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Impact of Training cum Awareness Programme on Knowledge Level of Grassroot Extension Workers on Millet

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ABSTRACT

Millets the "nutri-cereal" plays significant role in food and nutritional security of developing countries like India due to their farmers friendly nature having the ability to grow in hostile climates with numerous health benefits. Of course, its importance and utility are not well versed to most of the people of Assam. Looking into its importance and nutritive value, awareness as well as training programmes have been conducted by the Krishi Vigyan Kendras. A total of 120 numbers of respondents were selected for the present study from Jorhat district of Assam. From the study it was observed that knowledge scores were improved significantly after exposure to training cum awareness programme. The overall knowledge score was increased from 24.01 to 39.32 after attending the programmes. Variation in knowledge score of the respondents was also found to be reduced after attending the programmes. It was observed that skewness and kurtosis values remain almost similar in respect of pre and post exposure except in case of knowledge on millet as nourishing cereal in which kurtosis value was recorded to be 3.761.

Keywords: Millet, knowledge scale, nutrition and attitude

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INTRODUCTION

Millets are a group of cereal grains that belong to the Poaceae family, highly tolerant of drought and other extreme weather conditions. In India, eight millets species (Sorghum, Pearl millet, Finger millet, Foxtail millet, Kodo millet, Proso millet, Barnyard millet and Little millet) are commonly cultivated under rainfed conditions. According to Michaelraj and Shanmugam (2013) millets are the first cereal grain to be used for domestic purposes and are very old foods known to humans. Millets are rich source of protein, calcium, dietary fibre, and polyphenols, which makes it unique among cereals. The nutraceutical properties govern by high antioxidants content protects body from harmful oxidative stress, prevents many non-communicable degenerative diseases. 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 (Chandrasekara and Shahidi, 2012). Being rich source of fibre, it helps to prevent diabetes, obesity ulcer of stomach and constipation. However, in spite of a rich nutrient content and versatile health benefits consumption of millet is gradually narrowing in the recent past.

The production of millets has been gaining increased importance, in the very recent years its importance has been emphasised all over the world specially in nations that are populous, malnourished, and facing significant climatic uncertainties and due to initiative from India, current year i.e. 2023 has been declared as the International year of millet. Millets are nutritionally superior than rice and wheat, their consumption as food is still largely limited in some specific areas of Assam. Of course, its importance and utility are not well versed to most of the people of Assam and more particularly to the people of Jorhat district. Looking into its nutritive value and health benefits, awareness as well as training programmes have been conducted by the Krishi Vigyan Kendra to make the populace more particularly the rural women folk aware about the millet and its utility and importance. The present study has been undertaken to find out the impact of the programmes undertaken in the Jorhat district of Assam.

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MATERIALS AND METHODS

Sample Selection

The study was conducted among the anganwadi workers and krishisakhi of Jorhat district of Assam. A total of 120 numbers of respondents were selected for the study who have attended training programmes.

Data Collection

Data were collected through using a structured questionnaire with knowledge scale. The statements used in the questionnaire were put into three-point categories namely 'correct', 'incorrect', and 'do not know', with the scores 2, 0 and 1 respectively. Prior to data collection the knowledge scale was pre-tested on 10 samples. The data of the pretest were coded according to the order of the knowledge scale. All total 30 statements were used for final test battery after due assessment through a panel of expert. Thus, the maximum possible total score varies from 0-60.

RESULTS AND DISCUSSION

Knowledge is having of understanding and skill on a specific aspect by an individual or humankind gained through experience and association. It was observed from the Table 1 that majority of respondent have low level of knowledge regarding all the stated aspects i.e. General knowledge on millets (46.67%), millet as nourishing cereal (60.83%), cultivation practices of millet (56.67%), role of millets in health and diseases (54.14%) and millet based products (47.50). The low level of knowledge regarding all the aspect might be due to less cultivation practice of millets in the study area and lack of knowledge and awareness regarding nutritional benefits and inclusion of millet in daily diet which demands a urgent intervention in this regard. The lack of knowledge and awareness on use of millet and need of intervention on millet utilization was also reported by Lalitha *et al.* (2022).

