

Online parent training to support social communication in young autistic children

Submission date 13/01/2026	Recruitment status No longer recruiting	☐ Prospectively registered ☐ Protocol
Registration date 15/01/2026	Overall study status Completed	☐ Statistical analysis plan ☐ Results
Last Edited 14/01/2026	Condition category Mental and Behavioural Disorders	☐ Individual participant data ☒ Record updated in last year

Plain English summary of protocol

Background and study aims

This study is about an online parent training program for young autistic children in Taiwan. The program helps parents support their child's social communication during daily activities. In Taiwan, many families cannot access early autism services in time. Services often require many hours and trained professionals. Families living outside large cities face more difficulties. During the COVID-19 pandemic, access became even more limited. This study explores an online program that families can use at home.

The aim of this study is to test whether an online parent training program improves: parents' skills and confidence, and children's social communication and daily functioning. The study also compares different ways of delivering the program. One version is self-directed. Another version includes weekly online coaching.

Who can participate?

Children aged 19 to 54 months who are diagnosed with autism, or suspected of autism, can take part. At least one parent or main caregiver must agree to join the study.

What does the study involve?

Families are randomly assigned to different groups. Some families use the online program by themselves. Some families wait before receiving the program. Some families use the program and also receive weekly online coaching. The program lasts 13 weeks. Parents complete one short online lesson each week. Each lesson takes about 15 to 30 minutes. Parents learn how to support their child during everyday routines. These include play, meals, caregiving, reading, and household activities. Parents may record short videos of parent-child interaction. They also complete questionnaires about their experience. For parents, the study measures how well they use the strategies, their understanding of the program, parenting stress, and parenting confidence. For children, the study measures social communication during interactions with parents and adaptive behavior in daily life.

What are the possible benefits and risks of participating?

Children may show better social communication skills. Parents may feel more confident and supported in helping their child.

Some parents may feel emotional stress, especially soon after diagnosis. Watching the program

content may increase anxiety for some families. Parents are reminded that this program is supportive. It does not replace professional services. Families are encouraged to seek in-person professional care and early intervention.

Where is the study run from?

National Chengchi University in Taipei (Taiwan)

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

August 2019 to July 2023

Who is funding the study?

National Science and Technology Council of Taiwan

Who is the main contact?

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Contact information

Type(s)

Principal investigator, Scientific, Public

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Additional identifiers

Study information

Scientific Title

Parent-mediated intervention for social communication in young autistic children: telehealth practice

Study objectives

This study uses a randomized controlled trial design to examine the effectiveness of an online parent training program aimed at improving social communication skills in young autistic children. The study consists of two phases. In Study 1, outcomes for parents in a self-directed online program group are compared with those of a waitlist control group before and after viewing the online course. In Study 2, outcomes for parents in a self-directed group are compared with those of a coached group at pre-intervention, post-intervention, and 3-month follow-up.

Ethics approval required

Ethics approval required

Ethics approval(s)

Approved 15/02/2019, National Chengchi University (NCCU) Office of Research Ethics (No. 64, Sec.2, ZhiNan Road Wenshan District, Taipei, 11605, Taiwan; +886 2 29233091 66015; irb@nccu.edu.tw), ref: NCCU-REC-201812-I092

Primary study design

Interventional

Allocation

Randomized controlled trial

Masking

Open (masking not used)

Control

Active

Assignment

Parallel

Purpose

Supportive care, Treatment

Study type(s)**Health condition(s) or problem(s) studied**

Improving social communication skills for preschool autistic children

Interventions

This study comprised two randomized controlled trials evaluating a web-based, parent-mediated intervention for young autistic children.

In Study 1, eligible participants were randomly assigned to either a self-directed intervention group or a waitlist control group using block randomization, stratified by child biological sex, chronological age (18–33 months vs >33 months), and developmental quotient (DQ <60 vs. DQ ≥60). Parents in the intervention group received four-month access to a self-directed web-based program adapted primarily from the Parent-Implemented Early Start Denver Model (P-ESDM) and Project IMPACT. The program consisted of 13 topics (approximately 4.5 hours total) covering naturalistic developmental behavioral intervention strategies for social communication and positive behavior support across daily routines. The control group received no intervention during the study period. Assessments were conducted at baseline (T1) and immediately post-intervention (T2).

