



## IMPACT OF TRAINING PROGRAMME IN TERMS OF GAIN IN KNOWLEDGE FOR NUTRITIONAL DIET

BARAIYA A.K. AND BARAIYA K.P.

Krishi Vigyan Kendra, Junagadh Agricultural University, Jamnagar, Gujarat 361003

\*Corresponding Author: Email-kvkjamnagar@gmail.com

Received: April 09, 2016; Revised: April 15, 2016; Accepted: April 16, 2016

**Abstract-** Training is the important tool of knowledge gain and quick transfer of technology and a way to improve their uplift their socio-economic condition. However, assessment of the training needs and evaluating the outcomes of training are crucial, for both trainers and trainees. Women play an important role for nutritional diet preparation of the family. The study was conducted at KVK, JAU, Junagadh to know knowledge of farm women before and after training on nutritional dietary pattern of farmers and their family. Total 150 farmwomen of Jamnagar district were participated in training during the year 2015. In order to determine the level of knowledge before and after training and to ascertain the statistical analysis of their knowledge with different factors. The result of pre and post evaluation indicated that the level of knowledge regarding nutritional diet was increased  $40.28 \pm 15.6$  as post evaluation as indicated by 't' test.

**Keywords-** knowledge level, nutritional diet, farmwomen.

**Citation** Baraiya A.K. and Baraiya K.P. (2016) Impact of Training Programme in Terms of Gain in Knowledge for Nutritional Diet. International Journal of Agriculture Sciences, ISSN: 0975-3710 & E-ISSN: 0975-9107, Volume 8, Issue 22, pp.-1450-1452.

**Copyright:** Copyright©2016 Baraiya A.K. and Baraiya K.P. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution and reproduction in any medium, provided the original author and source are credited.

### Introduction

Impact assessment is generally regarded as an essential part any project and is equally applicable to information of improved agricultural technologies. Training is critical input for the farmers for quick transfer of technology and a way to improve their agriculture and uplift their socio-economic condition. The International Labour Organization (1986) defined training as activities which essential aims at providing the skills, knowledge and attitude required employment in a particular occupations or for exercising a function in any field of economic activities. Institutional training programme are designed to acquaint farmers with modern and scientific techniques of farming and also to disseminate information to the farming community for the improvement of socio-economic status. To keep the pace with the development in agriculture technology, it is imperative to streamline the transfer of technology system, so that the benefits of innovations can reach the farming community in the quickest possible time. For quick transfer of improved agricultural technologies, role of research and training for farmers has been recognized according to their requirement. Thus, the importance of training as an indispensable instrument for human resource development at any level cannot be ignored. Assessing the training needs and evaluating the outcomes of training are crucial, both for training providers and recipients of training to ensure that training is effective and resources are widely used. The importance of daily food is well being of human being. In India, women's involvement in preparation of diet for family is a longstanding tradition and integral part of human life. The training need in on nutritional diet like balance diet, vitamin, fat, minerals, protein source and requirement, type foods like green leafy vegetable, pulses, fruits, milk and other daily requirement of food as per season also. The farmwomen of Jamnagar district are trained in scientific way for nutritional diet preparation and its importance. For making training more effective, it should be based on the felt needs of the trainees. The training without need based, may have a little impact on bringing desirable change in the clientele system. Therefore, the present study were carried out on impact of training programme in terms of gain in knowledge for nutritional diet.

### Objective

- (i) To find out training needs of farmwomen for preparation
- (ii) To know the level of knowledge of farmwomen about nutritional diet
- (iii) To assess the change in knowledge level before and after institutional training programme.

### Materials and Methods

Krishi Vigyan Kendra, Junagadh Agricultural University, Jamnagar has organized three days vocational training on "balance diet and nutritional requirement in daily intake of human being" in different batches, total 150 farmwomen of Jamnagar district during 2015-16. The age group is selected for the study is 18 to 40 years for the ensuring study. During the training, the study was conducted to test the level of knowledge of participants regarding nutritional aspects of human daily dietary pattern before training. After the completion of training, post evaluation was made to assess the amount of knowledge gain by the trainees to know the effectiveness of the training. To test the knowledge of farm women, a set of 24 questions related to nutritional requirement, source of nutrition, food requirement, etc. were used.

Questionnaire method was use for data collection. To study the knowledge gain in particular question by the participant, frequency of correct answer was calculated the converted into percentage. The data was analyzed with percentage, mean, SD and 't' test for interpretation. For analysis of the level of knowledge regarding the agricultural technologies, the correct response was given '1' score whereas '0' score was given to incorrect response. The mean per cent knowledge was computed by the following formula.

$$\text{Knowledge} = \frac{\text{Total score obtained}}{\text{Potential score}} \times 100$$

### Results and Discussion

The present study was conducted on 150 farmwomen participants of Jamnagar district to evaluate the knowledge gain by them as a result of three days training regarding nutritional requirement for human being.

