

## **Impact of trainings on the knowledge of rural women about preparation of some household products**

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### **ABSTRACT**

Training helps in improving knowledge and skill and changes the attitude of the people. The present study was undertaken at Krishi Vigyan Kendra, Bagalkot, Karnataka during 2014-15 with the sample size of 254 women. The data indicated that in case of washing powder and phenyl making, trained women showed cent per cent knowledge in care to be taken while mixing powder, packing material and containers while storing phenyl whereas untrained women showed very less knowledge. With respect to maize products, cent per cent of knowledge was found in ingredients required for popcorn preparation and correct proportion of ingredients was used in corn Halwa making by trained women whereas untrained women were good in their knowledge about correct stage and colour while frying Pakodas (45.71%) followed by correct proportion of ingredients used in corn Halwa (42.86%). In case of mango products, trained and untrained women exhibited good knowledge about essential ingredients required for preparing mango pickle and juice and type of container to store pickle. Bakery products training indicated that trained women had cent per cent knowledge about main ingredients and dry fruits required for preparing bakery products and types of cakes. Untrained women had good knowledge about use of dry fruits in bakery products (90.62%).

**Keywords:** Empowerment; knowledge; trained women; untrained women; training

### **INTRODUCTION**

The empowerment process through educational interventions, transfer of technologies, the feasibility trials and the out-reach programmes has contributed to significant gain in knowledge, acceptance

of technology for economic gain and improving various parameters of quality of life which are the reflections of women's empowerment. Hence for upliftment of rural women training is very essential to take up income generating activities during off-season and to start self-employment.

Rural women play a very important role in managing their farms and households depending upon the situational, personal and socioeconomic characteristics of the family to which they belong. Training is one of the commonly used devices to improve the knowledge and skill of the trainees. Training is viewed as an investment of human resources having potential to transform the lives of rural women by bringing about change in knowledge and skills and thereby uplifting their socioeconomic status by entrepreneurial activity. It can successfully bring about certain changes in the outlook and attitude of rural women and thereby making them capable of rendering the task more effectively and efficiently. In this direction training programmes can bring about tremendous desirable changes in skill, knowledge, attitudes and behaviour of rural farm women enabling them not only to become well acquainted with the basics but also enhance their skills, competencies and efficiency in a desired manner (Gautam et al 2012). Keeping these factors in view the present study was designed to know the impact of KVK trainings on rural women with the objective to assess the knowledge level of trained and untrained rural women with regard to home science technologies.

## METHODOLOGY

The study was conducted in Bagalkot district of Karnataka state during 2014-15. A list of trainees was obtained from Krishi Vigyan Kendra, Bagalkot,

Karnataka who were imparted training in home science technologies. Out of six Taluks of Bagalkot district, highest number of trainees were found in Bilagi and Bagalkot Taluks. From each Taluk number of villages were listed and final selection of villages was made based on availability of women trained by the KVK. The selected villages were Chikkasounsi, Benakatti, Bhagavati from Bagalkot and Anagwadi from Bilagi. Total 254 rural women were selected for the selected 4 technologies. Out of the total sample equal number of trained and untrained rural women were considered for each selected technology from the 4 villages. In total 127 trained rural women who had undergone trainings at KVK and 127 untrained rural women were randomly selected.

To assess the impact of trainings on rural women 4 home science related trainings viz washing powder and phenyl making, maize products, mango products and bakery products were selected for the study. Keeping in view the objective of the study a structured interview schedule was prepared by reviewing the previous research studies, consulting and discussing with the home science specialists, KVK staff and professional workers and it was pre-tested in the non-sample area. On the basis of pre-tested results necessary modifications and changes were made in the schedule. The data were collected by personal interview technique in an informal atmosphere. Mean and standard deviation

were used for classification of respondents into various categories. Z-test was used for comparison between mean of trained and untrained groups.

