



## Health Promotion through Nutrition Education for Rural Women in Bengaluru District

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### ABSTRACT

*Under this study focused on SHGs (Self Help Group) constituted by women entrepreneurs. Study was conducted in two villages of Bengaluru- Venkatehalli and Heggadehalli. Fifty respondents were selected and assessed for the consumption of food, nutrient intake in comparison with RDA and nutrition knowledge during pre and post stage of nutrition education programme. Data was collected through interview method. Impact of intervention on consumption of food in comparison with RDA revealed that, a significant increase in consumption of fruits and vegetables, milk and milk products. With reference to the nutrient intake in comparison with RDA resulted that protein intake increased to 74 per cent and similar trend was observed with energy and iron. The nutrition knowledge enhanced the awareness regarding the general nutrition (84 %) followed by health and hygiene (78 %) There was a positive impact of intervention on consumption of food, nutrient intake and nutrition knowledge.*

**Key words:** Consumption of food, Nutrient intake, Nutrition education, Rural women, RDA

### INTRODUCTION

Rural women always play an important dual role in the society. Varied roles of women as mother, home maker and productive workers are the sustaining force of families, communities and nation. The past century has witnessed an unprecedented change in lifestyle of people affecting demography, food supplies, eating patterns and health of the populations. The dietary and nutrition transition characterised by improved agricultural practices food supplies and

advances in food processing technique while making more food available to people has also resulted in imbalanced nutrient intakes changing health profiles.

A healthy and balanced diet is quite important in life time of rural women. Proper nutrition and balanced diet full of whole grains, fruits and vegetables will help to keep health throughout life. Inadequate nutrition may leads to less efficiency of work in the rural women.

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Education is an important factor in health promotion. Determination of training needs is essential to achieve this goal. Knowledge is not behaviour but it can be a determining factor of dietary behaviour. Various reports indicate that, in most undeveloped countries intake is not on par with the Recommended Daily allowances (RDA). So the present study was assessed for the impact of intervention of nutrient intake and nutrition education of rural women<sup>1</sup>.

### MATERIAL AND METHODS

Methodology involved quantitative assessment conducted in two villages of Heggadehalli and Venkatehalli. The attempt made to know the impact of intervention on consumption of food, nutrient intake of rural women and nutrition knowledge of rural women. Two nutrition education programme were organised. Twenty five each rural women were selected from two selected villages for the study. The data were collected with the help of interview method. Knowledge test was formulated with 20 statements related to nutrition knowledge of women on general nutrition, health and hygiene, nutritional deficiency diseases. General nutrition and health concept includes consumption of food and nutrient intake before the nutrition education. The gain the knowledge was operationalized as the difference between the knowledge regarding various aspects of general nutrition and health concepts by the respondents before and after the exposure of trainings. Thus the summation of all the scores treated as the impact of intervention of the respondents at pre and post stage.

In order to ascertain the impact of intervention on consumption of food, student 't' test was employed. To assess the impact of training programme on nutrition knowledge 'x<sup>2</sup>' (chi square) test was employed.

### RESULTS AND DISCUSSION

It was evident from the Table 1, that 54 per cent of the women entrepreneurs belonged to middle income group whereas 36 per cent in low income group and only 10 per cent of women belonged to high income group.

Impact of intervention of consumption of foods by rural women in comparison with RDA (Table 2). Revealed that consumption of cereals was 96 per cent adequate before the intervention and was raised to 98 per cent adequacy after intervention. With reference to pulses 77 per cent of the adequacy was met before and it increased to 82 per cent, adequacy for green leafy vegetables and other vegetables after intervention was 84 and 90 per cent respectively. There was significant increase in fruits and vegetables (77%), milk and milk products (80%), fats and oils (76%), sugar and jaggery (86%) respectively. Statistically significant differences existed at one per cent level for the adequacy of foods. However none of the food groups met 100% adequacy. Deshpande *et al.*<sup>3</sup> in their study reported that cereals, pulses, milk and milk products and fruits showed deficits of intake among rural women labourers from Tamilnadu. Similar observations were reported on agricultural women labourers by Radhai<sup>4</sup>. The reasons for enhancement in food intake adequacy after training programme. Suman and Geetha<sup>5</sup> assessed the adequacy of food intake by farm women, even in this study diets of women was inadequate in quantity and poor in quality. Cereals/ millets consumed proportionately more than pulses indicating the serious imbalance of cereals and pulses ratio. Among rural women, low intake of fat could be attributed to the lower income where there is tendency to consume lower amounts of fats and oils.

