STRENGTHENING PARENTING SKILLS THROUGH COMMUNITY-BASED INTERVENTIONS: EVIDENCE "A VILLAGE FOR GROWING UP" PROJECT

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Abstract. In this paper, we evaluate the impact of participation in *A Village for Growing Up* program. These *Villages* are physical spaces where families with preschool-aged children can engage in shared activities and receive parenting support. We evaluate the program's effects using a difference-in-differences approach combined with propensity score matching. The treatment group consists of families who visited the *Village* at least ten times, while the control group was constructed ad hoc with the support of a survey agency. Our findings show that parents involved in the program read and sing more frequently with their children, and report greater self-efficacy and awareness in their parenting practices.

1. Introduction

The project *A Village for Growing Up* aims to strengthen parenting skills and enhance the quality of educational services for young children in disadvantaged communities, with the ultimate goal of reducing educational poverty.

Until recently, child poverty has been understood primarily in economic terms, measured mainly by parental income and wealth. Following Bronfenbrenner's cognitive development theory (1979), however, the concept has been reframed as multidimensional. Educational poverty is now defined as *"the deprivation experienced by children and adolescents of the opportunity to learn, explore, develop, and freely flourish in their capacities, talents, and aspirations."* This perspective recognizes that, beyond material deprivation, disadvantaged children often lack educational, physical, and socio-emotional growth opportunities. A recent report by Save the Children (2022) highlights the extent of this phenomenon in Italy: 67.6% of children under 17 have never attended a theatre performance, 62.8% have never visited an archaeological site, and 49.9% have never been to a museum. Moreover, 22% do not engage in sports or physical activity, and only 13.5% of children under the age of three attend an early childhood education centre.

In this paper, we evaluate the impact of participation in *A Village for Growing Up* on parenting practices, with the aim of mitigating educational poverty among children. The *Villages* themselves are physical spaces where families with

preschool-aged children can participate in shared activities and receive parenting support.

The evaluation focuses on two key dimensions: (1) the frequency of supportive parenting practices and (2) parental conditions. Parenting practices were assessed through a set of activities considered particularly important for stimulating child development and strengthening the parent–child relationship during the early years of life. Parental conditions are measured in terms of self-efficacy and perceived stress, using validated instruments. Self-efficacy is understood as an individual's belief in their ability to manage specific tasks, situations, or aspects of their psychological and social functioning. Findings indicate that participating parents are more frequently involved in joint activities with their children—such as reading and singing—and report higher levels of self-efficacy and awareness in their parenting.

2. Literature review

The theoretical framework *A Village for Growing Up* is grounded in Bronfenbrenner's cognitive development theory (1979), which emphasizes the educational value of family-based services for children—conceptualized as a *Village* surrounding families. This "ecological environment" approach envisions an educational community in which multiple actors contribute to supporting families with young children.

It is well established that parents play a critical role in the development of their children's human capital (Del Boca, 2015; Cunha & Heckman, 2007), and that early childhood educational experiences have long-term impacts on both cognitive and non-cognitive outcomes in education, the labour market, and health. According to Heckman (2008), investing in a child's education also brings significant economic benefits to society, including savings in welfare expenditures. Educational investments in children's human capital and well-being have very important impacts on children from disadvantaged families, where parental inputs are typically more limited due to fewer economic and cultural resources (Brilli *et al*., 2016; Del Boca *et al.*, 2022; Carneiro, 2019). Recent parenting policy experiments have shown positive effects on parenting behaviours and child development (Kiernan & Mensah, 2011). Two recent studies have examined the effects of an Italian program—somewhat analogous to *A Village for Growing Up* —designed for parents and their children. The FACE program (*Becoming an educational community*) ran from April 2018 to July 2021, involving twenty national and local partners across four Italian provinces: Naples, Palermo, Reggio Emilia, and Teramo. Families participated in a range of activities including the exploration of digital, mathematical, and expressive languages (such as reading and singing), infant massage, environmental languages

