to make pasta and a short interview where they describe their child and how they get along with them at time one and two only. Mothers in the treatment as usual arm of the study will be offered the Well Parent Japan intervention at the end of the study and complete a fourth set of questionnaires after completion of the intervention to increase the number of parents available for the analysis to determine which type of children and mothers respond best to Well Parent Japan.

What are the possible benefits and risks of taking part?

Mothers can gain skills to improve their parenting practices and strategies to help them to help their child. There are no identified risks of participating.

Where is the study run from?

1. Okinawa Institute of Science and Technology Graduate University (Japan)
2. University of Fukui Hospital (Japan)
3. Kurume University Hospital (Japan)
4. National Hospital Organization Ryukyu Hospital (Japan)

When is the study starting and how long is it expected to run for?

August 2018 to March 2022

Who is funding the study?

Okinawa Institute of Science and Technology Graduate University (Japan)

Who is the main contact?

Dr S Shimabukuro

shizuka.shimabukuro@oist.jp

## Contact information

Type(s)

Public

**Contact name**

Dr Shizuka Shimsbukuro

**ORCID ID**

<https://orcid.org/0000-0003-2899-2788>

**Contact details**

Okinawa Institute of Science and Technology Graduate University

Onna-son

Japan

904-0495

+81 (0)98 966 8814

shizuka.shimabukuro@oist.jp

**Type(s)**

Scientific

**Contact name**

Dr Shizuka Shimabukuro

**ORCID ID**

<https://orcid.org/0000-0003-2899-2788>

**Contact details**

Okinawa Institute of Science and Technology Graduate University (Japan)

Onna-son

Japan

904-0495

+81 (0)98 966 8814

shizuka.shimabukuro@oist.jp

## Additional identifiers

**Protocol serial number**

HSR-2019-014

## Study information

**Scientific Title**

A pragmatic randomised controlled cost-effectiveness study of Well Parent Japan for Japanese mothers of children with Attention Deficit Hyperactivity Disorder (ADHD): the TRaining And Nurturing Support FOR Mothers (TRANSFORM) study

**Acronym**

TRANSFORM

**Study objectives**

1. That Well Parent Japan (WPJ) will be superior to Treatment As Usual (TAU) on measures of child behaviour, parental well-being and parental and objective measure of parenting

2. That Well Parent Japan will be more cost-effective than Treatment As Usual based on ADHD symptom reduction using incremental cost-effectiveness ratios (ICER)
3. That there will be no significant exploratory predictors of Well Parent Japan treatment outcome

### **Ethics approval required**

Old ethics approval format

### **Ethics approval(s)**

Approved 13/12/2019, Okinawa Institute of Science and Technology Graduate School Human Subject Research Review Committee (Occupational Health and Safety Section, Human Subject Research Review Committee, Lab 1, B051, 1919-1 Tancha, Onna-son, Kunigami-gun Okinawa, Japan 904-0495; Tel: +81 (0)98 966 2385; Email: research\_oist.jp), ref: HSR-2019-014

### **Study design**

Two-arm pragmatic randomised controlled trial

### **Primary study design**

Interventional

### **Study type(s)**

Treatment

### **Health condition(s) or problem(s) studied**

Attention Deficit Hyperactivity Disorder (ADHD)

### **Interventions**

Well Parent Japan is a 13-session group-based intervention for parents of children with ADHD. The program includes an orientation to the intervention and psycho-education about ADHD, four sessions devoted to enhancing mothers psychological functioning based on Parent Stress Management for ADHD developed by Tracy Tripp & Baird (2005) followed by the eight sessions of behaviour management based on a Japanese cultural adaption of the core components of the New Forest Parenting Programme (Sonuga-barke et al 2001; Shimabukuro et al 2017; Shimabukuro et al 2020).

Participants are randomly allocated into one of two groups. The method of randomization is at the individual level using a random number generator at the University of Nottingham. Those in group 1 (intervention group) take part in 13 two-hour sessions of a group parent training programme for Japanese mothers of children with ADHD aged 6 to 12 (5 sessions of parent stress reduction and 8 sessions of the NFPP). Those in group 2 (treatment as usual) will continue to receive whatever is offered by their hospital clinic. All participants are asked to complete questionnaires at all three timepoints and also take part in observations while helping their child to make pasta and a short interview where they describe their child and how they get along with them at time one and two only. Mothers in the treatment as usual arm of the study will be offered the Well Parent Japan intervention at the end of the study and complete a fourth set of questionnaires after completion of the intervention to increase the number of parents available for the analysis to determine which type of children and mothers respond best to Well Parent Japan. The total duration of follow up is 13 weeks post-intervention 26 weeks after the start of the intervention.

