Engaging Fathers for Effective Child Nutrition and Development in Tanzania (EFFECTS)

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Nutrition and Parenting Interventions in Early Childhood

- Nutrition interventions support young children’s development, but alone are inadequate to promote early child development (ECD).
- Parenting interventions have shown consistent beneficial impacts on ECD.
- Combining nutrition and parenting can address multiple risks.
- However, most nutrition and parenting programmes focus on the mother alone.
- Father-inclusive early childhood programmes may yield additional benefits for the child, mother, and father.

Poverty and food insecurity
Nutritional deficiencies
Lack of early learning opportunities
Inadequate responsive care
Family stress
Violence
Challenges and Opportunities in Mara, Tanzania

- Malnutrition and poor ECD are prevalent in the region.
- High acceptance of patriarchal norms, men’s household domination and women’s primarily domestic role.
- Gender inequities in care and household responsibilities may impede full potential of early childhood intervention.
- Strong network of dedicated Community Health Workers (CHWs) who can reach both female and male caregivers.
Research Goals

1. Will bundling nutrition and parenting (e.g., responsive play and communication) interventions improve child nutrition and development more so than a nutrition intervention without parenting?

2. Will engaging fathers (in addition to mothers) improve child nutrition and development more so than engaging only mothers?
### Study Design

- Cluster randomized controlled trial with 5 study arms

- Inclusion Criteria: index child 0-18 months of age; mothers and fathers living together at least 10 months a year; household intends to remain in study area for duration of study; both parents provided informed consent.

- Primary outcomes: ECD (BSID III) and Child Dietary Diversity
Intervention Delivery: Malezi Bora

- Bi-monthly peer groups led by CHWs for first nine months (18 sessions)
- In father engagement arms, separate mother and father groups with some joint sessions with couples
- 4 month pause due to COVID-19, resumed last 3 months (6 sessions) with home visit model
- Intervention packages consisted of training guide, facilitator’s manual, flipchart, story book, recipe book, and play and communication guide (bundled arms)
  - All groups received nutrition education & couples engagement (gender attitudes, managing stress, resolving conflict, co-decision making).
- Behavior change approach entailed discussion, problem-solving, coaching, story-telling, skill-building, scaffolding of skills, commitment setting
- CHWs trained for 10 days; skill-based and coaching-oriented. Follow-up trainings and group mentorship provided quarterly. Bundled arms received additional training on stimulation activities
ECD & Parenting Results
Child Cognitive Development

Baseline vs Endline comparison for different groups:
- Control
- Nutrition Mothers
- Nutrition couples
- Bundled mothers
- Bundled couples

Standardized Score:
- Baseline values range from -0.20 to 0.00
- Endline values range from 0.00 to 0.25

Statistical significance:
- E.S. = 0.2
- p < 0.05

Legend:
- Control
- Nutrition Mothers
- Nutrition couples
- Bundled mothers
- Bundled couples
Child Receptive Language

![Graph showing standardized scores for different groups over baseline and endline periods. The graph includes lines for control, nutrition mothers, nutrition couples, bundled mothers, and bundled couples.](image)

- E.S. = 0.2
- p < 0.05
Maternal Stimulation Practices

![Graph showing maternal stimulation practices over baseline and endline for different intervention groups.]

- **Score (0-7)**
- **Baseline**
- **Endline**

- **Control**
- **Nutrition Mothers**
- **Nutrition couples**
- **Bundled mothers**
- **Bundled couples**

E.S. = 0.4
p < 0.05
Paternal Stimulation Practices

Score (0-7)

Baseline

Endline

Control
Nutrition Mothers
Nutrition couples
Bundled mothers
Bundled couples

E.S.=0.3
p<0.001
Variety of Home Learning Materials

Baseline vs. Endline:
- Control
- Nutrition Mothers
- Nutrition couples
- Bundled mothers
- Bundled couples

Score (0-5):
- 0
- 1.5
- 2.0
- 2.5
- 3.0
- 3.5

E.S. = 0.3
p < 0.01

Nutrition Mothers Only
Key findings

Compared to nutrition intervention, **bundled nutrition and parenting intervention** improved:
- Child cognitive and receptive language development
- Maternal stimulation
- Variety of learning materials in the home
- *Other caregiving outcomes*: paternal parenting distress, maternal agriculture practices, intimate partner violence, maternal dietary diversity

Compared to mothers alone, **engaging fathers** improved:
- Paternal stimulation
- *In addition to*: paternal IYCF and WASH knowledge and practices, paternal time spent per day on domestic chores, maternal and paternal gender attitudes, maternal decision-making power, maternal dietary diversity

A few interaction effects were observed from engaging fathers in the bundled intervention
- E.g., child dietary diversity, couple’s communication frequency
Summary

1. Nutrition and parenting programs should be delivered together and engage not only mothers, but also fathers
   ◦ Intentionality in design of content and delivery to ensure fathers are actively engaged and supported

2. Additional research should investigate the right balance of nutrition and parenting content to maximize effectiveness on both nutrition and ECD outcomes
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