Table 1: Existing knowledge level of the respondents regarding Millet

Sl. No.	Aspects	Knowledge level (%)			
		Very low	Low	Medium	High
1	General knowledge on millets	20.83	46.67	15.83	16.67
2	Millet as nourishing cereal	15.83	60.83	16.67	6.67
3	Cultivation practices of millet	24.17	56.67	9.17	10.00
4	Role of millets in health and diseases	25.83	54.17	11.67	8.33
5	Millet based products	29.17	47.50	14.17	9.17
6	Overall existing knowledge on millets	23.17	53.17	13.50	10.17

Mean pre- exposure (existing) knowledge scores of the respondent on millets

To observe the impact of training, knowledge scores of the respondent on all the aspect and overall knowledge of the respondents were subjected to mean score analysis prior to exposure of training (Table 2 and 3).

Table 2: Mean pre-exposure (existing) knowledge scores of the respondent on millets

Sl. No.	Aspects	Mean pre-exposure (existing) knowledge score	Maximum Possible Score
1	General knowledge on millets	4.10	10
2	Millet as nourishing cereal	4.41	12
3	Cultivation practices of millet	4.25	10
4	Role of millets in health and diseases	7.18	16
5	Millet based products	4.08	12
6	Overall existing knowledge on millets	24.01	60

Table 3: Mean post-exposure knowledge scores of the respondent on millets

Sl. No.	Aspects	Mean post exposure knowledge score	Maximum Possible Score
1	General knowledge on millets	6.13	10
2	Millet as nourishing cereal	7.40	12
3	Cultivation practices of millet	7.27	10
4	Role of millets in health and diseases	11.09	16
5	Millet based products	7.43	12
6	Overall existing knowledge on millets	39.32	60

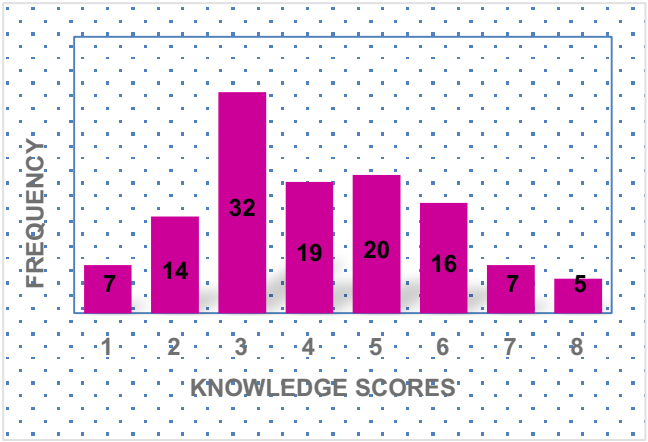
From the Table 4 it has been observed that knowledge scores were improved significantly after intervention or exposure to training cum awareness programme. The overall knowledge score was increased from 24.01 to 39.32 after attending training cum awareness programme. Thus, it was found that the respondents were almost ignorant about millet in respect of aspects considered under study. Besides the descriptive statistics like variance, standard deviation, standard error, skewness and kurtosis of data were also calculated and presented in Table 5.

Table 4: The difference between Mean pre-exposure (existing) knowledge scores and mean post-exposure knowledge score of the respondent on millets

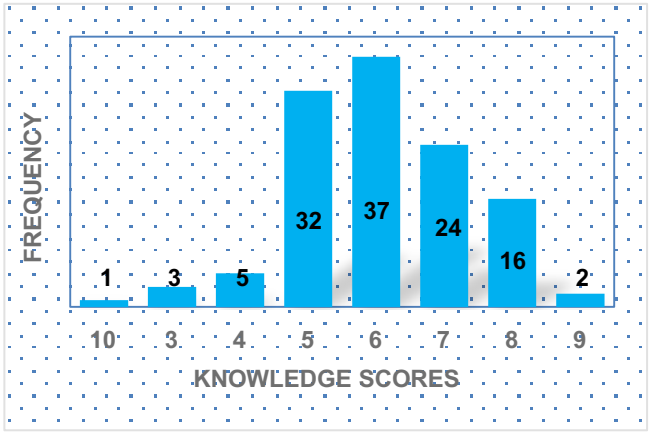
Sl. No.	Aspects	Mean pre exposure (existing) knowledge score	Mean post exposure knowledge score	Z statistics
1	General knowledge on millets	4.10	6.13	10.08**
2	Millet as nourishing cereal	4.41	7.40	13.29**
3	Cultivation practices of millet	4.25	7.27	16.88**
4	Role of millets in health and diseases	7.18	11.09	10.70**
5	Millet based products	4.08	7.43	17.81**
6	Overall existing knowledge on millets	24.01	39.32	19.53**

