



A STUDY TO ASSESS THE KNOWLEDGE REGARDING WEEKLY IRON AND FOLIC ACID SUPPLEMENTATION PROGRAMME AMONG THE MOTHERS OF SCHOOL GOING CHILDREN IN SELECTED RURAL AREAS OF KUPPAM, CHITTOOR DISTRICT, AP.”

Mrs. S Sukanya¹, Dr M Abhirami², Ms. Rose Thomas³

Assistant professor Dept. of Child Health Nursing¹, Principa Dept. of Medical Surgical Nursing², 4th year
B.sc Nursing student³; PES College of Nursing, Kuppam, Andhra Pradesh, India.

Corresponding Author E-mail: sukanyaj949@gmail.com,

ABSTRACT:

Background and aims: Adolescence is marked by a rapid phase of growth and development during which the demand of nutrition and micronutrients is comparatively in peak of the list. Regular consumption of iron-folic acid supplements along with a diet rich in micronutrients is essential for prevention of iron deficiency anemia in adolescent girls and boys and the main aim of the study is to assess the knowledge regarding weekly iron and folic acid supplementation programme among the mothers of school going children in selected rural of kuppam. **Material and Methods:** Cross sectional descriptive research design was used and selected 135 mothers were who met with the inclusion criteria. **Results:** The results revealed that majority 63(46.7%) of the mothers had moderate knowledge, 37(27.4) had adequate knowledge and the remaining 35(25.9%) had inadequate knowledge. **Conclusion:** The result of this study indicated that there is a moderate level of knowledge among the mothers of school going children regarding the WIFS programme, it also suggests that there will be low prevalence of anemia among the school going children who are taking these supplements.

Key words: Mothers of school going children, weekly iron and folic acid supplementation (wifs) programme.

Introduction:

Anemia is a condition in which the number of red blood cells (RBCs), and consequently their oxygen-carrying capacity, is insufficient to meet the body's physiological needs. The function of the RBCs is to deliver oxygen from the lungs to the tissues and carbon dioxide from the tissues to the lungs. This is accomplished by using hemoglobin (Hb), a tetramer protein composed of haem and globin. Anemia impairs the body's ability for gas exchange by decreasing the number of RBCs transporting oxygen and carbon dioxide. Anemia results from one or more of the following processes: defective red cell production, increased red cell destruction or blood loss¹.

Iron is necessary for synthesis of hemoglobin. Iron deficiency anemia results in impaired cognitive and motor development in children and decreased work capacity in adults. The effects are most severe in infancy and early childhood. In pregnancy iron deficiency anemia can lead to perinatal loss, prematurity and low birth weight (LBW) babies. Iron deficiency anemia also adversely affects the body's immune response².

Need for the study

India is among the countries with high prevalence of anemia. It is widely prevalent in all age groups, being particularly high among the most vulnerable; nearly 58 per cent in pregnant women, 50 per cent among non-pregnant non-lactating women, 56 per cent among adolescent girls,

30 per cent in adolescent boys and around 80 per cent in children under two years of age. Anaemia, thus poses a major threat to maternal and child survival, contributes to low birth weight, lowered resistance to infection, poor cognitive development and decreased work productivity³.

In 2019, global anemia prevalence was 39.8% (95% UI 36.0%, 43.8%) in children aged 6-59 months, equivalent to 269 million children with anemia. The prevalence of anemia in children under five was highest in the African Region, 60.2% (95% UI 56.6%, 63.7%). Since 2000, the global prevalence of anemia in children under five has slowly decreased over the years, from 48.0% (95% UI 45.1%, 51.0%) to 39.8% (95% UI 36%, 43.8%)⁴.

The highest percentage of school children suffering from anemia, according to NFHS- 4, was observed in Haryana (71 per cent), followed by Jharkhand (69.9 per cent); Madhya Pradesh (68.9 percent), Bihar (63.5 per cent) and Uttar Pradesh (63.2 percent). Among Union territories, 84.6 percent children were anemic in Dadra and Nagar Haveli; 73.8 per cent in Daman and Diu and 73.1 per cent in Chandigarh⁵.

Objectives of the study:

1. To assess the demographic variable
2. To assess the knowledge regarding weekly iron and folic acid supplementation programme among the mothers of school going children in selected rural areas Kuppam
3. To find out the association on knowledge regarding weekly iron and folic acid supplementation programme among the mothers with their demographic variables.

Hypotheses:

H01: There will be no significant association between the levels of knowledge of mothers regarding weekly iron and folic acid supplementation (WIFS) programme with the selected demographic variables at 0.05 level of significance.

Material and methods:

Research approach: Quantitative approach was used in the knowledge regarding weekly iron and folic acid supplementation (WIFS) programme among the mothers of school going children in selected rural areas of kuppam, Chittoor district, AP.

Research design: Cross sectional Descriptive research design was adopted for the study.

