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Role of KVK in Creating Awareness Regarding Millets in District Pathankot (Punjab)

PURVA JAGGI* AND NARINDER DEEP SINGH
Krishi Vigyan Kendra, Pathankot (Punjab) India

ABSTRACT

The role of millets in designing the modern foods like multigrain and gluten-free cereal products is well known. The present study was therefore planned with the following objectives of accessing the Awareness regarding inclusion of Millets in the daily diet of families and to study the impact of Training imparted regarding the inclusion of Millets in daily diet using the low cost seasonal recipes. 120 farm women were randomly selected for this study. Sixty seven per cent (67%) women were in the low score category before training, but after training this percentage declined to only 5 per cent (5%) and the high score category rose to seventy four per cent (74%) which was only sixteen per cent (16%) before training. questionnaire and awareness level of respondents before and after training. Knowledge was particularly low regarding the statement 4 *"Millets are a good source of protein which supports the growth of children".* In case of this statement, the awareness level of women was only 20.80 %, before training, but after training it was 77.50 %. Similarly, Knowledge was particularly low regarding the statement. The mean score of knowledge Level of before training varied from 5.71 before training to 12.79% after training. This change was found to be highly significant at 95% confidence interval. The t value was 36.2424 with the standard error of difference as 0.195 (Table 3).

Keywords: KVK, Awareness, Millets

INTRODUCTION

The landscape of the Pathankot district has varied topography comprising the hilly tract, undulating plan, the flood plains of the Ravi and the Beas and the upland plain. Both domestic to commercial level farming is being practiced here with full participation of farm women in routine actives of the farm. Being a sub mountainous district of Punjab, it is suitable for the cultivation of millets and their subsequent inclusion in the daily diet of families. The present study was therefore, planned with objective of creating awareness regarding inclusion of Millets in daily diet of the farm families. India is the home of world's largest undernourished population but Obesity is also a major health concern in India with the prevalence rate of 11% in men and 15% in women. In the present day lifestyle, health and fitness have become the utmost priority for all. The role of millets in designing the modern foods like multigrain and gluten-free cereal products is well known. Due to the richness of millets in polyphenols and other biological active compounds, they are also considered to impart a vital role in lowering rate of fat absorption, slow release of sugars (low glycemic index) and thus reducing risk of heart disease, diabetes and high blood pressure (Altman, 1991; Kirkwood and Sterne, 2003 and Snedecor and Cochran, 1967).

Objectives:

Millets have potential health benefits and epidemiological studies have showed that consumption of millets reduces risk of heart disease, protects from diabetes, improves digestive system, lowers the risk of cancer, detoxifies the body, increases immunity in respiratory health, increases energy levels and improves muscular and neural systems and are protective against several degenerative diseases such as metabolic syndrome and Parkinson's disease (Manach *et al.*, 2005; Scalbert *et al.*, 2005; Chandrasekara and Shahidi, 2012).

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The important nutrients present in millets include resistant starch, oligosaccharides, lipids, antioxidants such as phenolic acids, avenanthramides, flavonoids, lignans and phytosterols which are believed to be responsible for many health benefits (Miller, 2001; Edge *et al.*, 2005). Due to increased awareness regarding the health promoting profile of millets, inclination towards their consumption has been observed. The present study was therefore planned with the following objectives:

– Accessing the Awareness regarding inclusion of Millets in the daily diet of families.

– To study the impact of Training imparted regarding the inclusion of Millets in daily diet using the low cost seasonal recipes.

METHODOLOGY

The present study was undertaken in Pathankot district of Punjab. Out of all five blocks of Pathankot District, 120 farm women were randomly selected for this study. Data were collected by personally interviewing the respondents with the help of specially designed interview schedule. The respondents were asked questions on the knowledge level regarding *Millets* before training and the same respondents were questioned after imparting series of trainings on *Millets.* They were questioned after 3 months of imparting trainings. The knowledge was tested by asking questions regarding *Millets* in the form of statements and the scores were recorded. The replies made by the respondents were noted before and after training. The data was tabulated in the form of Table 2.

Statistical Methods Used:

The statistical methods such as frequency and percentages were used for analysis of data. Each correct response was given a score of one. Respondents were categorized in three group based on their scores. Further, the two data collected pre and post training were compared using t- test to judge the difference and study the impact of training. Paired T-test was applied to calculate the significant difference between pre-test and post - test mean scores of the respondents. The various statistical values calculated were Mean, Standard Deviation, Standard Error of Mean and t-value.

