

Improving dietary diversity among women of reproductive age group (15-49 Years) through promoting kitchen gardening and health education

Priyanshu Rastogi*, Santosh Choudhary, Sunil Mehra, Shantanu Sharma

Department of Maternal Health and Nutrition, MAMTA Health Institute for Mother and Child, New Delhi, India

INTRODUCTION

Globally, more than two billion people have micronutrient deficiencies (MiNDs), with approximately half of them residing in India.¹ The present study aimed to assess the effectiveness of growing nutri-gardens in improving the dietary diversity of women and girls compared to no nutri-gardens.

METHODS

- It was a post-test only comparison with a control group.
- The intervention and control groups were similar in all aspects except that the intervention group received seeds for growing a nutri-garden.
- A random sample of 100 adolescent girls (15-19 years) and women in the intervention and control groups was drawn.
- A campaign was launched between June, 2022 and September, 2022 to spread awareness for establishing nutri-gardens, a balanced diet, and consumption of 10 food groups.
- The campaign encompassed four different approaches, primarily training beneficiaries on nutri-gardens, distributing seasonal seeds to the beneficiaries (12 types of seeds), and conducting educational role plays and video shows.
- The yield of the fruits and vegetables grown in the nutri-gardens was obtained and recorded in a monitoring format post 3 months after sowing seeds.
- The data were collected using a pre-designed semi-structured questionnaire that included a standardized diet quality questionnaire

RESULTS

- Around one-third of the study participants in both the groups belonged to scheduled castes/tribes.
- In total, there were 804 women and adolescent girls. Out of 804, 457 grew (the intervention group) and 347 did not grow nutri-garden (the control group).
- Women and girls who grew nutri-gardens had 0.38 times higher odds of having higher dietary diversity (≥ 5) than women and girls who did not.
- Similarly, women and girls who are educated have higher odds of having a higher dietary diversity compared to illiterates.

Table 1: Average yield and nutrients in the 12 different types of seeds distributed for nutri-gardens

TYPES OF SEEDS	RICH IN NUTRIENTS	*YIELD (KG)	TYPES OF SEEDS	RICH IN NUTRIENTS	*YIELD (KG)
Bitter gourd	Phosphorus, Potassium, Magnesium, Vitamin A, C & B-7, and Folic acid	5.7	Lady finger	Folic acid, Potassium, Magnesium, Vitamin C & K and fibre	8.4
Bottle Gourd	Folic acid, Potassium, Magnesium, Calcium, and Vitamin B-9	13.6	Tomato	Vitamin C, A, Fibre, Potassium, Calcium and Vitamin K	4.3
Beans	Proteins, fibre, Vitamin B-complex, Vitamin A & K and minerals	4.9	Green Chillies	Vitamin A, C, B-complex, Vitamin K, Fibre, Minerals	3.9
Cowpea	Proteins, Folic Acid, Magnesium, Phosphorus, Potassium, Iron, Vitamin B-1, 3, 5, & 9	5.7	Papaya	Vitamin A, C, E, K, B2, Folic Acid, Magnesium, Potassium, and Fibre	1.3
Poi greens	Proteins, Folic Acid, Vitamin A & C, and Minerals	5.4	Moringa	Vitamin A, Calcium, Iron, Vitamin B1, B2, B3, B6, C, E, Potassium, Phosphorus, Fibre	2.6
Spinach	Iron, Vitamin A, C, K, & E, Folic Acid, Vitamin B1, B2 and B6, Potassium and Fibre	5.4	Ridge gourd	Potassium, fibre, Vitamin C, B2, B3, calcium, phosphorus	8.4

*Average yield (kg) per family

CONCLUSIONS

Establishing nutri-gardens along with nutrition education improved dietary diversity among girls and women in the intervention areas. Nutri-garden is a low-cost sustainable approach to providing fruits and vegetables daily and meeting their daily requirements.



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Figure: Various activities were conducted under the Campaign

