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RESEARCH ARTICLE

A Study to assess the Knowledge regarding anaemia and its dietary pattern among Adolescent girls (15-17 years) in selected schools at Kanchipuram.

Dinesh Kumar R*, Kalpana P*, Thirisha K, Uma E, Vaishnudevi P, and Varsha. J.,
Department of Medical Surgical Nursing, Arulmigu Meenakshi College of Nursing, Enathur - 631552, Kanchipuram, Tamil Nadu, India and Meenakshi Academy of Higher Education and Research Institute (MAHER), Chennai - 600078, Tamil Nadu, India.

*Corresponding Author
Dinesh Kumar R

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Abstract: The present study was aimed to assess the knowledge regarding anemia and its dietary pattern, to associate the knowledge regarding anemia and its dietary pattern among adolescent girls with their selected demographic variables, and to assess the knowledge regarding anemia and its dietary pattern among Adolescent girls (15-17 years) in selected schools at Kanchipuram. The study was carried out with a view to assess the knowledge regarding anemia and its dietary pattern of Adolescent girls in a selected school at Kanchipuram. Data analysis shows that frequency and percentage distribution of knowledge regarding anemia and dietary pattern among adolescent girls. (26%) belongs to inadequate knowledge, (72%) belongs to moderately adequate knowledge, (2%) belongs to adequate knowledge. The finding of the study indicates the knowledge regarding anemia and its dietary pattern among adolescent girls. Anemia remains a significant public health concern in Tamil Nadu, particularly among women and adolescents. While the prevalence of anemia has shown some improvement, it continues to be a challenge requiring ongoing intervention and attention.

Keywords: Anemia, Adolescent girls, Demographic variables, and Knowledge.

INTRODUCTION

Health has been recognized as a fundamental right to all human beings, which implies of right to good physical and mental health. Maternal health refers to the health of women during pregnancy, childbirth and the postnatal period. Nutritional adequacy is one of the key determinants of the quality of human resources for women. Most preventable but yet more prevalent, during pregnancy is anemia. It has been associated with poor maternal and birth outcomes, including premature birth, low birth weight and maternal mortality. In addition to the health consequences, anemia can have important financial impacts for individuals, families, communities and countries.

A healthy adult emerges from healthy adolescent girls. An adolescent girl's-nutritional status can have a great impact on their growth and development. During this time, 20% of final adult height and 50% of adult weight are attained. According to WHO estimates, India is one of the countries in the world that has highest prevalence of anemia. WHO estimates that 27 percent of adolescent girls in developing countries are anemic; the Inter National Centre of Research for Women (ICRW) studies documented high rates in India (55 percent), Nepal (42 percent), Cameroon (32 percent) and Guatemala (48 percent). Anemia prevalence in young adolescent girls continues to remain over 70% in most parts of India and Asia despite a policy being in place and a program that has been initiated for a long time. Anemia is not a specific entity but an indication of an underlying pathologic process or disease. As many as 4–5 billion people i.e., 66–80% of world's population may be iron deficient. More than 30% of the world's population i.e., 2 billion people are anemic.

Iron is one of the essential mineral nutrients iron also serves as oxygen carrier and catalyst for oxygenation, hydroxylation and other metabolic processes", in the first stage of iron deficiency, iron was are depleted without declining the iron levels in the blood in the second stage, normal blood formation takes place but metabolism at the cellular level is affected, which lead to adverse effects on the nervous system, physical performance, intellectual capacity and immune system Final stage of iron deficiency results in conditions called hypo hemolytic anemia. Dietary survey revealed that majority of adolescent girls was non vegetarians. (74.5%). Statistical analysis showed that there is an association between anemia and dietary habits (p value 0.021) among 927 vegetarians, 86(9.27%) were anemic and among 2706 non vegetarians, 328 were anemic.

The present study was aimed to assess the knowledge regarding anemia and its dietary pattern, to associate the knowledge regarding anemia and its dietary pattern among adolescent girls with their selected demographic variables, and to assess the knowledge regarding anemia and its dietary pattern among Adolescent girls (15-17 years) in selected schools at Kanchipuram.

MATERIALS AND METHODS

A quantitative approach was adapted to assess the knowledge regarding anemia and its dietary pattern among adolescent girls.

Sample

Population is the total number of people who meet the criteria, the researcher has established for a study, from which the subjects will be selected and to whom the findings will be generalized. Adolescent girls of Punnamai Thiyagaraya Naicker Vanniyakula Kshatriya Sangam School were selected for this study. In the present study, the sample included 50 adolescent girls in selected school, Kanchipuram.

Inclusive criteria

Adolescent girls who were, present on the day of data collection and aged between 15 - 17 years.

Exclusive criteria

Adolescent girls who were not willing to participate in this study and already exposed to similar study before.

As the study is aimed at assessing the prevalence and knowledge regarding anemia and its dietary pattern among adolescent girls. Data collection instruments were developed through extensive review of literature and consultation with experts and opinion of faculty members. The instruments used were a demographic variable performance of adolescent girls, self-structured questionnaires to assess the level of knowledge regarding anemia and its dietary pattern of adolescent girls.

