



## ORIGINAL RESEARCH PAPER

Botany

## ACCEPTABILITY OF TRAINING ON CLEAN MILK PRODUCTION AND MILK PROCESSING BY WOMEN

KEYWORDS:

R. Dahiya

DES (Home Science), KVK Fatehabad Professor, Deptt. of EECM, CCS HAU, Hisar

P. Kundu

DES (Home Science), KVK Sirsa

## ABSTRACT

Clean milk production by following appropriate practices is urgent need to boost dairy industry. The dairy enterprise is practiced by 70 million rural household in India. The traditional milk products provide the means of preserving precious milk solids for comparatively longer time than the fluid milk. Present study was undertaken in randomly selected two villages viz. Sukhmanpur and Sehna, Hisar district, Haryana State. Two matching samples of 30 women from each village were drawn purposively who belonged to marginal farming, having at least two milk animals and belonged to age group 25-35 years. Different extension methods for both groups were used for imparting training. Consequently media effectiveness was assessed in terms of knowledge gap reduction and impact assessment. Group I (Sukhmanpur Village) was imparted training by using focused group discussion + expert lectures + visit to dairy farm + C.D. ROM on dairy farming. While Group II (Sehna Village) was imparted training with aforesaid method + demonstrations and mineral mixture distribution. After training respondents succeeded in gaining medium and high gain in knowledge for Group I and II.

## INTRODUCTION

Rural women in India are closely linked and involved in livestock management. The dairy enterprise is practiced by 70 million rural households. In Haryana about 90 percent of rural women participate in dairy activities and livestock care (Sardana et al, 1988). The most important trend of development in agriculture is increasing diversification of rural economy. Animal husbandry has been an integral part of that where women perform almost all the livestock rearing operations.

The country's milk production is estimated to have touched 132.43 million tonnes (mt) in the year 2012-13, which is higher than the estimated 92 mt for rice and 75 mt for wheat. Milk is one product that generates cash income to farmers almost on a daily basis, unlike other crops. Contribution of dairy sector to the economy of state is progressively increasing at a faster rate as compared to agriculture sector. Keeping in mind, the National Dairy Development Board (NDDB) in Partnership with the Government of India and the World Bank, has developed a National Dairy Plan (NDP) in order to increase productivity of dairy animals and to provide rural milk producers with greater access to the organized milk processing sector. The first phase of the Plan, NDP-I has a financial outlay of 416 million dollars (more than 20 billion rupees) and will be carried out between 2012 and 2017.

Media in the modern world are a force to reckon with. No task in the world of today can be accomplished successfully and adequately without media support. The media is playing an important role in passing on meaningful information at faster rate to the large number of farm women. It has emerged as one of the powerful sources of seeking relevant scientific information by our farm women. Therefore, utilizing media for transferring the need based technologies in agriculture and animal husbandry among Indian farm women is crucial and of significant importance. Therefore, present study was conducted in Fatehabad District.

## METHODOLOGY

Present study was carried out in Sukhmanpur and Sehna villages, Fatehabad district, Haryana State. A matching sample of 60 rural women 30/villages/training were selected purposively on the basis of having at least two milch animals, marginal farmers and age group of 25-35 years.

Further, to study the comparative effectiveness of different extension methods, two trainings (one/village) were organized on clean milk production and processing of milk. Training to Group I (Sukhmanpur village) was imparted by media support which consisted of focused group discussion + expert lectures visit to well established cooperative dairy + CD ROM on dairy farming. While to the Group II (Sehna village) along with above said methods,

demonstration was organized along with literature. Consequently, a packet of 5 kg mineral mixture was distributed to each respondents of Group II, as reinforcement material. Effectiveness of media was assessed through pre- and post exposure knowledge level, knowledge gain, knowledge gap reduction, impact assessment and perceived feasibility of the training on both groups. Data were collected with the help of well structured interview schedule:-

## RESULTS AND DISCUSSION

## (I) PRE- AND POST EXPOSURE KNOWLEDGE LEVEL

The aggregate score of each respondent for each message related to clean milk production and milk processing were summated. The estimation of knowledge level was done message wise for pre-exposure and post-exposure of Group I and Group II. The data presented in Table 1.

**Importance of clean milk production:** The respondents were categorized into three class intervals i.e. low medium and high for pre-training and post training knowledge as given in Table 1.

