

The Pakistan Early Child Development Scale Up (PEDS) Trial

AK Yousafzai, MA Rashhed, A Rizvi, R Armstrong, ZA Bhutta

**Aga Khan University
&
UNICEF ROSA and UNICEF Pakistan**

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Overview

- PEDS Trial Design & Interventions
- Process
- Outcomes



PEDS Trial Design and Interventions

- **Goal:** To evaluate the effectiveness, feasibility and cost of integrating interventions to strengthen early child outcomes in the Lady Health Worker programme in Pakistan.
- **Tool:** UNICEF & WHO Care for Child Development Intervention package.



Services Provided by LHWs

- Family Planning
- Antenatal Care
- Health Education
- Nutrition Care
- Treating Illnesses
- Referrals
- NIDs

Nutrition Requires Strengthening

Existing Services:

- Nutrition Ed
- Iron/Folic Acid
- Child Growth Monitoring

New Inputs:

- Enhanced messages
- Service strengthening
- MMS (Sprinkles®)

ECD New Inputs

- Stimulation
- Quality Interaction
- Responsive Parenting

Reflection Point 1

- Integration of new module in ECD requires consideration:
 - How does this build on what health workers already know and practice?
 - How does this link to existing messages (e.g. hand washing, care for the sick child)?
 - Can these messages be integrated in existing routine (e.g. will the new module require separate dedicated time/strategy, what will an integrated home visit look like)?

Study Design

- Cluster randomized control trial.
- 1489 children have been recruited at birth in to one of 4 intervention groups:
 1. Standard LHW services (Control)
 2. Care for Child Development Package (ECD)
 3. Nutrition Education and Sprinkles (Enhanced Nutrition)
 4. Care for Child Development Package, Nutrition Education and Sprinkles (ECD and Enhanced Nutrition)
- Development, growth and care outcomes assessed from birth to 24 months of age.

Study Interventions: ECD

- Adaption of Care for Child Development Intervention (UNICEF, WHO 2009):
 - Cultural-Social relevance
 - Feasible: Group meetings, Manageable for Lady Health Workers
- Job Aides: *Play and Communication Guide, Resource Kit, 12 Group Meeting Sessions, Counselling Guidelines, Problem Solving Checklist.*

ECD: Play and Communication Guide



Play for 6-12mth: Play peek a boo with your child

- 3 broad age groups
 - 0-6mths
 - 6-12mths
 - 12-24mths
- Activities are organized into *play and communication*
- Facilitate the mother/child to experience a successful interaction
- Method: Observation, Coaching & Feedback

ECD: Group Meeting Sessions Approach:

- Icebreaker,
- Brainstorm
- Activities
- Problem Solving
- Nutrition/health Counseling
- Key Messages
- Social Time

Topics

1. What is ECD?
2. Helping mothers to feel confident and good about early care giving
3. Children learn from birth
4. Observing our children's development
5. Understanding the importance of the special bond between mother and child
6. What is responsive care
7. Providing a safe environment for our children learn
8. Care for feeding
9. Praise and discipline
10. Helping mothers who feel too stressed or burdened
11. Making low cost toys
12. Understanding the rights of our children

