Effect of Structured Teaching Programme (STP) Regarding Knowledge and Practices on Prevention of Anemia Among Pregnant Women Under BPHC Azara, Kamrup, Assam

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Abstract

BACKGROUND: In pregnant women, anemia remains one of the most intractable major public health problems especially in developing counties because of various sociocultural problems like shortage of essential nutrients, iron folate, poverty, lack of awareness, poor dietary habits, too early pregnancy and late booking of pregnant women at prenatal care units. Therefore, anemia is a major contributor to poor pregnancy and birth outcomes. So it was found important to assess the knowledge and practices of pregnant women regarding prevention of anemia.

OBJECTIVES: The present study was aimed to assess the Effect of Structured Teaching Programme reagrding Knowledge and Practices on Prevention of Anemia among Pregnant Women under BPHC Azara, Kamrup, Assam.

MATERIALS AND METHODS: A quantitative evaluative research approach was adopted and pre-experimental one group pretest post-test research design was used to assess the effect of structured teaching programme Knowledge and Practices on Prevention of Anemia among Pregnant Women under BPHC Azara, Kamrup, Assam. 60 pregnant women were selected using Multistage Simple Random sampling technique. The tools used for the study was structured interview schedule comprising of Structured knowledge questionnaire and structured criteria checklist.

RESULTS: The study results shows that in post-test mean knowledge score i.e 18.02 was higher then mean pre-test knowledge score i.e 10.45 with mean difference of 7.57 as evidence by t value= 21.54 at 0.05 level of significance And the post-test mean practices score i.e 9.30 was higher then mean Pre-test mean practices score i.e 7.65 with mean difference of 1.65 as evidence by t value =15.21 at 0.05 level of significance which reveals that the structured teaching programme was effective in increasing the knowledge and enhancing the practices of the pregnant women.It also shows that there is a moderate positive co-relation between knowledge and practices r=0.236 at 0.05 level of significance. It also reveals that there was significant association between pre-test knowledge of the pregnant women with their age and there was significant association between pre-test practices of the pregnant women with the presence of hook worm infestation.

CONCLUSION: The study reveals that the structured teaching programme was effective in increasing the knowledge and enhancing the practices of the pregnant women.

INTRODUCTION:

Anemia is a condition in which the number of red blood cells is insufficient to meet the body's physiological needs. IDA or low hemoglobin level in pregnant women are regarded a high danger for both mother and newborn. The need for iron increases dramatically throughout the pregnancy as the pregnancy progresses. Iron deficiency is estimated to be the most prevalent cause of anemia, accounting for 75% to 95% of cases. Hemoglobin level differ with pregnancy due to physiological hemodilution which is highest during 20 to 24 weeks of gestation. Severe anemia in pregnancy impairs oxygen delivery to the fetus and interferes with the normal intrauterine growth retardation, still birth, LBW and neonatal death. Therefore, anemia is a major contributor to poor pregnancy and birth outcomes in developing countries as it predisposes to premature delivery. Increase perinatal mortality and increase risk of death during delivery and postpartum.

STATEMENT OF THE PROBLEM

Effect of Structured Teaching Programme (STP) regarding Knowledge and Practices on Prevention of Anemia among Pregnant women under BPHC Azara, Kamrup, Assam.

OBJECTIVES OF THE STUDY

1. To assess the pre-test knowledge and practices on prevention of anemia among pregnant women under BPHC Azara, Kamrup, Assam.
2. To assess the post-test knowledge and practices on prevention of anemia among pregnant women under BPHC Azara, Kamrup, Assam.
3. To evaluate the effect of Structured Teaching Programme regarding knowledge and practices on prevention of anemia among pregnant women under BPHC Azara, Kamrup, Assam.
4. To find out the co-relation between pre-test knowledge and practices on prevention of anemia among pregnant women under BPHC Azara, Kamrup, Assam.
5. To find out the association between pre-test knowledge on prevention of anemia with selected demographic variables.
6. To find out the association between pre-test practices on prevention of anemia with selected demographic variables.

