



Nutrition Intervention and Homestead Kitchen Gardening-Improving Nutritional Security in Rural Livelihoods

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ABSTRACT

The magnitude of malnutrition and the ignorance about the relationship between food and health among a majority of the population at all levels necessitates the need for nutrition education. This approach in long term may promote self-reliance and self support in the communities. Nutrition intervention programmes have been taken up and are being implemented by the central, state governments and voluntary agencies with a view to improve the nutritional status and health of the vulnerable sections of the population. Homestead gardening can play a significant role in improving food security for rural households as well as middle class urban households in developing country like India. The present study explained about a cost effective technology for the optimal nutrient intake to achieve the nutritional security among resource poor people. The occupation and family size were positively associated with food security. The results revealed that there is a positive relation between family size and area of kitchen garden.

Key Words: Nutritional Intervention, Homestead Kitchen Gardening, Nutritional Security

INTRODUCTION

The five-year plans enunciated the outlined multi-sectoral programme to multi-pronged strategies for improve food security and to improve nutritional status of the population. This laid the goals to be achieved in a specified time frame and provided the needed funds to implement the interventions. As a result of all interventions, famines and severe food insecurity are no longer a threat but even today seasonal food insecurity is seen in different pockets of the country.

The set of interventions recommended addresses mainly the "Food" and nutrient intake needs of mothers and children because this is where most of the quantitative evidence of efficiency and effectiveness lies (Ruel, 2008).

Taking into account the vital role played by women in the family and their proportion in the population profile, it is impossible to think of development without educating women as they play crucial role at household nutrition. A kitchen garden is an integrated system which comprises the family house, a recreational area and a garden producing a variety of foods including vegetables,

fruits and medicinal plants for home consumption or sale. The kitchen/home gardens have been found to play an important role in improving food security for the resource poor rural households in developing countries (Asaduzzaman, 2011). Vegetable production can be easily made accessible particularly to the poor through kitchen gardens and this call for nutrition intervention and extensive nutrition education. Kitchen gardening continues to be the best way of improving the diets and nutritional status of population.

Poor people more often pay a higher price for food as they buy in expensive small quantities as well as traveling far to get to where the food costs relatively lower thereby losing that advantage on transport (Smit, 2001). Kitchen gardening can thus be argued to improve access to food to the vulnerable groups. Kitchen gardens provide and supplement subsistence requirements and generate secondary direct or indirect income. Direct income is by sale of surplus production while the indirect income is by the savings achieved by not buying the same products from the market as well as better trade when produce is

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exchanged with others from the neighbours.

Besides the provision of fruits and vegetables, gardening provides an aesthetic and therapeutic exercise that helps in relieving stress. The perception of good health goes beyond what we eat and encompasses the whole being. While the poor engage in manual work in their employment they do so as an obligation but in their gardens they do it because they like it. Gardening promotes relief from acute stress (Berg, 2011) which further improves the wellbeing of the participants. Keeping this in view, the present study was designed and executed.

MATERIALS AND METHODS

The habitation covered under Krishi Vigyan Kendra, Reddipalli of Acharya N G Ranga Agricultural University, Andhra Pradesh was chosen for the study during 2012-13. The sample area selected were the families having homestead area with marginal and low income groups and having 5-6 members in the family. A total of 30 women members were selected for the study and distributed kitchen garden kit having vegetable and green leaves seeds. The types of seed included were vegetables, creeper type and green leaves that can have maximum utilization in their homestead areas. Nutrition intervention programmes of KVK constitute activities that were concerned to the families

The women beneficiaries were chosen as focus group. The reason for choosing the housewives as focus group was that, they are the caretakers

of their family. Nutritional educational intervention programme was planned for these women beneficiaries for a period of six months. In the study area, the programme was conducted in 3 stages. In the first stage, the general information about the family and the nutrition knowledge of the woman was gathered using a questionnaire. Nutritional status of the families was accessed based on the information collected.

Based on the information gathered by the women, nutrition programmes were planned and executed in the second stage, so as to improve the intake of vegetables and seasonal fruits. In the third stage, utilization of the produce was assessed with the help of diet survey and weighment method. The impact of nutrition education programme was assessed by testing the final nutritional knowledge of the women, by adopting a structured nutritional knowledge questionnaire (Sridevi, 1989).

RESULTS AND DISCUSSION

Demographic characters

The selected sample of the present study was distributed according to their gender, represented in table 1. Out of total subjects 30.5 per cent were men, 34.7 percent women whereas remaining 34.7 per cent were children (Boys – 19 per cent, Girls 15.7 per cent).

Education status of women

The education status of the women in the present study was analyzed in three categories.

Table 1. Type and Quantity of seed distributed and utilized by women.