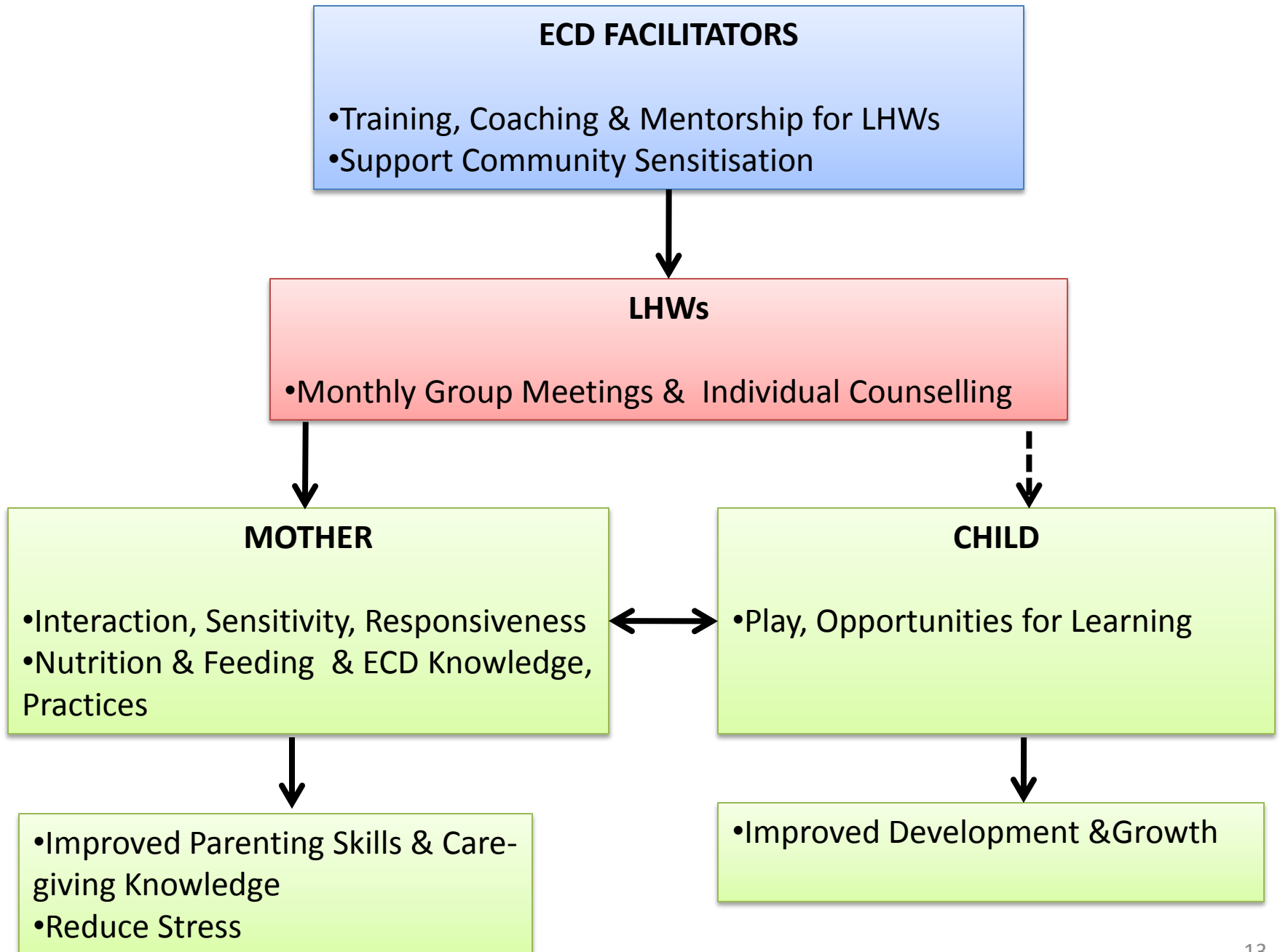
Enhanced Nutrition

- Content covered key messages for infants and child:
 - Messages tested and used in manual and training videos
 - Link between nutrition and health highlighted: *Hand washing, Feeding during illness*
 - What and Why to help resolve problems and challenge myths: *Why infants less than 6 months do not need water in the summer?*
- Practical feeding observations , coaching and feedback to promote feeding skills (6m-24m)
- Job Aides: Manual, Sprinkles[®], Problem Solving Checklist and Integrated Counselling Guidelines

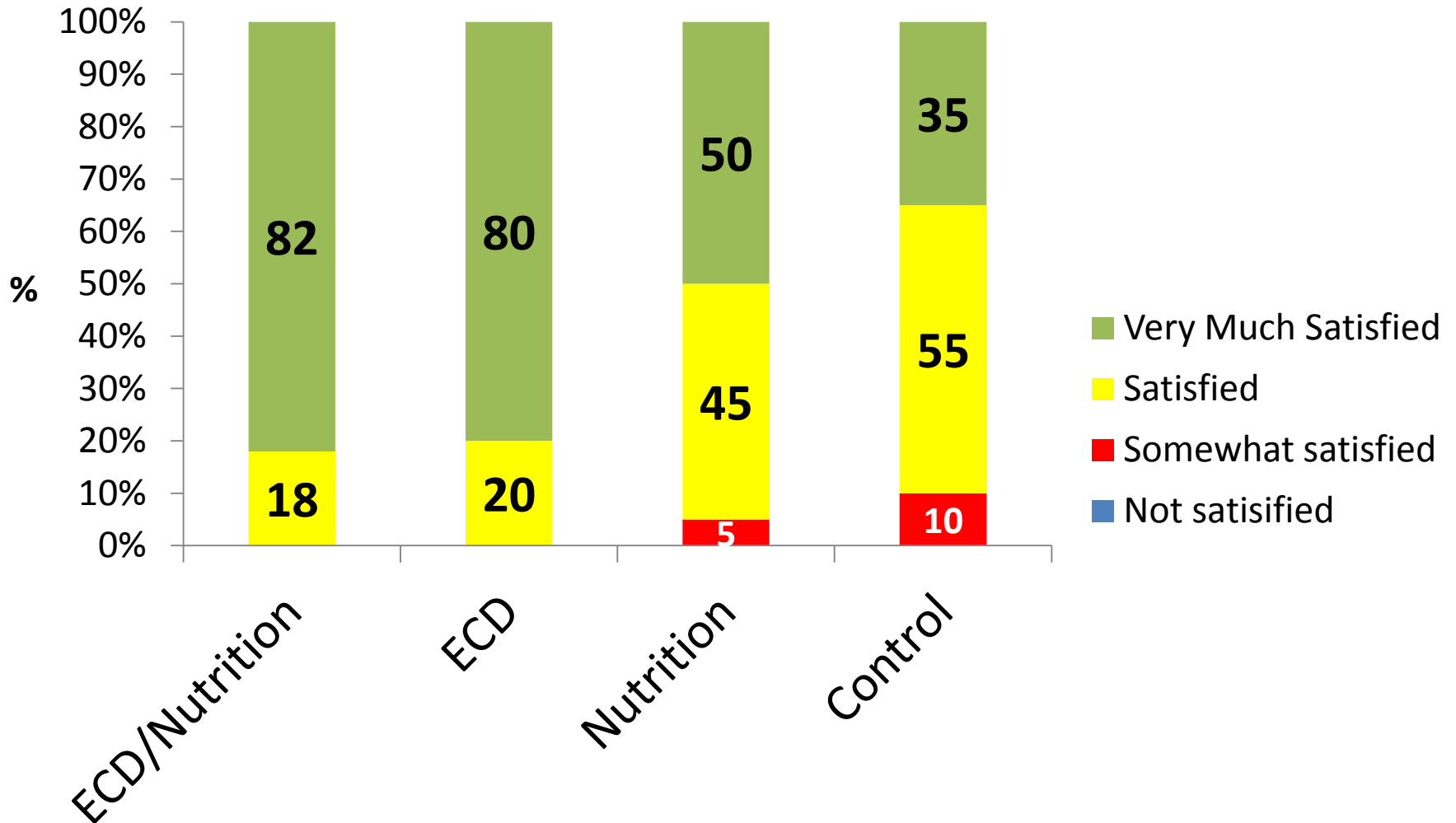
Reflection Point- 2

- When integrating the ECD module, we need to consider how different the delivery approach is from the way health workers currently provide services:
 - E.g. Mothers and children are being observed playing together- this is often different from the way health workers deliver services or guide families.
- Is 2 years sufficient? Many new interventions are looking at 0-2 given the critical window of opportunity for nutrition- but this may not be sufficient from the development perspective.
 - How can we ensure regular delivery beyond 2 years- Is this potentially a way for health workers to keep in regular contact with families or a burden?