HYPOTHESIS:

1. H1- There is a significant difference between the mean pre-test and post-test knowledge regarding prevention of anemia among the pregnant women receiving Structured Teaching Programme (STP).
2. H2- There is a significant difference between the mean pre-test and post-test practices regarding prevention of anemia among pregnant women receiving Structured Teaching Programme (STP).
3. H3- There is a significant correlation between pre-test knowledge on prevention of anemia with pre-test practices.
4. H4- There is a significant association between pre-test knowledge on prevention of anemia with selected demographic variables.
5. H5- There is a significant association between pre-test practices on prevention of anemia with the selected demographic variable.

MATERIALS AND METHODS:

A quantitative research survey approach was adopted and pre-experimental one group pre-test post-test research design was used to assess the effect of Knowledge and Practices regarding Prevention of Anemia among Pregnant Women under BPHC Azara, Kamrup, Assam. 60 pregnant women were selected using Mutistage Simple Random sampling technique. The tools used for the study was structured interview schedule comprising of Structured knowledge questionnaire and structured criteria checklist. The analysis was done by using descriptive and inferential statistics in terms of frequency distribution, paired t-test, Karl Pearson's co-relation coefficient and Chi square and Fishers exact test.

RESULTS:

Findings related to Demographic Data:

Table 1: Frequency and Percentage distribution of selected demographic variables regarding knowledge and practices on prevention of Anemia among Pregnant women.

Demographic Variables	Frequency (f)	Percentage (%)
1.Age in years		
Below 20 years	6	10
20-25 years	24	40
26-30 years	21	35
31-35 years	8	13.3
36 and above	1	1.7
2.Religion		
Hindu	42	70
Islam	17	28.3
Christian	1	1.7
3. Educational status		
Illiterate	3	5
Primary education	7	11.7
ME schooling	14	23.3
HSLC	20	33.4
HSSLC	14	23.3
Graduate and above	2	3.3
4.Occupation		
Homemaker	48	80
Salaried	1	1.7
Self employed	5	8.3
Daily labourer	5	8.3
Others	1	1.7
5.Monthly per capita income of the family.		
$\geq$ 18,4376	0	0
92,191-18,4370	0	0
60,967-92,185	0	0
46,095-60,961	0	0

27,654-46,089	7	11.7
9,232-27,648	30	50
≤ 9,226	23	38.3
6.Type of family		
Nuclear family	29	48.4
Joint family	26	43.3
Extended family	5	8.3
7.Gravida		
1	27	45
2	26	43.3
3	7	11.7
8.Dietary pattern		
Vegetarian	9	15
Non vegetarian	51	85
9.Source of health-related information		
Health worker	45	75
Media	10	16.7
Neighbour	5	8.3
Book	0	0
10.Presence of hookworm infestation		
Yes	10	16.7
No	50	83.3

The data in table 1 shows the frequency and percentage distribution of selected demographic variable regarding knowledge and practices regarding prevention of anemia among pregnant women. Majority i,e 40% of the pregnant women belongs to the age group of 20- 25 years, majority i,e 70% were Hindu, majority i,e 33.4% of have passed HSLC, majority i,e 80% were house wife, majority i,e 38.3% is ≤ Rs 9,226, majority i,e 48.4% of the belongs to the nuclear family, majority i,e 45% belongs to 1st gravida, majority i,e 85% were non-vegetarian, majority i,e 75% of the pregnant women's get health related information from health workers and majority i,e 83.3% of the pregnant women's there is no any hookworm infestation.