### **Intervention Type**

## Behavioural

### **Primary outcome(s)**

Parent stress measured by the Parent Stress Index (PSI) at T1, T2 and T3 for intervention group and T1, T2, T3, T4 and T5 for TAU group as TAU also receive intervention at the end of TAU to inform the predictors of outcome analysis

T1: baseline, T2: 14 weeks, T3: 26 weeks, T4: 39 weeks, T5: 51 weeks

### **Key secondary outcome(s)**

1. Parenting style measured by the Parenting Scale at T1, T2 and T3 for intervention group and T1, T2, T3, T4 and T5 for TAU group as TAU also receive intervention at the end of TAU to inform the predictors of outcome analysis
2. Parenting competence/efficacy measured by the Parenting Sense of Competence Scale (PSOC) at T1, T2 and T3 for intervention group and T1, T2, T3, T4 and T5 for TAU group as TAU also receive intervention at the end of TAU to inform the predictors of outcome analysis
3. Locus of control assessed using the Parental Locus of Control Scale (PLOC) at T1, T2 and T3 for intervention group and T1, T2, T3, T4 and T5 for TAU group as TAU also receive intervention at the end of TAU to inform the predictors of outcome analysis
4. Mother's mood measured by BDI-2 at T1, T2 and T3 for intervention group and T1, T2, T3, T4 and T5 for TAU group as TAU also receive intervention at the end of TAU to inform the predictors of outcome analysis
5. Child's ADHD symptoms measured by mother and teacher by the Swanson, Nolan & Pelham Scale SNAP at T1, T2 and T3 for intervention group and T1, T2, T3, T4 and T5 for TAU group as TAU also receive intervention at the end of TAU to inform the predictors of outcome analysis
6. Parent/caregiver and teacher perceptions of emotional and behavioural problems in children measured by the Child Behavior Check List (CBCL) and Teacher Rating Form (TRF) at T1, T2 and T3 for intervention group and T1, T2, T3, T4 and T5 for TAU group as TAU also receive intervention at the end of TAU to inform the predictors of outcome analysis
7. Child's impairment in school performance and relationship measured by mother and teacher by the performance scale from the Vanderbilt Assessment Scale at T1, T2 and T3 for intervention group and T1, T2, T3, T4 and T5 for TAU group as TAU also receive intervention at the end of TAU to inform the predictors of outcome analysis
8. Child's impairment in eight different domains of functioning measured by the Impairment Rating Scale at T1, T2 and T3 for intervention group and T1, T2, T3, T4 and T5 for TAU group as TAU also receive intervention at the end of TAU to inform the predictors of outcome analysis
9. Family stress, strain and burden measured by the Family Strain Index (FSI) T1, T2 and T3 for intervention group and T1, T2, T3, T4 and T5 for TAU group as TAU also receive intervention at the end of TAU to inform the predictors of outcome analysis
10. Mother-child interaction assessed by direct observation of behavior during a co-operative pasta-making task. Mother and child will be video-recorded and coded by an independent coder. Interactions will be coded using codes from the System for Coding Interactions and Family Functioning (SCIFF) and the System for Coding Interactions in Parent-Child Dyads (SCIPD) at T1 and T2
11. Mother's expressed emotion measured by using the Revised Five-minute Speech Sample (R-FMSS) at T1 and T2
12. Cost-effectiveness of this study measured by the modified Client Service Receipt Inventory (CSRI) at T1 T2 and T3
13. Autism Spectrum Disorder (ASD) measured using the Autism Spectrum Quotient at baseline

only at T1

4. Mother's ADHD measured by the Conners Adult ADHD Rating Scale (CAARS) at baseline only at T1

T1: baseline, T2: 14 weeks, T3: 26 weeks, T4: 39 weeks, T5: 51 weeks

**Completion date**

31/03/2022

## Eligibility

**Key inclusion criteria**

Mothers of children diagnosed with ADHD and the children themselves will be identified by health professionals working in hospitals or community clinics linked to the three research sites in Japan. Inclusion criteria for mothers will be:

1. Fluency in Japanese (reading and writing)
2. Parenting a child, 6-12 years who is diagnosed with ADHD
3. Participation in a behavioural intervention for the mother is not contra-indicated as viewed by the referring clinician

**Participant type(s)**

Mixed

**Healthy volunteers allowed**

No

**Age group**

Mixed

**Sex**

All

**Key exclusion criteria**

1. Children with very little pragmatic speech as judged by the referring clinician
2. Children with functional intellectual disability
3. Mothers who are currently or have recently taken part in other parenting intervention (within two months)

**Date of first enrolment**

13/08/2019

**Date of final enrolment**

30/04/2021

## Locations

**Countries of recruitment**

Japan

**Study participating centre**  
**University of Fukui Hospital**  
23-3 Matsuokashimoaizuki Eiheiji Yoshida District  
Fukui  
Japan  
910-1193

**Study participating centre**  
**Kurume University Hospital**  
67 Asahimachi Kurume  
Fukuoka  
Japan  
830-0011

**Study participating centre**  
**National Hospital Organization Ryukyu Hospital**  
Kin 7958-1 Aza Kin-cho, Kunigami-gun  
Okinawa  
Japan  
904-1201

## **Sponsor information**

**Organisation**  
Okinawa Institute of Science and Technology Graduate University

**ROR**  
<https://ror.org/02qg15b79>

## **Funder(s)**

**Funder type**  
University/education

**Funder Name**  
Okinawa Institute of Science and Technology Graduate University

**Alternative Name(s)**  
Okinawa Institute of Science and Technology, OIST

## Funding Body Type

Government organisation

## Funding Body Subtype

National government

## Location

Japan

# Results and Publications

## Individual participant data (IPD) sharing plan

The datasets generated during and/or analysed during the current study are not expected to be made publicly available but individual requests for access to the data will be considered subject to Japanese law.

## IPD sharing plan summary

Other

## Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Protocol article</a>		19/04/2022	20/04/2022	Yes	No
<a href="#">Statistical Analysis Plan</a>		02/06/2022	24/04/2023	No	No