Process



Lessons Learned: Family Satisfaction with Services



Lessons Learned from LHWs

Builds Confidence:

- Supportive supervision builds confidence of LHW
- Simulation/Play is a practical intervention no supplies req'd – yet tangible

Feasible:

- Integrated home visits ranged from 15-25 minutes.
- Group meeting reached a third of caregivers in catchment each month.

Enhanced Existing Message Delivery:

- Families and LHWs established improved relationship and trust.
 - Families asked more questions about health and development- LHW more confident

Lessons Learned: Evidence for Integrated Delivery

Service Received	ECCD/ Nutrition	ECCD	Enhanced Nutrition	Control
General Mother/ Child health counselling	76%	78%	46%	5%
Hand washing advice	76%	75%	46%	5%
Medicines received	77%	45%	51%	13%
Mother/Child received nutrition supplements	45%	48%	54%	5%
Advice on EBF	48%	61%	53%	61%
Advice on why mothers breast milk is sufficient 0-6m	48%	57%	49%	2%

Recommendations for Implementation

- **Introducing new interventions:**
 - Acknowledge what health workers know and facilitate an understanding of linkages between new and existing messages.
- **Skills Based Approach:**
 - Demonstration, Coaching and Feedback
 - Practical learning activities to convey messages.
- **Quality Matters and evolves over time:**
 - Training: On job coaching, experiential learning , variety of methods
 - Supportive supervision: Constructive feedback, Peer –to-peer problem solving, mentorship, modelling
 - Important to have Master Trainers who are trained in Care for Child Development
- **Mixed Methods of Delivery:**
 - In our context, adding group meetings to a home visiting programme was feasible and provided a way to increase coverage of interventions

Outcomes

Development Outcomes

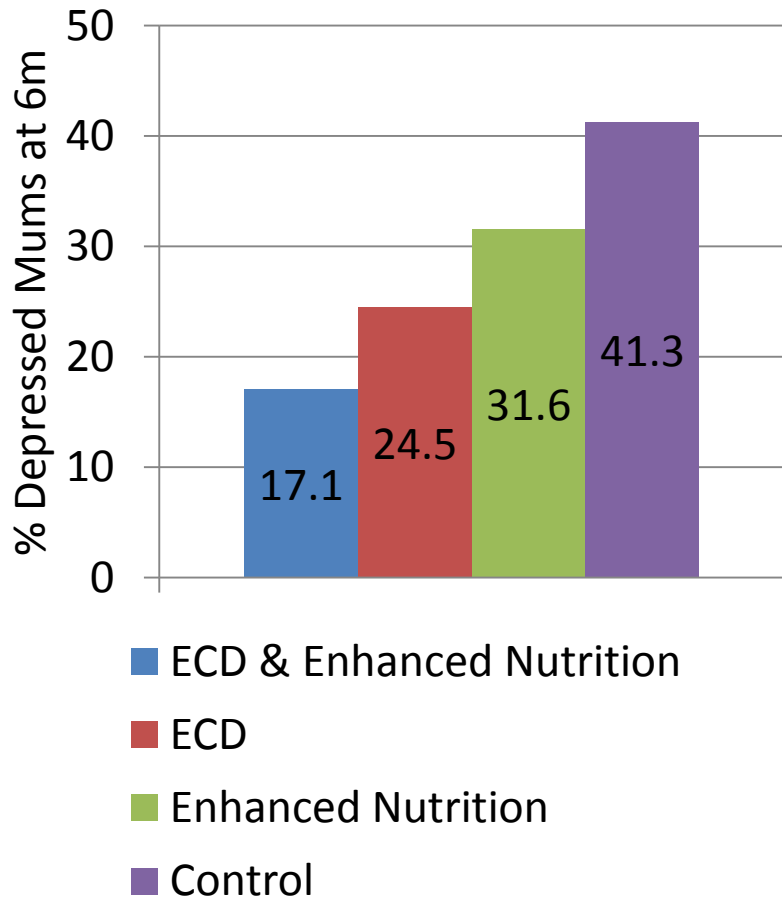
	ECD & Enhanced Nutrition	ECD	Enhanced Nutrition	Control	P Value
Cognitive 12m	97.8 (1.0)	94.2 (1.2)	94.0 (0.9)	90.1 (0.8)	<0.001
Cognitive 24m	80.3 (1.1)	83.2 (1.2)	76.5 (1.5)	71.9 (1.0)	<0.001
Language 12m	78.3 (1.1)	76.0 (1.2)	75.3 (1.0)	69.9 (0.6)	<0.001
Language 24m	85.4 (1.1)	86.1 (0.8)	83.1 (1.3)	75.7 (0.9)	<0.001
Motor 12m	84.0 (0.9)	83.5 (1.2)	82.4 (0.9)	79.4 (1.0)	<0.001
Motor 24m	90.9 (0.4)	93.2 (1.3)	87.8 (1.5)	81.9 (1.2)	<0.001
Soc-Em 12m	81.5 (0.9)	79.5 (0.9)	80.6 (0.8)	74.8 (0.8)	<0.001
Soc-Em 24m	94.1 (1.6)	92.4 (1.3)	95.6 (1.6)	94.3 (2.7)	0.19