RESULTS AND DISCUSSION

Table 1 indicates the Knowledge level of women regarding *Millets* before and after training. Sixty seven per cent (67%) women were in the low score category before training, but after training this percentage declined to only 5 per cent (5%) and the high score category rose to seventy four per cent (74%) which was only sixteen per cent (16%) before training. questionnaire and awareness level of respondents before and after training.

Impact of training was accessed by studying the knowledge of each respondent regarding the individual statement concerned with the benefits of *Millets* in daily diet. It is evident from the Table 2 that in case of all the statements regarding the health benefits of *Millets*, the respondents were less aware before training, but awareness level rose significantly after the trainings.

Knowledge was particularly low regarding the statement 4 *"Millets are a good source of protein which supports the growth of children"*. In case of this statement, the awareness level of women was only 20.80 %, before training, but after training it was 77.50 %. Similarly, Knowledge was particularly low regarding the statement 7 *"Millets contain magnesium which helps to regulate heart rhythm"* In case of this statement, the awareness level of women was only 19.17 %, before training, but after training it was 89.17 %.

P Value and Statistical Significance:

The two-tailed P value is less than 0.0001

By conventional criteria, this difference is considered to be extremely statistically significant.

Confidence Interval:

The mean of Group On PRE -TEST minus Group Two POST- TEST equals -7.08

95% confidence interval of this difference: From -7.47 to -6.70

Table 1 : Distribution of Farm Women according to Knowledge Score

Knowledge Score	Before Training		After Training	
	Frequency	Percentage	Frequency	Percentage
Low (>5)	67	55.83	5	4.17
Medium (6-10)	37	30.83	41	34.17
High (11-15)	16	13.33	74	61.67

Table 2 : Impact of the Training in terms of knowledge regarding each statement regarding Millets

Sr. No.	Statement regarding Millets	Women having knowledge before Training	Women having knowledge after Training
1.	Millets are a saviour and a miracle food for the new millennium.	35(29.16)	85 (70.83)
2.	Millets require less agricultural inputs like water and fertilizer for cultivation.	52 (43.33)	68 (56.67)
3.	Millets are health promoting.	70 (50.00)	116 (89.17)
4.	Millets are a good source of protein, which supports the growth of children.	25 (20.80)	96 (77.50)
5.	Millet like Bajra is a good source of Iron.	14 (58.40)	105 (87.50)
6.	Millet like Ragi is a very good source of calcium.	23 (26.70)	103 (85.80)
7.	Millets contains magnesium, which helps to regulate heart rhythm.	15 (19.16)	107 (89.16)
8.	Millets are high in potassium, thereby protecting from cardiovascular diseases.	45 (58.40)	98 (76.70)
9.	Millets contain tryptophan which produces serotonin and helps in elevating the mood.	5 (45.80)	101 (84.10)
10.	Millets help in weight loss because they have more satiety value.	24 (20.00)	103 (85.80)
11.	Millets contains fibre and thus regularizes the bowel function and combats constipation, flatulence, bloating and cramping.	32 (58.40)	104 (100.00)
12.	Millets are a good source of antioxidants, which may help support the body's ability to resist oxidative stress, a factor in illness and aging.	85 (70.80)	117 (98.00)
13.	Millets are rich in antioxidants which help fight the free radicals lower formation of cancer cells in the body.	32 (26.67)	97 (80.80)
14.	Millets are gluten-free and can be safely used to feed children and adults with gluten sensitivity.	11 (33.40)	118 (98.40)
15.	Finger millet is introduced as a weaning food for children to replenish iron stores depleted during the first three months after birth.	13 (20.00)	106 (76.70)

Intermediate Values used in Calculations:

t = 36.2524

df = 119 (n-1)

Standard error of difference = 0.195

It is evident from Table 3 that the mean score of knowledge Level of before training varied from 5.71 before training to 12.79% after training. This change was found to be highly significant at 95% confidence interval. The t value was 36.2424 with the standard error of difference as 0.195 (Table 3).

Table 3 : Concluding Statistical Values

Statistical Values	Pre-test	Post-test
Mean	5.71	12.79
Standard Deviation	1.56	1.42
Standard Error of Mean	0.14	0.13
N	120	120

Conclusion:

There was an appreciable and statistically significant gain in knowledge regarding the health benefits of millets. The gain was maximum regarding the statement no: 14 where the knowledge score rose to 98 % which states that *"Millets are gluten-free and can be safely used to feed children and adults with gluten sensitivity"*

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