Background

Self-help groups (SHGs) are an important platform for delivering livelihoods, health and nutrition behavior change communication (BCC) and social support interventions to rural women, particularly in India.

The evidence on improving maternal and child nutrition outcomes using SHG-based education interventions is limited and mixed. Further, few studies report on intermediate outcomes along hypothesized pathways to nutrition impact (Fig 1).

Research Questions

1. What impact did an information-only nutrition BCC intervention delivered to women with young children through agriculture-focused SHGs in five Indian states have on maternal and child diet and anthropometry?

2. To what extent did this intervention benefit intermediate outcomes related to income generation, agricultural livelihoods, health- and nutrition-related behavior change, rights, and women’s empowerment?

Methodology


Setting: rural India – households were sampled in 16 blocks within 8 districts within 5 states (Fig 2).

Participants: mothers with children aged 6-24 months (not only SHG members).

Interventions: Women in 8 treatment blocks received a Nutrition Intensive (NI) BCC intervention delivered by a trained female volunteer during SHG meetings. Using a story-telling technique, messages – on maternal and child health and nutrition, home gardens, and women’s well-being among other topics – were delivered over a 3-year period through a series of Perspective Building Modules (PBM) followed by a Revision Module (RM) to reinforce key messages.

Women in 8 comparison blocks received standard (STD) PRADAN – a local NGO who organized the groups – interventions focused on savings and livelihoods. Independent from the evaluated interventions, the Government of India rolled out POSHAN Abhiyan as part of the National Nutrition Mission (Fig 3).

Impact assessment: We used matching methods with difference-in-difference (DID) regression models to estimate impacts with bootstrapped standard errors. Covariates used for matching included household, respondent and village level characteristics.

Nutrition outcomes:

- Infant and young child feeding practices – early breastfeeding initiation, diet diversity, consumption of food groups
- Child anthropometry – HAZ, WAZ, WHZ, stunting, underweight, wasting, MUAC
- Women’s diet – diversity and food groups
- Women’s anthropometry – BMI, underweight, MUAC

Intermediate path indicators:

- Nutrition behavior pathway – knowledge, antenatal experiences
- Income pathway – asset ownership
- Agriculture/livelihoods pathway – household food security (HFIAS), crop production diversity
- Rights pathway – awareness of government schemes for pregnant women
- Empowerment pathway – women’s decision-making and gender attitudes

Results

Sample characteristics:

Overall, women were 26 years old and had 5 years of completed education. 40% of women were SHG members, with members belonging to SHGs for 30 months on average. Children were 15 months of age and half were male.

Impacts on nutrition outcomes:

- There was a weak negative impact on women’s knowledge (more improvement in STD than NI group), and no impacts on income, agriculture, rights or empowerment pathways.

Impacts on intermediate path indicators:

There was a weak negative impact on women’s knowledge (more improvement in STD than NI group), and no impacts on income, agriculture, rights or empowerment pathways.

Conclusions

Limited impacts on nutrition outcomes may be due to limited exposure, low motivation or skills of volunteers, and a concurrent national nutrition behavior change program targeting mothers and children in all study areas. This work was part of the Women Improving Nutrition through Group-based Strategies (WINGS) project and was supported by the Bill & Melinda Gates Foundation.