It is evident from the data that more than half of the respondents of Group I had low level of knowledge (56.66%) followed by medium (36.66%) and high 6.66 percent. Whereas majority of the respondents of Group II (53.33%) had medium level of knowledge followed by low (36.66%) and high knowledge (10.0%). But after exposure respondents of Group I, 83.33, and 16.66 percent had high and medium knowledge. Whereas for Group II it was found that 93.33 and 6.66 percent respondents had high and medium knowledge about importance of clean milk production.

**Precautions in clean milk production:** In respect of precautions followed in clean milk production message, at pre-exposure stage 80.0% and 73.33% of trainees of Group I and II had low level of knowledge followed by medium 16.66 and 20.0 percent and 3.33 and 6.66 percent high respectively. On the contrary at post exposure stage majority of the respondents of Group I and Group II (60.0 percent and 80.0 percent) had medium and high knowledge. It was followed by 26.66% and 10.0% high and medium for Group I and Group II respectively. Whereas 13.33 and 10.0 percent respondents had low level of knowledge for Group I and Group II respectively.

**Causes and Prevention of Mastitis diseases:** For this message again 70.0 percent of the respondents in both groups had low level of knowledge at pre-exposure level followed by medium 26.66 and 20.0 percent respectively. However, some of the respondents (3.33% and 10.0%) were having high level of knowledge. After media exposure, knowledge level was found

increased 56.66 percent medium and 70.0 percent high for Group I and Group II respectively. It was followed by medium 26.66 and 20.0 percent and 3.33 and 10.0 percent high level of knowledge about causes and prevention of mastitis diseases.

**Importance of mineral mixture in feed:** Regarding this message pre-exposure knowledge of the respondents for both groups was found high in low class interval i.e. 93.33 and 83.33 percent respectively. Whereas 6.66% and 13.33% had medium level. However 3.33 percent of the respondents of group II had high level of pre-exposure knowledge. But after media exposure, 56.0 percent respondents of Group I had medium level of knowledge followed by low 26.66% and 23.33% high respectively. On the contrary, 86.66 percent respondents of Group II had high level of post exposure knowledge followed by medium 13.33 percent and none of the respondents were found in low class interval.

**Importance and food value of milk:** Results revealed that majority of the respondents 90.0 and 70.0 percent had low level of pre-exposure knowledge for both groups. It was followed by medium 6.66 and 23.33 percent and 3.33 and 6.66 percent high respectively. But at post exposure stage only 36.66 percent respondents of Group I had low level of knowledge followed by high (33.33%) and medium 30.0 percent whereas 70.00 percent of the respondents of Group II acquired high level of knowledge followed by medium 16.66% and only 13.53 percent were having low level of knowledge.

**Name of Milk Products:** As regards the pre-exposure level of knowledge about this message about half (46.66%) of the respondents of Group I had low level of knowledge followed by medium and high 36.66 and 16.66 percent. On the contrary, 53.33% respondents of group II were having high level of pre-exposure knowledge followed by low 33.33 percent. After attending training most of the respondents 73.33 and 93.33 percent had high level of knowledge followed by medium 26.66% and 6.66% for Group I and Group II respectively.

**Method of Paneer Preparation:** Results in the same table further indicated that majority of the respondents 93.33% and 90.0% were having low level of pre-exposure knowledge irrespective of groups. However, after training, majority of the respondents 73.33% and 56.66% had medium level of knowledge. However, 36.66% respondents of Group II had gained high level of knowledge followed by low 6.66% as compared to respondents of Group I gained only 10.0% high level of knowledge.

**Method of Channa Preparation:** All the respondents (100%) irrespective of groups had low level of knowledge at pre-exposure stage. After media exposure helped to attain 33.33 and 53.33 percent had medium level of knowledge followed by low 60.0 percent and high 33.33 percent for group I and II respectively. A meager percentage (6.66) of respondents of Group I had acquired high level of knowledge as compared to Group II.

**Method of Khoya Preparation:** With regards of method of Khoya preparation, about half (56.66%) of the respondents of Group I had low level of knowledge followed by medium and high 33.33% and 10.0% before training. However, 43.33% respondents of Group II had medium level of pre-exposure knowledge followed by low and high 33.33% and 23.33 percent respectively. At post-exposure level, 73.33% and high 23.33% of the respondents Group I had gained medium and high knowledge. For Group I whereas 66.66% and 33.33% had high and medium level of post exposure knowledge for Group II after attaining training programme.