Care Practices

- **Maternal depression** had a consistent significant negative association with early development and growth.
- **Home environment** had a consistent significant positive association with early development and growth
- **Mother/Child Interaction** had a consistent positive association with early development and growth

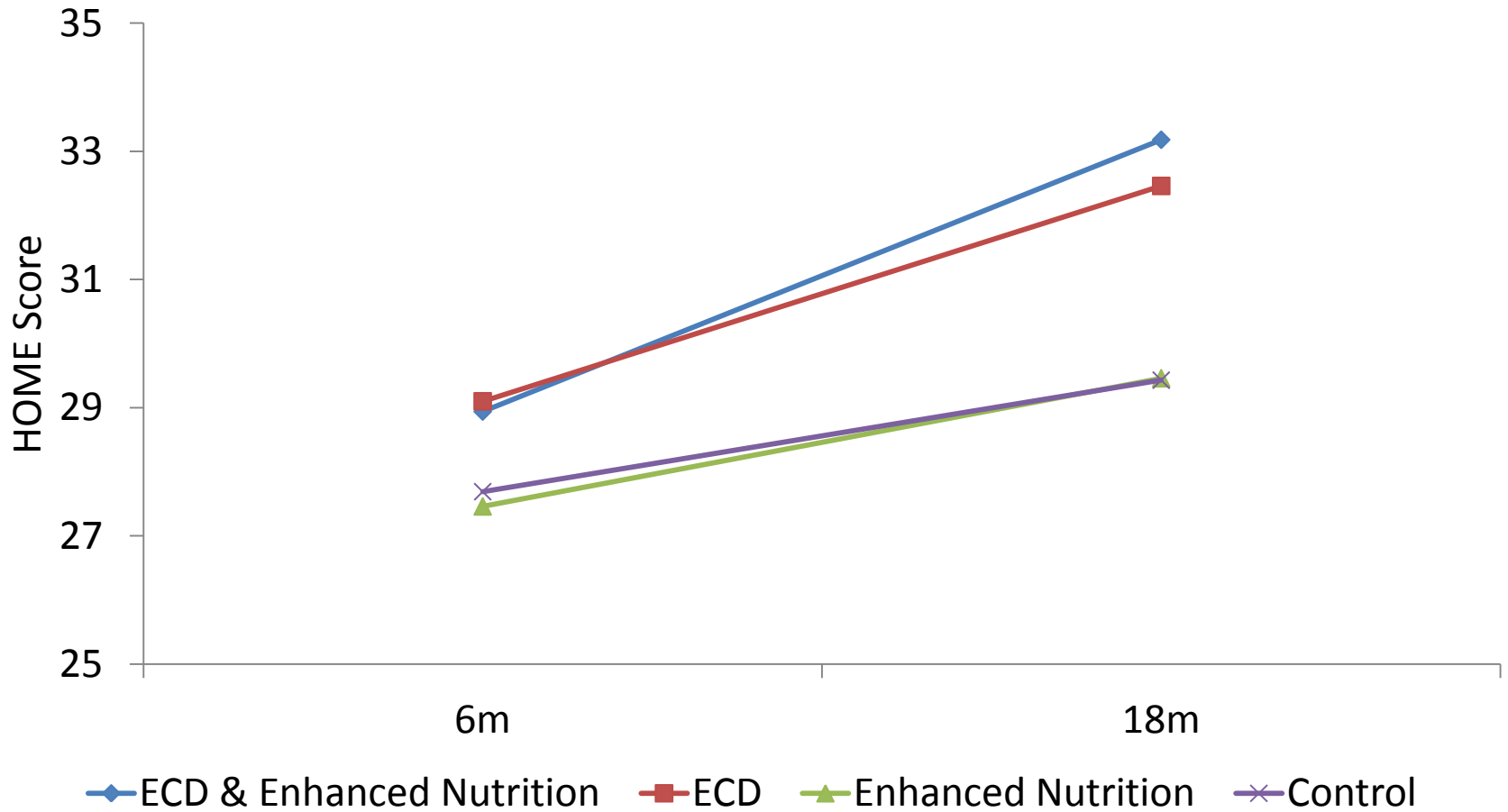
ECD interventions can help to improve these mediators of care leading to positive parenting practices for development & feeding.