## **RESULTS and DISCUSSION**

### **Knowledge of rural women about washing powder and phenyl making**

A close perusal of Table 1 indicates that in case of trained women cent per cent knowledge was found in care to be taken while mixing powder, packing material and container to store phenyl while equal per cent of knowledge (86.67 %) was found in correct proportion of materials used in washing powder preparation and pricing of the phenyl. They had less knowledge with respect to the phenyl jel preparation (20.00%) which might be due to lack of interest in training. The knowledge of untrained women ranged from 16.67 to 36.67 per cent showing very less knowledge about washing powder and phenyl making. They did not know anything about preparation of phenyl.

### **Knowledge of rural women about maize products**

A look at the Table 2 reveals that trained women had knowledge to a larger extent in ingredients required for popcorn, use of dry corn kernels for popcorn making and correct proportion of ingredients used in corn Halwa. Maximum knowledge was found with respect to use of sauce pan with

lid for preparing popcorn and level of heat required to fry Pakodas (94.29% each). They had moderate knowledge about consistency of corn Halwa (62.86 %) and correct stage and colour for frying Pakodas (60.00 %).

It was also indicated that untrained women were good in their knowledge about correct stage and colour for frying Pakodas (45.71%) followed by correct proportion of ingredients used in corn Halwa (42.86 % each) and ingredients required for popcorn (34.29%). They had minimum knowledge about use of dry corn kernels for popcorn making (22.86%), use of sauce pan with lid for preparing popcorn (17.14%), level of heat required to fry Pakodas (14.29%), consistency of corn Halwa (5.71%) and stage of adding dried milk to Halwa (2.86%).

### **Knowledge of rural women about mango products**

It can be observed from Table 3 that the trained women exhibited cent per cent knowledge about essential ingredients required for preparing mango pickle, type of container to store pickle and ingredients used for preparation of mango juice. They had 93.33 per cent knowledge about type of container to store mango juice, method to get smooth consistency of jam and preservation of mango pickle. They had less knowledge about temperature for bottling of the jam (26.67%).

Table 1. Knowledge of rural women about washing powder and phenyl making (n= 60)

| Statement                                               | Knowledge index of women |                   |
|---------------------------------------------------------|--------------------------|-------------------|
|                                                         | Trained (n=30)           | Untrained (n= 30) |
| Material required for preparing washing powder          | 70.00                    | 16.67             |
| Odours used in washing powder                           | 80.00                    | 26.67             |
| Care to be taken while mixing powder                    | 100.00                   | 16.67             |
| Correct proportion of material used in washing powder   | 86.67                    | 30.00             |
| Packing material for washing powder                     | 100.00                   | 23.33             |
| Raw material required for preparing phenyl              | 66.67                    | 0.00              |
| Correct proportion of material for preparing phenyl jel | 26.67                    | 0.00              |
| Quantity of phenyl jel used for preparation of phenyl   | 20.00                    | 0.00              |
| Type of container to store phenyl                       | 100.00                   | 36.67             |
| Factors to fix the price of phenyl                      | 86.67                    | 20.00             |
| Mean                                                    | 73.66                    | 17.00             |
| SD                                                      | 27.59                    | 12.51             |
| Z-test                                                  | 10.26**                  |                   |

\*\*Significant at 0.01 level

Table 2. Knowledge of rural women about maize products (n= 70)

| Statement                                                 | Knowledge index of women |                   |
|-----------------------------------------------------------|--------------------------|-------------------|
|                                                           | Trained (n= 35)          | Untrained (n= 35) |
| Ingredients required for preparing popcorn                | 100.00                   | 34.29             |
| Use of dry corn kernels for preparing popcorn             | 100.00                   | 22.86             |
| Use of sauce pan with lid for preparing popcorn           | 94.29                    | 17.14             |
| Level of heat required for popping process                | 57.14                    | 28.57             |
| The correct proportion of ingredients used for corn Halwa | 100.00                   | 42.86             |
| Correct consistency in preparation of corn Halwa          | 62.86                    | 05.71             |
| Stage of adding dried milk to sweet corn paste            | 48.57                    | 02.86             |
| The correct proportion of ingredients used in corn Pakoda | 85.71                    | 42.86             |
| Level of heat required to fry corn Pakoda                 | 94.29                    | 14.29             |
| Correct stage and colour for frying Pakoda                | 60.00                    | 45.71             |
| Mean                                                      | 80.29                    | 25.71             |
| SD                                                        | 20.67                    | 15.65             |
| Z-test                                                    | 12.46**                  |                   |

