Designing, Implementing, and Evaluating Parenting Programmes at Scale

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SES Gaps in Cognition and Language start very early in life and increase with age

Sample of poor and middle-income children in Bogota, Rubio-Codina et al. 2015. J Human Resour
Early Childhood Development – Why?

• Millions of children fail to achieve their full developmental potential because of poverty and associated risk factors – lack of equality of opportunities.
  (Lancet ECD Series 2007; 2011)

• What happens in the early years has long lasting effects on the physical, emotional and wellbeing of individuals

• Early years interventions show promise and have the potential to yield higher returns than interventions later on in life because:
  – Complementarity of investments over the life cycle
  – Early deficits are very difficult and costly to reverse
Parenting Programs - Home Visiting

- Reach most disadvantaged
- Less expensive than centre-based
- Can link with everyday activities
- Tailor activities to individual

Make good relationship with mother and achieve behavioural change

If change mother → sustainable

Grantham-McGregor (personal comm)
Jamaica Study: 129 stunted children
Short- and long-term benefits on IQ


Higher educational outcomes, less depression and violent behavior
(Walker et al. Pediat 2011), **25% higher wages** (Gertler et al., Science 2014)
Scaling-up parenting programmes

• How to **design** scalable interventions that are **cost-effective**?
  – Adjust content to context and to profile of providers
  – Areas to focus – i.e. specific domains at specific ages?
  – Mode of delivery:
    individual home visits, group sessions, use of media
  – When to intervene and how long for

• How to **deliver** them ensuring **quality & sustainability of effects**?
  – Identify feasible yet effective implementation strategies:
    training, mentoring, and monitoring
  – Integration with existing services, combine with other interventions (nutrition, sanitation)?
Scaling-up parenting programmes

- The importance of a **rigorous evaluation**
  - to assess *impacts (short- and longer-term)*
  - but also, to understand:

  - **mechanisms**: household constraints? behavioural changes?
  - **spillovers** in the family and the broader community/network?
  - **heterogeneity**: child initial abilities, parental knowledge, abilities, practices, beliefs, aspirations?
  - heterogeneity in delivery: *treatment intensity and quality*

- This requires **collecting rich data** on final outcomes (child development), intermediate outcomes (“parental investments”), the home environment, and on processes.
Core of today’s talk

• Share on-going research agenda a group of us is involved in, set out to answer at least some of these questions.

• Studies of **parenting interventions** to promote early childhood development (cognition and language) for children <3 years in:
  - Colombia: cost-effectiveness of scalable interventions
  - India: home visits vs. groups, spillovers
  - Peru: social programme, nation-wide coverage

**Common features to all studies:**
- based on Jamaican curriculum
- evaluated using **Cluster Randomised Control Trial** design
- using high quality data on outcomes, inputs, and processes

• Lessons & Challenges
Acknowledgments – Collaborators

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• **Colombia I**: O Attanasio (UCL, IFS), C Fernández (Mathematica), E Fitzsimons (IoE), C Meghir (Yale), S Grantham-McGregor

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- **Cuna Mas, Peru:**
  Gvt of Peru (M Social Development and Inclusion, M of Finance), IDB
Underlying principles of Jamaican curriculum

1. **Support mother** to promote her child’s development

2. Low-cost: use **home-made toys** & exchange toys at visits

3. Low-cost: use **paraprofessionals**
   - Structured curriculum, specific aims & instructions for each visit
   - Adequate training and on-going supervision (mentoring)
   - Build team spirit

4. **Culturally appropriate**: local songs & games, adapted picture books and form boards, daily activities & routines

5. **Demonstration** of play activities and encourage mothers to practice during the week

6. **Target child’s abilities**
**Materials**

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**Canción:**
Canta al niño una canción que usted elija.

**Muñeca de carro con accesorios a juego:**

**Descripción:**
Un niño en una imagen con una muñeca de carro.

**Instrucciones:**
- Dile al niño: "Juega con tu muñeca y observa cómo va la historia. Imagina que la muñeca es tu carro y que los accesorios son tus juguetes. Cuando llegue al juego, cuenta cómo estás usando tus juguetes."

**Usa "la carreta corta":**

**Descripción:**
Un niño en una imagen con una carreta corta.

**Instrucciones:**
- Mírale el carro con el niño y describe todos los accesorios de la carreta. "El niño va en el carro, la mamá lo guía y ayudamos a llegar al destino."
- Empezamos a poner los accesorios al niño que nos ayudan a llegar al destino. "El niño está en el carro, la mamá lo guía y ayudamos a llegar al destino."
Colombia
Medium-size pilot – local women as visitors
IFS, Attanasio et al., BMJ 2014

Design, Sample & Delivery
1. Psycho-social stimulation via home visits
2. Micronutrient supplementation
   • n = 1,429 children 12-24 months at enrolment
   • 96 semi-urban towns in 3 regions
   • 18 months interv, 144 local women, 6 mentors, 8-10 week contacts

