

“Impact of training on nutritional knowledge and skill development among rural women on utilization of Moringa leaves for value addition”

Kanak Lata Rai,

Anisha Verma,

Neeru Bala

Bhawna Srivastava

ABSTRACT

The present study entitled “Impact of training on nutritional knowledge and skill development among rural women on utilization of Moringa leaves for value addition” was carried out with the objectives to study the nutritional knowledge and skill of rural women on utilization of Moringa leaves for value addition, to impart the training programme on utilization of Moringa Leaves for value addition among the rural women and to assess the impact of training on knowledge and skill development of rural women. Four villages namely Dabhaon and Bagbana from Chaka block and Budava and Khatangiya from Jasra block were purposively selected for the study. A total of 200 rural women aged between 25-45 years were selected from both the blocks of Allahabad district. A pretested questionnaire including the information on demographic data and nutritional knowledge and skill about the utilization of Moringa leaves through value addition has been used to collect the data. Post training data collection was done after one month of training. Result shows that at pre-exposure stage before imparting nutrition training only 31.5 percent respondent consumed Moringa leaves for value addition and the consumption was increased up to 64.5 percent after importing the training program. The collected data showed that only 10.5 percent of respondents prepared different recipes using Moringa leaves. After training, it was seen that 48.5 percent of respondent started to prepare different recipes using Moringa leaves. A significant impact of training on nutritional knowledge and skill was observed on applying the Z test at 5 percent level of significance.

Keywords: Moringa leaves, Demographic data, Nutritional knowledge, Skill development, Value addition

INTRODUCTION

Green leafy vegetables (GLVs) are among the most nutritious vegetables. They are a significant source of calcium, iron, beta carotene, vitamin C, riboflavin and folic acid (**Gopalan et al., 2010**). Green Leafy vegetables (GLVs) can play a major role in the reducing micronutrient deficiencies. Sufficient intake of green leafy vegetables (GLVs) has been related epidemiologically with reduced risk of many non-communicable diseases.

The nutrition and health care among young women are influenced by several factors, the most important being the socioeconomic status. Most of the Indian Women are suffering from micronutrient deficiencies. Women with mild anemia may experience fatigue and have reduced work capacity. This is mainly because of lack of awareness among the population. Therefore nutrition education materials via charts, poster, documentary, training and demonstration can helped to aware them regarding nutritional potential of GLV's. Training does not merely mean

the acquisition of knowledge or experience but it means the development of habits, attitudes and skills which help a person to lead a full and worthwhile life (Akubugwo *et al.*, 2007).

Hence, the present research work has been conducted with the aims to study the nutritional knowledge and skill of rural women on utilization of Moringa Leaves for value addition, to impart the training programme on utilization of Moringa Leaves for value addition among the rural women and to assess the impact of training on knowledge and skill development of rural women.

MATERIALS AND METHODS

The present study was conducted in four villages namely Dabhaon and Bagbana from Chaka block and Budanva and Khatangia from Jasra block of Allahabad district of Uttar Pradesh. A total of 200 rural women were selected from both the blocks, between the age group of 25-45 years. The data was collected through a developed questionnaire as pre exposure data and post exposure data which was enclosed with general profile of respondents and Nutritional Knowledge and Skill and regarding the value addition of Moringa leaves. The training through demonstration on utilization of Moringa leaves for value addition was conducted in selected villages, two regular trainings programs were conducted in each of the selected villages at the interval of 15 days for a month. Two value added products *mathari* and *sev* were demonstrated using Moringa leaves. After one month of training programme post-exposure data was collected. Pre- structured schedule as used to collect the data before the training was again used to collect the data after the training programme regarding the knowledge and skill in order to assess the impact of training on utilization of Moringa leaves for value addition. The data obtained was tabulated and analyzed with the help of statistical techniques frequency, percentage, mean score and Z test (Geetanjali *et al.*, 2005).

RESULTS AND DISCUSSIONS

GENERAL INFORMATION

Table 1: Distribution of the respondents according to the general information

S. No.	Particulars	No of Respondent N=200	Percentage (%)	Total
1.	Age (25-45 years)	25-35 year	51	200
		36-45 year	49	
2.	Type of family	Joint families	34	200
		Nuclear families	66	
3.	Family Size	2-6 members	39.5	200
		7-11 members	25.5	
		12-16 members	27.5	
		Above 16	7.5	
4.	Education	Illiterate	49	200
		Primary	25	
		High School	11	
		Intermediate	9	
		Graduation	6	

		Post graduate	0	0	
5.	Occupation	Labour	57	28.5	200
		Housewife	124	62.0	
		Business	19	9.5	
6.	Marital Status	Married	198	99	200
		Unmarried	2	1	200
7.	Religion	Hindu	200	100	200
		Muslim	00	00	
		Christian	00	00	
		Jain	00	00	
8.	Caste	General	0	0	
		OBC	98	49	200
		SC	84	42	200
		ST	18	9	200
9.	Family income	High income 25,001	00	00	
		Middle income 5,000-25,000	00	00	
		Low income <5,000	200	100	200