Findings related to pre-test and post-test knowledge of pregnant women regarding prevention of anemia
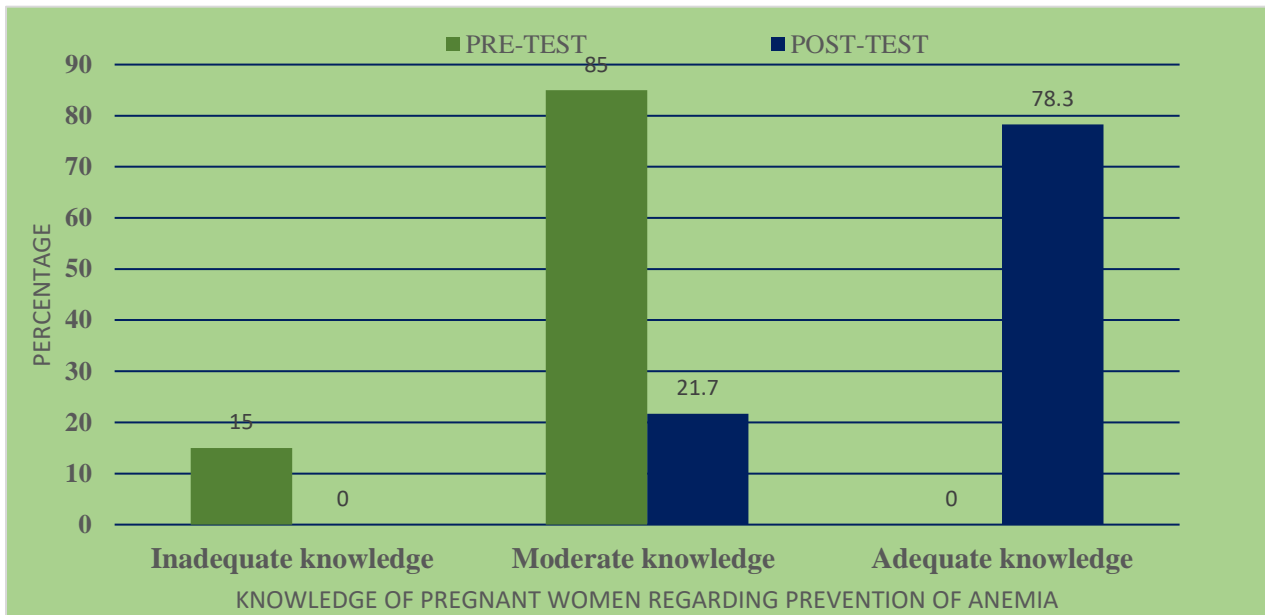

Figure 1: Bar diagram showing percentage distribution of pre-test and post-test knowledge of pregnant women regarding prevention of anemia.

Data on figure 1 shows that in pre-test, majority i.e 51(85%) of participants had moderate knowledge, and 9(15%) had inadequate knowledge where as in post-test majority participants 47(78.3%) had adequate knowledge and 13(21.7%) had moderate knowledge regarding prevention of anemia.

Findings related to pre-test and post-test practices of pregnant women regarding prevention of anemia
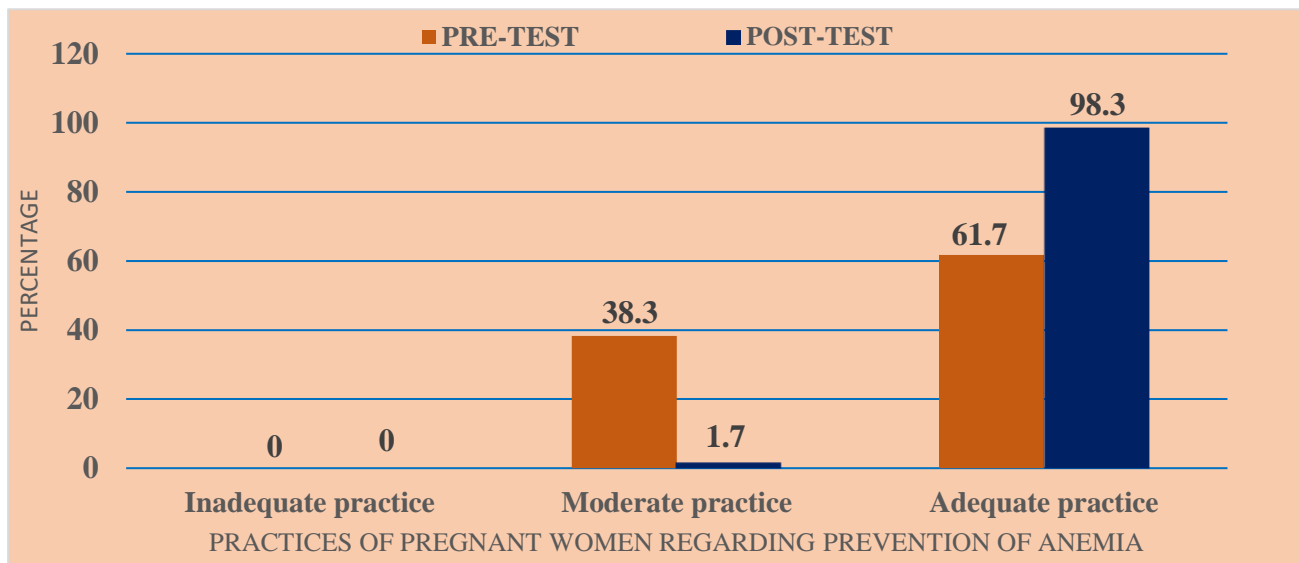