Maternal Depression

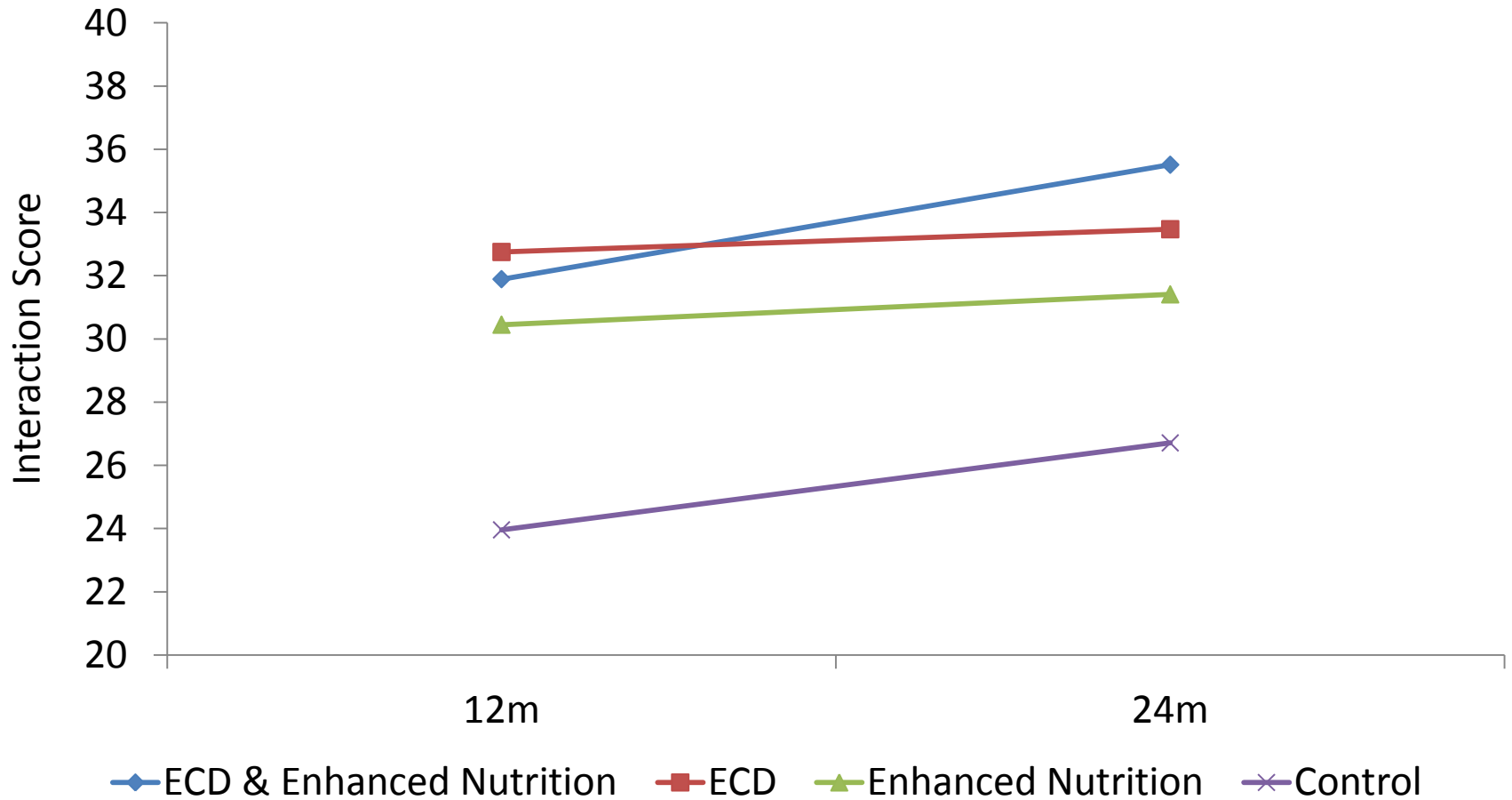


- High depression
- Small benefits to mothers in ECD & Enhanced Nutrition group
- Group Meeting strategy helped women cope, but more direct support needed: *I feel mentally better [when the ECD meetings are running]. We all feel at peace and our tension is lifted away. We talk and share with one another, we listen to the advice, and the time passes nicely...[Mother]*

