IMPACT OF NUTRITION EDUCATION ON THE NUTRITIONAL STATUS OF WOMEN

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ABSTRACT

The awareness about nutrition can be created through nutrition education programmes. Nutrition education is an integral part of all nutrition intervention programmes. For the success of nutrition education it is necessary to study the food habits and modify it according to the local availability and dietary pattern. Studies reported that the regular use of soyabean in daily diet enhances human health and protects from several diseases and results in longevity. But lack of awareness about its nutritional profile is the main reason of non-utilization in food products. An attempt has been made to educate the urban women of Yamunanagar district about importance of soybean for health benefits and utilization in daily diet. Results revealed that after imparting nutrition education, utilization of soy based food intake increased by 21% in daily diet, followed by different frequency level.

Keywords:- Nutrition education, adult women, soybean, protein, nutrition, diet

INTRODUCTION

Majority of the Indian population is vegetarian and derive their dietary proteins from plant sources, as the protein from non-vegetarian product is costly to many. Soybean is an alternative source of good quality 40% protein, 20% oil, carbohydrates, minerals and vitamins, health promoting phytochemicals and gives 430-kCal/100 g edible portion to meet such requirement (Kulkarni, 2004).. The present study was carried out to impart nutrition education to the urban women of Yamunanagar district.

MATERIAL AND METHODS

100 women were selected by employing a random sampling technique covering all socio-economic categories based on their monthly income.To the assess the knowledge and extent of utilization of soybean by the study sample at domestic level, data was collected using questionnaire method.

Data on dietary intake were obtained using 24 hours recall method (ICMR Report, 1984). Standardized utensils were used to find out quantity of foodstuff consumed. Predesigned; pre-tested questionnaire-cum-schedule was used and information was collected from the head of the family. The data collected initially on food consumption of whole family and individuals were analyzed for its nutritive value and nutritive value were calculated by using ICMR standards. Data was compared with RDA.

Before imparting nutrition education to the subjects of study group, information was collected on knowledge aspects related to soybean processing and utilization. During study, nutrition education was imparted through organizing awareness camp in the study area for 2 days duration. During awareness camps, participants were educated about importance of nutrition for good health, importance of soy foods, causes of deficiency diseases, processing of soybean before consuming for food purpose. Apart from this, demonstration of preparation of soyflour, soymilk, soypaneer and preparation of sweet and salty food products out of soybean was also conducted.

After imparting training on importance, processing and utilizatioin aspect, follow-up action in two phases was done to observe the effect of nutrition education programmes.

RESULTS AND DISCUSSION

The entire group of different urban localities was divided into three categories based on their monthly income. The study sample consisted of 27% of lower income group, 47% middle income group and 26% higher income group (Table 1).

Table-1
Socio economic class of study group

Socio-economic class	Monthly Income	No. of families	Percentage
Lower income group	Up to Rs. 5000/-	27	27
Middle income group	Rs. 5000-10000	47	47
Higher income group	Above 10000	26	26

Further, literacy status for the urban study group was given and presented in Fig. 1. The study group was educated and 100% literary was observed. From the study, it was observed that no study sample with illiterate status exists in the study area. Further, percentage of other categories such as primary, middle, higher secondary and graduate level subjects were 4, 9, 24 and 63% respectively.

Nutrient intake by urban study group

The data was also analysed for their food consumption and nutrient intake in terms of per adult consumption unit of different category of study group from urban area and presented in Table 2. The average energy intake of the sample was observed to be from 2079 to 2341 kcal for lower income group to higher income group for middle and higher income group, energy intake was slightly lower than RDA. Average daily protein intake of the sample varied according to income group and was found to the 50.8, 53.03 and 56.7 for lower, middle and higher income group.

