
CONSEQUENCE OF NUTRITIONAL EDUCATION ON KNOWLEDGE LEVEL OF FARM WOMEN IN WEST GODAVARI DISTRICT OF ANDHRA PRADESH

N.DEBORAH MESSIANA

Abstract: The study was conducted in five villages namely Adavikolanu village of Nidamaruru Mandal, Turputalla of Narsapur Mandal, K P Palem and Mutyalapalli villages of Mogalturu mandal and Chilukuru of Undi Mandal in West Godavari district. Twenty farm women from each village were randomly selected and socio – economic profile was recorded. Nutritional education regarding six 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.

Keywords: Anemia, Education, Farm Women, Millets, Nutrition, Kitchen Garden, Backyard Poultry.

Introduction: Farm women in Andhra Pradesh 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. Neonatal mortality rate (NMR – infant deaths within 4 weeks of life per 1000 live births) at 33 (SRS 2007) accounts for 61% of the IMR, while early NMR (infant deaths within one week of life per 1000 live births) at 26 (SRS 2007) accounts for 79% of the NMR. 48 hours stay at the facility after delivery does not take place; this is clearly a missed opportunity to address early neonatal mortality. State is yet to establish SNCUs. State has a huge network of over 70,000 trained ASHAs, who need to be oriented in essential newborn care, and ensure post natal care visits in Andhra Pradesh.

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). Nutrition education can be a tool for sensitization and alleviation of above mentioned challenges. Therefore, relevant messages related to importance of millets, anemia, kitchen garden, backyard poultry, fish products importance 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 Adavikolanu village of Nidamaruru Mandal, Turputalla of Narsapur Mandal, K P Palem and Mutyalapalli villages of Mogalturu mandal and Chilukuru of Undi Mandal in West Godavari 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. Six messages on topics viz message I Importance of millets in the diet; message II Anemia- risk and prevention; message III Importance of kitchen garden and message IV backyard poultry & fish products importance and VI 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 kitchen garden, importance of growing nutritious vegetables in home gardens (seasonal vegetables). Demonstration for layout and organic cultivation of kitchen garden was imparted. Under backyard poultry types of dual purpose chick's available and nutritive values in eggs and chicken, improved health benefits after consumption of chicken. Regarding fish products importance covers health and nutritive benefits of fish and value added products of fish. 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

S.No	Messages	Methods
I	Importance of millets in the diet	Lectures, method demonstration
II	Anemia-risks and prevention	Lectures , Power point presentation
III	Importance of kitchen garden	Front line demonstration, group discussion , field days
IV	Backyard poultry	Front line demonstration, group discussion
V	Fish products importance	Lectures, method demonstration
VI	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 Farm Women

S.No	Attribute	Value
1	Age	30.05 ± 7.05
A	Marital status	
2	Unmarried	23
3	Married	77
B	Educational level	
4	Uneducated	29
5	Under metric	41
6	High school	27
7	Graduate	3
C	Caste	
8	Hindu	68
9	Any other	32
D	Food habits	
10	Vegetarian	47
11	Non- vegetarian	53
E	Income annual (Rs.)	
12	<50000	22
13	50,000 – 1,00,000	63
14	>1,00,000	15

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
V	20	3.81	19.1	15.64	77.4	12.67	63.2	11.83	58.7	8.86	44.2
VI	20	4.10	20.8	16.94	84.1	13.81	69.1	12.84	64.9	9.71	50.4

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.

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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N. Deborah Messiana
Krishi Vigyan Kendra, Undi, West Godavari t, Andhra Pradesh India