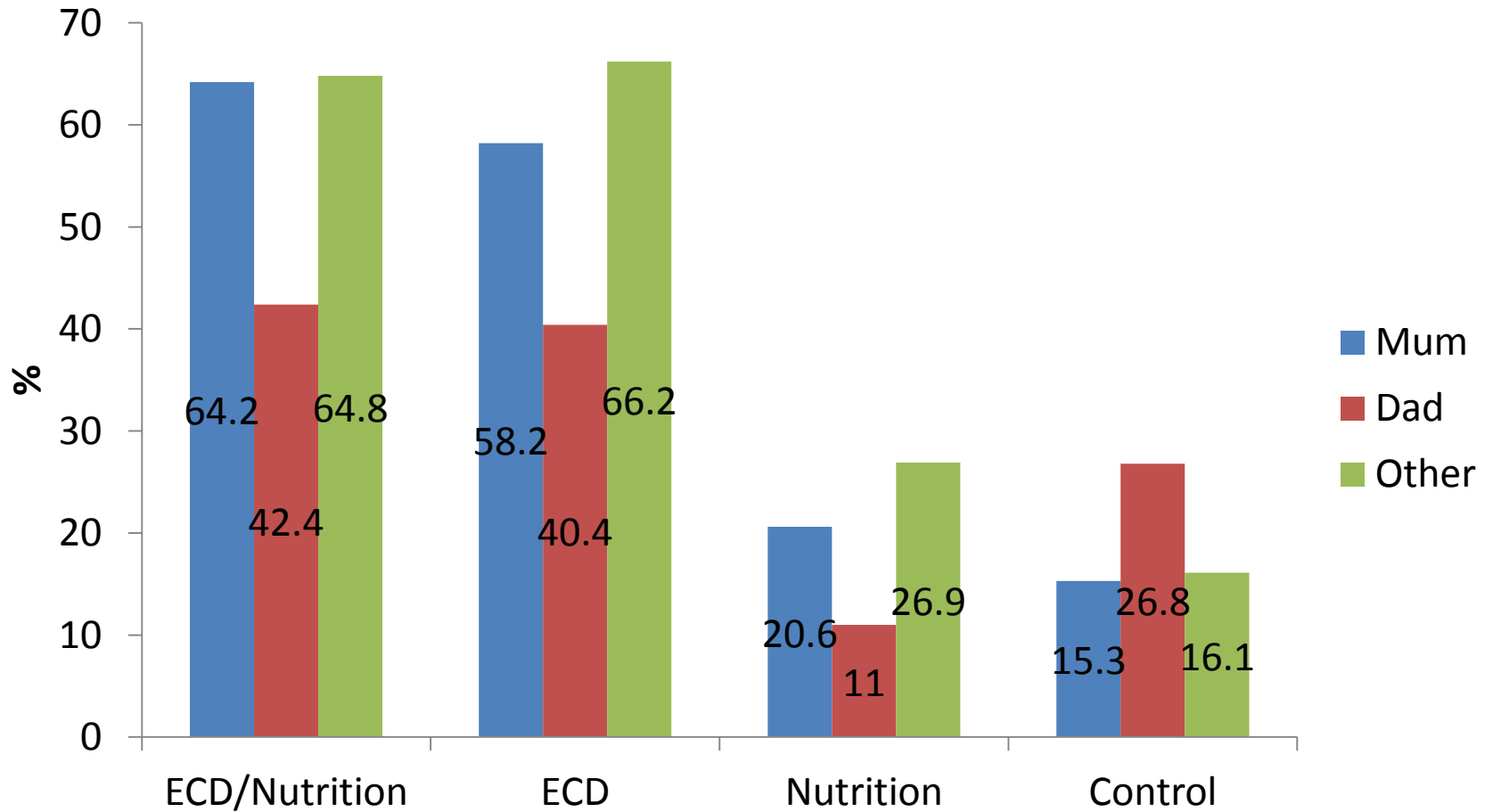
Home Environment



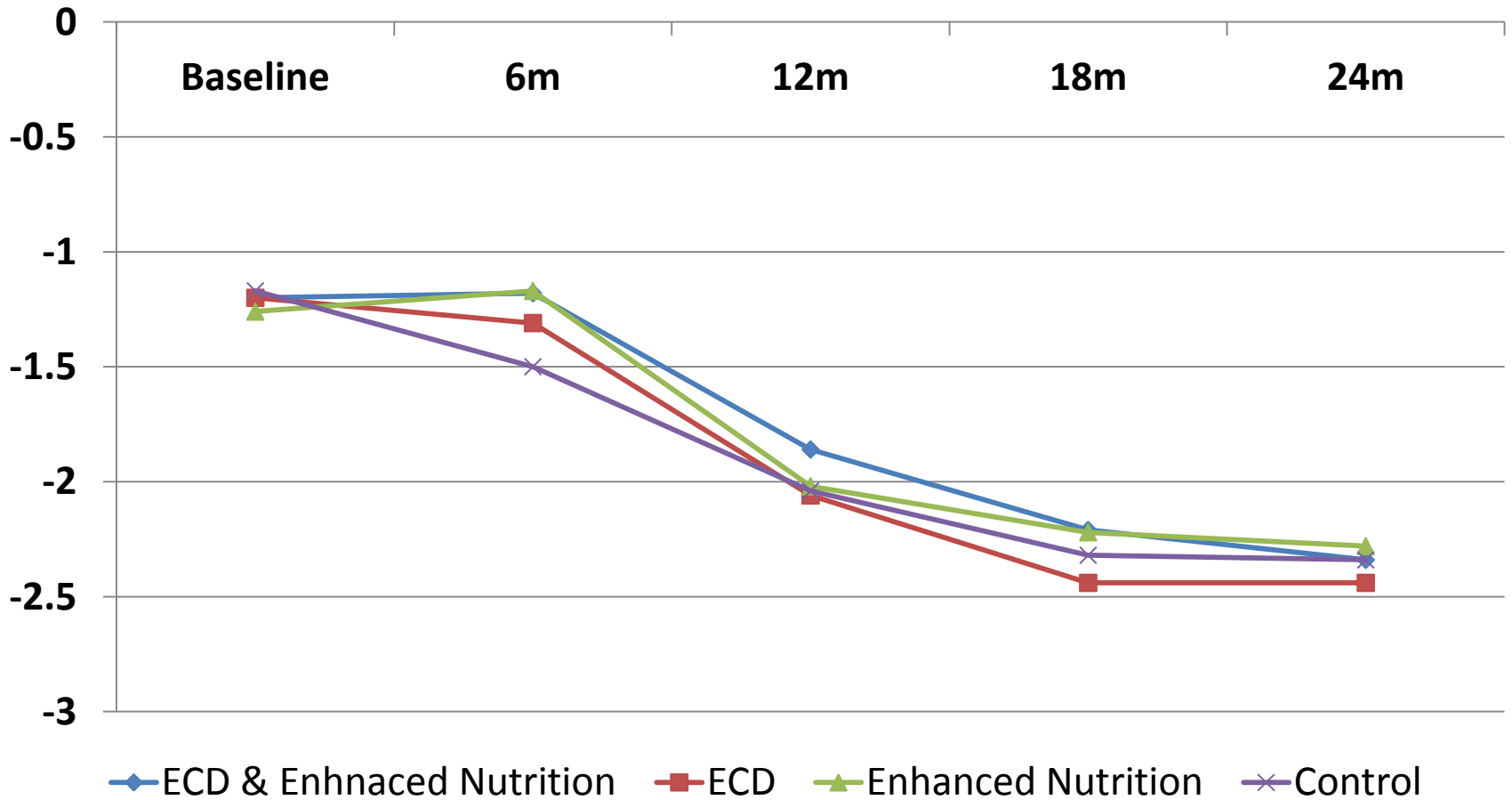
