



Effect of Nutrition Education on Knowledge Level of Farm women

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ABSTRACT

The study was conducted in five villages namely Sainji, Sakanayana, Dhulet, Dhor and Simkhet of block Pabou, in Pauri Garhwal district. Twenty farm women from each village were randomly selected and socio- economic profile was recorded. Nutritional education regarding four selected topics was imparted. Scores for pre test knowledge and after imparting education, scores for gain in knowledge and retention of knowledge were recorded. Maximum gain (65.5%) and retention (51%) was observed for the message related to importance of nutrition garden followed by message on nutrition for children. For all the formulated messages, post test scores after one week and one month was higher. Significant increase in gain and retention of knowledge was recorded. Findings indicated that nutritional education intervention was helpful in gaining knowledge in the selected topics.

Key Words: Anemia, Education, Farm women, Millets, Nutrition, Nutritional garden

INTRODUCTION

Farm women in hill areas significantly contribute to agriculture and allied activities along with taking care of the family. They play vital role in the well being of the family by directly influencing the nutrients uptake. Information regarding balanced diet, nutrient rich food, special nutrition needs of infants, growing children, adolescent girls, pregnant and lactating women; elderly etc. must be imparted for the holistic health improvement of a family. Such information is important because in rural areas women generally receive low level of formal education and thus awareness regarding nutritional well being is also low. Data as per National Family Health Survey 4 indicate that only 48.40 per cent of women in district Pauri Garhwal have 10 or more years of schooling. Studies conducted on farm women in Uttarakhand indicated that nutritional status was unsatisfactory and nutritional knowledge was very low (Upadhyay *et al*, 2011 and Jethi *et al*, 2013). The result of low awareness in rural Pauri Garhwal region is evident by percentage of stunting, wasting, severe stunting

and underweight in children under 5 years of age i.e. 22.90, 25.10, 16.90 and 27.10 respectively and 37.40 per cent of anemic non pregnant women in the age of 15-49 yr (NFHS-4). Nutrition education intervention through activities conducted by Krishi Vigyan Kendras like imparting training, method demonstrations, front line demonstrations, group interaction are helpful in enhancing the knowledge. Positive effect of nutrition education on knowledge level and behavior change has been reported by several studies (Shukla *et al*, 2014; Jyoshna *et al*, 2017; Arora and Kochar, 2016).

Nutrition education can be a tool for sensitization and alleviation of above mentioned challenges. Therefore, relevant messages related to importance of millets, anemia, nutrition garden and child nutrition were formulated. The present study was designed to assess effect of nutrition education on farm women with the objective to assess gain in knowledge and its retention level.

MATERIALS AND METHODS

The present study was conducted in five villages

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namely Sainji, Sakanayana, Dhulet, Dhor and Simkhet of block Pabou, in Pauri Garhwal district. Objectives of this study were explained to the farm women and their oral consent to participate was taken. A total of 20 farm women were randomly selected from each village. Four messages on topics viz message I Importance of millets in the diet; message II Anemia- risk and prevention; message III Importance of nutrition garden and message IV Nutrition for children were formulated. Importance of millets in the diet included information on the nutritive value and nutritional benefits of millets like finger millet, barnyard millet etc. Ways to incorporate these in the diet, processing of millets at household level to improve nutritional quality and its inclusion for improving the health of infants, children and elderly were also explained in detail. For the message on Anemia- risks and prevention; causes of anemia were explained, inclusion of iron and vitamin C rich food was emphasized. For the message on importance of nutrition garden, importance of growing nutritious vegetables in home gardens (seasonal vegetables). Demonstration for layout and organic cultivation of nutrition garden was imparted. For the information on nutrition for children, nutrition education on special needs of infants and school children were explained in detail. Importance of including locally available food in the diet was explained in detail (Table 1).

Table 1. Messages imparted to the farm women

Sr. No.	Message	Methods
I	Importance of millets in the diet	Lectures, method demonstration
II	Anemia-risks and prevention	Lectures , Power point presentation,
III	Importance of nutrition garden	Front line demonstration, group discussion , field days
IV	Nutrition for children	Lectures, method demonstration

These messages were given to the selected farm women through lectures, group discussions; inter

personal communication, method demonstrations, front line demonstrations and field day with suitable support materials like chart, poster folders and power point presentation. Knowledge scale used by Shukla *et al* (2014) was applied and farm women were assessed individually in three stages: In the first stage, the nutritional knowledge of farm women was assessed and scores were computed (pre- test score). After imparting nutrition education in second stage, the knowledge was assessed after one week (post- test score I). In the third stage the knowledge was assessed after one month (post- test score II). A score of two for correct answer and zero for wrong answer was given to the farm women. The summation of all scores at pre-exposure stage and post-training for each subject was calculated and recorded. Effect of nutrition education was assessed in terms of gain in knowledge and retention in knowledge. For statistical analysis one-way ANOVA was applied.

