A Structured Teaching Programme on Knowledge And Practice Regarding Prevention of Anaemia Among The Women of Reproductive Age Groups

Dr. T.Chandra[1], Dr. Karaline Karunagari[2]
[1]Lecturer
[2]Principal
[1, 2] Rani Meyyammai College of Nursing, Annamalai University, India

Abstract- *Anaemia is one of the most widespread nutritional deficiency disease and major public health concern all over the world affecting all the ages. It is the one of the most prevalent health issues among the women within reproductive age group. WHO has estimate that prevalence of anaemia among reproductive age women 14% in developed and 51% in developing countries while it is 65-70% in India. Anaemia is far reaching public health implications, such as increased maternal mortality and morbidity in pregnancy; intra uterine growth retardation, low birth weight, increased neonatal mortality, depressed immune-competence, impaired learning ability in infant and children and impaired work performance and behavioral changes in adult. In this paper, a study to assess the effectiveness of structured teaching programme on knowledge and practice regarding prevention of anaemia among the women of reproductive age group in rural area of Kanagarapattu village at Chidambaram Taluk, INDIA has been presented.*

Keywords- Anemia, Prevention of Anaemia, Reproductive Age Group, Structured Teaching Programme.

I. INTRODUCTION

In a normal population, 2.5% of the population would be expected to be below threshold. Hence iron deficiency anaemia would be considered a public health problem only when the prevalence of hemoglobin concentration exceeds 5.0 % of population [1]. The prevalence of iron deficiency anaemia in a population is therefore a statistical rather than a physiological concept, although if reflects that proportion that has iron-deficient erythropoiesis [2]. Iron deficiency anaemia should be regarded as a subset of iron deficiency, that is, it represents the extreme lower end of the distribution of iron deficiency [3]. Blood loss such as that associated with schistosmisis, hookworm infestation, hemorrhage in childbirth and trauma can also result in both iron deficiency and anaemia [4].

Malhotra et al, [6] studied that for high morbidity and mortality rates among women can be the manifestation of anaemia among women in reproductive age may not be noticeable easily in the beginning as it is like an iceberg. WHO report 2011 revealed that anaemia prevalence in adolescent girl is very high ranging from 50% to > 90% [8]. In 2006, the overall prevalence of Anaemia has been reported to be extremely high at 90.1% in adolescent girls of 11-18 years of age from 60 districts in 4 regions of India [7]. The Prevalence of anaemia is higher among pregnant women and preschool children [9]. Even among higher income educated segments of population about 50 percent of children, there is 8 to 10-fold increase in MMR when the Hb falls below 5 g/dl. Early detection and effective management of anaemia in pregnancy can contribute substantially to reduction in maternal mortality [5].

The overall prevalence of anaemia among women of reproductive age group was found to be very high and about half of subjects were falling with mild category of anaemia [10]. As per the knowledge part is concerned, most of them were having average knowledge regarding anaemia. Hence, a study to assess the effectiveness of structured teaching programme on knowledge and practice regarding prevention of anaemia among the women of reproductive age group becomes significant.

II. OBJECTIVES

1. Assessment of knowledge and practice on prevention of anaemia among the women of reproductive age group before intervention.
2. Assessment of Structured teaching programme on knowledge and practice regarding prevention of anaemia among the women of reproductive age group.
3. Analyze the association between pre tests knowledge on prevention of anaemia with selected demographic variables of the subjects such as age, education, family income, occupation and religion.

III. ASSUMPTIONS

1. Rural genders have inadequate knowledge and practice regarding anaemia.
2. Health teaching programme will provide an opportunity for active learning among the subjects.
3. Teaching programme will enhance the knowledge and practices regarding anaemia.
4. Teaching programme will improve the health promoting behavior and further complication by early detection of anaemia.

IV. DELIMITATIONS

1. The study limited to rural area only.
2. The study assesses knowledge of practice scores.
3. The duration of study was only 2 weeks.
4. The sample size was 40.

V. METHODOLOGY

In this study, pre experimental research design was used to assess the effectiveness of structured teaching programme on knowledge and practice regarding prevention of anaemia among the women of reproductive age group in rural area. The study was conducted at Nadu Street in Kanagarapattu village at Chidambaram Taluk, INDIA. The target population of study is the reproductive age group of women living in Kanagarapattu village. A total number of 40 subjects at the reproductive age group were selected for this study.

VI. CRITERIA FOR SAMPLE SELECTION

Reproductive age group between 15-45 years was considered. Women willing to participate in the study were selected. Women's both married and unmarried who can read and write Tamil and also available at the time of data collection were selected. Reproductive age group men and mentally ill women were excluded. The instrument used for data collection was structured intervention guide which was conducted by local language (Tamil) that include meaning of anaemia, causes, signs and symptoms, diagnosis, treatment, prevention and complication of anaemia.

