ISRCTN99802323 https://doi.org/10.1186/ISRCTN99802323

Does a tailored instant messaging program for parents improve early child development? A randomized controlled trial among pre-k children in Uruguay during the school year

Submission date 23/07/2024	**Recruitment status** No longer recruiting	[_] Prospectively registered [_] Protocol
Registration date 25/07/2024	**Overall study status** Completed	[_] Statistical analysis plan [_] Results
Last Edited 23/07/2024	**Condition category** Other	[_] Individual participant data [_] Record updated in last year

Plain English summary of protocol

Background and study aims
Evidence suggests that small aids in the form of instant messaging can facilitate changes in parenting practices, which are crucial factors in enhancing child development and School Readiness.
General objective: To evaluate an instant messaging intervention program aimed at promoting parenting practices and child development in preschool children.

Who can participate?
The participants in this study are parent-child dyads in pre-K (around 4 years old).

What does the study involve?
The FODI (Fortalecimiento Oportuno del Desarrollo Infantil) Program lasts 21 weeks, during which families receive three weekly messages, through digital notifications. These messages contain information aimed at promoting positive parenting practices that can improve the cognitive development of their children.

Participants will be randomly assigned to one of three groups:
- Tailored treatment: personalized messages containing the names of the participants and adjusted according to developmental levels measured using INDI;
- General treatment: personalized messages containing the names of the participants but not necessarily adjusted to the developmental level; and
- Active control group: generic messages related to health and cultural curiosities, with no content aimed at stimulating development.

What are the potential benefits and risks of participating?
The tailored treatment of the FODI messaging program is expected to have a positive impact on parenting practices (compared to the general and active control conditions).
Likewise, the tailored treatment is expected to have a positive effect on cognitive development

or aspects of it.
There are no anticipated risks for participation in this study, but in case of discomfort, parents and children can withdraw from the study at any time.

Where is the study run from?
Espacio Interdisciplinario - Universidad de la República (Uruguay)

When does the study start and how long is it expected to last?
October 2021 to December 2024

Who is funding the study?
Universidad de la República and Fundación ReachingU (Uruguay)

Who is the main contact?
Dr. Alejandro Vásquez-Echeverría, alejandro.vasquez@pedeciba.edu.uy

Contact information

Type(s)
Public, Scientific, Principal investigator

Contact name
Prof Alejandro Vásquez-Echeverría

Contact details
José Enrique Rodó 1843 - Espacio Interdisciplinario - Universidad de la República.
Montevideo
Uruguay
11200
+598 24089010
alejandro.vasquez@pedeciba.edu.uy

Additional identifiers

Protocol serial number
RU_072024

Study information

Scientific Title
Do pre-k children benefit from a tailored instant messaging program designed to improve parenting practices and child development, as compared to a non-tailored and control condition? A randomized controlled trial during the school year

Study objectives
1. The treatment of the messaging program (FODI) (in the general and tailored conditions) will have a positive impact on parenting practices, compared to the active control group, and the effect will be greater in the tailored condition
2. The treatment (in the general and adjusted conditions) will have a positive effect on cognitive development or on any of its components, compared to the active control group, and the effect

will be greater in the tailored condition
3. Quartiles 1 and 4 of the tailored condition (but not quartiles 2 and 3) will show greater impact on development and parenting practices as compared to the general condition
4. Parenting practices will exhibit a mediating effect between treatment (tailored and general conditions) and development

Ethics approval required
Ethics approval required

Ethics approval(s)
Approved 25/05/2022, Faculty of Psychology Research Ethics Committee - UdelaR (Dr. Tristán Narvaja 1674, Montevideo, 11200, Uruguay; +598 24008555; comiteeticainv@psico.edu.uy), ref: 25052022

Primary study design
Interventional

Study design
Single centre experimental intervention with an active (strong) control group

Study type(s)
Prevention, Quality of life, Treatment, Efficacy

Health condition(s) or problem(s) studied
Child development/Parenting practices

Interventions
The Program duration is 21 weeks, during which families receive three messages per week, through instant messaging. The messages contain information intended to promote parenting practices that could enhance their children's cognitive development.
Stratified randomization was performed by baseline cognitive ability quartile at the individual level. A total of 1274 participants were assigned, with one-third allocated to each of the following conditions: general treatment, tailored treatment and active control.
1. Tailored treatment: personalized messages containing the names of the participants and adjusted according to developmental levels measured using the INDI scale;
2. General treatment: personalized messages containing the names of the participants but not necessarily adjusted to the developmental level; and
3. Active control group: generic messages related to health and cultural curiosities, with no content aimed at stimulating development

Intervention Type
Behavioural

Primary outcome(s)
Measured before and after the program implementation, unless noted otherwise:
1. Child development is assessed using the Spanish adaptations of the following tests:
1.1. School Readiness-Child Development Inventory (INDI; Vásquez-Echeverría et al., 2022)
1.2. Bracken School Readiness Assessment (BSRA-3, Bracken, 2007)
1.3. Theory of mind Task Battery: ToMTB (Hutchins & Prelock, 2014)
1.4. Wechsler Preschool and Primary Scale of Intelligence (WPPSI-4, Wechsler, 2014), specifically the Cancellation and Picture Naming subtests.

1.5. Preschool Self-Regulation Assessment (Smith-Donald et. al, 2007), specifically the Pencil tap subtest
2. Parenting Practices are evaluated using the Inventory of Characterization of the Home Environment for the Promotion of Child Development (not published yet).
3. Sociodemographic information is collected at baseline using an ad-hoc scale including parents' age, parent's educational level, number of members in the household, number of siblings the child has, diagnosed difficulties/disabilities if any, type of technical treatment if any, etc.

Key secondary outcome(s)
1. Motor development outcomes measured using the School Readiness-Child Development Inventory (INDI; Vásquez-Echeverría et al., 2022) before and after intervention
2. Social-emotional development outcomes measured using INDI before and after intervention
3. Attitudes toward learning outcomes measured using INDI before and after intervention

Completion date
31/12/2024

Eligibility

Key inclusion criteria
For parents:
1. Being the primary caregiver of a child in pre-K
2. Having a phone that supports WhatsApp

For children:
1. Being in pre-K (around 4 years old)
2. Attending one of the schools selected for the project

Participant type(s)
Healthy volunteer, Carer

Healthy volunteers allowed
No

Age group
Mixed

Sex
All

Total final enrolment
1280

Key exclusion criteria
1. Children with severe disabilities as reported by teachers and parents
2. Twin siblings (in these cases one sibling was randomly selected)

Date of first enrolment
01/03/2024

Date of final enrolment
26/06/2024

Locations

Countries of recruitment
Uruguay

Study participating centre
Interdisciplinary Center for Cognition for Education and Learning
José Enrique Rodó 1839 bis
Montevideo
Uruguay
11200

Study participating centre
Faculty of Psychology
Tristán Narvaja 1674
Montevideo
Uruguay
11200

Sponsor information

Organisation
Espacio Interdisciplinario - Universidad de la República

Funder(s)

Funder type
Charity

Funder Name
Fundación ReachingU

Results and Publications

Individual participant data (IPD) sharing plan

The datasets generated during and/or analysed the current study are not expected to be made available due to Uruguayan legislation of data protection concerning INDI.

IPD sharing plan summary

Not expected to be made available

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Participant information sheet	Participant information sheet	11/11/2025	11/11/2025	No	Yes
Study website	Study website	11/11/2025	11/11/2025	No	Yes