Table 2. Socio Economic Profile of participants.

Sr. No.	Attribute	Value
1.	Age	34.05 ± 7.85
A	Marital status	
2	Unmarried	21
3	Married	79
B	Educational level	
4	Uneducated	29
5	Undermatric	41
6	High School	27
7	Graduate	3
C	Caste	
8	Hindu	100
9	Any other	-
D	Food habits	
10	Vegetarian	47
11	Non- vegetarian	53
E	Income annual (Rs.)	
12	<50,000	22
13	50,000-100000	63
14	>100000	15

Effect of Nutrition Education on Knowledge Level

Table 3 Scores of messages imparted to farm women.

Message No.	Max Score	Pre test (A)		Post test (B)		Post test (C)		Gain in knowledge D=B-A		Retention in knowledge E=C-A	
		Score	%	Score	%	Score	%	Score	%	Score	%
I	20	4.02	20.1	15.36	76.8	12.92	64.6	11.34	56.7	8.9	44.5
II	20	3.92	19.6	15.58	77.9	12.8	64	11.66	58.3	8.88	44.4
III	20	3.62	18.1	16.78	83.9	13.7	68.5	13.1	65.5	10.2	51
IV	20	4.16	20.8	16.38	81.9	13.3	66.5	12.22	61.1	8.84	44.2

*CD at 5 %

RESULTS AND DISCUSSION

The mean age of farm women was 34.05 ± 7.85 years. Majority of farm women (79 %) were married. Information regarding educational level reveals 71 per cent farm women (41 % had primary education, 27 per cent were high school passed and 3 % were graduates) were literate. Age and literacy level of the farm women made it ideal to study the effect of nutrition education. More over target group has significant role in the overall health of the family. All the farm women were hindu and engaged in farming activities. Majority (53 %) of farm women were non-vegetarian. Majority i.e. 63 per cent had family annual income between fifty to ten thousand rupees (Table 2).

Effect of nutrition education intervention on knowledge level

Mean scores for pre-test, post- test (I), post- test (II), gain in knowledge and retention in knowledge was recorded for all the formulated messages. For message I, II, III &IV post test score after one week was higher than pre test scores, the difference was significant. Post test scores after one month of intervention was also higher. Significant difference was observed for gain and retention of knowledge. For message on Importance of millets in the diet, gain and retention in knowledge was 56.70 and 44.50 per cent respectively. For message on Anemia- risks and prevention, gain and retention in knowledge was 58.30 and 44.40 per cent, respectively. For message on Importance of nutrition garden, gain and retention in knowledge was 65.05 and 51 per

cent respectively. For message on Nutrition for children, gain and retention in knowledge was 61.10 and 44.20 per cent respectively (Table 3).

Maximum scores for gain and retention were observed for message III related to nutrition garden. Front line demonstrations and field day was conducted on nutrition garden, which could have resulted in the increase in knowledge. Significant difference among mean scores for pre-test, post-test (I), post-test (II), gain in knowledge and retention in knowledge for all the messages indicate that imparting nutrition education had positive effect on the knowledge levels of farm women. The findings of the present study were in line with the other studies conducted on the effect of nutrition education. Rani *et al* (2013) reported significant gain in knowledge scores of mothers in rural areas after imparting nutrition education. Shukla *et al* (2014) reported that nutrition education intervention helped in gaining knowledge amongst farm women in Uttarakhand. Jyoshna *et al* (2017) reported significant differences in food consumption pattern, nutrient intake and work participation in farm women after nutrition education intervention programme. Arora and Kochar (2016) indicated a strong relation between nutrition education and the rise in the level of knowledge and awareness among the female adolescent students after intervention. Sarojani *et al* (2012) concluded that imparting nutrition education about nutritional importance, processing and use of soyabean in the diet resulted in increase in knowledge index in

rural women and men. Arya *et al* (2018) reported that imparting nutritional education increased the knowledge level in aganwadi workers of district Uttarkashi in Uttarakhand.

CONCLUSION

The findings reinforce that imparting nutrition education has a positive effect on knowledge level of the farm women. Utilizing methods like frontline demonstration, field day, method demonstration along with lectures for imparting trainings could have resulted in significant improvement of knowledge. More messages should be formulated in simple language to increase awareness.

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