



# How parents' skills affect their time-use with children? Evidence from an RCT experiment in Italy

Lucia Schiavon<sup>2</sup>

with Daniela Del Boca<sup>1</sup>, Chiara Pronzato<sup>1,2</sup>

<sup>1</sup>Collegio Carlo Alberto

<sup>2</sup>Est University of Turin



Picture of Reggio Children Foundation



# Overview

- Research questions
- Literature
- The intervention
  - Content of the parenting courses
- Experimental design
- Data collection
- Empirical strategy
- Results
- Conclusions



## Research questions

*Which is the impact of parenting courses, mainly targeting fragile families, on raising parental awareness?*

*Do they improve the amount and quality of time parents and children spend together?*



## Literature (1/2)

Supporting the development of **parental skills and awareness** has been on the agenda of policy makers in Europe since the 1990s (European Union 2013).

Research evaluating **parenting programs** (especially to fragile families) show that they have raised:

- parental awareness
- parenting skills
- children's cognitive skills
- children's socio-emotional outcomes

(Doyle et al. 2017, Doyle 2020, Wagner and Clayton 1999, Daly et al. 2014)



## Literature (2/2)

**Parental time investments** in their children have a powerful influence on child cognitive and non-cognitive outcomes → the **most important input** in the child development process (Carneiro and Heckman 2003, Del Boca 2015).

**Active time** is more “productive” than passive time (Del Boca et al. 2014). Positive and persistent effect of the total time spent by mothers with their children, but an even greater effect of time spent playing with them (Hsin 2009).



# The intervention

## FA.C.E. – Becoming Educating Communities

### Aims?

- Increase **access to educational and care services** for children **aged 0-6**
- **Building educating communities** and reshape educational policy in the territories involved

### Where?

- Reggio Emilia
- Teramo
- Napoli
- Palermo

### How?

- Parenting courses based on participatory workshops involving children and one parent
- Target: fragile families

### When?

Two cycles in s.y. 2019-20 and in s.y. 2020-21





# Content of the parenting courses

- 9 meetings
- Separate workshops for children aged 0-3 and those aged 3-6

Creation of discovery contexts:

- digital workshop
- musical workshop
- storytelling and reading workshop
- infant massage
- craft activities
- sensory experiences

The relationship parent-child is reinforced, but the peer relationships, both parent-parent and child-child, is strengthened as well.

The meetings are moments of aggregation for families which do not have access to childcare and educational services for children aged 0-6 years.

While children play with their peers, parents can share their experiences, opinions and ideas on educational-pedagogical-social issues of common concern.



# Experimental design

Randomized controlled trial experiment based on a phase-in mechanism

→ implemented in school year 2019-20

- Courses had been held twice in the s.y. 2019-20, no overlapping cycles
- Enrollments closed in September 2019
- Families were randomly assigned to the treatment (1<sup>st</sup> cycle) or to the control group (2<sup>nd</sup> cycle)
- 1<sup>st</sup> cycle, last meeting: the treatment group filled in the assessment questionnaire
- 2<sup>nd</sup> cycle, first meeting: the control group filled in the assessment questionnaire

Timeline of the RCT





## The assessment questionnaire

Three sections:

- i) use of time of parents and children together (reading, storytelling, singing, etc.)
- ii) child's use of technology and parents' opinions about it
- iii) whether parents can rely on a private network of social support; questions on parents' attitudes and beliefs about their offspring's education

In addition, the families in the treatment group provide feedback on course satisfaction



## Data

534 children were enrolled in the FA.C.E. course in 2019-20

- 269 to the treatment group
- 265 to the control group

Table 1: Comparison between treated and controlled after randomization

<b>VARIABLES</b>	<b>CONTROLLED (Mean)</b>	<b>TREATED (Mean)</b>	<b>T-test (p-value)</b>
Female	0.498	0.435	0.144
No siblings	0.158	0.175	0.616
Siblings missing <sup>1</sup>	0.336	0.279	0.154
Cohabiting parents	0.925	0.937	0.577
Mother	0.864	0.896	0.259
Naples	0.249	0.275	0.495
Palermo	0.196	0.167	0.387
Reggio Emilia	0.260	0.260	0.997
Teramo	0.294	0.297	0.938

Note: <sup>1</sup> Dummy which takes value equal to 1 if the information about siblings was missing

# Data

Table 2: Attrition analysis (Logit estimation model)

VARIABLES	Marginal Effects	p-value	Significance Level
Female	0.039	0.404	
No siblings	-0.025	0.712	
Siblings missing <sup>1</sup>	0.005	0.920	
Cohabiting parents	-0.082	0.375	
Mother	-0.026	0.715	
Reggio Emilia	0.261	0.000	***
Naples	0.375	0.000	***
Palermo	-0.020	0.771	

Note: <sup>1</sup> Dummy which takes value equal to 1 if the information about siblings was missing. Teramo is omitted. Significance levels \*\*\* 0.01, \*\* 0.05, \* 0.1

# Data

Table 3: Comparison between treatment and control group at the end of the first cycle

	<b>CONTROLLED</b>	<b>TREATED</b>	<b>T-test</b>	<b>Significance</b>
<b>VARIABLES</b>	<b>Mean</b>	<b>mean</b>	<b>p-value</b>	<b>Level</b>
Female	0.462	0.402	0.342	
No siblings	0.154	0.197	0.375	
Siblings missing <sup>1</sup>	0.333	0.273	0.300	
Cohabiting parents	0.940	0.924	0.621	
Mother	0.846	0.894	0.263	
Reggio Emilia	0.231	0.182	0.341	
Naples	0.094	0.205	0.015	**
Palermo	0.265	0.235	0.585	
Teramo	0.410	0.379	0.614	
N	117	132		