Research setting: The present study was conducted at rural areas of Kuppam like Beggilipale, Gudupalli and Nalagampalli which are 2-3 kilometers away from the PES College of Nursing, Kuppam, Chittoor dist., Andhra Pradesh. These villages consist of approximately of 150 families. By walking we can reach there. These villages have all the facility like electricity, water and etc. Few of the mothers reside in pakka house and some them in kaccha house. These village have good education though government support.

Population: All the mothers of school going children

Sample: The samples of present study includes all the mothers with school going children in selected rural areas of Kuppam including who fulfill the inclusion criteria.

Sample size: The sample size for the study was selected based on power analysis. Based on the article, addition of 10 percent samples is done and a total of 135 samples will be included in the study.

Sampling technique: The sample were selected by using non-probability convenient sampling among the mothers of school going children selected rural areas Kuppam

Sampling criteria

Inclusion criteria:

- Mothers of school going children aged between 10 to 19 years
- Mothers of children who are receiving weekly iron and folic acid supplements
- mothers who are willing to participate in the study

Exclusion Criteria:

- Mothers of school going children aged between 10 to 19 years
- Mothers of children who are receiving weekly iron and folic acid supplements
- mothers who are willing to participate in the study

Research variables

Dependent variables: Knowledge regarding weekly iron and folic acid supplementation programme among the mother of school going children which was assessed by using structured questionnaires.

Development and description of tools: A structured knowledge questionnaire was developed by investigator based on the review of literature and expert opinion by content validity.

Description of the tool: In this study the structured knowledge questionnaire consist of 30 questions,

Section A: Demographic variables include Age of the mother, Address, type of family, type of marriage, educational status of the mother, educational status of the father, occupational status of the mother, occupational status of the father, total family income per month, age of the child, sex of the child, history of menarche, knowledge regarding WIFS programme, source of knowledge if yes

Section B: It consists of 30 multiple choice questions related to weekly iron and folic acid supplementation programme. Multiple choice questions with four options were prepared with one correct response, the correct response was given a score of 'one' and incorrect was scored as 'zero'.

Validity: The tool was given to nursing experts of Child health and OBG department. A few questions were modified on the basis of expert's suggestions and 100% agreement was included in the tool, there by content validity was ascertained

Reliability:

The reliability of the tool was assessed by after conducting pilot study. The reliability was established by Crohnbach's formula. The reliability of the tool was assessed for 14 subjects to assess the knowledge among mothers of school going children regarding weekly iron and folic acid supplementation programme. The tool was statistically significant with knowledge r value of 0.74.

Ethical clearance: Ethical clearances were obtained from the institutional human ethics committee, at tertiary teaching hospital, A.P. The researcher explained the procedure to the mothers of school going children and got verbal consent.

Pilot study: The Pilot study was conducted from 13.09.23 to 18.09.23 to assess the feasibility and practicability of the study and to determine the plan for statistical analysis was positive to conduct the main study

Data collection procedure: The data collection procedure was done for a period of four week from 24.09.2023 to 24.10.2023. Demographic variables and knowledge questionnaires was collected by face to face interview method for a time period of 40- 45 minutes, The confidentiality of the response was maintained throughout the procedure. The post test was collected after one week gap duration by using same study participants.

RESULTS:

The data is organized and presented under the following sections.

Section-I: Frequency and percentage distribution of the socio- demographic variables among the mothers of school going children.

Section-II: Frequency and percentage distribution of the knowledge regarding weekly iron and folic acid supplementation (WIFS) programme among the mothers of school going children.

Section-III: Association of knowledge score of weekly iron and folic acid supplementation (WIFS) programme among the mothers of school going children with their selected socio demographic variables.

Section: 1 Frequency and percentage distribution of the socio- demographic variables among the mothers of school going children.

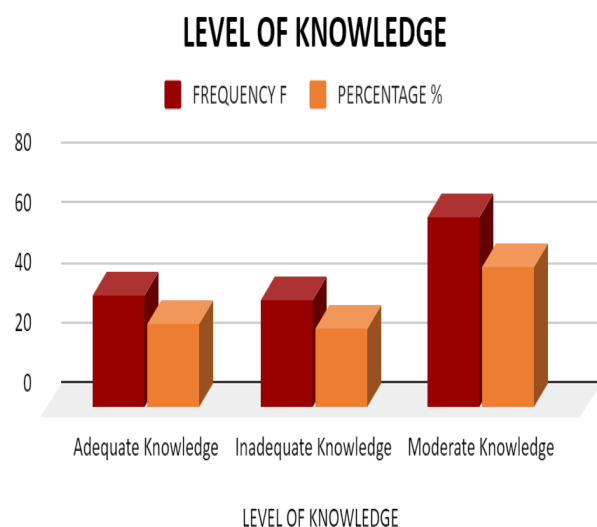
s. no	DEMOGRAPHIC VARIABLES	FREQUENCY	PERCENTAGE %
1	Age in years		
	>35 Years	83	61.5
	≤ 35 Years	52	38.5
2	Address		
	Beggilipalle	47	34.8
	Gudupalli	53	39.3
	Nalagampalli	35	25.9