\*\*Significant at 0.01 level

It was also found that untrained women had cent per cent knowledge about essential ingredients required for preparing mango pickle may be due to the reason that

they might have learnt pickling from their elder family members and neighbours. This was followed by type of container to store pickle (96.67%). They did not know

anything about right stage to add ascorbic acid to mango jam mixer, temperature for bottling, duration of time for cooling and settling and method to get smooth consistency of jam.

### **Knowledge of rural women about bakery products**

Table 4 reveals that trained women had cent per cent knowledge about main ingredients and dry fruits required for preparing bakery products and types of cakes. They were good in their knowledge about equipment required for preparation of bakery products (93.75%) followed by flour required for preparing cake (87.50 %). However, they had less knowledge about ingredients required for bread raising (25.00%).

Untrained women had good knowledge about the use of dry fruits in bakery products (90.62%) followed by main flour required in bakery products preparation (68.75%) and they did not know about time and heat required for baking biscuits, stage of mixing Vanaspati to Maida and ingredients required for bread raising.

### **Knowledge level of rural women about home science technologies (Table 5)**

Majority of the trained women (56.67%) belonged to high level of knowledge followed by medium (23.33%) and low (20.00%) in washing powder and phenyl making. This shows that trainings can

increase the knowledge level of the rural women. In case of untrained group majority of them (43.33%) belonged to low level of knowledge followed by medium (40.00%) and high (16.67%). Untrained women did not have good knowledge about washing powder and phenyl making as they did not attend the training programmes. The findings of the study are similar to the findings of Nazir et al (2012).

In case of preparation of maize products more number of trained women (48.57%) belonged to high level of knowledge followed by low (37.14%) and medium (14.29 %). Similar findings were reported by Dubey et al (2008). More number of untrained women (57.14%) belonged to medium level of knowledge followed by high (22.86%) and low (20.00%) level of knowledge. The findings of the present study are supported by the findings of Bala et al (2006).

The data related to knowledge level of rural women about preparation of mango products indicated that 40.00 per cent of trained women had high level of knowledge followed by 33.33 per cent and 26.67 per cent who possessed low and medium level of knowledge respectively. Similar findings were reported by Chauhan (2012).

In case of untrained women 36.67 per cent of them had low level of knowledge followed by 33.33 per cent and 30.00 per

Table 3. Knowledge of rural women about mango products (n= 60)

| Statement                                                 | Knowledge index of women |                   |
|-----------------------------------------------------------|--------------------------|-------------------|
|                                                           | Trained (n= 30)          | Untrained (n= 30) |
| Essential ingredients required for preparing mango pickle | 100.00                   | 100.00            |
| Type of container to store mango pickle                   | 100.00                   | 96.67             |
| Stage of readiness to use pickle                          | 76.66                    | 33.33             |
| Ingredients used for preparation of mango juice           | 100.00                   | 70.00             |
| Type of container to store mango juice                    | 93.33                    | 30.00             |
| Right stage to add ascorbic acid to mango jam mixer       | 46.67                    | 0.00              |
| Temperature for bottling of the jam                       | 26.67                    | 0.00              |
| Duration of time for cooling and settling of jam          | 66.67                    | 0.00              |
| Method to get smooth consistency of jam                   | 93.33                    | 0.00              |
| Preservation of mango pickle                              | 93.33                    | 60.00             |
| Mean                                                      | 79.67                    | 39.00             |
| SD                                                        | 25.55                    | 40.33             |
| Z-test                                                    | 04.66**                  |                   |

