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IMPACT OF NUTRITIONAL EDUCATION AND CREATING AWARENESS ON UTILI-ZATION OF MILLETS IN SELF HELP GROUPS IN VILLUPURAM DISTRICT

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Abstract
Millets plays crucial role in underdeveloped countries since their ability to grow in hostile climates also their composition of rich micronutrients such as minerals and vitamins higher contents of dietary fiber, essential amino acids and low-slung glucose release which will contribute to food and nutritional security of world's population. The major objectives of the current study are as follows: 1. To conduct nutrition education on millets to SHG Women's and 2 To examine the impact of nutrition education on millet before and after acquiring knowledge, attitudes and practices of the Self Help Group Women. The present study sample selected from the 5 Villages in Villupuram District namely Keelsevoor, Nolambur, Keelpasar,Aandapattu and Eappakam. An extensive interview questionnaire was created to gather the data from the SHG Women. An information communication technology (ICT) module was developed on **"Health benefits of millets"** as nutrition education intervention in local language, i.e., Tamil. The module contained information on history, nutritional values, common recipes that were in use and health benefits of millets. Apart from the module a pamphlet was also developed and given to the respondents as part of nutrition education on millets. The current results show that all the respondents Knowledge, Attitude and Practices toward the millets increased after the intervention, which indicates increased awareness and knowledge. Therefore, awareness programs on millet's health benefits should be implemented to prevent metabolic disorders and improve nutritional status.
Key words: SHG, Nutrition Education, Knowledge, Attitude and Practices

1. INTRODUCTION

Millets are a very diverse group of small-seeded grasses that are grown worldwide as cereal crops or grains for fodder and human consumption. [1] Indian millets are nutrient rich, drought tolerant and grown mostly in arid and semi-arid regions of India. They are the main source of food and fodder for millions of poor farmers and play a vital role in India's environmental and economic security. These millets are also known as "coarse grains" or "poor man's grains". Rich in protein, vitamins and minerals, Indian millets are nutritionally superior to wheat and rice. [2]

Millet is a collective term for various small grasses included in cereal crops. Millet grows well in barren and sterile conditions and requires less water than other crops. Developing countries still account for the majority of global millet production. Small grains were the staple food eaten by a large number of the lower classes and were mostly cultivated in their areas. [3].

Nutrition is very important for women because adequate nutrition affects not only themselves but also the health of their children. Requirements for macronutrients and micronutrients are significantly increased during pregnancy to support fetal growth and development of placenta and maternal tissues.[4]

Nutrition Education provides women with proper information on nutritional value of foods, food quality and safety, preservation methods, processing and handling, food preparation and eating.

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External millet is an excellent food for women who suffer from unbearable pain and cramps during their menstrual cycle [5]. They make a significant contribution to human and animal diets due to their high levels of energy, calcium, iron, zinc, lipids and high –quality proteins. Additionally, they are rich sources of dietary fiber and micronutrients.

Ragi, Jowar, Bajra, and foxtail are best for PCOS. These are PCOD friendly millets and help control cholesterol and blood sugar levels. They are naturally gluten-free which is recommended for PCOS. Millet is rich in calcium, protein, iron, and amino acids, which are essential for PCOS. [6]

Self Help Group Women with their ecological sensibility and close connection with climate protection are best suited to be ambassadors of millet cultivation. Efforts to provide agriculture inputs to Self Help Group Women in sustainable millet production will be a game changer in the millet revolution. Economic development of women will be ensured through this Self Help Group. Women are the primary breadwinners in the family so Self Help Groups can train women in farming, processing and marketing of millets which will increase consumption patterns. A Self Help Group Women focussing on selling millet products likes Ragi cookies, Bajra biscuits, Jowar can create women entrepreneurs. Awareness can be created about the benefits of consuming millets at Anganwadi and ASHA. [7]

Several training programmes have been conducted on the nutrition and consumption of millets and the health importance of millets Puppet shows were conducted to Self Help Group women about the consumption of millets and their health benefits. Many street plays have been performed by artistes to spread awareness about millets and create awareness among Self Help Group women. These street plays were also helpful to the general public who could get many important aspects related to millets. Around 30 street dramas are conducted in rural areas and many aspects of millet are closed and put in the form of a street drama. The rural people were educated about the beneficial aspects of millets and their cultivation [8].