** Significant at 0.05 level of significance

From the Table 5 it was observed that skewness and kurtosis values remain almost similar in respect of pre and post exposure except in case of knowledge on millet as nourishing cereal in which kurtosis value was recorded to be 3.761 in post exposure state. It is evident from the histogram that the knowledge score of the respondent was increased to a great extent after attaining the training in respect of millet as nourishing cereal. From the skewness value it was observed that in all other aspects the distribution is approximately symmetric except in case of the aspect millet as nourishing cereal in which the distribution was moderately skewed (fig. 1-6).

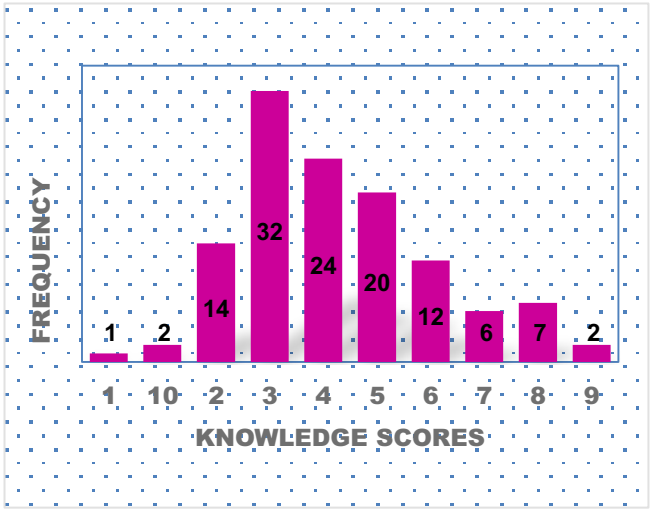


Pre-test



Pre-test

Fig. 1: Knowledge score distribution in respect of general knowledge on millets



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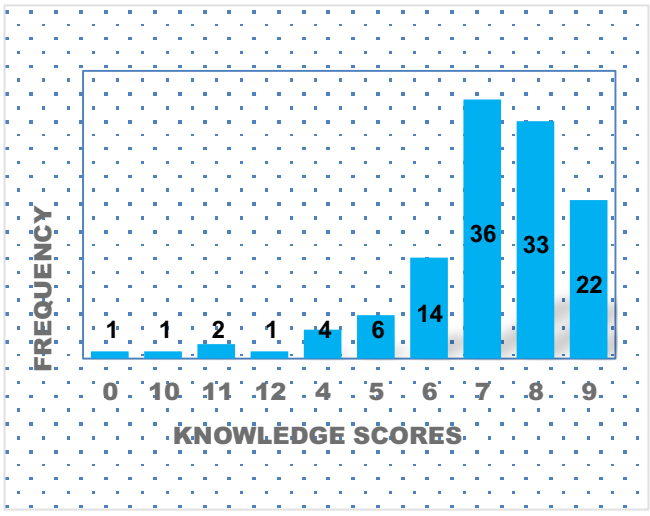
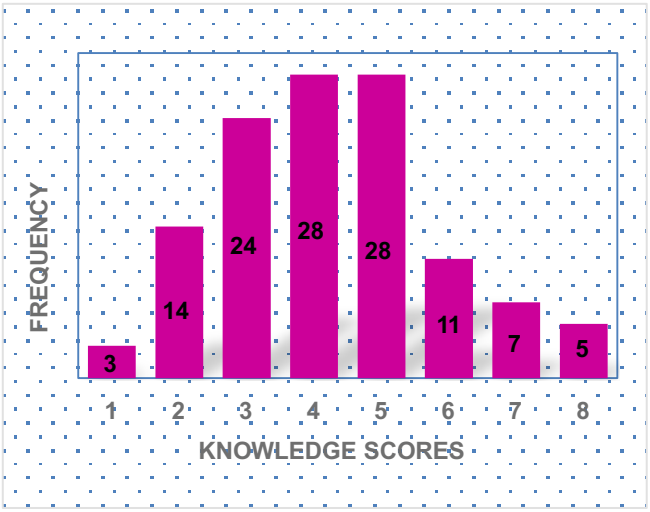