(natural and scientific dimensions), and the languages of the body and food. Led by expert educators, these activities aimed to stimulate and improve parents' manual, expressive, sensory, communicative, and relational competencies. To estimate the program's impact, Del Boca, Pronzato, and Schiavon (2021, 2024) compared "treated" families (those enrolled early in the program) with control families (those enrolled at a later stage). The evaluation reveals positive effects on perceived importance of living in an area rich in opportunities, maintaining quality relationships with family and friends, feeling confident about sharing experiences with other parents, and recognizing the usefulness of digital tools (such as tablets and phones, using appropriate educational apps) for learning. The program also helps parents to achieve greater confidence in interacting and engaging with other parents and adults.

3. The program and its evaluation design

A Village for Growing Up focuses on organizing activities that can be easily replicated within the home environment and thereby enhance the quality of parenting practices. Families are reached and engaged through various strategies, including home visits, social media, and access to existing service networks. The *Villages* operate between three and five days per week, for a total of 10–12 hours. Trained educators lead the activities and regularly exchange experiences to adapt and improve programming. Local stakeholders are also mobilized to disseminate information and contribute to ongoing activities, fostering the creation of new networks between families and services that promote shared values, social inclusion, and sustainability to counteract educational poverty.

The first edition of A *Village for Growing Up* was established in 2018 in disadvantaged communities across nine Italian cities, co-funded by the social enterprise *Con i Bambini* and *The Human Safety Net (Gruppo Generali)*, within the framework of the Italian Fund for Combating Child Educational Poverty. In 2021, with additional funding from the same Fund, the project was expanded. Today, many *Villages* are active throughout Italy: Assisi, Bagaladi, Caprarica di Lecce, Castellammare, Cefalù, Castelbuono, Gualdo Tadino, Lecce, Macerata, Milan, Palermo, Palmanova, Rome, San Benedetto del Tronto, and Trieste.

The aim of the impact evaluation is to determine whether, and to what extent, participation in the project leads to improvements in beneficiaries' conditions, specifically in parenting practices, parental self-efficacy, and perceived stress. It is first necessary to clarify what is meant by "treatment." In this case, in agreement with the Center for Child Health, the evaluation focuses on *Village* attendance. The underlying hypothesis is that any potential benefits derived from participation will

emerge after a certain period, during which the experiences and learnings from the *Villages* can progressively influence parenting practices and perceptions. The treatment is defined as having attended a *Village* at least 10 times. The evaluation adopts a difference-in-differences strategy (see Angrist & Pischke, 2008): it assumes that, in the absence of the treatment, the pre–post change in outcomes would have been similar for both groups.

The treatment group consisted of parents of children under the age of six who decide to attend a *Village*. The control group was constructed with the support of a survey research institute, tasked with identifying a group of parents who had not attended the *Villages* but were otherwise similar to the treated group. The sample was designed to match the treated group on key characteristics such as gender and age of the child, geographic location, parental employment and education levels.

Parents in the treatment group were interviewed by the third visit to the *Village* (pre) and after the tenth visit (post). The time between the two questionnaires varies considerably from case to case, depending on how fast each family reached their tenth *Village* visit. The range spans from less than one month to over eight months. 25% of families completed the tenth visit within a month and a half, half within three months, and three-quarters within five months. The survey agency interviewed the control families at a time interval that reflects the distribution observed in the treatment group.

In the difference-in-differences estimation framework, it is assumed that—absent participation in the *Villages*—any initial differences between the two groups would have remained constant over time. This assumption becomes more defensible the more similar the two groups are. For this reason, the estimates were strengthened by a preliminary step aimed at increasing group similarity through matching techniques (see Rosenbaum & Rubin, 1983): each treated family was matched with one or more control families with similar characteristics. The initial questionnaire gathered a broad set of information: age and sex of the responding parent; place of residence; child's age and school attendance (nursery or preschool); family composition; parents' employment and education; availability of third-party childcare support; and the presence of additional caregiving responsibilities not related to children. We use kernel matching, which assigns to each treated unit a weighted average of control units, with weights increasing with the similarity to the treated subject.