\*\*Significant at 0.01 level

Table 4. Knowledge of rural women about bakery products (n= 64)

| Statement                                                  | Knowledge index of women |                    |
|------------------------------------------------------------|--------------------------|--------------------|
|                                                            | Trained (n= 32)          | Untrained (n= 320) |
| Main ingredients required for bakery products              | 100.00                   | 68.75              |
| Use of dry fruits in bakery products                       | 100.00                   | 90.62              |
| Time and heat required for baking biscuits                 | 78.12                    | 0.00               |
| Stage of mixing Vanaspati to Maida                         | 43.75                    | 0.00               |
| Ingredients required for bread raising                     | 25.00                    | 0.00               |
| Time required for raising of the dough for bread making    | 50.00                    | 21.88              |
| Flour required for preparing cake                          | 87.50                    | 37.50              |
| Non-requirement of citric acid in preparation of bread     | 68.75                    | 09.38              |
| Types of cake                                              | 100.00                   | 43.75              |
| Main equipment required for preparation of bakery products | 93.75                    | 15.63              |
| Mean                                                       | 74.69                    | 28.75              |
| SD                                                         | 26.94                    | 31.28              |
| Z-test                                                     | 06.33**                  |                    |

\*\*Significant at 0.01 level

cent who possessed high and medium level of knowledge respectively. This trend is in confirmation with the research findings of

Kumari et al (2010). About fifty per cent of trained women (53.13%) had high level of knowledge followed by medium (31.25%)

## Trainings impact on rural women

Table 5. Knowledge level of rural women about home science technologies (n= 254)

| Technology                       | Knowledge level | Respondents         |       |                       |       | $\chi^2$            |
|----------------------------------|-----------------|---------------------|-------|-----------------------|-------|---------------------|
|                                  |                 | Trained<br>(n= 127) |       | Untrained<br>(n= 127) |       |                     |
|                                  |                 | F                   | %     | F                     | %     |                     |
| Washing powder and phenyl making | Low             | 06                  | 20.00 | 13                    | 43.33 | 10.440**            |
|                                  | Medium          | 07                  | 23.33 | 12                    | 40    |                     |
|                                  | High            | 17                  | 56.67 | 05                    | 16.67 |                     |
|                                  | Total           | 30                  | 100   | 30                    | 100   |                     |
| Preparation of maize products    | Low             | 13                  | 37.14 | 07                    | 20.00 | 14.040**            |
|                                  | Medium          | 05                  | 14.29 | 20                    | 57.14 |                     |
|                                  | High            | 17                  | 48.57 | 08                    | 22.86 |                     |
|                                  | Total           | 35                  | 100   | 35                    | 100   |                     |
| Preparation of mango products    | Low             | 10                  | 33.33 | 11                    | 36.67 | 0.288 <sup>NS</sup> |
|                                  | Medium          | 08                  | 26.67 | 09                    | 30.00 |                     |
|                                  | High            | 12                  | 40.00 | 10                    | 33.33 |                     |
|                                  | Total           | 30                  | 100   | 30                    | 100   |                     |
| Preparation of bakery products   | Low             | 05                  | 15.62 | 15                    | 46.88 | 9.167*              |
|                                  | Medium          | 10                  | 31.25 | 10                    | 31.25 |                     |
|                                  | High            | 17                  | 53.13 | 07                    | 21.87 |                     |
|                                  | Total           | 32                  | 100   | 32                    | 100   |                     |

\*Significant at 0.05 level, \*\*Significant at 0.01 level, NS= Non-significant

and low (15.62%) about preparation of bakery products. The findings of the study are in conformity with the findings of Dubey et al (2008). On the other hand 46.88 per cent of untrained women had low level of knowledge followed by medium (31.25%) and high (21.87%). Similar results were reported by Nazir et al (2012).

## CONCLUSION

From the findings of the study it can be concluded that training programmes inclusive of discussions and interactions along with practical hands on experiences

in home science technologies are quite useful to augment the skills and knowledge of the participants. Such training programmes help in empowerment of rural women and enable them with requisite technical knowledge and skills needed to start entrepreneurial activities and thereby creating opportunities of income generation and livelihood security.

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