The Pakistan Early Child Development Study and Links to Nutrition-Findings from Process Evaluation

Aisha K Yousafzai PhD
Aga Khan University, Karachi, Pakistan

Lieke van de Wiel
UNICEF ROSA
Overview of Presentation

• Rationale for Integrating ECCD and Enhancing Nutrition in the Lady Health Worker (LHW) Programme.
• Development of Integrated Interventions
• Community and LHW Satisfaction with Interventions and Change Over Time
• Recommendations
Reasons for ECCD-Nutrition integration

1. **Timing:** The first 1000 days is a critical window of opportunity

2. **Common Care giving Mediators:** 1) Quality of responsive parenting and feeding skills, 2) Care giving environment and maternal depression

3. **Nutrition Risk Factors:** Maternal under nutrition, IUGR-LBW, poor IYCF practices, micronutrient deficiencies linked with poor G&D

4. **Benefits of Combined Interventions:** 1) Combined interventions = independent and synergistic benefits to growth and development 2) Efficient use of health worker time and resources

5. **Future Human Capital:** Prevention of stunting: better health outcomes, optimise educational achievement, development, and productivity
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)

ECCD New Inputs
- Stimulation
- Quality Interaction
- Responsive Parenting
Evaluation of Enhanced Early Child Growth and Development Strategy

• **Aim**: To determine if an ECCD intervention delivered by LHWs to children under 2, alone or in combination with enhanced nutrition interventions would improve growth and development

• Cluster Randomised Control Trial
  1. Standard LHW Services (Control)
  2. ECCD
  3. Enhanced Nutrition
  4. ECCD & Enhanced Nutrition

• For in-depth assessment 1,489 children - in the first 3 months of life and followed until 24 months

• An in-depth process evaluation was conducted
Guidelines for Integrating ECCD and Enhancing Nutrition for LHWs

**Feasible Delivery**
- Deliver within existing routines (monthly home visit and/or group meeting)
- Work with mothers and children

**Integrate Content**
- Link health, growth and development
- Practical content: Impart skills for feeding and care for development

**Build Skills**
- Cooking and feeding skills
- Acknowledge what LHWs already know: Experiential learning & Supportive supervision
- Counselling skills: Problem solve and support mothers
- Build relationship with mothers and children
Enhanced Nutrition Intervention Content

• Content covered key messages for mother and child from pregnancy-2 years.
  – 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
ECCD Intervention Content (Adaptation of UNICEF/WHO CCD Package)

- 3 broad age groups
  0-6mths; 6-12mths; 12-24mths
- Activities are organized into play and communication
- Facilitate mother to child successful and positive interaction
- Methods: Observation, Coaching & Feedback

Play for 6-12mth: Play peek a boo with your child
ECCD: Group Parenting Sessions

Content: Icebreaker, Brainstorm/Discussion, Activities, [Nutrition Counseling], Key Messages, Social Time /Routine Work.

1. What is Early Childhood Development?
2. Helping mothers feel confident/good about early care giving
3. Children learn from birth
4. Observing our children’s development
5. Understanding the importance of the special mother-child bond
6. What is responsive care
7. Providing a safe environment for our children
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
ECD FACILITATORS

• Training, Coaching & Mentorship for LHWs
• Support Community Sensitisation

LHWs

• Monthly Group Meetings & Individual Counselling

MOTHER

• Interaction, Sensitivity, Responsiveness
• Nutrition & Feeding & ECCD Knowledge, Practices

CHILD

• Play, Opportunities for Learning
• Improved Growth & Development

CHILD

• Improved Parenting Skills & Caregiving Knowledge
• Reduce Stress
Experience of Delivery Strategy

• 1-2 group parenting sessions per month
• 31% primary caregivers reached (72% mothers)
• 99% of combined ECCD + Enhanced Nutrition group parenting sessions reported nutrition counselling included
• Most popular nutrition topics: Complementary feeding (33%), Iron/Folate suppl. pregnancy (29%) and breastfeeding (28%)
• Home visits less than expected/month (including Control group)
• Integrated home visit = 15-25min vs control group < 5min.
Family Satisfaction with Home Visit Counselling

- ECCD/Nutrition: 82% Very Much Satisfied, 18% Satisfied, 20% Somewhat satisfied, 5% Not satisfied
- ECCD: 80% Very Much Satisfied, 20% Satisfied, 5% Somewhat satisfied, 10% Not satisfied
- Nutrition: 50% Very Much Satisfied, 45% Satisfied, 5% Somewhat satisfied, 10% Not satisfied
- Control: 35% Very Much Satisfied, 55% Satisfied, 10% Somewhat satisfied, 0% Not satisfied

Legend:
- Very Much Satisfied
- Satisfied
- Somewhat satisfied
- Not satisfied
# Evidence for Integrated Delivery

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

LHWs reported mothers were refusing Sprinkles because it made the food taste and smell different.