Formal permission was obtained from village president of Kanagarapattu, Chidambaram Taluk. The researcher introduced herself to the subjects, the data collection procedure was explained to the subjects saying that the data will be kept confidential and will be used only for research purpose. The pretest and posttest was conducted by using structured interview guide to assess the knowledge and practice regarding prevention of anaemia.

The tool consists of three sections that include demographic data of the study subjects, knowledge regarding prevention of anaemia and practice regarding prevention of anaemia. The Demographic variables such as age, religion, residency, educational status, occupation, family income, type of family, dietary pattern, age at menarchy, menstruation cycle, and number of days an menstrual flow were used. Structured interview guide was prepared to assess the knowledge regarding prevention of anaemia such as meaning of anaemia, signs and symptoms of anaemia, causes of anaemia, diagnosis, treatment, and prevention of anaemia and complication of anaemia. Practice regarding prevention of anaemia consists of 20 open ended question to assess the practice regarding various aspects on anaemia.

VII. DATA ANALYSIS AND INTERPRETATION

Table I: Consists of the Demographic variables of the subjects

Table II: Shows the distribution of Pretest and posttest level of knowledge score of the subjects on prevention of anaemia among the women of reproductive age group.

Table III: Shows the distribution of Pretest and posttest level of practice score of the subjects on prevention of anaemia among the women of reproductive age group.

Table IV: Shows the Comparison of mean pre and post test knowledge score on prevention of anaemia among the women of reproductive age group.

Table V: Shows the Comparison of mean pre and post test practice score on prevention of anaemia among the women of reproductive age group.

Table VI: Shows the Comparison of mean pre and post test knowledge and practice score on prevention of anaemia

Table VII: Association between the mean pretest knowledge score of the subjects with selected demographic variables.

Table-1: DISTRIBUTION OF DEMOGRAPHIC VARIABLES OF THE RESPONDENT

N=40

Demographic Variables		N	Percentage
Age	15-25 years	14	35.00
	26-35 years	11	27.50
	36-45 years	15	37.50
Religion	Hindu	11	27.50
	Christian	7	17.50
	Muslim	22	55.00
Residence	Village	25	62.50
	Town	15	37.50
Educational status	Illiterate	10	25.00
	Primary level	10	25.00
	Secondary level	20	50.00
Occupation	Coolie	11	27.50
	Housewife	21	52.00
	Private employee	8	20.00
Family income	Below Rs.2000	19	47.50
	Rs.2000-3000	13	32.50
	Above Rs.4000	8	20.00
Type of family	Nuclear family	14	35.00
	Joint family	26	65.00
Dietary pattern	Vegetarian	9	22.50
	Non vegetarian	31	77.50
Age at menarche	10-13yrs	7	17.50
	13-15yrs	13	32.50
	16-18 yrs.	20	50.00
Menstrual cycle	Regular	11	27.50
	Irregular	29	72.50
No of days on menstrual flow	3 days	17	42.50
	4 days	23	57.50

TABLE 1: Shows the distribution of the demographic variables of the subjects. Among the 40 subjects, majority 37.50% of the women were in the age group of 36-45 years, 55% of them completed their secondary level education, 52% of them were house wife. 47% of them made monthly income below Rs 2000 and 60% of them were living in joint family. About 77% of them were non- vegetarian 50% of them have attained their menarche at age of 16-18 years, 72% of them had irregular menstrual cycle and 55% of them had number of days in flow 4 days.

Table-2: PRE AND POST TEST LEVEL OF KNOWLEDGE SCORE OF THE SUBJECTS ON PREVENTION OF ANAEMIA AMONG THE WOMEN OF REPRODUCTIVE AGE GROUP

N=40

Level of Knowledge	Pre test		Post test	
	N	%	N	%
Inadequate knowledge (0-50%)	10	25.00	5	12.5
Moderately adequate knowledge (51-75%)	24	60	13	32.5
Adequate knowledge (76-100%)	6	15	22	55.00

Table 2: shows the pre and post test level of knowledge score of the subjects on prevention of anaemia among the reproductive age group of women. In the pretest, 10 (25%) of the subject had inadequate knowledge and 6 (15%) of them had adequate knowledge, where as in the post test, it was found to be 5(12.5%) of the subject had inadequate knowledge 22 (55%) of the subject had adequate knowledge on prevention of anaemia. The result revealed that the structured teaching programme was effective in improving the knowledge level on prevention of anaemia.