Table-2
Average protein and calorie intake by different category of families under study group

Category of study group	Per adult consumption unit	
	Protein (g)	Calorie (kcal)
Lower income group	50.8±3.2	2079±43
Middle income group	53.03±4.0	2331±46.6
Higher income group	56.7±3.8	2341±49

Table - 3
Nutritional knowledge and utilization aspect of sample of urban area before nutrition education (%)

Knowledge aspect	Model town (26)	Model colony (31)	Professor colony (43)	Average
Importance of soybean for health	57.6	51.6	37.2	47
Knowledge about processing of soybean	19.2	12.9	6.9	12
Reasons for not utilizing mentioned below:-				
Taste	7.6	16.1	9.3	11
Beany flavour	15.3	16.1	9.3	13
Digestibility	3.8	6.4	2.3	4
Lack of awareness	38.4	35.4	51.1	43
Non availability of soybean	23.0	16.1	23.2	20
Others	11.5	6.4	11.6	10

Similarly before imparting nutrition education, nutritional knowledge of urban study group about soybean utilization aspects was analyzed and presented in Table 3. Results revealed that about 47% had knowledge about the importance of soybean for its nutritional values. Only 12% were having the knowledge about processing of soybean before utilization in food products. Data collected regarding reasons for not utilizing soybean of food purpose indicated that 11% of subjects are not utilizing soybean in food because of its typical taste, 13% because of beany flavour and 4% because of digestibility problem about 43% subject were not utilizing because they are not aware about the utilization and 20% due to non availability. About 10% people are not utilizing because of other reasons such as disliking, not willing to give place in their diet and food taboos etc.

Frequency of intake of soybased food products

The data collected was analyzed to see the impact of nutrition education on urban study group. After getting information regarding nutritional knowledge and utilization aspect study group was trained to process and utilize soybean in daily diet. Under training, the subjects from three different colonies of urban area were practically demonstrated soybean processing technique, preparation of sweet and salty dishes from soybean (preparation of soyflour, soypaneer, soymilk). This awareness camp/off campus training was conducted for two days duration for each urban area.

Data revealed (Table 4) that during initial phase of the study about 89% respondents were not using soybean in daily diet, while only 6% and 5% subject were utilizing monthly and occasionally respectively. But after imparting training to the study group, frequency of soy based food intake was increase remarkably. About 17% respondents were using soybean in the form of soyflour in their daily diets. Consumption of soybean was observed 11% and 10% for thrice in a week and once in a week respectively. Monthly and occasional use of soy products was observed to be enhanced from initial phase i.e. 5-6% to 15-17%.

After six months, these subjects were given second phase of follow-up activity to observe the status of soy food intake. Result revealed that 21% respondents were using soy based food daily, which was an increase by 4% compared to Ist phase of follow-up. Thrice in a week (10%) and once in a week (11%) data did not show any remarkable enhancement. Similarly

monthly intake showed an increase by 2% compared to Ist phase of follow-up activity. Occasional use of soy foods was observed to be 13% which is 8% higher than initial phase but 4% decreased in comparison to Ist phase of follow-up. This might have been because of more percentage of respondents were consuming daily as as compared to other frequency level. Per cent of not using soyfood decreased by 2% compared to Ist phase, while 61% decrease was observed as compared to initial phase follow-up activity.

Table-4
Frequency of soy based food intake of urban area (%)

Frequency	Model town	Model colony	Professor colony	Average
Daily				
Initial	0	0	0	0
Ist Phase	16.1	16.2	19.2	17
IInd Phase	19.3	18.6	26.9	21
Thrice in a week				
Initial	0	0	0	0
Ist Phase	9.6	11.6	11.5	11
IInd Phase	12.9	13.9	0	10
Once in a week				
Initial	0	0	0	0
Ist Phase	9.6	9.3	11.5	10
IInd Phase	9.6	11.6	11.5	11
Monthly				
Initial	6.4	4.6	7.6	6
Ist Phase	16.1	13.9	15.3	15
IInd Phase	16.1	13.9	23.0	17
Occasional				
Initial	6.45	4.56	3.8	5
Ist Phase	19.3	16.2	15.3	17
IInd Phase	16.1	16.2	3.8	13
Not using				
Initial	87.0	90.0	88.7	89
Ist Phase	29.0	32.5	26.9	30
IInd Phase	25.0	25.5	34.6	28

CONCLUSION

To create awareness among the group for consumption of soybased food products, nutrition education was imparted. Finally conducting follow-up programmes in the study area saw the impact of nutritional education programme. The results indicated that after participation in the nutrition education programmes, women in study area improved their dietary habits. Further the analysis carried out for observing the frequency of soybased food intake after nutrition education programmes, indicated that nearly 21% intake increased in daily diet, followed by increase in different frequency level and knowledge exhibiting substantial impact of the present nutrition education programme and its success.

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