The training team responded to the expressed and observed need of LHWs with a session on Sprinkles: Problem solving, Demonstration of preparation and Blind Taste Experience.

LHWs tasting kicheree (with and without Sprinkles)
Supportive Supervision: Nutrition Skills Development Overtime

- **2010 Jan**: 51% Excellent, 49% Satisfactory, 0% Poor
- **2010 Jun**: 10% Excellent, 69% Satisfactory, 11% Poor
- **2011 Jan**: 17% Excellent, 43% Satisfactory, 9% Poor
- **2011 Jun**: 9% Excellent, 75% Satisfactory, 6% Poor
Skills development of LHWs significantly (p< 0.001) associated to:

• **Supervision:** (1)
  Supervisory Contacts (2)
  Home/Group Sessions Observed

• **Experiential Learning:** (1)
  Caregivers reached (2)
  Home/Group Sessions Conducted

• **Negatively Affected:** (1)
  No. of Households in Catchment (2)
  Burden (Administration, Additional Tasks)

*LHW being mentored by ECD Facilitator*
I have fed her more and communicated more. Now she is close to me. When she talks I feel so much affectionate for her... [LHW, PQ/EN/ Pilot FGD, Para 83-Theme- Change in LHW as Mother]
<table>
<thead>
<tr>
<th>Experience</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immediate Benefits (Motivation)</td>
<td><em>Children become healthy and take interest in eating</em> [Caregiver]</td>
</tr>
<tr>
<td></td>
<td><em>Our children are becoming brighter.</em> [Mother]</td>
</tr>
<tr>
<td>Nutrition &amp; ECCD</td>
<td><em>Mother said when child plays, he also gets tired and he feels much hungry and he eats well...</em> [ECD Facilitator]</td>
</tr>
<tr>
<td></td>
<td>I praise my son during feeding too. I do activities with him in play then he enjoys eating... [Mother]</td>
</tr>
<tr>
<td>Practical Content</td>
<td><em>We come to ECCD meetings because we like activities.</em> [Mother]</td>
</tr>
<tr>
<td>Experience</td>
<td>Example</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Creation of Demand for Services: Health and Education</td>
<td>They [mothers] say how we can properly care for this child if we have another one so quickly... [LHW]</td>
</tr>
<tr>
<td></td>
<td>Mothers said you advise people to teach children with affection, you advise with care, please teach our children in the village, our children will learn well with you, please start a school and teach our children [LHW]</td>
</tr>
<tr>
<td>Coping Strategy for Maternal Depression</td>
<td>I feel mentally better [when the ECCD 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]</td>
</tr>
</tbody>
</table>
Implications from Community Feedback

• **Communities readily engage with the ECCD interventions:**
  – Facilitates understanding of integrated health and nutrition
  – Enhancing Nutrition Strategies

• **Care-giving pathways are improved:**
  – Coping strategy for overburdened mothers
  – Improved care for feeding practices
  – Improved care-giving environment linked to improved growth

• **Benefits for Lady Health Worker:**
  – Builds confidence of LHW
  – Practical intervention no supplies req’d – yet tangible
  – Integrated counselling is efficient use of time
Recommendations for Development and Delivery of Integrated Nutrition and ECCD

• **Formative research:** messages that resonate with families.
• **Strengthening practical/skills component:** Peer-to-peer learning, cooking together (especially for 6m+), feeding skills
• **Benefits of integrated content:** must be explained to health workers when introducing new interventions.
• **Job aides:** must have clear prompts for points of integration
• **Skills based approach:** involving mother and child engages families
Recommendations for Development and Delivery of Integrated Nutrition and ECCD

• **Training**: On job coaching, experiential learning, variety of methods

• **Supportive supervision**: Place value on ‘nutrition’ and integration, peer–to-peer problem solving, mentorship

• **Integrated nutrition/ECCD**: is feasible and enhances quality of intervention and satisfaction of beneficiaries

• **Balance needed**: survival, nutrition and development messages in curriculums across life cycle (i.e. avoid overload)

• **Combination of methods**: adding group meetings to a home visiting programme is feasible and provides a way to increase coverage of interventions
Acknowledgements

• Naushero Feroze Field Team: M Rasheed, S Siyal, J Memon, G Tabassum, A Rizvi, S Govani
• Co Investigators: Z Bhutta, R Armstrong
• Advisors: J Lucas, P Engle, J Van Ravens

• Funded by UNICEF