**Method of Paushtik Ladoo Preparation:** Results revealed that equal number of the respondents 36.66 percent had low and medium pre-exposure level of knowledge followed by high 26.66 percent for Group I. While, 46.66 percent respondents had low level of knowledge followed by high and low 36.66% and

16.66% respectively for Group II. After attaining training majority of the respondents 70.0% each got high level of post exposure knowledge followed by medium 23.33% and 30.0% for group I and II respectively. Only 6.66 percent of the respondents of Group I had low level of post-exposure knowledge, regarding this message.

**Table 1: Pre- and Post exposure knowledge of the respondents in clean milk production and milk processing**

Sr. No.	Message	Class Interval	Group I (n=30)		Group II (n=30)	
			Pre-exposure Knowledge	Post-exposure knowledge	Pre-exposure Knowledge	Post-exposure knowledge
1.	Importance of clean milk production	Low (0-1) Medium (2-3) High (4-5)	17(56.66) 11(36.66) 02(6.66)	05(16.66) 25(83.33)	13(36.66) 16(53.33) 03(10.0)	0 2(6.66) 28(93.33)
2.	Precautions in clean milk production	Low (0-4) Medium (5-9) High (10-14)	24(80.0) 05(16.66) 01(3.33)	04(13.33) 18(60.0) 8(26.66)	22(73.33) 6(20.0) 02(6.66)	03(10.0) 03(10.0) 24(80.0)
3.	Causes and prevention of mastitis disease	Low (0-5) Medium (6-10) High (11-15)	21(70.0) 08(26.66) 01(3.33)	08(26.66) 17(56.66) 05(16.66)	21(70.0) 06(20.0) 03(10.0)	04(13.33) 05(16.66) 21(70.0)
4.	Importance of mineral mixture in feed	Low (0-2) Medium (3-4) High (5-6)	28(93.33) 02(6.66) 0(0)	08(26.66) 15(50.0) 07(23.33)	25(83.33) 04(13.33) 01(3.33)	0(0) 04(13.33) 26(86.66)
5.	Importance and food value of milk	Low (0-2) Medium (3-4) High (5-6)	27(90.0) 02(6.66) 01(3.33)	11(36.66) 09(30.0) 10(33.33)	21(70.00) 07(23.33) 02(6.66)	04(13.53) 05(16.66) 21(70.00)
6.	Name of Milk Products	Low (0-2) Medium (3-4) High (5-6)	14(46.66) 11(36.66) 05(16.66)	0(0) 08(26.66) 22(73.33)	10(33.33) 04(13.33) 16(53.33)	0(0) 02(6.66) 28(93.33)
7.	Method of Paneer Preparation	Low (0-3) Medium (4-6) High (7-8)	28(93.33) 02(6.66) 0(0)	05(16.66) 22(73.33) 03(10.0)	27(90.0) 03(10.0) 0(0)	02(6.66) 17(56.66) 11(36.66)
8.	Method of Channa Preparation	Low (0-3) Medium (4-6) High (7-8)	30(100.0) 0(0) 0(0)	18(60.0) 10(33.33) 02(6.66)	30(100.0) 0(0) 0(0)	10(33.33) 16(53.33) 04(13.33)
9.	Method of Khoya Preparation	Low (0-2) Medium (3-4) High (5-6)	17(56.66) 10(33.33) 03(10.0)	07(23.33) 22(73.33) 01(3.33)	10(33.33) 13(43.33) 07(23.33)	0(0) 10(33.33) 20(66.66)

10.	Method of Paushtik Ladoo Preparation	Low (0-3) Medium (4-6) High (7-8)	11(36.66) 11(36.66) 08(26.66)	02(6.66) 07(23.33) 21(70.0)	14(46.66) 05(16.66) 11(36.66)	0(0) 09(30.0) 21(70.0)
-----	--------------------------------------	---	-------------------------------------	-----------------------------------	-------------------------------------	------------------------------

**(II) KNOWLEDGE GAIN**

The data presented in Table 2 revealed that majority of the respondents in Group I had medium level of knowledge gain in eight selected messages namely, importance of clean milk production (40.0%), precautions in clean milk production (60.0%), causes and prevention of mastitis diseases (80.0%), importance of mineral mixture in feed (70.0%), importance and food value of milk (70.0%), method of Channa preparation (70.0%) and method of Paushtik Ladoo Preparation 66.66% respectively. However, in two messages they got high gain in knowledge i.e. in name of milk products 86.66% and method of Khoya Preparation 70.0 percent.

