

An Experimental Study to Assess the Effectiveness of Planned Teaching Program on Knowledge Regarding Benefits of Millets Dietary Supplementation for Pregnant Women Among Female Health Workers

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Abstract: Pregnancy, also known as gestation, is the time during which one or more offspring develops inside a woman's womb. Good antenatal care includes regular screening which can detect and prevent early complications such as hypertension and pregnancy diabetes; both of which can dramatically affect the foetus. Millet is a whole grain that's packed with protein, antioxidants, and nutrients. It may have numerous health benefits, such as helping lower your blood sugar and cholesterol levels. Millets should be eaten best during the second and third trimesters which is best during pregnancy. They are enriched with fiber, antioxidants, iron, zinc, magnesium, copper and vitamin. **Objectives:** 1. To assess the pre test and post test knowledge score regarding benefits of millets dietary supplementation for pregnant women among female health worker of selected community in Bhilai, Chhattisgarh. 2. To assess the effectiveness of planned teaching program on knowledge regarding benefits of millets dietary supplementation for pregnant women among female health worker of selected community in Bhilai, Chhattisgarh. 3. To associate the pretest score of knowledge regarding benefits of millets dietary supplementation for pregnant women with selected sociodemographic variable. **Material and methods:** An experimental study was conducted among 60 female health workers of selected community Bhilai, Chhattisgarh in November 2021. Female health workers were selected by purposive sampling technique. Information regarding socio-demographic and knowledge regarding benefits of millets was recorded in pre-designed, pre -tested questionnaire. Data was analyzed by frequency, percentage, mean, standard deviation. Major findings of study are- over all analysis of pre test and post test knowledge score regarding benefits of millets dietary supplementation for pregnant women among female health workers, in pre test majority score 34(56.67%) had average knowledge, 16(26.67%) had good knowledge and 10(16.67%) had poor knowledge regarding benefits of millets dietary supplementation for pregnant women. While in posttest knowledge score of health workers majority 58 (96.67%) had good knowledge and 2(3.33) had average knowledge.

S. No.	Level of Knowledge	Range	Percentage
1.	Good	34-50	67- 100
2	Average	17-33	34-66
3.	Poor	0-16	0-33

So, it indicates that knowledge score improved from average to good after planned teaching programme on benefits of millets.

Keywords: Effectiveness, knowledge, millets, pregnancy, supplementation.

1. Introduction

Globally, about 800 women die every day of preventable causes related to pregnancy and childbirth, and 20 per cent of these women are from India. Seven of the top 10 causes of death in women in India are NCDs, led by heart attacks, stroke and respiratory diseases

However, coverage of life-saving health interventions and practices remains low due to gaps in knowledge, policies and availability of resources.

Health worker are the front-line community service provider who provide preventive, curative and rehabilitative services during ante, intra and post-natal period.

Pregnant women need higher amounts of certain vitamins and minerals, such as folic acid and iron. Millet is one of the nutrient rich grains for pregnant women as it is rich in iron, protein, antioxidants, dietary fiber, calcium, magnesium, potassium and folate - all those nutrients which required more during pregnancy. Its high iron content improves hemoglobin levels. Dietary fibre prevents constipation and helps to lower the blood sugar levels in gestational diabetes. Calcium and folate help in fetal development. Magnesium and potassium manage the blood pressure. The science behind is the grains which are high in complex carbs and low in refined carbs

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prevents surge in insulin resistance and preserve ovulation.

2. Material and Method

One group pre-post-test, an experimental study was conducted in urban area of Bhilai, Chhattisgarh among female health care workers. They were selected by non-probability purposive sampling technique the study was conducted on November 2021.

In this study, sample size calculation was based on pilot study findings. In the pilot study (n= 6), samples were selected by the non- probability purposive sampling technique. The pilot study conducted in 6 female health workers exam at 11 AM-12PM. Purpose of the study was explained to samples for assessment of knowledge regarding benefits of millets dietary supplementation for pregnant women. The selected samples were informed for the study and the written consent was obtained. Pilot study was done using self- structured questionnaire; average time taken was 1 hour for the health workers. The findings revealed that study was feasible and to test the reliability of the tool (r=0.79) for pre test knowledge and (r=0.76) (Self structured questionnaire) for post test was found to be statistically correct.

