

Impact Of A Home-Visitation Program On Maternal Wellbeing:

The Moderating Role of Child Emotionality



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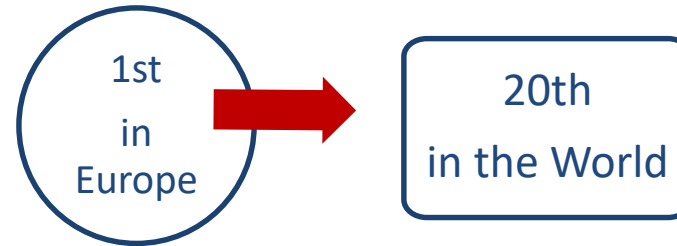
İSTANBUL95



Introduction

Early childhood development interventions are of particular importance in Turkey

Population of Children Aged 0 to 4 years	
TURKEY	6.775.000



UNICEF, 2017 World Report

- **Nearly half of children under 6 years** of age experience chronic poverty in Turkey (Dayıoğlu & Demir Şeker, 2016).
- The national health system facilitate families' access to health care services during pregnancy → **a major gap in the psychosocial services** targeting economically disadvantaged families .



Home Visitation Based Parenting Program : **BABY95**

Early Childhood Unit "Baby95" is under the umbrella of Boğaziçi University Psychology Research and Application Center (BÜPAM). Inspired its name by the 95 cm, which is accepted as the average height of a 3-year-old healthy child by the World Health Organization. Baby95 Unit carries out studies that support the basic development processes of infants and toddlers from prenatal period throughout the first three years.

Çorapçı, F., Müderrisoğlu, S., Sart, H., & Yeniad, N. (2022). *İSTANBUL95: An Early Childhood Initiative to Improve Child Development*. In *Childhood in Turkey: Educational, Sociological, and Psychological Perspectives* (pp. 273-291). Cham: Springer International Publishing.

Çorapçı, F., Börkan, B., Buğan-Kısır, B., Yeniad, N., Sart, H., & Müderrisoğlu, S. (Under review). *Preliminary Findings of a Home Visiting Program on Stimulating Parenting and Child Vocabulary in a Sample of Economically-Disadvantaged Families*.



Home Visitation Program



1. To increase nurturing and cognitively stimulating caregiver-child interactions: **ReachUp Early Childhood Parenting Program** (Grantham-McGregor & Smith, 2016; Walker et al., 2011)
2. To support maternal well-being: **WHO-endorsed Thinking Healthy Program** (WHO, 2015).



Home Visitation Program

- **Biweekly visits** by the **home visitor**, who demonstrates the mother how to talk and play with their child, and coaches her to do these cognitively stimulating activities during the visit



Home Visitation Program

- Structured curriculum of age-appropriate **play activities and homemade toys** from recycled materials to particularly reinforce language development through mother-child play.



Home Visits

- A total of 37 HVs per family were delivered by female municipality staff
- HVs → 10 days training from Baby95 Academic Team
- Supervisors → 3 days training



Recruitment

- Families were recruited from **four districts of Istanbul** in which the municipalities agreed to deliver the HV program.

- Mothers eligible for enrollment in the HV program were those

- who were either pregnant or gave birth in the past three months,
- live in a low-income neighborhood,
- had at most high school degree.



Procedure

- Quasi-experimental design
- 2 groups
 - **Intervention group** (Biweekly HVs from prenatal to 18 mo)
 - **Control group** (i.e., comparison community mothers only received the usual services from their municipality such as vouchers for discounted food or clothing)
- Data collection
 - Baseline prior to the HV program **(T1)**,
 - halfway through the HV program when children were 9 mo **(T2)**,
 - at the completion when children were 18 mo **(T3)**.



Sample characteristics

- N = 526 mothers and infants (Baseline)
 - Intervention group (n = 282, 77% pregnant)
 - Control group (n = 244, 69% pregnant).
- **The attrition rates** from the baseline were
 - Intervention group 13.8% (T2)
 - Control group 4.9% (T2)

 - Intervention group 18.5% (T3)
 - Control group 7.79% (T3)



Literature Review

- Economically disadvantaged caregivers are more likely to experience **emotional distress** (Bradley & Putnick, 2012; Golinkoff et al., 2019).
- **Postpartum depression** is a major risk factor of poor parenting, is also highly prevalent, affecting about 24% of new mothers in Turkey, **particularly those in lower SES families** (Özcan et al., 2017).



Literature review

- Meta analytic findings: although early parenting interventions promote parent-child relationship, **they do not reduce maternal depression** (Jeong et al., 2021).
- Parenting interventions are **most effective for emotionally reactive** children and their parents (Velderman et al., 2006)



Hypotheses

- H1: There is no significant difference between the intervention (HV) and control mothers in terms of their depression levels.
- H2: Child emotionality moderates the impact of the HV program on maternal depression. It is expected that the intervention mothers of temperamentally more reactive children will report significant decreases in their depression levels whereas those of less reactive children will report no change.
- Intervention*ChildEmotionality → Maternal Depression (T3)
controlling for depression (T1)



Instruments

- **Maternal Depression**

- 10-item Center for Epidemiologic Studies Depression Scale (Andresen et al., 1994)
- M reported the frequency of their depressive symptoms over the last week on a 4-point scale (*never to 5-7 days*).