On the contrary, results revealed that respondents of Group II were found in high category of knowledge gain in all messages. Importance of clean milk production (43.33%), precautions in clean milk production (76.66%), causes and prevention of mastitis diseases (46.66%), importance of food value of milk (60.0%), name of milk products (93.33%), method of Paneer Preparation (70.0%), method of Khoya Preparation 83.33% and method of Paushtik Ladoo Preparation 76.66 percent. Only in message of Channa preparation they got medium level of gain in knowledge (56.66%).

**Table 2: Gain-in-knowledge of the respondents in clean milk production and milk processing**

Sr. No.	Message	Class Interval	Gain-in-Knowledge	
			Group I (n=30)	Group II (n=30)
1.	Importance of Clean Milk Production	Low (1-2)	09(30.0)	06(20.0)
		Medium (2-3)	12(40.0)	11(36.66)
		High (4)	09(30.0)	13(43.33)
2.	Precautions in clean milk production	Low (1-3)	04(13.33)	03(10.0)
		Medium (4-7)	18(60.0)	04(13.33)
		High (8-11)	08(26.66)	23(76.66)
3.	Causes and Prevention of Mastitis disease	Low (2-4)	02(6.66)	06(20.00)
		Medium (5-7)	24(80.0)	10(33.33)
		High (8-10)	04(13.33)	14(46.66)
4.	Importance of mineral mixture in feed	Low (1-2)	04(13.33)	02(6.66)
		Medium (3)	21(70.0)	11(56.66)
		High (4)	05(16.66)	17(73.33)
5.	Importance and food value of milk	Low (1-2)	06(20.0)	04(13.33)
		Medium (3)	21(70.0)	18(60.0)
		High (4)	03(10.0)	08(26.66)
6.	Name of Milk Products	Low (1-2)	01(3.33)	0(0)
		Medium (3-4)	03(10.0)	02(6.66)
		High (4-5)	26(86.66)	28(93.33)
7.	Method of Paneer Preparation	Low (2-3)	05(16.66)	01(3.33)
		Medium (4-5)	17(56.66)	08(26.66)
		High (5-6)	08(26.66)	21(70.0)
8.	Method of Channa Preparation	Low (1-2)	09(30.0)	07(23.33)
		Medium (3-4)	21(70.0)	20(56.66)
		High (<4)	0(0)	03(10.0)
9.	Method of Khoya Preparation	Low (1-2)	06(20.0)	03(10.0)
		Medium (3-4)	03(10.0)	02(6.66)
		High (5-6)	21(70.0)	25(83.33)
10.	Method of Paushtik Ladoo Preparation	Low (2-3)	02(6.66)	02(6.66)
		Medium (4-5)	20(66.66)	05(16.66)
		High (6-7)	08(26.66)	23(76.66)

**REFERENCES**

1. . Dabur, R.S. and Kapoor, C.M. (2007). Milk and milk products – An avenue for rural women entrepreneurship. International Conference on Globalization and Women's Work in South

Asia and the EW: frictions, network and perspective pp 35.  
 2. . FICCI (2006). Food and beverages survey. Indian Dairyman. 47(6): 34-37.  
 3. . Jain, V. and Verma S.K. (2007). Gain in knowledge and change in attitude of rural women regarding animal husbandry practices through media. Raj. J. Extn. Edu.; 144-149.  
 4. . Mehta, S. (1996). Communication fidelity of need based training for farm women Ph.D. Thesis Haryana Agric. Univ., Hisar.  
 5. . Jain, V. (2005). Development and standardization of media package on Animal Husbandry Practices for rural women of Haryana. Ph.D Thesis, CCS Haryana Agricultural University, Hisar.  
 6. . Manjusha (1990). Time utilization pattern of rural women in dairy farming. M.Sc. Thesis. Haryana Agricultural University, Hisar, Haryana.  
 7. . Mittal, R. (1998). Acceptability of selected dairy products by youth for economic empowerment. M.Sc. Thesis, CCS Haryana Agricultural University, Hisar.  
 8. . Dabur R.S. (2014). Brain storming workshop on Post Harvest Technology and Value Addition in Haryana. Held at HAU on June 9, 2014 organized by Kisan Ayog Panchkula.