

“NUTRITION EDUCATION AS AN INTERVENTION FOR LOCALLY AVAILABLE INDIGENOUS PLANT CROPS FOR RURAL WOMEN”

DWIVEDI SHRUTI¹, VERMA ANISHA² & NEERUBALA³

¹Research Scholar, MSc. Food Nutrition and Dietetics, Ehelind School of Home Science,
SHIATS, Allahabad Uttar Pradesh, India

^{2,3}Assistant Professor, Department of Foods and Nutrition, Ethelind School of Home Science,
SHIATS, Allahabad Uttar Pradesh, India

ABSTRACT

The present study was carried out with the objectives to assess the nutritional knowledge, attitude and practices (KAP) of the selected rural women regarding the utilization of indigenous food items, developing the nutrition education materials for the intervention to increase the utilization of indigenous food items and to find out the impact of intervention on nutritional knowledge, attitude and practices of the selected rural women. A total number of 160 women beneficiaries aged 25-40 years were randomly selected from chaka and jasra blocks of Allahabad district for the study. To assess the Knowledge, Attitude and Practices of selected rural women regarding consumption and utilization of locally available underutilized green leafy vegetables data was collected using a developed questionnaire which lead to the fulfillment of the objectives of this study. To motivate beneficiaries to develop skill and confidence to adopt positive and lasting attitude and practices towards consumption of underutilized green leafy vegetables **Documentary Film** was prepared as it is audio visual method of imparting nutrition education. Recipe Book consisted of 25 nutritious recipes providing information about cooking directions and recipes of indigenous food items. The prepared recipe book and documentary film provided nutrition education related to utilization and consumption of locally available indigenous food items and their utilization in various traditional recipes were successfully projected in front of rural women. Regular visits were made once a week for 30 days. From the study it was found that mean percentage of knowledge rose from 43.12 at pre exposure stage to 85.15 at post exposure stage. Significant rise in attitude was seen i.e. 28.24 percent at pre exposure stage to 91 percent at post exposure stage after imparting nutrition education. Practices regarding consumption of locally available indigenous food items changed from 45.63 to 83.5 percent. Thus recipe book and documentary film proved out to be an effective tool for educating the rural women and bringing out a change in their Knowledge, Attitude and Practices regarding locally available indigenous food crops.

KEYWORDS: Nutrition Education Materials, Intervention to Increase, Intervention to Increase, Utilization of Indigenous Food Items

INTRODUCTION

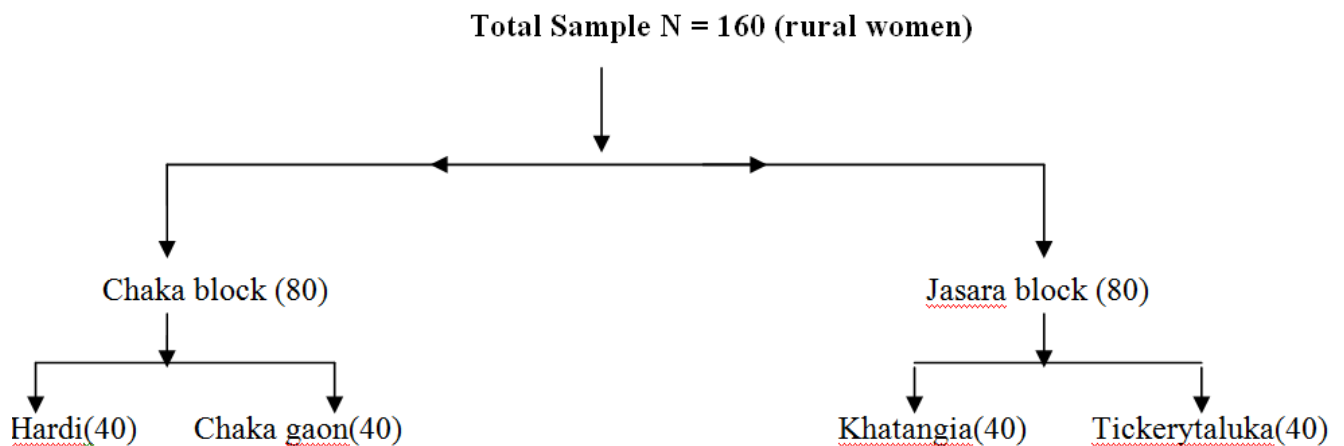
The unfortunate state of nutrition in countries like India is attributed to several socio economic factors. The role of women in combating malnutrition through changing socio cultural barriers is unique and vital. The nutritional status of family members is greatly influenced by the knowledge, attitudes, beliefs and values possessed by mother and adolescent girls in the family. Nutrition and health education aims at enhancing knowledge and awareness of the target group to