IMPACTS of Stimulation
- 0.26 SD cognitive development (Bayley-III)
- 0.22 SD receptive language (Bayley-III)
- 0.28 SD play materials; 0.27 SD play activities

No effect micronutrient supplementation; no interaction effect

Sustainability of impacts? 2-yrs after intervention, analysis in progress

$515 USD child/year
Integrate with existing parenting services (FAMI)
U Los Andes, FE & IFS, in progress

Design
• Stimulation in groups (bi-weekly) and home visits (monthly), with nutrition content and food basket (3 contacts a week)
• Active control group: ‘FAMI’ as usual

Sample
• n ~ 1,466 children 0-12 mths at enrolment, n ~ 550 pregnant women
• 87 semi-urban towns in 3 departments, ~15-18 months of intervention

Delivery & Implementation:
171 FAMI mothers (hired by Gvt), 9 mentors, 4-6 week contact
field coordinator permanently in the field

➢ Rich process data: video recordings of group sessions, in-depth interviews with facilitators and beneficiaries, etc.
Odisha, India
Cuttack, Slums
Rural Areas in Cuttack, Balasore, Bolangir
Partnering with large NGO, Pratham
IFS, Pratham, CECED, icddr,b, JPal, in progress

Design, Sample & Delivery
1. Psycho-social stimulation via home visits, weekly, for 18 mths
   - n = 420 children 10-20 months
   - 54 urban slums, Cuttack
   - delivered by 27 local Pratham women, 3 mentors
   - weekly contacts

- Investigate effectiveness of adapted intervention in a very different environment & culture, also much poorer
- Adaptation to and administration of sophisticated tests in Oriya
- Data analysis on-going
Groups and spillovers in rural areas
IFS, Yale U, Pratham, CECED, JPal, U Penn, in progress

1. Stimulation via home visits (IS)
2. Stimulation via group sessions (GS)
3. Nutrition education (NE)

Going to Scale
n ~ 2,500 children 7-19 months + above/below
245 rural communities in 3 districts
24 months (2015-17), local women (recruited by Pratham), mentors and supermentors

- Mode of delivery + Spillover at the community level + Interaction with nutrition education
- Baseline collected and interventions phased-in
Peru
Cuna Más programme: nationwide coverage

Government of Peru & IDB, in progress

Stimulation home visits (+ some nutrition & WASH content), reaching 65,000 children 1-36 months across the country, and expanding

Evaluation Sample

• n ~ 5,800 children 1-24 at enrolment
• 360 rural communities in 12 departments
• home visitors are local men & women identified by community

• Rich data on child outcomes, parental characteristics, the home environment, and.....

....n =550 videos of home visits (coded using a standardised tool, HOVRS) – explore role of interactions and elements of quality at scale

➢ Data analysis & scoring of videos in progress
Lessons & Challenges
Design Challenges: Fidelity & Appropriateness

1. Adjust intervention to delivery at scale
   local resources, piggy-bag on existing services ("local champion")
   integration with other services may be challenging,
   minimum low-cost materials & rotate them, distribution

2. Adjust intervention to home visitor abilities
   organise curriculum by week, match activities to child’s age,
   specific instructions in simple language

3. Culturally appropriate (country, disadvantaged families)
   familiar images, local games & songs, use every day routines &
   activities, take advantage of family structure

4. Maintain quality
   frequency of visits, length of visits/intervention, child graduation,
   ratios: home visitors per supervisor, families per home visitor

   Groups: participation, where to run groups, exploit group dynamics
Implementation Challenges: Sustain Quality

1. **Identify suitable home visitors**
   assess capabilities, availability, “motivation”

2. **Long enough initial training**
   followed by *periodic retraining*

3. **Continuous mentoring and supervision**
   mentors/supervisors permanently on the field,
   text messages, phone communication, bulletins, audio-recordings,
   other uses of technology

4. **Mentors/supervisors: profile and training**

5. **Sustain enjoyment and motivation**
   *staff turn-over* is a problem, *remuneration* (full/part time job)
   & disbursements, professional development path for
   visitors/mentors/etc., build team spirit, keep mums & children
   interested ------ fun!
Evaluation Challenges: Measurements

1. Representativeness of Sample
2. Child Outcomes
   good concurrent and predictive validity,
   can be assessed reliably at scale, sensitive to small improvements
3. Intermediate Outcomes:
   understand behavioural changes in the home
   aspirations, knowledge, practices, material resources, other investments, constraints, health and nutritional outcomes
4. Implementation of Intervention:
   frequency, duration and quality of processes, nature of interactions
   data on visitors and supervisors – how to process mass of data
5. Intervention Costs: tedious but crucial
When designing interventions at-scale, be mindful of

- Moving focus away from mother, child & child development
- Working with local experts and champions - contextualisation
- Reducing training and preparation time due to politics, funding cycles and logistics
- Devoting enough attention to relationships – team spirit!
- Sustaining supervision intensity and quality, standardise protocols
- Budgeting enough resources to:
  pay for large teams, cover intervention costs, expensive data collection efforts, periodic follow-ups
Thank you