Figure 2: Bar diagram showing percentage distribution of pre-test and post-test Practices of pregnant women regarding prevention of anemia

Data on figure 2 shows that in pre-test majority 37(61.7%) of the pregnant women had adequate practice and i.e 23(38.3%) had moderate practice where as in post-test majority i.e 59(98.3%) of the pregnant women had adequate practice and 1(1.7%) had moderate practice regarding prevention of anemia.

TABLE 3: Findings related to effect of structured teaching programme regarding knowledge on prevention of anemia among pregnant women.

LEVEL OF KNOWLEDGE	MEAN	SD	MEAN DIFFERENCE	T TEST VALUE	df	P VALUE
Pre-test	10.45	2.79	7.57	21.54	59	**0.001***
Post-test	18.02	2.68				

*p<0.05 level of significance

Data on table 3 depicts the effectiveness of structured teaching programme on knowledge regarding prevention of anemia among pregnant women. Findings showed that in post-test mean knowledge score was 18.02±2.68 was higher than pre-test mean knowledge score 10.45±2.79 with mean difference of 7.57. The mean difference between pre-test and post-test knowledge score was tested using paired t test with obtained (t=21.54) at df=59 was statistically significant at $p<0.05$ level of significance.

The findings revealed that there was a significant difference in the pre-test and post-test knowledge score depicts that the Structured Teaching Programme was effective in increasing the knowledge of pregnant women regarding prevention of anemia. Hence the null hypothesis H01 is rejected and research hypothesis H_1 is accepted.

TABLE 4: Findings related to effect of structured teaching programme regarding Practices on prevention of anemia among pregnant women.

LEVEL OF PRACTICE	MEAN	SD	MEAN DIFFERENCE	T TEST VALUE	df	P VALUE
Pre-test	7.65	1.28	1.65	15.21	59	**0.001***
Post-test	9.30	0.76				

*p<0.05 level of significance

Data on table 4 depicts the effectiveness of structured teaching programme on practice regarding prevention of anemia among pregnant women. Findings showed that in post-test mean practice score was 9.30±0.76 was higher than pre-test mean practice score 7.65±1.28 with mean difference of 1.65. The mean difference between pre-test and post-test knowledge score was tested using paired t test with obtained (t=15.21) at df=59 was statistically significant at $p<0.05$ level of significance.

The findings revealed that tthe Structured Teaching Programme was effective in enhancing the practices of pregnant women regarding prevention of anemia. Hence the null hypothesis H02 is rejected and research hypothesis H_2 is accepted.

TABLE 5: Findings related to co-relation of pre-test knowledge score with pre-test practices score regarding prevention of anemia among pregnant women

CO-RELATION	r VALUE	p VALUE
Knowledge	0.326	**0.011***
Practice		

Data on table 5 depicts the co-relation between pre-test knowledge and practices on preventio of anemia which revealed r=0.326 which indicate there is a moderate positive correlation. Hence the null hypothesis H03 is rejected and the research hypothesis H_3 is accepted.

Table 6: Association between pre-test level of knowledge on prevention of anemia with selected demographic variables.

SL.NO	DEMOGRAPHIC VARIABLES	LEVEL OF KNOWLEDGE		χ^2 VALUE	VALUE OF FISHER SEXACT TEST	df	p VALUE
		INADEQUATE	MODERATELY ADEQUATE				
1.	**Age in years**						
	Below 20 years	2	4	-	8.899	4	0.034^S
		1	23				
	20-25 years	3	18				
	26-30 years	2	6				
	31-35 years	1	0				
	36 and above						
2.	**Religion**						
	Hindu	7	35	-	0.754	2	1.000^{NS}
	Islam	2	15				
	Christian	0	1				
3.	**Educational status**				5.022	5	0.376^{NS}
	No formal education	0	3	-			
	Primary education ME	2	5				
	schooling	1	13				
	HSLC HSSLC	4	16				
	Graduate and above	1	13				
		1	1				
4.	**Occupation**						
	Home maker	9	39	-	2.244	4	0.620^{NS}
	Salaried	0	1				
	Self employed	0	5				
	Daily labourer	0	5				
	Others	0	1				
5.	**Monthly family income**			-	2.769	2	0.240^{NS}
	Rs 27654-	0	7				
	46089						