4. The outcomes of interest

With regard to the outcomes of interest, the evaluation focuses on two main dimensions: the frequency of certain parenting practices, and specific parental

conditions. All outcomes were measured through a questionnaire completed by one parent.

4.1. Parenting practises

As for parenting practices, the focus was on a set of activities considered particularly important for stimulating children and fostering the parent–child relationship, especially in the early years of life. The adoption of these practices was assessed through a series of questions about how often they are performed, such as: "*Which of the following activities do you do with your child*?" The listed activities included: playing together, naming and explaining things that are seen or done with children, reading stories together, singing, and listening to music. Each item allowed for three response options: *never or almost never*, *occasionally*, and *every day or almost every day*. An additional question, potentially correlated with reading habits, concerned the number of children's books available in the home for shared reading with the child.

4.2. Parents' self-efficacy

Concerning parental conditions, the evaluation focused on self-efficacy and perceived stress, both assessed using validated instruments. Self-efficacy is understood as the individual's belief in their capability to manage specific tasks, situations, or aspects of their psychological or social functioning, is measured using the Perceived Maternal Parenting Self-Efficacy (PMP-SE) scale (see Barnes & Adamson-Macedo, 2007). The PMP-SE, developed primarily for mothers of premature infants, comprises 20 items asking mothers to self-evaluate their abilities across various domains—such as feeding the child, interpreting signals, soothing, or engaging the child. The test allows for the construction of four subscale scores corresponding to distinct domains: care taking (e.g., feeding, changing, bathing the child); evoking behavior (e.g., calming the child, making them happy, drawing their attention); reading behavior (e.g., recognizing signs of tiredness, discomfort, preferences); situational beliefs (e.g., quality of interaction, affection expression).

4.3. Parents' perceived stress

Parental stress was assessed through the Parenting Stress Index (PSI; see Abidin, 1997), which evaluates the level of stress in the parent–child relationship. While the original version includes 120 items, for the purposes of this study, a specific subset of 12 items from the short form was used, focusing exclusively on the domain of parental distress, which captures the level of stress perceived by parents due to personal factors directly related to their parenting role.

5. The empirical analysis

5.1. Descriptive statistics

The sample includes 208 treated and 173 control participants. It is important to note that respondents in the treated group were almost exclusively mothers (95%), compared to 86% in the control group. To ensure sample consistency, analyses were restricted to the female subpopulation, which comprises 198 treated and 149 control mothers.

Table 1 – *Mother's characteristics.*

	Treated	Controls	Diff.
Age:			
<=30	0.126	0.188	-0.062
31-35	0.394	0.228	0.166**
36-40	0.283	0.376	-0.093*
>= 41	0.197	0.208	-0.011
Area:			
North	0.576	0.658	-0.082
Centre	0.263	0.289	-0.026
South, islands	0.162	0.054	0.108**
Nationality:			
Italian	0.838	0.960	-0.121**
Education:			
Compulsory	0.086	0.074	0.012
Secondary	0.369	0.376	-0.007
Tertiary	0.545	0.550	-0.005
Employed	0.606	0.678	-0.072
Observations	198	149	

*** significant at 5% level, * at 10%*

Tables 1 and 2 summarize the characteristics of the treated and control groups, referring respectively to mothers and households. Mothers in the treatment group tend to be somewhat younger than those in the control group. While nearly four in ten treated mothers are between 31 and 35 years old (39%), this is the case for less than a quarter of mothers in the control group (23%). By contrast, the largest share of control-group mothers falls in the 36–40 age bracket (38%), compared to 28% among treated mothers. Differences also emerge in terms of geographical location: treated mothers are more likely to reside in the South and Islands (16% versus 5% in the control group). Moreover, foreign families are more represented among participants, accounting for 16% of the treatment group compared to only 4% of the control group. No major differences, however, are observed in mothers' educational

attainment. In both groups, more than half hold a university degree and over one-third a secondary school diploma (Table 1).