3	Type of family		
	Joint family	56	41.5
	Nuclear family	79	58.5
4	Educational status of mother		
	No formal education	14	10.4
	Primary school	22	16.3
	Middle school	31	23
	Secondary school	26	19.3
	Higher Secondary school	20	14.8
	Degree or above	22	16.3
5	Educational status of father		
	No formal education	17	12.6
	Primary school	16	11.9
	Middle school	24	17.8
	Secondary school	31	23
	Higher Secondary school	26	19.3
	Degree or above	21	15.6
6	Occupation of mother		
	Housewife	56	41.5
	Coolie	17	12.6
	Private Job	53	39.3
	Government	7	5.2
	Business / company	2	1.5
7	Occupation of father		
	Housewife	1	0.7
	Coolie	45	33.3
	Private Job	66	48.9
	Government	11	8.1
	Business / company	12	8.9
8	Total income per month		
	> 25000 Rs	35	25.9
	≤ 10000 Rs	34	25.2
	10001 - 25000 Rs	66	48.9
9	Type of marriage		

	Consanguineous marriage	43	31.9
	Non-consanguineous marriage	92	68.1
10	Age of the child		
	10 - 13 Years	53	39.3
	14 - 15 Years	58	43
	16 - 17 Years	24	17.8
11	Sex of the child		
	Female	72	53.3
	Male	63	46.7
12	Knowledge regarding WIFS programme		
	No	101	74.8
	Yes	34	25.2
13	History of menarche		
	No	29	21.5
	Not applicable	54	40
	yes	52	38.5

Section:- II Frequency and percentage distribution of the maternal variables among postnatal mothers.
N=135

Sl. NO	LEVEL OF KNOWLEDGE	FREQUENCY F	PERCENTAGE %
1	Adequate Knowledge	37	27.4
2	Inadequate Knowledge	35	25.9
3	Moderate Knowledge	63	46.7



programme among the mothers of school going children with their selected socio demographic variables.

Describes association of knowledge scores of weekly iron and folic acid supplementation programme among the mothers with their selected socio demographic variables, showed that there were significant relationship with the educational status of the mother (0.008), educational status of the father (0), total income per month (0.013), knowledge regarding WIFS programme (0.036). Hence the corresponding RH2 is accepted.

Discussion:

The first objective of the study was to assess the knowledge regarding weekly iron and folic acid supplementation programme among the mothers of school going children. The results revealed majority 63(46.7%) of the mothers had moderate knowledge, 37(27.4) had adequate knowledge and the remaining 35(25.9%) had inadequate knowledge.

The second objective of the study is to find out the association on knowledge regarding weekly iron and folic acid supplementation programme among mothers with their demographic variables Describes association of knowledge scores of weekly iron and folic acid supplementation programme among the mothers with their selected socio demographic variables ,showed that there were significant relationship with the educational status of the mother (0.008), educational status of father(0) , total income per month(0.013), knowledge regarding WIFS programme(0.036). Hence the corresponding RH2 is accepted

Conclusion: The result of this study indicated that there is a moderate level of knowledge among the mothers of school going children regarding the WIFS programme, it also suggests that there will be low prevalence of anemia among the school going children who are taking these supplements.

Acknowledgement:

The authors would like to acknowledge the following contribution:

1. Dr. M Abhirami , Principal PESCON for her continuous encouragement and support
2. The management PESIMSR
3. The ethical committee members for giving permission
4. The participants of the study
5. The surpuch of Beggilipali,Gudupalli,and Nalgampalli for giving permission to conduct study in the villages

Financial support and sponsorship:

Dr.YSR Health sciences Vijayawada

References:

1. Adolescent Division Ministry of Health and Family Welfare Government
2. .ofIndiahttps://www.nhm.gov.in/images/pdf/programmes/childhealth/guidelines/Control-of-Iron-Deficiency-Anaemia.pdf

3. .National Family Health Survey-4 2015 -16, Ministry of Health and Familywelfare, Government of India; State Fact Sheet Telangana. Available at:http://rchiips.org/NFHS/factsheet_NFHS-4.shtml. Accessed on 10th October 2018.
4. De Benoist B, eds. worldwide prevalence of anaemia 1993-2005. WHO Global Database on Anaemia Geneva, World Health Organization, 2008. Available at:
https://www.who.int/vmnis/anaemia/prevalence/summary/anaemia_data_status_t2/en/. Accessed on 10th September 2018.
5. Arup jana Research Scholar, Department of Development Studies, International Institute for Population Sciences