Sr. No.	Type of seed	Quantity of seed distributed (g/each)	Yield in kg (for the period of 3-4 months)		
			Household consumption (kg.)	Shared with neighbours (kg.)	Sale of produce period (kg.)
1	Cluster bean	150	13	4	13
2	Dolichos bean	150	25	10	15
3	Bitter guard	50	22	6	7
4	Ridge guard	50	16	10	10
5	Ladies finger	50	28	13	15
6	Radish	35	10	10	10
7	Chillies	16	10	5	—
8	Brinjal	16	20	25	—
9	Tomato	10	23	15	12
10	Amaranthus	50	20 bunches	15 bunches	20 bunches
11	Palak	100	20 bunches	10 bunches	20 bunches
12	Mesta	100	10 bunches	20 bunches	20 bunches

20 per cent of the women were illiterate, 37 per cent were having elementary education. Maximum of 43 per cent women having higher school education. As the sample consisted of all categories of women, a non-formal approach of nutrition education and intervention may be more suitable.

Occupation

Of the selected sample, all were engaged in agriculture and allied occupation, which fell under the category of moderate work.

Monthly Family Income

The selected participants were from low income group. Variations were observed among subjects in their monthly earnings, 33 per cent of the respondents were earning monthly income between Rs.4,001-5,000/-. Twenty five per cent of families were earning monthly income between Rs.5,001 to 7,000/- Majority of the families *i.e.*, 42 per cent of the families were earning below Rs. 4,000/-. Another observation on family type was that the joint families tend to be better off socio-economically due to more number of economic supporters compared to nuclear families.

Nutrition knowledge of the women

Nutrition education is the pre-requisition for improving the nutritional status among all age groups. The nutrition education component helps to develop skills for proper utilization of available food resources. Although nutrition education is a slow process, it can bring long term benefits. Nutrition education through intervention programmes were given to women, programmes consisted of regular contacts with the beneficiaries, lectures, group discussions, method demonstrations *etc.*, to encourage categories.

Pre and post test measures of Knowledge, Attitude and Practice (KAP) on nutrition aspects from women were collected. The results revealed

that the knowledge levels among the women changed from 33.2 per cent to 69.3 per cent. The attitude per cent among the women in pre evaluation was 28.6 and post evaluation was 64.8, the practice levels has changed from 30.2 to 62.9 percent. (Fig1)

After implementing the programme, out of 30 families, 18 families (60 %) have lowered their maximum monthly expenditure on purchase of vegetables (Rs.400-500/-), and 8 families (28 %) have lowered to 50 per cent of their monthly expenditure on purchase of vegetables (Rs.250-350/-) and remaining 4 families (12 %) could not get maximum benefits because of not following the programme due to their occupational workloads. Out of 30 women, 24 members have expressed that the kitchen gardens have helped the families to improve the consumption of fresh vegetables in their diet and to improve social relationships with their neighbours by sharing the surplus produce from their homestead gardens.

The availability of vegetables and fruits in a kitchen garden would increase consumption and hence mitigate malnutrition. The availability of the food would spur consumption as observed by a study of urban community gardeners in USA (Alaimo, 2008). Beyond the obvious hunger resulting from insufficient food, we have hidden hunger of micronutrients deficiency that leads to vulnerability to infectious diseases physical and mental impairment that leads to low productivity in addition to reduced life expectancy (Turner, 2012).

CONCLUSION

Nutrition is considered critical for women. Nutrition is an input into development especially economic development and its neglect would adversely impact on health, cognitive development. The observations indicate that, there is need for comprehensive and integrated food

Table 2: Distribution of sample according to gender.

Sr. No.	Gender	Total Number	Percentage
1.	Male	34	30.5
2.	Female	42	34.7
3.	Children Boys	23	19.0
	Girls	19	15.7
Total		121	

Table 3: Distribution of the sample according to their education level.

S. No.	Educational level	No.of subjects	Percentage (%)
1.	Illiterates	6	20
2.	Elementary school education	11	37
3.	High school education	13	43

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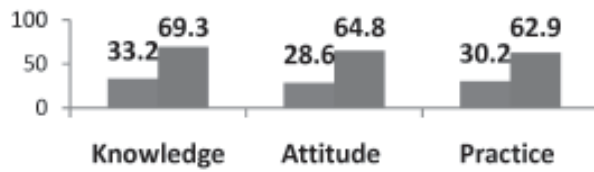


Fig:1 Summary of KAP result.

and nutrition policies. Especially by involving women in implementing the programme and equally any activity aimed at preventing malnutrition depend substantially on women's activity, indeed on their empowerment. Simultaneously the kitchen gardens have helped to improve the food and nutritional security of women as well as their family members. Here, the kitchen garden has acted as a trap to this natural resource for the benefit of mankind. Hence, homestead kitchen gardening along with nutrition intervention will improve the nutritional security in rural livelihoods, but the approach is normally slow and results are achieved over a long period of time.

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