Table 2 – *Household's characteristics.*

	Treated	Controls	Diff.
Children			
1	0.788	0.685	0.103**
2	0.197	0.262	0.065
3+	0.015	0.054	-0.039
Workers:			
0	0.040	0.027	0.014
1	0.359	0.349	0.010
2+	0.601	0.624	-0.023
Child's age:			
<= 6 months	0.207	0.248	-0.041
7-12 months	0.293	0.255	0.038
13-24 months	0.313	0.255	0.058
>= 25 months	0.187	0.242	-0.055
Childcare:			
Early childcare	0.197	0.195	0.002
Pre-school	0.106	0.148	-0.042
Support	0.515	0.617	-0.102*
Other caring	0.015	0.034	-0.018
Make ends meet			
Lots of diff.	0.045	0.154	-0.109**
Some diff.	0.273	0.497	-0.224**
Quite easily	0.455	0.282	0.173**
Very easily	0.227	0.067	0.160**
Observations	198	149	

*** significant at 5% level, * at 10%*

Mothers attending the *Villages* are more likely to have only one child (79% compared to 69% in the control group) and are less likely to receive help from relatives or friends in childcare (52% versus 62% in the control group). The most striking difference, however, concerns economic resources. Families in the control group report far greater financial strain: 65% of them declare having "many" or "some" economic difficulties, compared with only 32% of families in the treatment group. Other characteristics, by contrast, appear well balanced across the two groups: about half of the children are in their first year of life, around 20% attend nursery care, and an average of 12% are enrolled in preschool (Table 2).

Table 3 – *Starting levels.*

	Treated	Diff. treated-controls
Self-efficacy:		
Care taking	0.835	-0.031**
Evoking	0.796	-0.001
Reading	0.811	-0.025**
Situational	0.862	-0.016
Stress	0.459	-0.018
Playing:		
Never	0.015	-0.005
Occasionally	0.035	-0.032
Every day	0.949	0.037
Explain:		
Never	0.030	-0.023
Occasionally	0.056	-0.065**
Every day	0.914	0.089**
Reading:		
Never	0.066	-0.142**
Occasionally	0.313	0.072
Every day	0.621	0.071
Singing:		
Never	0.040	-0.134**
Occasionally	0.131	-0.359**
Every day	0.828	0.493**
Music:		
Never	0.020	-0.101**
Occasionally	0.182	-0.254**
Every day	0.798	0.355**
Books:		
0	0.015	-0.106**
1	0.106	-0.075*
2-5	0.172	-0.043
6+	0.707	0.224**

*** significant at 5% level, * at 10%*

An additional description of baseline conditions is presented in Table 3, which summarizes the initial mean levels of the outcomes, as captured by the first questionnaire. For consistency, self-efficacy and stress variables are scaled to a 0–1 range. Two key baseline differences emerge. First, mothers in the treatment group report lower levels of self-efficacy, particularly in the dimensions of *care taking* and *reading*. At the same time, however, they are more frequently engaged in child-stimulating activities: they are more likely to explain concepts, read to their children, listen to music together, and sing to or with them.

Table 4 – *Impact of the program.*

	Starting level	Estimated effect
Self-efficacy:		
Care taking	0.835	0.072**
Evoking	0.796	0.064*
Reading	0.811	0.065*
Situational	0.862	0.062*
Stress	0.459	0.013
Playing:		
Never	0.015	-0.011
Occasionally	0.035	0.005
Every day	0.949	0.006
Explain:		
Never	0.030	-0.019
Occasionally	0.056	0.046
Every day	0.914	-0.027
Reading:		
Never	0.066	-0.018
Occasionally	0.313	-0.109**
Every day	0.621	0.127**
Singing:		
Never	0.040	-0.084**
Occasionally	0.131	0.122**
Every day	0.828	-0.038
Music:		
Never	0.020	-0.025
Occasionally	0.182	-0.045
Every day	0.798	0.071
Books:		
0	0.015	0.000
1	0.106	-0.004
2-5	0.172	-0.043
6+	0.707	0.047