Mother and Child Interaction



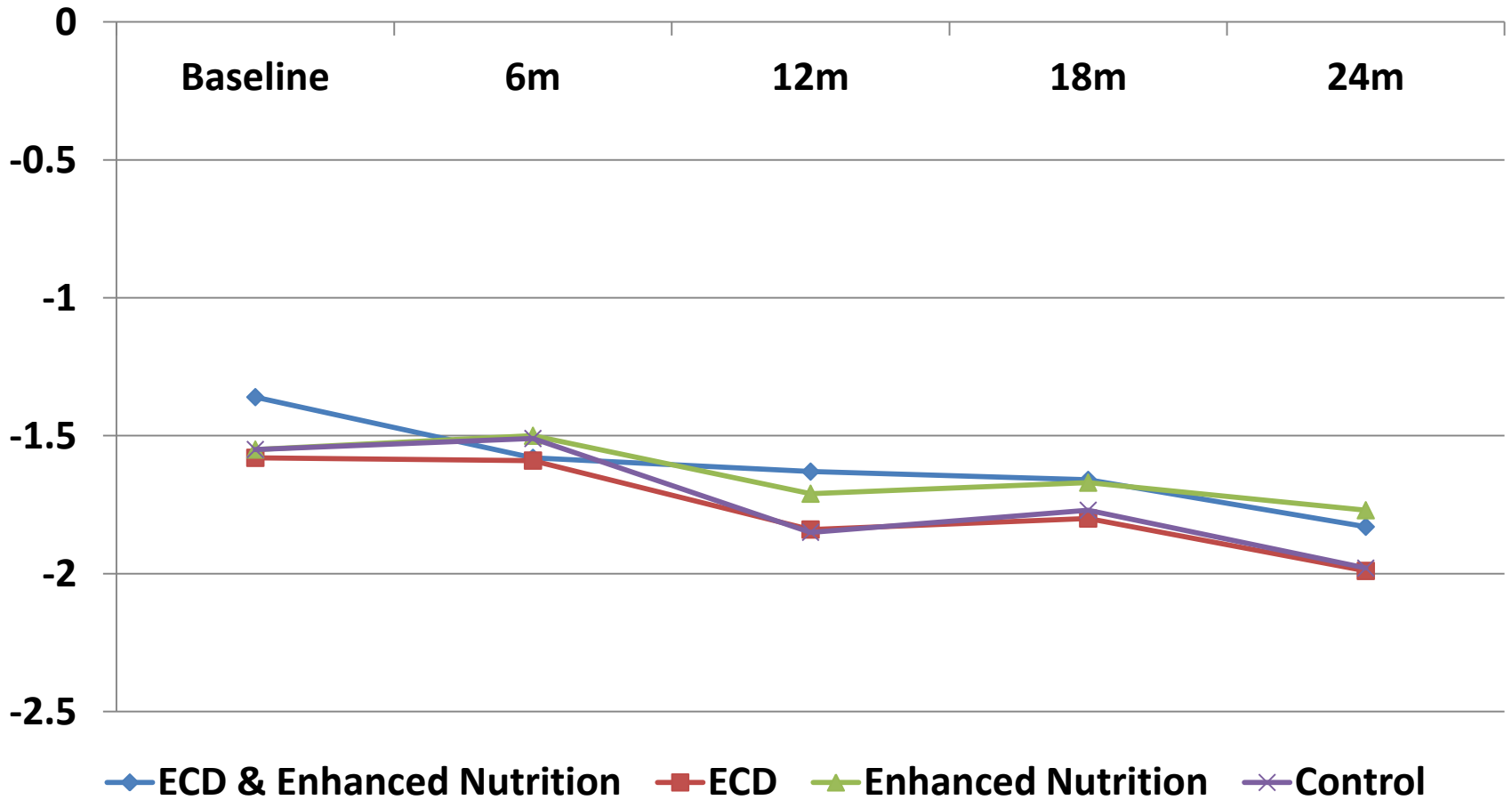
4+ Stimulation Opportunities in Last 3 Days at 24m