**Socio-demographic characteristics**

The ranges of age of participants [Table-1] were 18 to 45 years with an average of  $31.21 \pm 5.084$  years. More than half farmwomen was in middle age group of 26 to 35 years. Whereas, 29.33 per cent were in age group of above 35 years. Only 12.00 per cent participants were in the age group of 18 to 25 years.

The assessment of the farmwomen with respect to education status [Table-1] indicated that all the 150 participants were literate having education standard 8 to

12 (56 per cent), primary education (30 per cent) and only 14 per cent were found graduate level.

The average size of land holding [Table-1] marginal farmers having less than 1 hectare land were 4.67 (7 farmers), small farmers having 1.1. to 2 ha land 21.33 (32), medium size having 2.1 to 4 ha land 33.33 (50) and big farmers having more than 4 ha land were 40.67 (61) per cent (frequency). The average size of land holding is  $4.04 \pm 4.409$  ha land with the farmwomen family.

**Table-1 Socio-demographic characters of trainees (n=150)**

Sr. No.	Particulars	Frequency	Per cent	Mean $\pm$ S.D.
1	<b>Age group</b>			
	Young (18 to 25 Years)	18	12.00	$31.21 \pm 5.084$
	Middle Age (26 to 35 Years)	88	58.67	
	Old Age (Above 35 Years)	44	29.33	
2	<b>Educational status</b>			
	Graduate	21	14.00	
	Standard 8- to 12	84	56.00	
	Primary	45	30.00	
3	<b>Type of farmers</b>			
	Marginal (<1 ha)	7	4.67	$4.04 \pm 4.609$
	Small (1.1 to 2 ha)	32	21.33	
	Medium (2.1 to 4 ha)	50	33.33	
	Big (>4 ha)	61	40.67	

Note: Figures in parenthesis indicates frequencies in number of participants

**Knowledge about nutritional diet**

The [Table-2] revealed that the in case of before training about 59.33 per cent farmwomen having low level of knowledge, 40 per cent have medium level knowledge. However only 0.67 per cent having good knowledge about the nutritional diet. Whereas in case of after training knowledge 75.33 per cent having

high level of nutritional diet knowledge, 24 per cent having medium knowledge and only 0.67 per cent having lack of knowledge. Thus, training have most effective in gaining of knowledge about nutritional diet. The difference between before and after training is increase 74.67 per cent in high level group of knowledge level.

**Table-2 Distribution of respondents on the basis of knowledge level before and after training (n=150)**

Level of Knowledge	Before Training		After Training		Difference in per cent
	No. of Respondent	Per cent	No. of Respondent	Per cent	
Low	89	59.33	1	0.67	-58.67
Medium	60	40.00	36	24.00	-16.00
High	1	0.67	113	75.33	74.67
Total	150	100.00	150	100.00	

Note: Figures in parenthesis indicates frequencies in number of participants

**Difference of knowledge of farmwomen before and after training**

In pre evaluation test, the knowledge range of different participants was 4.17 per cent to 75.00 per cent with an average of  $34.31 \pm 13.6233$  per cent. In post evaluation, the knowledge level reported from 29.17 per cent to 91.67 per cent

with an average of  $74.58 \pm 12.5023$  in different participants. The statistical analysis of data using student 't' test indicated that there were significant increase in knowledge regarding nutritional diet.

**Table-3 Average score of knowledge of farmers among before and after training**

Evaluation category	No. of respondent	Minimum marks (%)	Maximum marks (%)	Mean $\pm$ Standard deviation	't' value
Before training	150	4.17	29.17	$34.31 \pm 13.6233$	2.3516**
After training	150	75.00	91.67	$74.58 \pm 12.5023$	

The data presented in [Table-4] indicated the individual questions, in pre evaluation test, the knowledge level was in the range of 4.00 per cent to 79.33 per cent in different questions with an average of  $34.31 \pm 21.24$ . There was minimum level of knowledge about fruit and vegetable requirement, quantity of pulses require in daily diet; dietary intake of nutrient (RDA) 6 per cent food require per day 10.67 per cent; importance of balance diet 11.33 per cent; requirement of protein 12.00 per cent; knowledge of balance diet 18.00 per cent observed. However, the participants has maximum knowledge regarding source of vitamin 79.33 per cent; vitamin 68.00 per cent; importance of mango, carrot, papaya 62.00 per cent; importance of green leafy vegetables 57.33 per cent and about fat 56.67 per cent. Thus, the low level of knowledge is due to their involvement in farming only having lack of training.

In the post evaluation, the knowledge level was 22.67 per cent to 94.67 per cent with an average  $74.58 \pm 16.74$  per cent in different questions. Among all the participants minimum 7 question were able to answer from 24 question. The

participant minimum 22.67 per cent with dietary intake of nutrients. However, all the questions having more than 50 per cent of marks obtained. Knowledge about vitamin was perform maximum with 94.67 per cent participants, followed by source of vitamin (94.00 per cent), importance of protein (93.33. per cent), importance of carrot, mango, papaya as well as fat (90.67 per cent).