handle problems like health, malnutrition disease etc. which are usually seen in disadvantaged families (**Gerrvani and Devi, 2004**). The importance of nutrition education as a mean for improving nutrition of the community in the developing countries has been increasingly realized during recent decades. Lack of knowledge of the dietary requirements and nutritive value of different food is the main contributory cause for the widespread occurrence of malnutrition. Nutrition education should be practical and adoptive to suit the socio-economic condition, food habits and local resources. Nutrition education is needed to provide nutrition related knowledge for healthy nutrition. It is needed to improve nutritional level by means available (**Swaminathan, 2009**). Lack of knowledge of the dietary requirement and the nutritive value of different foods is the main contributory cause for the wide spread occurrence of many diseases. The health promotion can be achieved through the effective nutrient education (**Tamilaarasi and Sarradha, 2004**). Need of nutrition education is very essential to solve the nutritional and health problems. It has been well recognized that one of the weakest link in intervention programs to control malnutrition is absence of proper nutrition education and scarcity of appropriate location specific education materials. Therefore, preparation of location specific nutrition education materials is the need of the hour (**Joshi and Singh, 2005**). There is a need to focus on the utilization of locally available indigenous food items, encouraging a revaluation of forgotten and neglected foods which are often largely underutilized. To bring about a positive change in their attitude and practices. This study is aimed to improve the nutritional knowledge of rural women regarding utilization of indigenous foods.

MATERIALS AND METHODS

Location of Study

Chaka and Jasara block of Allahabad district were purposively selected for conducting this study because it was convenient for researcher and researcher has good access to it so regular visits were made for authentic collection of data.



Methods of Enquiry and Data Collection

The data was collected through a developed questionnaire as per pre exposure data and post exposure data.

- **General Profile**

Data regarding general profile of respondents was collected using the developed schedule. The information included name, age, family type, occupation, educational status of the rural women and other related general information.

- **KAP Assessment**

A proforma was developed to assess the knowledge, attitude and practices of the subjects regarding the utilization of locally available indigenous food items. The proforma included few multiple choice questions on KAP (Knowledge, Attitude and Practices) of the respondents. There were 8 questions based on knowledge level, 5 question based on attitude information and practice level. The assessment of KAP of all the respondents was administered twice once at as pre intervention and second at post intervention. On the basis of answers filled in the proforma 1 mark was awarded for every right answer and 0 marks were awarded for every wrong answer. The mean percentage of scores falling in different categories were computed as

SCORES GRADES

>85 Excellent

71- 85 Very Good

56- 70 Good

40- 55 Fair

<40 Poor

The study was conducted at pre and post exposure stages. **Kumar *et al.* (2003)**

Imparting Nutrition Education

Nutrition education was conducted by the researchers using the prepared nutrition education tools through the developed film strip and recipe book, by making regular visits once a week for a period of 30 days. Movie and recipe book were shown to respondents with discussion after education, post exposure data was collected separately.

Impact of Nutrition Education

A post exposure data was collected with the help of survey schedule and knowledge test performa which was used before imparting education. The method as suggested by **Kumar *et al.*(2003)** was used with slight modifications for testing the knowledge of the subjects regarding the utilization of locally available indigenous food items.

Statistical Analysis

The data obtained was tabulated and analyzed with the help of statistical techniques, frequency, and percentage mean score and Z test (**Geetanjali *et al.*, 2005**).

RESULTS AND DISCUSSIONS

Following Results Were Observed

The collected data showed that 72.5 percent respondents were 25-35 years old. 27.5 percent of the respondents belong to the age groups of 36 to 45 years. The maximum respondents belonged to nuclear family i.e. 65.6 percent and 34.37 percent respondents belonged to joint family. Sixty percent respondents belong to family size of 2-6 members, 27.5 percent people have 7- 11 members in their family, 6.875 people have 12-16 members in their family, and 5.625 percent people have above 16 members in their family. The study showed that 61.25 percent of respondents were housewife, and about 35 percent were laborer and about 3.75 percent were in business. Study revealed that out of the total respondents 75

percent respondents were illiterate, 12.5 percent were eighth pass, 6.5 percent passed high school, 3.125 percent cleared intermediate, 3.125 percent were graduate and no one was post graduate.

Table 1: Impact of Nutrition Education on Knowledge of Respondents

Nutritional Aspects	Respondents			
	Pre Data		Post Data	
	Yes (%)	No (%)	Yes (%)	No (%)
Identification of locally available indigenous food items	58.75	41.25	98.75	1.25
Consumption of locally available indigenous food items	51.25	48.75	85.62	14.37
Nutritional significance of locally available indigenous food items	41.25	58.75	75	25
Knowledge about iron content present in locally available plant crops	41.25	58.75	81.25	18.75
Knowledge about different recipes from locally available indigenous food items	15.0	85	86.25	13.75
Knowledge regarding health benefits from consumption of locally available food items	35.0	65	83.75	16.25
Knowledge about cultivating methods of locally available food items	63.75	36.25	81.87	18.12
Knowledge regarding locally available indigenous food items are less expensive and provides equal health benefits in comparison to other leafy vegetables.	38.75	61.25	88.75	11.25
Mean	43.12		85.15	
Tab Z at 5% = 1.96	Calculated Z test = 0.42 (SIGNIFICANT)			

Calculated value of Z test of respondents' knowledge about identification and utilization of underutilized plant crops is smaller than tabulated value of Z at 5% probability level. Therefore it can be calculated from above data that there is significant effect of intervention. After intervention 34.53% rise in knowledge level of respondents regarding identification and utilization of locally available indigenous food items was seen.