- **Child Emotionality**

- Emotionality-Activity-Sociability (EAS) Temperament Scale (Buss & Plomin, 1984)
- M reported the frequency of their children's behaviors on a 4-point scale
- Emotionality Subscale : «*tendency to become upset easily and intensely*»



Emotionality

Cries easily

Tends to be somewhat emotional

Often fusses and cries

Gets upset easily

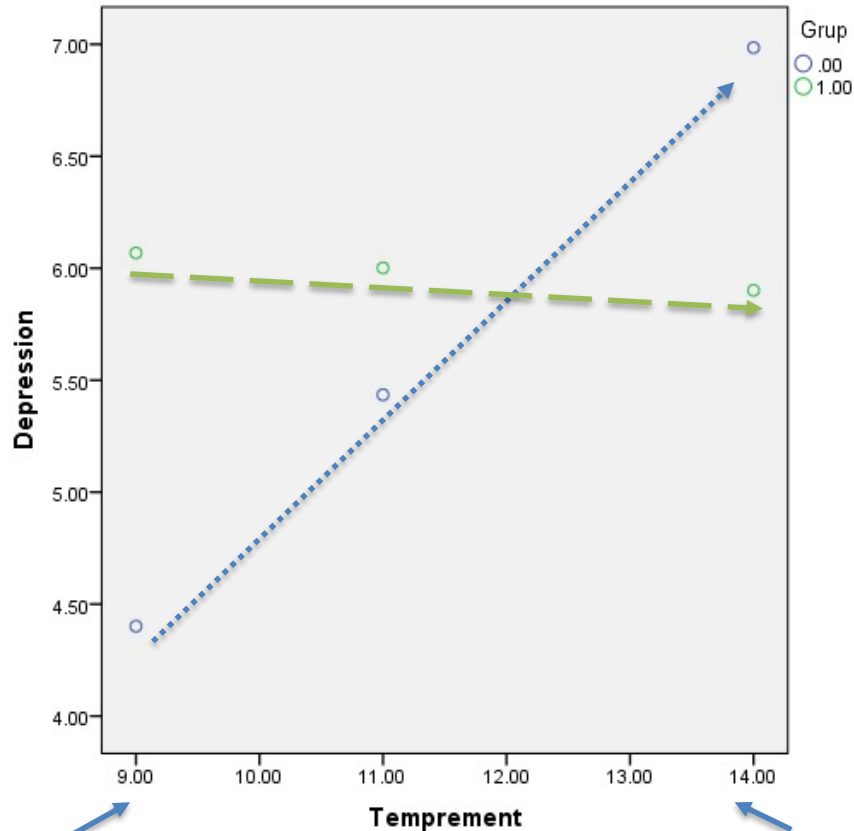
Reacts intensely when upset

Analysis results

- Moderation Model
 - $R^2 = .049$, $F(4, 448) = 5.82$, $p < .001$.
- Intervention*Child Emotionality Interaction:
 - $\Delta R^2 = .015$, $\Delta F(1, 448) = 7.11$, $p < .001$,
 - $b = .55$, $SE = .20$, $95\% CI (-.95, -.14)$ $p < .01$



Depression levels of the intervention mothers did not change depending on their children's emotionality whereas the control mothers' depression levels rose as their children's emotionality level increased.



0 = Control group
1 = Intervention group

Emotionally
less reactive
children

Emotionally
more reactive
children

Conclusion

- The home visitation intervention program may modulate the impact of difficult child temperament on maternal wellbeing.
- It may have a protective role for mothers who have temperamentally reactive children.



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Intervention Effects on Maternal Depression depending on Child Emotionality

At low moderation, Effect =1.66, 95% CI (.27, 3.05), $p < .05$

At middle moderation, Effect =.56, 95% CI (-.47, 1.61), $p = .28$

At high moderation, Effect = -1.08, 95% CI (-2.59, .42), $p = .15$



Comparison of HV and Control Mothers at Baseline

- No statistically significant differences in
 - maternal age,
 - maternal depression,
 - whether the child was first-born,
 - total risk index,
 - home chaos level
 - maternal attitudes about cognitive stimulation.

Descriptive Statistics

- Maternal Depression (T3)
 - Control M = 5.59 (SD = 5.55, n = 224)
 - Intervention M = 5.94 (SD = 5.89, n = 229)
- Maternal Depression (T1)
 - Control M = 10.81 (SD = 6.72, n = 244)
 - Intervention M = 10.00 (SD = 6.61, n = 282)
- Child Emotionality (T3)
 - Control M = 11.21 (SD = 2.60, n = 225)
 - Intervention M = 11.34 (SD = 2.52, n = 230)

temp_emo	Effect	se	t	p	LLCI	ULCI
9.0000	1.6674	.7080	2.3551	.0189	.2760	3.0588
11.0000	.5668	.5311	1.0673	.2864	-.4769	1.6104
14.0000	-1.0841	.7691	-1.4096	.1593	-2.5956	.4273