Impact of intervention on mean nutrient intake of rural women in comparison with RDA is represented in Table 3. Among the nutrients, protein intake met only 64 per cent adequacy before intervention. However, it increased to 74 per cent adequacy after technical intervention on nutrition. Similar trend was observed with fat, energy and iron. Significant effect was observed on nutrient intake at 1 per cent level. Only one nutrient i.e. calcium was above the RDA i.e. 115 per cent adequacy before and 118 per cent after the intervention. The changes in the nutrient intake after training programme was due to

enhanced nutrition knowledge, awareness about cooking methods and other activities. Similar observations were made by Dobhal and Raghuvanshi<sup>2</sup> on urban and rural women of garwal region of uttarkhand. Similar findings are in line with RBRC project (2010) report that, the general awareness of rural women with respect to nutrition, health and awareness on marketing was assessed before the training programme, majority of the women were not aware of the balanced diet and micronutrient deficiencies, however post education sessions showed increased percentage of knowledge (32-84%) with an enhancement of awareness about general nutrition, health and hygiene and deficiency diseases. 24.6-83%). Hence, nutrition education to the rural women is important in the dissemination of knowledge and creates

awareness on food consumption and nutrient intake.

The impact of entrepreneurial activities on the status of SHG women before and after nutrition education programme is presented in the Table 4. The nutrition knowledge scores revealed that, most of the women strongly agreed with respect to nutrition, health and hygiene and nutritional deficiency diseases, before and after the nutrition education with regard to general statements majority of the SHG women were aware about the health and hygiene and midday meal benefits (24%) followed by general nutrition (22%). The impact of nutrition education enhanced the awareness regarding the general nutrition (84%) followed by health and hygiene (78%) and nutritional deficiencies (68%) and only 58 per cent of the SHG women aware of mid- day meal benefits.

**Table 1: Economic status of SHG rural women during nutrition education programme**

Classification		
Income group	Number	Per cent
Low (Rs.<2000)	18	36
Medium (Rs.2000- 3000)	27	54
High (Rs.>3000)	05	10
<b>Total</b>	<b>50</b>	<b>100</b>

**Table 2: Impact of intervention on consumption of foods by rural women in comparison with RDA**

Food group	RDA	Before		% adequacy	After		% adequacy	't' test
		Mean	SD		Mean	SD		
Cereals	330	320	89.8	96	326	80.5	98	60.61**
Pulses	75	58	19.7	77	62	17.4	82	33.28**
Green leafy vegetables	100	81	16.4	81	84	12.9	84	28.28**
Other vegetables	200	150	54.6	75	181	46.2	90	47.14**
Fruits	100	50	18.6	50	77	34.1	77	30.30**
Milk and milk products	300	200	66	76	242	70.5	80	46.04**
Fat and oil	25	18	4.8	72	19	4.2	76	23.57**
Sugar and jaggery	30	24	8.9	80	26	8.1	86	70.71**

\*\* Significant at 1% level

**Table 3: Impact of intervention on mean nutrient intake of rural women comparison with RDA**

(n=50)

Nutrients	RDA	Before		% adequacy	After		% adequacy	't' test
		Mean	SD		Mean	SD		
Protein (gm)	55	35.3	12.5	64	41.0	11.9	74.0	48.08**
Fat (gm)	25	16.3	7.9	65	18.6	8.4	74.5	23.23**
Energy (K.cal)	2230	1850	442.3	83	2108	431.2	94.5	38.77**
Calcium (mg)	600	695	117.6	115	712	112.8	118.0	28.26**
Iron (mg)	21	14	7.4	66	16.5	8.4	78.0	24.26**

\*\* Significant at 1% level

**Table 4: Impact of training programme on nutrition knowledge, awareness and empowerment of rural women**

(n=50)

Nutrition Knowledge	Before		After		X <sup>2</sup> test
	Number	per cent	Number	Per cent	
General nutrition	11	22	42	84	211.51**
Health & Hygiene	12	24	39	78	171.91**
Nutritional deficiency diseases	6	12	34	68	171.07**
Anganawadi / mid day meal benefits	12	24	29	58	96.13**

### CONCLUSION

Life style changes in society, new advances in food technology and packaging, increased interest in healthy eating of more nutritious foods. Change in meal pattern, existing food habits. After intervention of nutritional education, there was significant change in the consumption of different food groups and nutrients with adequacy. Nutrition education to rural women showed a positive impact.

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