Study conducted by **Hosani and Sunderswamy (1996)** showed the relationship between education and knowledge level. In their study, relationship between education and knowledge level was found to be significant. In general, formal education widens the horizons of knowledge of an individual to a greater extent. Educated people understand the importance of health and try to know more and more about health practices by exposure to mass media like T.V., radio, etc.

Table 2: Impact of Nutrition Education on Attitude of Respondents.

Statement	Respondents			
	Pre Data		Post Data	
	Yes (%)	No (%)	Yes (%)	No (%)
Consumption of locally available indigenous food items	79.37	20.63	92.5	7.5
Attitude about locally available indigenous food items are not only fodder for animals but are also fit for human consumption.	14.37	85.62	88.95	11.25
Locally available indigenous plant crops are equally nutritive as compared to other leafy vegetables.	11.87	88.12	87.5	12.5
Locally available indigenous food items can cure deficiency diseases	33.12	43.17	91.25	8.75
Consuming locally available indigenous food items do not cause any disease	2.5	97.5	95	5
Mean	28.24		91.0	
Tab Z at 5% = 1.96	Calculated Z test = 0.068 (SIGNIFICANT)			

Calculated value of Z test of respondents’ attitude is smaller than tabulated value of Z at 5% percent probability level. Therefore it can be calculated from above data that there is significant effect of intervention. After intervention 62.76% rise in attitude towards identification and utilization of locally available indigenous food items was seen.

Table 3: Impact of Nutrition Education on Practices of Respondents

Underutilized Green Leafy Vegetables	Daily (Percent)		Weekly Once (Percent)		Monthly (Percent)		Occasionally (Percent)		Not at all (Percent)	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Indian sorrel leaves (<i>Oxalis corniculata</i>)	0.0	0.00	0	20	0	28.75	0	18.12	100	20.6
Drumsticks leaves (<i>Moringa</i>)	1.9	5	16.25	19.37	19.3	26.25	26.25	36.25	36.25	13.12
Loni (<i>Portuacaquadrifida</i>)	15	19.4	13.75	21.25	24.37	28.75	25	29.37	21.87	1.25
Pathari (<i>BoerhaviaDiffusa</i>)	0.0	0.00	0		0	17.5	0	23.12	100	59.37
Lahesua (<i>Digeraarvensis</i>)	7.5	11.87	11.87	13.75	39.37	43.75	20.62	27.5	20.62	3.125
Surwari (<i>celosia argentea</i>)	0.0	0.00	0	10	50	51.87	14.37	36.25	47.5	1.87
Mean	4.0	6.04	6.97	14.06	22.8	32.81	14.4	28.4	54.37	16.5

Pooled data showed significant rise in practices as increase in frequency consumption of locally available food items was seen. At pre exposure stage only 45.63 percent respondents were consuming locally available indigenous plant crops while after imparting nutrition education 83.5 percent respondents started consuming locally available indigenous plant crops as they became aware about the availability and benefits of consuming them.

Table 4: Mean Percentage KAP Scores of the Respondents at Pre and Post Exposure to Nutrition Education

	Pre Stage (Percentage)	Post Stage (Percentage)
Mean Percentage of Knowledge score	43.12 FAIR	85.15 EXCELLENT
Mean Percentage of Attitude score	28.24 POOR	91.0 EXCELLENT
Mean Percentage of practice score	45.63 FAIR	83.5 VERY GOOD
Mean Percentage of KAP score	39 POOR	86.55 EXCELLENT

The pooled data shows mean percentage of scores measured before and after exposure to nutrition education. The mean percentage knowledge score of the respondents was 43.12 percent at pre exposure stage stating the respondents got fair grade, while after imparting nutrition education a significant rise in knowledge was seen as the respondents scored excellent grade as their score was 85.15 percent. Significant rise in scoring was seen for attitude as at pre exposure stage respondents got poor grade and excellent grade after intervention. Mean percentage of practice score raised from 45.63 percent at pre exposure stage to 83.5 percent at post exposure stage so effective rise in grading was seen from fair at pre exposure stage to very good at post exposure stage. Imparting nutrition education about locally available indigenous food items proved out to be very effective in raising the knowledge and to bring out the change in the attitude and practices of the respondents as it is clear from the above data as the respondents scored poor grade at pre exposure stage before imparting the nutrition education and excellent grades after nutrition education was given.

CONCLUSIONS

It was concluded from the study that the nutrition education materials developed as Recipe book and documentary film, proved out to be effective tools to bring out a change in the knowledge, attitude and practices regarding utilization of locally available indigenous food items. The combination of recipe book and documentary film are more effective in creating a significant impact on the knowledge, attitude and practices of rural women. From the study it was found that mean percentage of knowledge level rose from 43.12 at pre exposure stage to 85.15 at post exposure stage. Significant rise in attitude level was seen i.e. 28.24 percent at pre exposure stage to 91 percent at post exposure stage after imparting nutrition education. Practices regarding consumption of locally available indigenous food items changed from 45.63 to 83.5 percent, showing a positive impact of intervention through nutrition education with developed materials.

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