Permission from CMO of the District was sought. CPM directed further to access the participants. The participants comprised of 60 female health workers from different health facility of urban area Bhilai. After the pre test Female health workers were assigned to intervention. They received for 60-min planned teaching programme training sessions consisting of lecture, Before and 7 days after the intervention, a multi-part questionnaire (including demographics, benefits of millets questionnaire) was completed by participants. A pre-designed and pre structured validated questionnaire was used in this study. Same questionnaire was used for pre and post-test assessment. This questionnaire consisted of 50 questions regarding benefits of millets. It was evaluated by five subject experts and analysis was done for each item.

3. Results

Revealed that increase the knowledge as calculated ‘t’ value 12.08++ is greater than table value 3.47 at p<0.001 level of confidence, the data signifies that the planned teaching programme was very effective in term of gain in knowledge.

Table 1

“t” test to evaluate the effectiveness of planned teaching programme on knowledge regarding benefits of millets dietary

Area	Pre-test knowledge			Post-test knowledge			Mean diff	Gain %	Paired 't' value	df Critical value	Significance
	Mean	Mean %	SD	Mean	Mean %	SD					
Antenatal care	6.17	61.7	2.1	8.08	80.8	1.08	1.91	19.1%	6.76	59/3.47	P < 0.001 HS
Source and composition of millets	2.78	69.5	0.72	3.3	82.5	0.72	0.52	13%	4.97		
Importance of millets	5.62	62.44	1.62	7.83	87	1.22	2.21	24.56%	9.72		
Maternal benefits of millet diet in pregnancy	7.48	46.75	3.13	11.92	74.5	1.68	4.44	27.75%	9.86		
Benefits to fetus	4.42	63.14	1.29	5.12	73.14	1.01	0.7	10%	5.12		
Benefits of millets for adolescent and menopausal women	1.75	43.75	0.63	2.67	66.75	0.48	0.92	23%	8.38		
Overall	28.22	66.44	7.17	38.92	77.84	3.24	10.7	21.4%	12.08		

Chi square analysis to find out the association between pre-test knowledge score regarding benefits of millets dietary supplementation for pregnant women among female health workers Revealed that there was significant association of knowledge regarding benefits of millets with socio-demographic variables i.e., qualification as the chi-square values 6.91 was greater than the table values 5.99 level of significance .

4. Discussion

In the present study on knowledge regarding benefits of millets dietary supplementation for pregnant women among female health workers. In pre test majority score 34(56.67%) had average knowledge, 16(26.67%) had good knowledge and 10(16.67%) had poor knowledge regarding benefits of millets dietary supplementation for pregnant women. While in post test knowledge score of health workers majority 58(96.67%) had good knowledge and 2(3.33) had average knowledge regarding benefits of millets dietary supplementation for pregnant women So, it indicates that knowledge score improved from average to good after planned teaching programme on benefits of millets.

Above study was supported by Rajendra Prasad et al., (2015), conducted a study to assess the effect of sorghum diet on nutritional status of school going children, girls (n=137) and boys (n=125) aged between 9-12 years, School going children were divided into control and experimental groups. The control group was given regular rice diet and experimental group was given 50% sorghum diet and 50% rice diet for a period of 8 months. There was a significant increase of hemoglobin, ferritin, albumin, calcium, iron and folic acid is seen Significant increase of

Chhattisgarh government launches ‘Millet Mission’ to become Millet Hub of India on September 14th, 2021. Chhattisgarh Chief Minister Bhupesh Baghel has announced the launch of ‘Millet Mission’, which aims to provide proper price rates to farmers for minor cereal crops. The initiative is also a step towards the Chief Minister’s vision for the state to become India’s millet hub.

Montonen, (2003). Sorghum is rich in dietary fiber and has low glycemic index, which could help in prevention and control of type 2 diabetes among Indians. The fiber, magnesium, vitamin -E, phenolic compounds and tannins present in foods reduces the risk of diabetes as they slower the sudden increase of blood glucose and insulin levels.

5. Conclusion

Thus, this study reflects that, the training was successful in gaining knowledge pertaining to benefits of millets for pregnant mother, fetus, menopausal women and adolescent regarding benefits of millets for pregnant women. As the, use of millets is low among antenatal women there is a requirement of organizing periodic counseling sessions to create an awareness in them regarding healthy diet.

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