The pooled data showed that the majority of respondents (51 %) were 25-35 years old. Only 49 percent respondents were belongs to 36-45 years age group. About 66 percent respondents belonged from nuclear family and 34 percent respondents from joint family. Most of the respondents (39.5 %) had family size of 2-6 respondents, 27.5 percent respondent's family had 12-16 members, 25.5 percent of respondents belong to the family size of 7-11 members while 7.5 percent respondents had above 16 members in their family. Out of the total respondents 49 percent were illiterate, 25 percent obtained primary education. About 11 percent and 9 percent were passed high school and intermediate respectively. Only 6 percent of respondent were graduate and no one was found post graduate. Most of the respondents were housewives (62 %) and about 28.5 percent were laborer and 9.5 percent were in business. Majority of the respondents (99 %) were married and only 1 percent were unmarried. All of the respondents (100 %) were Hindu while none of the respondent was Muslim, Christian and Jain. Nearly half (49 %) of the respondents belongs to the OBC category, 42 percent were SC and only 9 percent belongs to ST category. All of the respondents had family income below Rs. 5000 and none of the respondent were belongs to the Middle income (5,000-25,000) and High income (above Rs. 25,001) group.

Table 2: Impact of training on nutritional knowledge of respondent

Nutritional Aspects	Respondents			
	Pre data		Post data	
	Yes (%)	No (%)	Yes (%)	No (%)
Consumption of Moringa leaves	31.5	68.5	64.5	35.5
Nutritional significance of Moringa leaves	37.5	62.5	69	31

Knowledge about iron content present in Moringa leaves	40.5	59.5	73.5	26.5
Knowledge regarding health benefits from consumption of Moringa leaves	39.5	60.5	71.5	28.5
Knowledge regarding Moringa leaves is less expensive and provides equal health benefits in comparison to other leafy vegetables.	33	67	74	26
Knowledge regarding Moringa leaves is less nutritive as compared to other leafy vegetables.	67	33	24	76
Knowledge regarding Consumption of Moringa leaves can cure deficiency diseases.	34	66	80.5	19.5
MEAN	40.42		55.07	
Standard Deviation	10.48		9.12	
Tab Z at 5% = 0.88	Calculated Z test = 1.18		(S)	

S= Significant

NS= Not significant

The above table 2 shows the impact of training on nutritional knowledge of respondent. Calculated value of Z test for Knowledge of the respondents regarding the health benefits, identification and utilization of Moringa leaves is more than tabulated value of Z at 5 percent probability level. Therefore it is concluded from above data that there is significant impact of training and demonstration on the knowledge level of the subjects. After intervention about 14.65 percent rise in knowledge level of respondents regarding the health benefits, identification and utilization of Moringa leaves was seen.

Kumari and Puttaraj (2004) reported that nutrition education via training programmes was an effective tool and suggested that all the nutrition programmes should have nutrition education component which can influence the nutrition of household positively.

Table 3: Impact of training on skill of the respondent

Statement	Respondents			
	Pre data		Post data	
	Yes (%)	No (%)	Yes (%)	No (%)
Do you use Moringa leaves for value addition	7.5	92.5	52.5	47.5
Do you rinse Moringa leaves after cutting	55.5	44.5	85.5	14.5
Do you prefer cooking for longer period of time	10.5	89.5	57.5	48.5
Mean	73.5		195.5	
Tab Z at 5% = 0.89	Calculated Z = 1.23			

The above table 3 shows the impact of training on skill of the respondent. Calculated value of Z test on skill of the respondents regarding the utilization of Moringa leaves is more than tabulated value of Z at 5 percent probability level. Therefore it is concluded from above data that there is significant impact of training and demonstration on the skill level of the subjects. After intervention about 28.33 percent rise in skill level of respondents regarding the utilization of Moringa leaves was seen.

CONCLUSION

From present study it is concluded that pre-exposure stage before imparting nutrition training only 31.5 percent respondent consumed Moringa leaves for value addition and the utilization was increased up to 64.5 percent after importing the training program. The collected data showed that only 10.5 percent respondents prepared different recipes using Moringa leaves. After training, it was seen that 48.5 percent of respondent started to prepare different recipes using Moringa leaves. A significant impact of training on nutritional knowledge and skill was observed on applying the Z test at 5 percent level of significance.

RECOMMENDATIONS

- More training/demonstrations of utilization green leafy vegetables for value addition in traditional recipes should be held among the rural women for more effective results.
- Therefore daily intake of fruits, leafy vegetables as well as other nutrients should be encouraged for proper functioning of the body system and healthy living, through nutrition awareness programme.

REFERENCES

Akubugwo, I.E., Obsai, N.A., Chinyere, G.C. and Ugbogu, A.E. (2007) "Nutritional and chemical value of *Amaranthus hybridus* L. Leaves from Afikpo, Nigeria". *African Journal of Biotechnology*, 6 (24): 2833-2839.

Geetanjali K., Subhdra K., Rana K. and Chengappa, (2005) "Nutritional knowledge, attitude and practices of competitive Indian sportsman". *The Indian Journal of Nutrition and Dietetics*, 43; 293-304.

Gopalan, G., Sastri, B. V. R. and Balasubramanian, S. C. (2010) "Nutritive value of Indian foods" National Institute of Nutrition. Indian Council of Medical Research. Hyderabad, 425-427.

Kumari, K. S. and Puttaraj, S. (2004) "The impact of development programmes on the nutrition awareness of farm women". *Journal of Human Ecology*. 15 (1), 5-7.