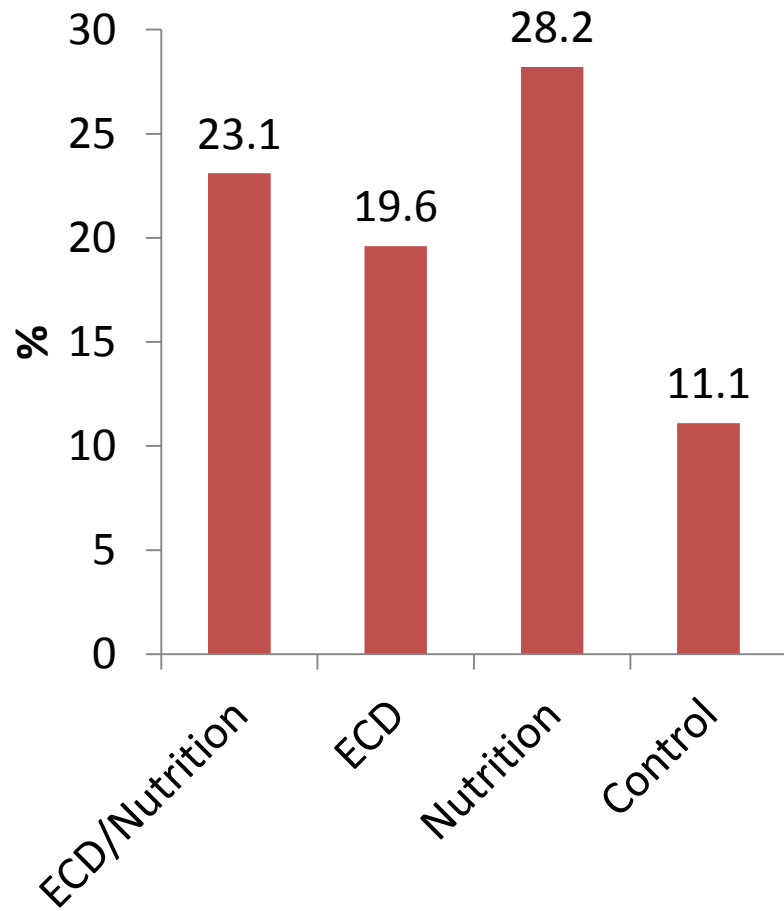
Growth: Length for Age



Growth: Weight for Age



Minimum Acceptable Dietary Diversity

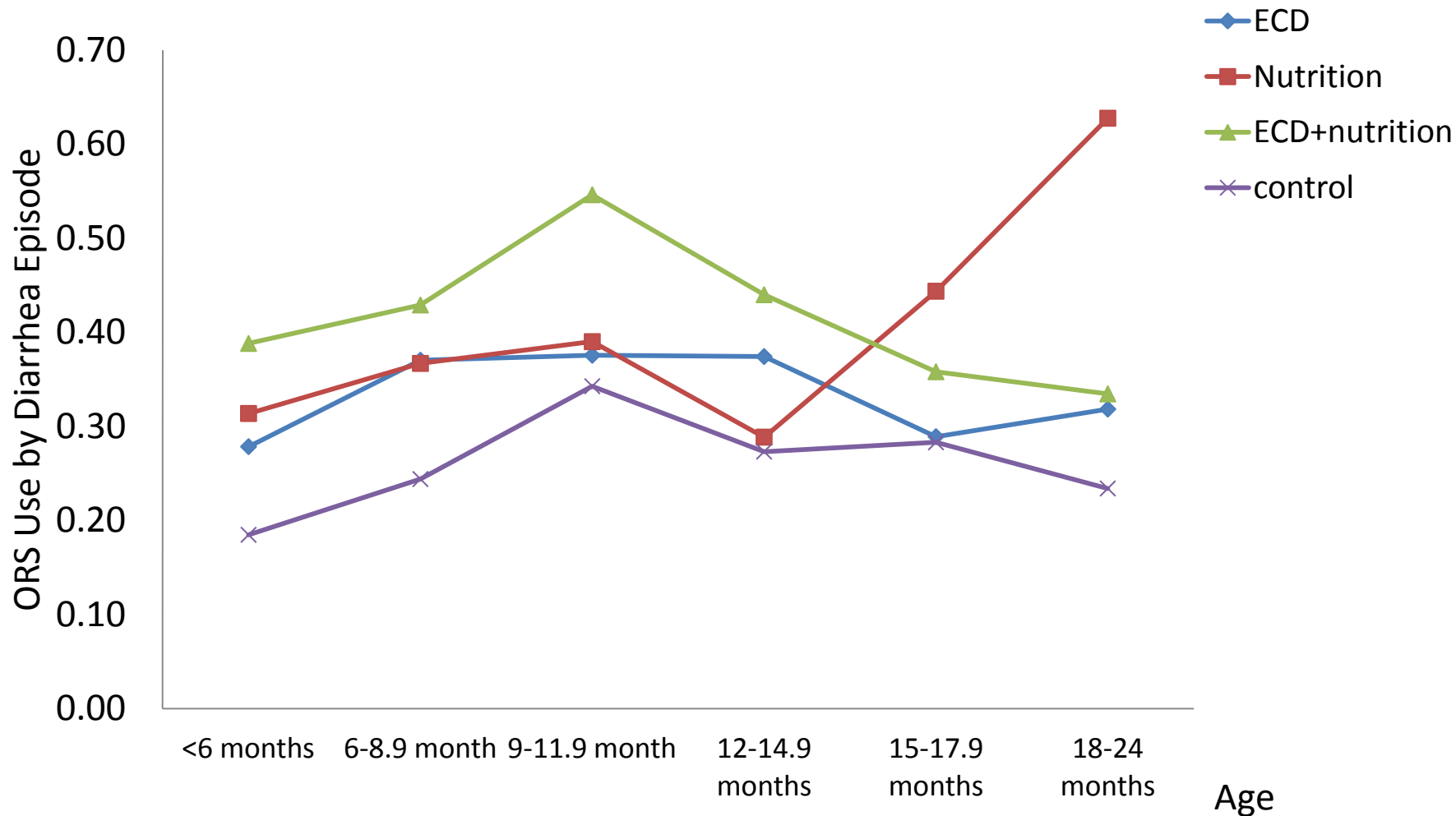


- Some changes in IYCF feeding practices.
- More attention needed on: (1) Quality of complementary foods (2) Support for food insecure populations (3) Linkages with women's/maternal nutrition.

Reflection Point 3

- Promising data around early feeding practices; however, long term change in growth requires strengthening:
 - Maternal nutrition
 - Family planning
 - Food security for the poorest households

Improvements in Healthcare Practices: ORS Uptake in Episodes of Diarrheal Illness



- Integration of Care for Child Development intervention is feasible in existing health services.
 - Addition can enhance delivery of existing services due to community engagement with play and communication activities.
- Enhance nutrition component further.
- Positive effect on child development at 12m and 24m.
- Positive effect on care practices which mediate health development and growth.

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