Table-3: PRE AND POST TEST LEVEL OF PRACTICE SCORE OF THE SUBJECTS ON PREVENTION OF ANAEMIA AMONG THE WOMEN OF REPRODUCTIVE AGE GROUP.

N=40

Level of Practice	Pre test		Post test	
	N	%	N	%
Inadequate (0-50%)	11	27.50	8	20.00
Moderately adequate (51-75%)	21	32.00	13	32.50
Adequate (76-100%)	8	20.00	19	47.50

Table 3 shows the pre and post test level of practice score of the subjects on prevention of anaemia among the reproductive age group of women. In the pretest, 11 (27.50%) of the subject had inadequate practice and 8 (20%) of them had adequate practice, where as in the post test, it was found to be 8(20%) of the subject had inadequate practice 19(47.50%) of the subject had adequate practice on prevention of anaemia. The result revealed that the structured teaching programme was effective in improving the practice level on prevention of anaemia.

Table-4: COMPARISON OF MEAN PRE AND POST TEST KNOWLEDGE SCORE ON PREVENTION OF ANAEMIA AMONG THE WOMENOF REPRODUCTIVE AGE GROUP

N=40

Variables	Groups	Mean	Std. Deviation	t- Value	P- Value
Knowledge	Pre test	6.05	3.29	2.54	0.001*** (S)
	Post test	7.68	2.96		

S***= highly significant at p<0.001 level.

Table 4 shows the comparison of the mean pre and post test knowledge score of the subjects on prevention of anaemia. In the pre test mean score was found to be6.05 with the SD of 3.29 where as in the post test mean knowledge score was found to have increased 7.68 with sd of 2.96. The 't' test

reduced that it was highly significant at p<00.1 level. The finding indicates that the STP was very efficient in improving the knowledge level of the subjects on prevention of anaemia.

Table-5: COMPARISON OF MEAN PRE AND POST TEST PRACTICE SCORE ON PREVENTION OF ANAEMIA AMONG THE WOMENOF REPRODUCTIVE AGE GROUP

N=40

Variables	Groups	Mean	Std. Deviation	t-Value	P-Value
Practice	Pretest	3.75	1.80	2.04	0.001*** (S)
	Post test	4.35	1.78		

S***= highly significant at p <0.001 level

Table 5 shows the comparison of the mean pre and post test practice score of the subjects on prevention of anaemia. In the pre test mean score was found to be 3.75 with the SD of 1.80 where as in the post test mean practice score was found to have increased 4.35with SD of 1.78.The 't' test reduced that it was highly significant at p<00.1 level. The finding indicates that the STP was very efficient in improving the practice level of the subjects on prevention of anaemia.

Table-6: COMPARISION OF MEAN PRE AND POST TEST KNOWLEDGE AND PRACTICE SCORE ON PREVENTION OFANAEMIA

N=40

Variables	Groups	Mean	Standard deviation	'T' values	p-values
Knowledge	Pre test	6.05	3.29	2.54	0.001 (s)
	Post test	7.68	2.96		
Practice	Pre test	3.75	1.80	2.04	0.001 (s)
	Post test	4.35	1.78		

S***= highly significant at p<0.001 level.

Table - 6 the comparison of the mean pre and post test knowledge score of the subjects on prevention of anaemia. In the pre test mean score was found to be6.05 with the SD of 3.29 where as in the post test mean knowledge score was found to have increased 7.68 with Std of 2.96.The 't' test reduced that it was highly significant at p<00.1 level. The finding indicates that the STP was very efficient in improving the knowledge level of the subjects on prevention of anaemia.

The comparison of the mean pre and post test practice score of the subjects on prevention of anaemia. In the pre test mean score was found to be3.75 with the SD of 1.80 where as in the post test mean practice score was found to have increased 4.35with SD of 1.78.The 't' test reduced that it was highly significant at p<00.1 level. The finding indicates that the STP was very efficient in improving the practice level of the subjects on prevention of anaemia.