*** significant at 5% level, * at 10%*

5.2. The impact of the program

Table 4 presents the impact estimates. When applying a difference-in-differences approach, we compare how much the treatment group improves (or worsens) between the pre- and post-intervention periods relative to the control group. For instance, the *care taking* dimension of self-efficacy is 0.835 in the treatment group before the intervention (a slightly lower baseline value than in the control group, see Table 3), but increases by an additional 0.072—relative to the control group—between the pre- and post-treatment observations. We also observe improvements in the other three dimensions of self-efficacy, each amounting to somewhat less than

10% in relative terms: the ability to evoke (e.g., calm the child) increases from 0.796 to 0.860; the ability to read (e.g., recognize signs of tiredness) from 0.811 to 0.876; and the ability to understand the situation (e.g., affection expression) from 0.862 to 0.924. No significant change is observed in parenting stress. Regarding interactive and stimulating parenting practices, improvements are found in singing with the child and in reading with the child: the probability of reading on a daily basis increases from 0.621 to 0.748, while the probability of singing occasionally increases from 0.131 to 0.253.

5.3. Heterogeneous effects

The study also explores potential heterogeneity within the target population.[1] We consider various forms of heterogeneity by analysing subgroup effects based on the mother's educational level, employment status, the age of the youngest child, and the time elapsed between the baseline and end line surveys. The distinction between employed and non-employed mothers does not reveal substantial differences in benefits; in contrast, the increase in parental self-confidence is especially pronounced among more educated mothers. With respect to the child's age, we find that the program's benefits are greater for parents of children older than one year. A final distinction concerns the time elapsed between the completion of the initial and of the final questionnaire. We divide respondents into those who completed them within three months and those who took more than three months. This distinction reflects a different "intensity" of treatment—not dictated by the project design, but by how mothers engaged with the project. As such, one would expect the estimated effects to be stronger for the first group, as indeed confirmed by the analysis. In conclusion, the most pronounced results are observed when attendance at the *Villages* is more intensive.

6. Conclusions

The results obtained offer several important insights. Overall, we find positive effects on parenting practices and on parents' sense of self-efficacy, but no impact on stress levels.

Before turning to these outcomes, however, it is worth reflecting on the families who attend the *Villages*. More than half of the participating parents hold a university degree. By comparison, among Italian women of childbearing age, the share of graduates is about 35% (IT-SILC, 2023). This indicates that the project does not fully reach its intended target, which should include not only middle-income households

[1] Results availbale upon request.

but also families facing greater economic and cultural vulnerability. The literature consistently shows that these families are those who would benefit the most from such initiatives. We also observe that the families attending the *Villages* are generally already more engaged in stimulating activities with their children (e.g., singing, listening to music). At the same time, they report feeling less effective in many dimensions of parenting, which may help explain their motivation to join the program.

Another interesting aspect concerns the age of the children: half are under one year old, while the other half are between ages 1 and 5. One possible explanation is that mothers, supported by maternity or parental leave, have more time to dedicate to their infants during the first year of life. The results, however, suggest that the program generates greater benefits for families with relatively older children. This may indicate the value of scheduling activities closer to dinnertime to better accommodate families with children in this age group.

Finally, the lack of measurable impact on stress deserves consideration. While one of the program's aims is to reduce parental stress, in the short term this potential benefit may be offset by the additional commitment required to attend *Village* activities. Longer-term evaluation would be needed to better understand these dynamics.

Acknowledgements

We are grateful to the social enterprise *Con i Bambini* and to *The Human Safety Net* (*Gruppo Generali*) for funding this research. We are also thankful to Anduena Alushaj and Giorgio Tamberlini (*CSB onlus – Centro per la Salute delle Bambine e dei Bambini*) for their valuable input, and for their support throughout the research.

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