	Rs 9232-27648	7	23				
	≤ Rs9226	2	21				
6.	**Type of family**						
	Nuclear family	6	23	-	2.208	2	0.328^{NS}
	Joint family	2	24				
	Extended family	1	4				
7.	**Gravida**						
	1	4	23	-	1.510	2	0.526^{NS}
	2	3	23				
	3 and above	2	5				
8.	**Dietary pattern** Vegetarian	0	9	1.869	-	1	0.172^{NS}
	Non vegetarian	9	42				
9.	**Source of**						
	health-related information.			-	0.778	2	0.701^{NS}
	Health worker	7	38				
	Media	2	8				
	Neighbour	0	5				
10.	**Presence of**						
	hookworm infestation			0.235	-	1	0.628^{NS}
	Yes	2	8				
	No	7	43				

Overall statistical significant association was found in regards to age and rest of the socio demographic variables i.e religion, educational status , occupation, type of family , monthly per capita income, gravida, dietary pattern , source of information and presence of hook worm infestation.Hence the null hypothesis H_{04} is rejected and the research hypothesis H_4 is accepted.

Table 7: Association between pre-test level of practices on prevention of anemia with selected demographic variables.

SL.NO	DEMOGRAPHICVARIABLES	LEVEL OF PRACTICE		$\square 2$ VALUE	VALUE OF FISHER'SEXACT TEST	df	p VALUE
		MODERATELY ADEQUATE	ADEQUATE				
1.	**Age in years** Below 20 years	4	2	-	5.820	4	0.183^{NS}

	20-25 years	6	18				
	26-30 years	8	13				
	31-35 years	4	4				
	36 and above	1	0				
2.	**Religion** Hindu	17	25	-	0.741	2	0.862^{NS}
	Islam	6	11				
	Christian	0	1				
3.	**Educational status** No formal education	1	2	-	2.539	5	0.813^{NS}
	Primary education	2	5				
	ME	5	9				
	schooling	10	10				
	HSLC	5	9				
	HSSLC	0	2				
	Graduate and above						
4.	**Occupation** Home maker	17	31	-	6.213	4	0.085^{NS}
	Salaried	1	0				
	Self employed	4	1				
	Daily labourer	10	41				
	Others						
5.	**Monthly family income** Rs27654-46089	2	5	-	0.706	2	0.750^{NS}
	Rs9232-27648	13	17				
	≤ Rs9226	8	15				
6.	**Type of family** Nuclear family	14	15	-	2.375	2	0.337^{NS}
	Joint family	8	18				
		1	4				

Sr.	Variable							
	Extended family							
7.	**Gravida** 1 2 3 and above	7 14 2		20 12 5	-	4.536	2	0.117^{NS}
8.	**Dietary pattern** Vegetarian Non vegetarian	1 22		8 29	3.319	-	1	0.068^{NS}
9.	**Source of health- related information.** Health worker Media Neighbour	16 4 3		29 6 2	-	1.277	2	0.544^{NS}
10.	**Presence of hookworm infestation** Yes No	1 22		9 28	4.075	-	1	0.044 S

Overall statistical significant association was found in regards to presence of hook worm infestation and rest of the socio demographic variables i.e age, religion, educational status , occupation, type of family , monthly per capita income, gravida, dietary pattern , and source of information there is no any significant aasociation . Hence the null hypothesis H_{05} is rejected and the research hypothesis H_5 is accepted.

CONCLUSION:

The study was conducted to determine the effect of Structured Teching Proagramme regarding knowledge and practices on prevention of anemia amomg pregnant women under BPHC Azara , Kamrup, Assam. From the findings of the present study , it can be concluded that majority of the pregnant women have moderate knowledge and adequate practices and the Structured Teching Programme was effective in increasing the knowledge and enhancing the practices because in the post test it was found that the level of knowledege and practices has increased drastically.

RECOMMENDATION:

On the basis of the findings of the study it can be recommended that:

- A comparative study can be done between the urban and rural pregnantwomen.
- The same study can be conducted in different setting and with a large sample.
- Survey can be carried out to find out the incidence and prevalence of anemia.

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