OBJECTIVES OF THE STUDY

1. To conduct nutrition education on millets to Self Help Group Women
2. To examine the impact of nutrition education on millet before and after acquiring knowledge, attitudes and practices of the Self Help Group Women

2. METHODOLOGY

Sample Selection

The study was conducted among Women of various Self Help Groups in Villupuram District. A total of 250 Self Help Group Women of different age groups were selected through purposive sampling method. In Villupuram District 5 Villages namely Keelsevoor, Nolambur, Keelpasar, Aandapattu and Eappakam were selected. In each village 50 women were selected for the study. An detailed interview questionnaire was developed to collect data from the Self Help Group Women. An information communication technology (ICT) module was developed as a nutrition education intervention in the local language, i.e., Tamil on the topic **"Health benefits of millets".** as The volume contained information on history, nutritional values, common recipes in use and health benefits of millets. The module a pamphlet was also framed and given to the respondents as part of millet nutrition education.

Data Collection

Data were collected through questionnaire. The millet KAP Questionnaire consists of three parts: Knowledge, Attitude and Practice. The first part of the questions was to test the knowledge of millets, the second and third were to test the attitude and practice of millets.

3. Result and Summary

3.1 Demographic Profile

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Table 1
Personal Profile of the selected Respondents

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S.No	Variables	N=250	%
1	**Age**		
	20-30	98	39
	31-35	75	30
	36-40	28	11
	41-45	21	09
	46-50	28	11
	Total	250	100
2	**Education**		
	No Formal Education	42	16.8
	School Level	107	42.8
	Collegiate Level	101	40.4
	Total		
3	**Marital Status**		
	Married	152	60.8
	Unmarried	98	39.2
4	**Monthly Income**		
	Below Rs.20,000	108	43.2
	Rs.20,001 – Rs.30,000	72	28.8
	Rs.30,001 – Rs.40,000	50	20
	Above Rs.40,000	20	8
5	**Occupation**		
	Farming	101	40.4
	Teacher	39	15.6
	Private job holder	60	24
	Social Worker	50	20

The above table -1 shows 40 percent of the respondents where in 20-30 years and above showing the personal profile of the respondents. The Last majority (42.8 percent) of the respondents were at the school level. Majority (60.8 percent) of the respondents were married. Majority of the respondents opined that their annual income is below Rs. 20,000. Forty-five percent of the respondents belong to agricultural occupation.

Table 2
Comparison of Nutrition Knowledge pre and post Nutrition Education on Millets among Self Help Group Women

S.NO	Knowledge of Millets	Self Help Group Women N=250			
		Before		After	
		N	Percent	N	Percent
1.	Millets are good for health	55	22	232	92.8
2.	Millets containing highest nutrients	130	52	250	100
3.	Millets containing high fiber	65	26	250	100
4.	Millets are easily digestible foods	180	72	220	88
5	Millets help to maintain body weight	200	80	250	100

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6	Daily millet consumption controls Blood sugar level	150	60	235	94
7	Millets are rich source of Magnesium	118	47.2	245	98
8	Millets reduces the risk of colon and breast cancer	40	16	238	94.4
9	Millets have nutraceuticals and antioxidant properties	38	15.2	242	96.8

Table -2 indicated that there was a significant improvement in nutrition knowledge about millets among Self Help Group Women after nutrition education provided by the researcher.
A Comparison of nutrition knowledge results before and after imparting nutrition education in millets found a significant improvement in nutrition knowledge of 96 percent after nutrition education given by the researcher among Self Help Group Women.