Pre-test

Fig. 2: Knowledge score distribution in respect of millet as nourishing cereal



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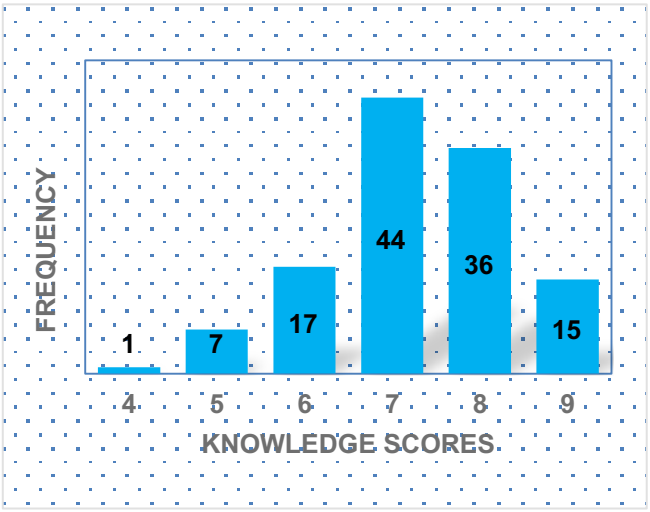
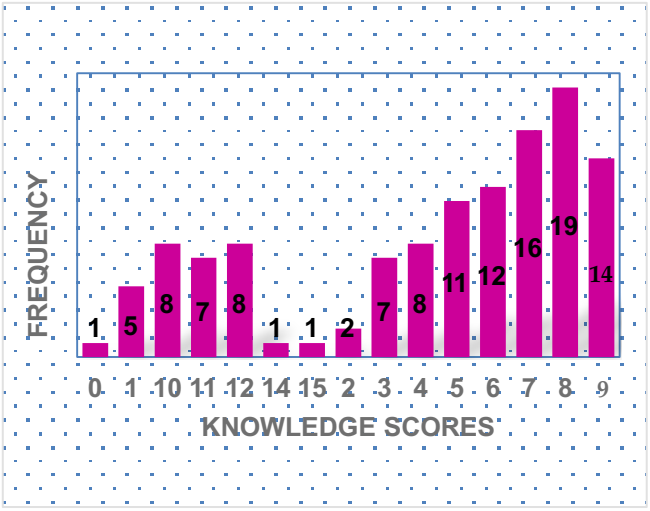


Pre-test

Fig. 3: Knowledge score distribution in respect of cultivation practice of Millet



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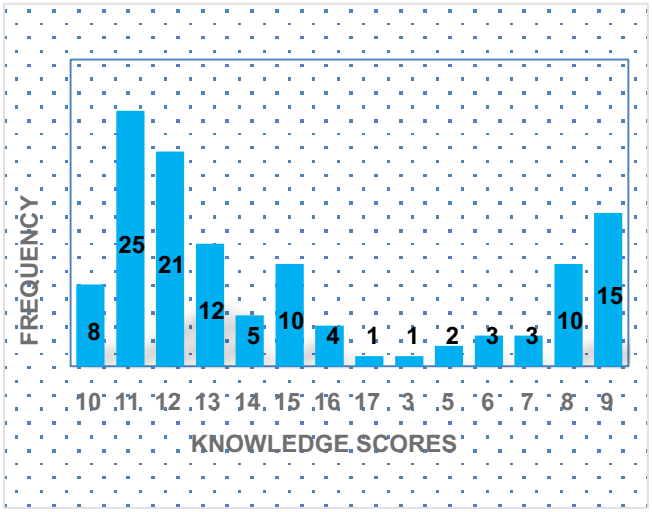
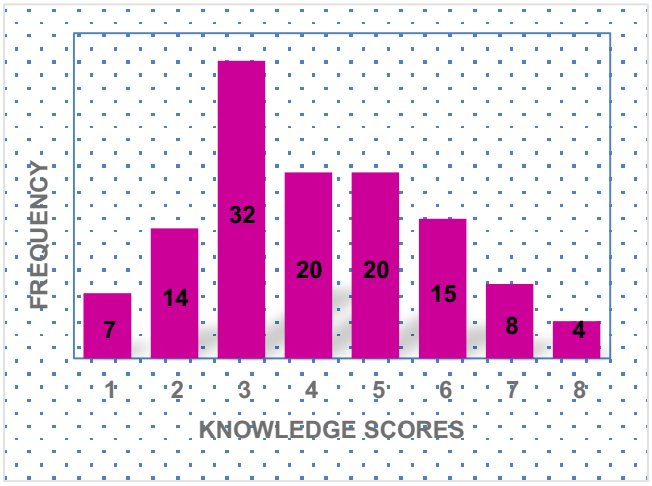