**Gain in knowledge after training**

As per the [Table-4] gain in knowledge after training was ranged from 14.67 per cent to 73.34 per cent with an average, of  $40.28 \pm 15.6$  per cent. The maximum gain in knowledge regarding importance of balance diet (73.34 per cent) and minimum gain in source of vitamin (14.67 per cent). The reason for minimum gain is due pre evaluation knowledge was high about source of vitamin 79.33 per cent and it was increase up to 94.00 per cent. However, the maximum gain is due to lack of knowledge about importance of balance diet.

**Table-4** Level of knowledge increased after training with respect to different questions under study (n=150)

Sr. No.	Statement / variable	Before Training Evaluation (%)	After Training Evaluation (%)	Gain in Knowledge
1	Do you know about balance diet ?	18 (27)	72.67 (109)	54.67
2	Do you know about importance of balance diet ?	11.33 (17)	84.67 (127)	73.34
3	Do you know about requirement of protein ?	12 (18)	54 (81)	42.00
4	Do you know about importance of protein ?	44 (66)	93.33 (140)	49.33
5	Do you know about sources of protein ?	36 (54)	76 (114)	40.00
6	Do you know about Vitamin ?	68 (102)	94.67 (142)	26.67
7	Do you know about importance of vitamin ?	40.67 (61)	83.33 (125)	42.66
8	Do you know about type of vitamin ?	47.33 (71)	80.67 (121)	33.34
9	Do you know about Sources of Vitamin ?	79.33 (119)	94 (141)	14.67
10	Do you know about Fat ?	56.67 (85)	90.67 (136)	34.00
11	Do you know about benefit and non benefit of fat ?	25.33 (38)	55.33 (83)	30.00
12	Do you know about minerals ?	27.33 (41)	66 (99)	38.67
13	Do you know about different name of minerals ?	25.33 (38)	87.33 (131)	62.00
14	Why we need minerals in our body?	24.67 (37)	66 (99)	41.33
15	Do you know about mineral water ?	42.67 (64)	80 (120)	37.33
16	Knowledge about dietary intake of Nutrients (RDA)	6 (9)	22.67 (34)	16.67
17	Knowledge about quantity of food require per day	10.67 (16)	52.67 (79)	42.00
18	Nutritional importance of pulses and benefit	30.67 (46)	68.67 (103)	38.00
19	Nutritional importance of green leafy vegetables	57.33 (86)	84.67 (127)	27.34
20	Nutritional importance of carrot, mango, papaya	62 (93)	90.67 (136)	28.67
21	Nutritional importance of aonla, Orange, Lemon	44 (66)	67.33 (101)	23.33
22	Knowledge about quantity of Fruit and vegetable require	4 (6)	74 (111)	70.00
23	Knowledge about quantity of pluses and milk require	4 (6)	69.33 (104)	65.33
24	Knowledge about benefit of Groundnut and sesame in our body	46 (69)	81.33 (122)	35.33
	Mean $\pm$ S.D.	34.31 $\pm$ 21.24	74.58 $\pm$ 16.74	40.28 $\pm$ 15.6

Note: Figures in parenthesis indicates frequencies in number of participants

## Conclusion

It is concluded that more than half of the age group are middle age (26 to 35 years) and also they are receive secondary education (standard 8 to 12) who are adjoining with preparation of human diet in addition of their farming business. Majority of the farmwomen are coming from big farmer's family. The difference in mean score of knowledge of farmers was found to be significant at 1 per cent level. It is obviously stated that the training to youths is working as an innovative tool for acquiring the technological know-how in nutritional diet preparation. According to respondent distribution, majority farmwomen have very low knowledge before training.

To assess the impact of training with respect to gain in knowledge in participants the analysis of data revealed that in pre evaluation test, the knowledge level was in the range of 4.00 per cent to 79.33 per cent in different questions with an average of  $34.31 \pm 21.24$ . In the post evaluation, the knowledge level was 22.67 per cent to 94.67 per cent with an average  $74.58 \pm 16.74$  per cent in different questions.

The result clearly indicated the significant impact of training programme in gain in knowledge regarding nutritional diet. Therefore, it could be employed that more and more such training programme in food and vegetable preservation may be organized which would be benefited to farmwomen to empower and for health point of view.

**Conflict of Interest: None declared**

## References

- [1] Anonymous (1986) Cited from New Direction in Extension Training (1990), Directorate of Extension. International Labour Organization. Occasional Paper-3, New Delhi, 9.
- [2] Ganesan Annamalai R. and Sundaram S. Soma (1992) *Indian Journal of Extension Education*, XXVII, 63-64.
- [3] Gosai H.V., Munshi M. A., Savaliya V.J. and Kanani P.R. (1997 & 1998) *Guj. J. Ext. Edu.*, VIII - IX : 111-112.
- [4] Sharma K.K. (1994) *Indian farming*, 43(12), 124-130.
- [5] Sharma P., Singh G.P. and Jha S.K. (2013) *Indian Res. J. Ext. Edu.*, 13(1), 96-100.