Table-7: ASSOCIATION BETWEEN THE MEAN PRETEST KNOWLEDGE SCORE OF THE SUBJECTS WITH SELECTED DEMOGRAPHIC VARIABLES

N=40

Demographic Variables		N	Mean	SD	F/t value	P-value
Age	15-25 years	14	6.00	3.39	2.22	0.002 (S)
	26-35 years	11	7.63	2.92		
	36-45 years	15	6.54	4.01		
Religion	Hindu	11	5.85	3.18	2.82	0.001 (S)
	Christian	7	7.00	3.26		
	Muslim	22	9.00	2.63		
Residence	Urban	25	4.80	2.57	6.75	0.001 (S)
	Rural	15	8.88	2.63		
Education	Illiterate	0	2.79	1.42	2.33	0.002 (S)
	Primary level	10	5.67	2.09		
	Secondary level	20	9.35	2.47		
Occupation	Coolie	11	6.17	3.10	49.79	0.001(S)
	Housewife	21	7.97	3.28		
	Private employee	8	5.83	3.05		
Family income	Below Rs.2000	19	4.04	1.78	6.87	0.002 (S)
	Rs.2000-3000	13	7.88	3.12		
	Above Rs.4000	8	6.11	2.48		

Type of family	Nuclear family	14	7.29	3.17	8.19	0.001 (S)
	Joint family	26	5.46	3.24		
Dietary pattern	Vegetarian	9	5.42	2.29	3.11	0.001 (S)
	Non vegetarian	31	7.07	3.48		
Age at menarche	10-13	7	5.46	3.24	2.35	0.002 (S)
	13-15	13	5.42	2.29		
	16-18	20	5.83	3.05		
Menstrual cycle	Regular	11	4.04	1.78	6.76	0.001 (S)
	Irregular	29	9.00	2.63		
No of days of flow	3 days	17	4.80	2.57	5.672	0.001 (S)
	4 days	23	8.88	1.17		

S***= highly significant at p <0.001 level

Table 7 results shows that there was a significant association between the pretest knowledge on prevention of anaemia with the demographic variables such as age, religion, education, occupation, family income, type of family, dietary pattern, related to prevention of anaemia among the women of reproductive age group.

VIII. MAJOR FINDINGS

- The majority of the subjects in the pretest 10 (25%) had inadequate knowledge.
- With regard to practice level only 11 (27.5%) had inadequate knowledge.
- The effectiveness of structured teaching programme was statistically tested by P value and the results were found to be significant at P <0.001 level.
- With regard to knowledge level 22 (55%) had adequate knowledge in the posttest.
- With regard to practice level (47%) had adequate practice in the posttest.

IX. CONCLUSION

Nurses have a major role in motivating prevention of anaemia among reproductive age group of women in rural area. In this study 55% of them had inadequate knowledge, 32% of them had moderately adequate knowledge and 12% of them had adequate knowledge. The present study emphasize on the practice of the anaemia among residing in the rural area. The findings of the study have implication in the nursing practice, nursing education, nursing administration and nursing Research. Health education is an important aspect of nursing practice for effective health education the nurses should gain an under taking of knowledge attitude among both residing in the rural area. The educative role of the nurses could be implemented in the nursing practice.

X. ACKNOWLEDGMENT

I wish to render my heartfelt thanks to my research supervisor Professor Dr. KARALINE KARUNAGARI, Principal, Rani Meyyammai College of Nursing, Annamalai University, Tamil Nadu, India and other authorities of Annamalai University, who kindly accepted to guide me and supported me with positive encouragement, patient guidance and fruitful discussions throughout the work.

REFERENCES

[1] Aniruthmukerji et.al, Prevalence and characteristics of anaemia in new cases of pulmonary tuberculosis in a tertiary care hospital in Uttarakhand, India.
[2] Barbara H, Rosenwei. The nutrition transition is underway in India. J. Nutr. 131, 2692 –2700. (2003).
[3] DeMaeyer, E. &Adiels-Tegman, M. The prevalence of anaemia in the world. World health statistics quarterly, 38:302-3 16 (1985).
[4] Garby, L. The normal haemoglobin level, British journal of haematology, 19:429-434 (1970).
[5] Kalaivani K. Prevalence & consequences of anaemia in pregnancy. Indian J Med Res 130: 627-633. (2009).
[6] Malhotra P, Kumari S, Kumar R, Varma S. Prevalance anaemia in adult rural population of North India. Journal of association of physicians of India. 52:18-20. (2004).
[7] Maureen M. Black, Integrated Strategies Needed To Prevent Iron Deficiency and To Promote early child development, J Trace Elem Med Biol. 26(0): 120–123. (2012).
[8] Michael Alleyne MD, Individualized Treatment for Iron-deficiency Anaemia in Adults, The American journal of medicine,vol-121,issue 11, [943-952].(2008).
[9] Piyushkanodia et.al, A study of anaemia among adolescent girls in eastern part of Nepal, Journal of College of Medical Sciences-Nepal, Vol-12, No 1, (2016).
[10] Umesh Kapil et.al (AIIMS), New Delhi, India. Strategies to prevent anaemia: Recommendations from an Expert Group Consultation, (2016).