Note: <sup>1</sup> Dummy which takes value equal to 1 if the information about siblings was missing.  
Significance levels \*\*\* 0.01, \*\* 0.05, \* 0.1

# Empirical strategy



potential outcome of  
those children  $i$  who  
did **not** attend  
FA.C.E.

$$E[Y_{1i} | D_i = 1] - E[Y_{0i} | D_i = 0] = E[Y_{1i} - Y_{0i} | D_i = 1]$$

potential outcome of  
those children  $i$  who  
attended FA.C.E.

average causal effect of FA.C.E.  
[the effect of treatment on the  
treated]



## Results (1/2)

VARIABLES	CONTROLLED		TREATED		T-test	Significance
	N	Mean	N	mean	p-value	Level
Importance of education activities for children (1 min – 10 max)	123	9.236	135	9.504	0.005	***
Importance of cultural sites to improve one's life (1 min – 10 max)	123	9.163	134	9.425	0.004	***
Activity in the last week: read to the child	120	0.792	123	0.870	0.028	**
Activity in the last month: going to the library, playroom	121	0.397	117	0.265	0.054	*
Children use of technological devices: listening of music	92	0.250	98	0.337	0.089	*
Children use of technological devices: using Whatsapp	93	0.0323	97	0	0.094	*

Note: N stands for the number of valid answers to the question per treatment/control group. In the estimates of the p-value of the T-test, we control for Naples. Significance levels \*\*\* 0.01, \*\* 0.05, \* 0.1

## Results (2/2)

VARIABLES	CONTROLLED		TREATED		T-test	Significance
	N	Mean	N	mean	p-value	Level
Television use: Never	121	0.099	133	0.150	0.105	
Cumulative television use: Never or less than 30 minutes a day	121	0.264	133	0.368	0.03	**
Cumulative other technological devices use: Never	122	0.336	133	0.406	0.148	
Unsatisfaction about the time spent with the child	116	0.0259	131	0.0611	0.257	
Light satisfaction about the time spent with the child, s/he would like more time together	116	0.155	131	0.260	0.028	**
Satisfaction about the time spent with the child, s/he would like more time for her/him-self	116	0.362	131	0.282	0.129	

Note: N stands for the number of valid answers to the question per treatment/control group. In the estimates of the p-value of the T-test, we control for Naples. Significance levels \*\*\* 0.01, \*\* 0.05, \* 0.1



## Conclusions

Attending the FA.C.E. parenting course:

- ↑ awareness of the importance of educational activities for children
- ↑ frequency with which parents read to their child
- ↑ the desire to spend more time with the child



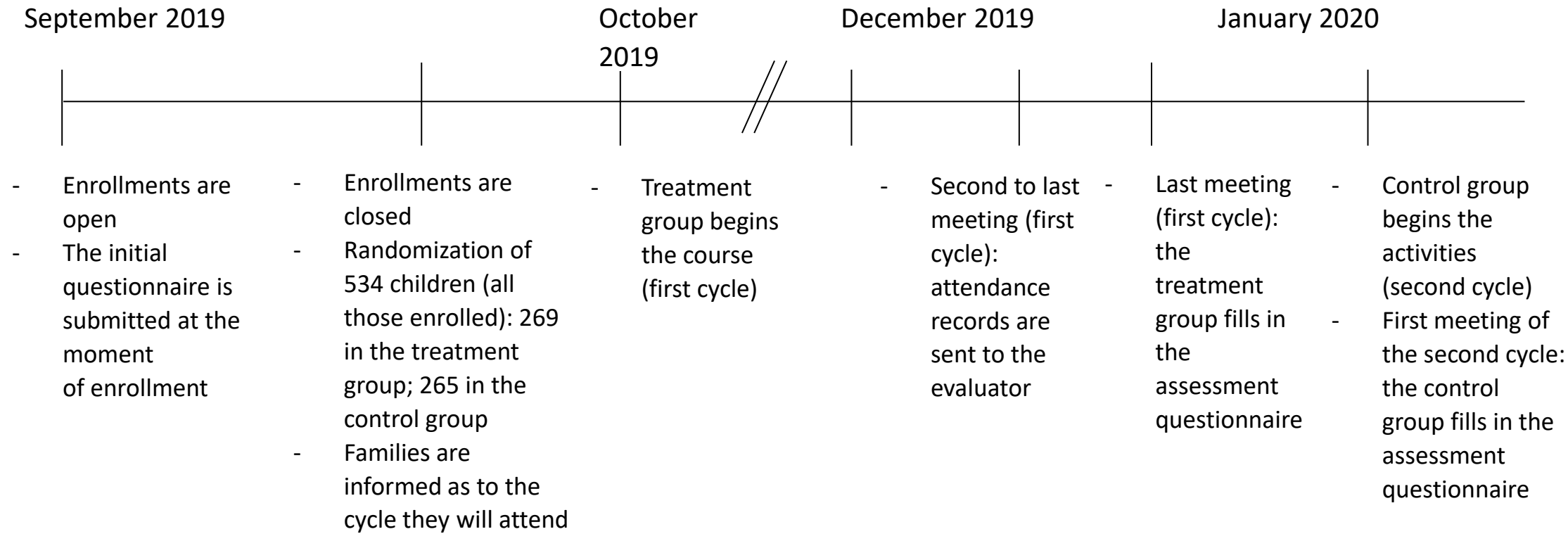


Thank you  
for your  
attention!

[lucia.schiavon@unito.it](mailto:lucia.schiavon@unito.it)



# The timeline of the randomized controlled trial



Back