In Study 2, eligible participants were randomly assigned to either a self-directed intervention group or a coach-assisted intervention group using the same randomization and stratification procedures as in Study 1. Both groups received access to the same web-based program. In

addition, parents in the coach-assisted group received weekly individualized coaching sessions (1 hour per session) for 13 weeks. Assessments were conducted at baseline (T1), post-intervention (T2), and at a 3-month follow-up (T3).

All assessments included standardized measures of child development and social communication and parent-report questionnaires. Due to COVID-19 restrictions, assessment procedures were adapted from in-person evaluations to online meetings and mailed questionnaires when necessary.

Intervention Type

Behavioural

Primary outcome(s)

1. Intervention fidelity measured using ESDM Fidelity Rating System at Study 1: pre-intervention and post-intervention; Study 2, pre-intervention, post-intervention, and 3-month follow-up
2. Parents' understanding of the intervention strategies taught in the program measured using Intervention Knowledge Questionnaire at Study 1: pre-intervention and post-intervention; Study 2, pre-intervention, post-intervention, and 3-month follow-up
3. Frequency of spontaneous functional communication, types of communication functions, and high-level joint engagement, measured using 15-min home-recorded parent-child interaction coded by blind raters at Study 1: pre-intervention and post-intervention; Study 2, pre-intervention, post-intervention, and 3-month follow-up

Key secondary outcome(s)

1. Parenting stress measured using the Chinese version of the Parenting Stress Index, Fourth Edition (PSI-4) at Study 1: pre-intervention and post-intervention; Study 2, pre-intervention, post-intervention, and 3-month follow-up
2. Parental self-efficacy assessed using the Chinese Parenting Sense of Competence Scale (C-PSOC) at Study 1: pre-intervention and post-intervention; Study 2, pre-intervention, post-intervention, and 3-month follow-up
3. Adaptive functioning measured using the Chinese Toddler Version of the Vineland Adaptive Behavior Scales, Third Edition (VABS-3) at Study 1: pre-intervention and post-intervention; Study 2, pre-intervention, post-intervention, and 3-month follow-up

Completion date

31/07/2023

Eligibility

Key inclusion criteria

Inclusion criteria for children were as follows:

1. Aged between 18 and 54 months
2. Considered highly likely to have autism by clinicians, followed by confirmation of meeting cutoff scores on the Autism Diagnostic Observation Schedule (ADOS; Lord et al., 2002) or the Autism Diagnostic Interview-Revised (ADI-R; Rutter, Le Couteur, & Lord, 2003). For children who did not meet the cutoff scores, as well as those referred by physicians who did not undergo ADOS or ADI-R assessments, our research team reviewed hospital assessment reports, parent interviews, and parent-child interaction videos to evaluate alignment with the diagnostic criteria of the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5; APA, 2013)

and reach a consensus on eligibility

3. Birth weight greater than 1600 grams and gestational age over 34 weeks

4. Absence of brain trauma, epilepsy, genetic disorders, or severe sensory or motor impairments

5. No planned participation in ESDM-based treatment during the study period

Healthy volunteers allowed

No

Age group

Child

Lower age limit

18 Months

Upper age limit

54 Months

Sex

All

Total final enrolment

215

Key exclusion criteria

1. Aged below 18 months or above 54 months

2. Not likely to have autism by clinicians, based on the diagnostic criteria of the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5; APA, 2013)

3. Birth weight lower than 1600 grams and gestational age under 34 weeks

4. Have brain trauma, epilepsy, genetic disorders, or severe sensory or motor impairments

5. Have planned participation or have participated in ESDM-based treatment during the study period

Date of first enrolment

01/08/2019

Date of final enrolment

31/01/2023

Locations

Countries of recruitment

Taiwan

Sponsor information

Organisation

National Science and Technology Council Taiwan

Funder(s)

Funder type

Funder Name

National Chengchi University

Alternative Name(s)

, Universitas Nationalis Chengchi, NCCU

Funding Body Type

Government organisation

Funding Body Subtype

Universities (academic only)

Location

Taiwan

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary

Not expected to be made available