Pre-test

Fig. 4: Knowledge score distribution in respect of role of millets in health and diseases



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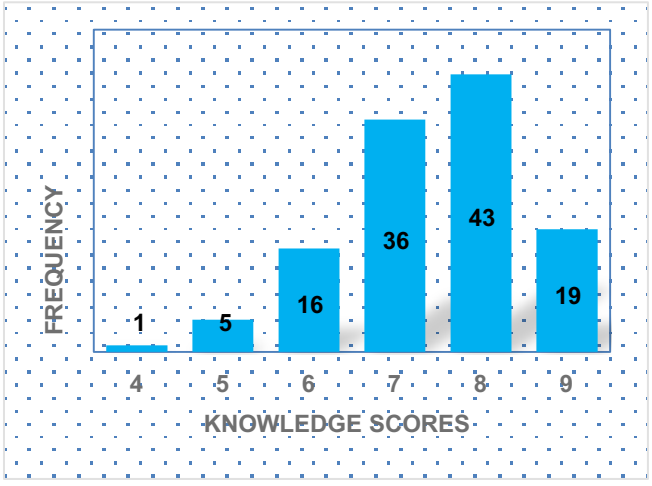
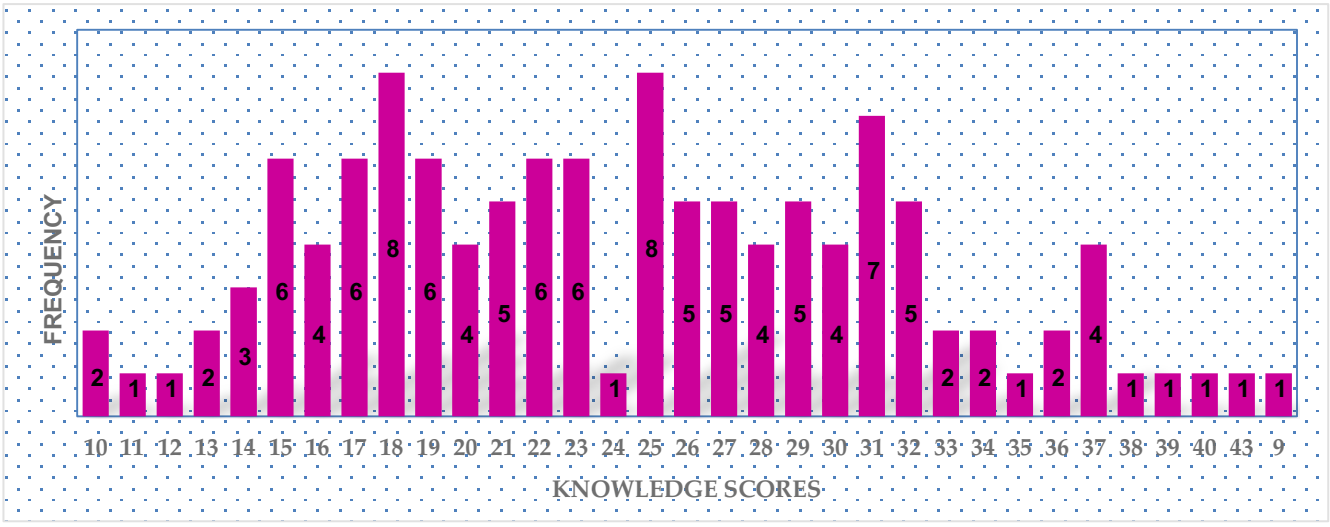