Table 3
Comparison of Millets Attitude pre and post Nutrition Education among Self Help Group Women

S.NO	**Attitude toward millets**	**Self Help Group Women N=250**			
		Before		**After**	
		N	**Percent**	**N**	**Percent**
1	All types of millets are good	65	26	230	92
2	With the help of millets you can prepare different foods	142	56.8	250	100
3	You can take only one meal at the time	85	34	250	100
4	Millets are expensive compare to rice	192	76.8	240	96
5	Millets value added foods enhance the nutritive value of the product	200	80	250	100
6	Millets are gluten free foods	152	60.8	242	96.8
7	Millets have lower Glycemic Index	143	57.2	248	99.2
8	Millets contain high phenolic acids, tannins and phytates	68	27.2	248	99.2

Table -3 indicated that there was a significant improvement in nutrition attitude of millets after the nutrition education provided by the researcher among Self Help Group Women. About 97.9 percent of the respondents have good attitude towards using millets.

Adithya Girijavallabhan the review aimed to know the attitude, preference, and consumption pattern of millets among adolescent girls. The study participants were the young women between the ages of 20 and 28 who were pursuing post-graduate studies and research in various fields. Around 100 students submitted the forms in full and collected data about their attitude, reasons for their preference, frequency and pattern of millet consumption using the Google questionnaire through WhatsApp. Incomplete forms were excluded from the study. It was found that 89% of the respondents consumed millets, majority of the respondents (58%) consumed millets, 26 % liked the taste, 90% of them found millets nutritious, three percent found it expensive and six percentages of them saw millets as rural stable food. Only four percent of respondents recorded daily consumption and 23% consumed millets 3/4 times weekly. Millet-based food products among the respondents

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were kichadi (16%), roti (25%), snacks (20%), bread (6%), traditional sweets (7%), kali/porridge (7%), and dosa/adai (8%). Majority of the respondents (91±2.3) were aware of millet cookies, small millet vermicelli (88±4.4), multi millet noodles/pasta (82±5), millet biscuits (92±2.1), multi-millet idli/dosa/adai mix (85±3.4). Respondents were aware of the nutritional benefits of millet consumption and it was revealed that they did not consume millets regularly. To increase the consumption of millet, easy availability should be made transparent among children and youth. Also, like staple grains like rice and wheat, millets can also be supplied through a Public Distribution System.[9]

Table 4
Comparison of Millets Practices pre and post Nutrition Education among Self Help Group Women

S.NO		Self Help Group Women N=250			
		Before		After	
		N	Percent	N	Percent
1	Daily you are consuming millet based foods	107	42.8	244	97.6
2	Using millets you are preparing supplementary foods	106	42.4	242	96.8
3	Preparing different millet receipes	64	25.6	222	88.8
5	Millets consumption improves health status	76	30.4	234	93.6
4	Millets can blend very easily with common foods without any pronounced of flavours	87	34.8	243	97.2
5	Millets can probiotics and improves flavour, texture and acceptability of product	96	38.4	250	100

Data regarding millet practices are given in the table-4. From the collected data of the present study it is clear that the majority of the selected respondents had good knowledge about millets. About 90 percent of the selected respondents had knowledge about millets as an excellent source of nutrition and all aspects of millets include health, cooking and consumption practices. Only 10 percent of the respondents found to have poor practice on millets.

CONCLUSION

The study concludes that daily intake of millets leads to good health and improves immunity level. Millets increase the digestion capacity and decrease capacity and decrease constipation conditions. From the responses received from studies we conclude that 40 percent of the respondents where in 20-30 years and above showing the personal profile of the respondents. The Last majority (42.8 percent) of the respondents were at the school level. Majority (60.8 percent) of the respondents were married. Majority of the respondents opined that their annual income is below Rs. 20,000. Forty-five percent of the respondents belong to agricultural occupation. Comparison of nutrition knowledge results before and after imparting nutrition education in millets found a significant improvement in nutrition knowledge of 96 percent after nutrition education given by the researcher among Self Help Group Women. there was a significant improvement in nutrition

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attitude of millets after the nutrition education provided by the researcher among Self Help Group Women. About 97.9 percent of the respondents have good attitude towards using millets. About 90 percent of the selected respondents had knowledge about millets as an excellent source of nutrition and all aspects of millets include health, cooking and consumption practices. Only 10 percent of the respondents found to have poor practice on millets.

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