The vicious cycle of malnutrition among under five children in Bangladesh: Using local food models as a gateway to health and nutrition

Sabina Shahnaz, Nandita Kapadia-Kundu, Syed Jafar Raza Rizvi, Zoé Mistrale Hendrickson, Yasmin Siddiqua, Patrick Lee Coleman
Thematic areas: (1) MNCAH, (2) Family Planning, (3) Tuberculosis, (4) Nutrition
Background

- Undernutrition is the cause of 3.1 million child deaths annually in low- and middle-income countries and it contributes to 45% of all child deaths.
- In Bangladesh, malnutrition of the mother is a major cause of infant mortality.
- Using qualitative research techniques as part of the Ujjiban formative study, we investigated the dietary habits of children under five years and derived solutions from local communities.
Methodology

• This qualitative study is guided by the socio-ecological model, Connell’s theory of gender and power, and Kincaid’s bounded social normative influence.

• The theoretical framework allows for an exploration of gender dynamics, nutritional food models, and the intersections between gender, food scarcity, and food diversity for children under five years.

• The Ujjiban research team conducted 40 semi-structured interviews, 18 case studies, and 18 FGDs with mothers and fathers of under five children and adolescent girls and boys. Six case studies focused primarily on child nutrition. 3 of them with undernourished and 3 with healthy child.
Methodology ...

- Data were transcribed from Bangla audiotapes and translated into English. Qualitative data were coded with an online software named Dedoose based on different thematic areas.

- During analysis we explored food consumption, children’s feeding patterns, frequency, and amount of feeding. Mothers’ health condition during pregnancy and delivery, complications and care seeking both for mother and children were also explored.
Findings

- Malnourished children were found to have low birth weight and a history of low flow of breast milk.
- Excessive crying and small size of newborns led family members to start providing food other than breast milk.
- Reduced consumption of breast milk and complementary food during illness resulted in irritable mood and loss of appetite among children.
Findings ...

- Undernutrition was perpetuated by a local belief emphasizing the need to reduce food for children recovering from illnesses, especially diarrhea and other bowel problems.
- Malnourished children consumed less protein and dairy and ate less frequently compared to healthy children.
- Both healthy and malnourished children had low food diversity.
Comparative case studies of healthy & undernourished children

<table>
<thead>
<tr>
<th></th>
<th>HEALTHY CHILD (1.5 Y, GIRL)</th>
<th>UNDERNOURISHED CHILD (2.8Y, BOY)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FORCE FEEDING</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>ALLOWED CHILD TO EAT BY OWN</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>ATLEAST 3 MAIN MEALS IN A DAY</td>
<td>ALWAYS</td>
<td>SOMETIMES</td>
</tr>
<tr>
<td>BREASTMILK</td>
<td>REGULAR, 15 MINUTES</td>
<td>FREQUENT, SHORT DURATION</td>
</tr>
<tr>
<td>FINISH MEAL/SNACKS</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>DIET DURING ILLNESS</td>
<td>EATS FULL PORTION</td>
<td>NEVER, USUALLY TAKES ONE OR TWO BITES</td>
</tr>
<tr>
<td>HEALTH CONDITION</td>
<td>HEALTHY MOST OF THE TIME</td>
<td>STAYS SICK MOST OF THE TIME</td>
</tr>
</tbody>
</table>
Vicious Cycle of Malnutrition ...

- inadequate dietary intake of children under 5y
  - less flow of breast milk and early initiation of baby food
  - loss of appetite and less consumption
  - frequent illness episode and hospitalization
  - social norms of cutting food just after illness episode
Conclusion and recommendation

• Social norms focused intervention is needed to deal with the cycle of malnutrition among children
• Data indicated very low food diversity among healthy and malnourished children. Local food models to increase protein and dairy consumption within the Bangladeshi context need to be developed.
• Food diversity can be discussed through the adolescent club activities and campaigns like nutri-champs and nutri-chef organized by Ujjiban in Bangladesh
• Further focused research can help to find sustainable solutions