Pre-test

Fig. 5: Knowledge score distribution in respect of millet based products



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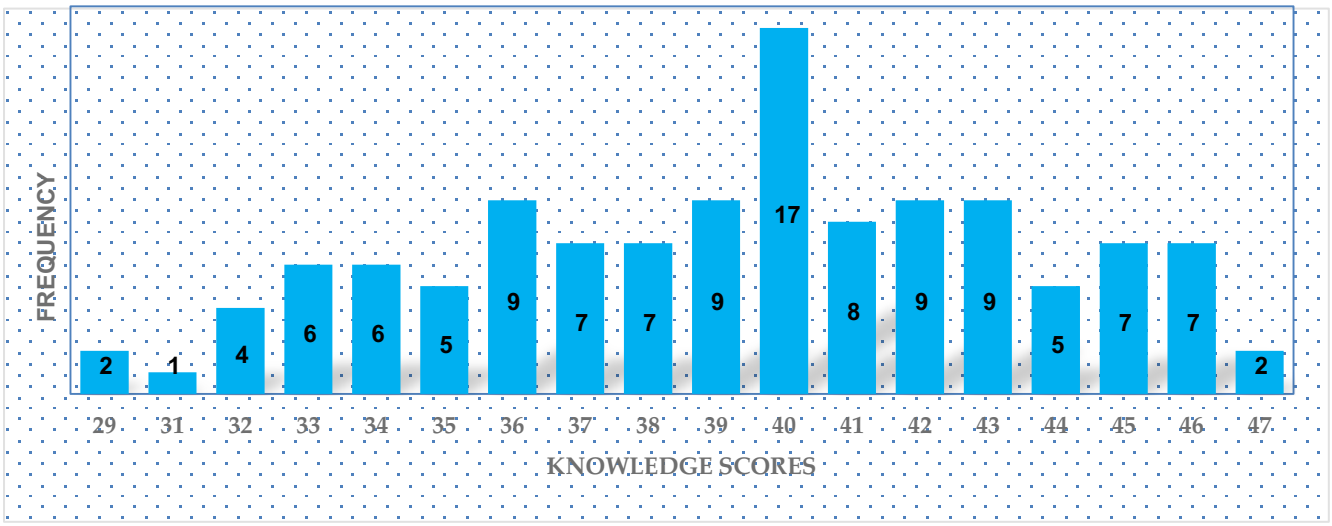

Pre-test

Fig. 6: Knowledge score distribution in respect of overall existing knowledge on millets

Table 5: Different statistic in regards to knowledge level of respondents pre and post exposure period

Aspect	Mean		Variance		Stand Dev.		Stand. Error		Skewness		Kurtosis	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
General knowledge on millets	4.100	6.125	3.140	1.659	1.772	1.288	0.162	0.118	0.316	0.164	0.600	0.067
Millet as nourishing cereal	4.408	7.400	3.608	2.423	1.900	1.557	0.173	0.142	0.849	0.841	0.259	3.761
Cultivation practices of millet	4.250	7.267	2.621	1.179	1.619	1.086	0.148	0.099	0.334	0.387	0.266	-0.071
Role of millets in health and diseases	7.175	11.092	9.061	6.883	3.010	2.624	0.275	0.240	0.110	0.244	0.261	0.081
Millet based products	4.075	7.433	3.053	1.179	1.747	1.086	0.159	0.099	0.307	0.532	0.600	0.010
Overall existing knowledge on millets	24.008	39.317	55.325	17.766	7.438	4.215	0.679	0.385	0.222	0.236	0.667	-0.647

CONCLUSION

Knowledge remains one of the most important factors and current study clearly indicated that proper intervention can significantly increase it. To obtain maximum nutritional benefits, it is necessary to include these prehistoric cherished grains in our regular diet but the majority of populace of Assam have not even heard about millets and its health and nutritional benefits. To ensure food and nutrition security, it is important to increase the production of these crops and simultaneously revert the control of production, distribution and consumption back to the people. Mass media including print and electronic can play a major role to popularize this nourishing grain. It can be suggested to implement different training and awareness programmes on millet to aware different grass root extension functionaries for improving nutritional status and prevent non-communicable age-related degenerative diseases. Further studies can be conducted to explore the consumption pattern of millet among different target groups.

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