Section-A: Demographic variables. It deals with demographic variables such as age of the adolescent girls, gender, Place of residence, religion, Occupation of the father, Occupation of the Mother, Education of the Father, Income of the father.

Section-B: Self-Structured questionnaire, the questions were selected and three to four options were given below each question. The structured questionnaire consisted of 20 multiple choice questions, and each question had four options which included correct answers. The participants were free to choose any one option for each question. The score was calculated by dividing the total number of obtained scores by the total number of maximum score and expressed in percentage. Based on the scores the knowledge was graded.

S. No	Level of Knowledge	Score	Percentage
1	Adequate Knowledge	16-20	>80%
2	Moderate Knowledge	10-15	40%-80%
3	Inadequate Knowledge	1-9	<40%

Scoring technique = (Number of Correct Answers / Total Questions) × 100%

RESULTS

Frequency and percentage distribution of demographic variables

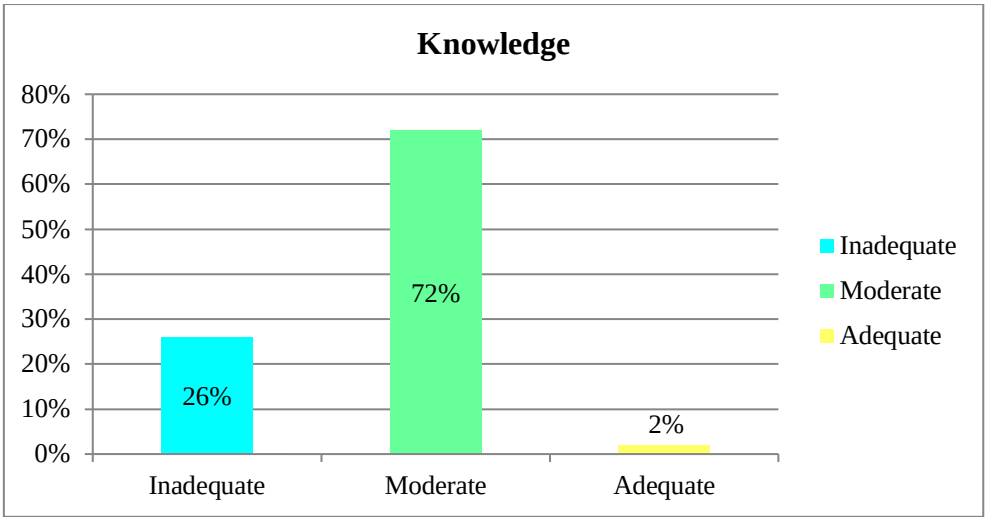
The demographic variables of adolescent girls in Selected School. (Kanchipuram). According to the age of the student, 20 (40%) were in the age 15 years, 15 (30%) were in the age of 16 years and 15 (30%) were in the age of above 17 years. According to the Place of Residence, the Rural and Urban were 21 (42%) and 29 (58%) respectively. According to the religion, 35 (70%) were in Hindu, 12 (24%) were in Christian and 3 (06%) were in Muslim. According to the types of family, 37 (74%) were in the Nuclear Family, 08 (16%) were in the Joint Family and 5(10%) were in Extended Family. According to the Occupation of father, 08(16%) were daily wages, 25(50%) were Private employees,12(24%) were Government employees and 05(10%) were Business. According to the Occupation of Mother, 18(36%) were Homemaker, 24(48%) were Private employees and 08(16%) were Government employees. According to the Education of the Father, 15(30%) were UG, 15 (30%) were PG ,15(30%) were School and 5(10%) were others. According to the Income of Father, 12(24%) were Rs.10,000- 15,000, 35(70%) were Rs.15,000 – 20,000 and 03(6%) were above Rs.20,000.

Table1. Frequency and percentage distribution of level knowledge regarding anemia and its dietary pattern among adolescent girls (N=50)

S. No	Level of Knowledge on anemia and its dietary pattern	Frequency	Percentage
1.	Inadequate	13	26%
2.	Moderately adequate	36	72%
3.	Adequate	1	2%

The above table 2 reveals that frequency and percentage distribution of level of knowledge regarding anemia and its dietary pattern among adolescent girls in selected Schools (Kanchipuram). 13 (26%) belongs to Inadequate Knowledge, 36 (72%) belongs to moderately adequate knowledge and 1 (2%) were belongs to Adequate Knowledge.

Figure 1. Frequency and percentage distribution of level of knowledge regarding anemia and its dietary pattern (N=50)



The above figure depicts that Frequency and percentage distribution of knowledge regarding anemia and its dietary pattern among adolescent girls. 13 (26%) belongs to inadequate knowledge, 36 (72%) belongs to moderately adequate knowledge, 1(2%) belongs to adequate knowledge.

Table. Associate the knowledge regarding anemia and its dietary pattern among adolescent girls with their selected demographic variables (N=50)

S. No	Demographic Variable	Level of knowledge						Degree of Freedom (df)	X2	T Value	Significance
		F	%	F	%	F	%				
1.	**Age:**										
	a.14 years old	5	10%	15	30%	0	0%				
	b.15 years old	6	12%	9	18%	0	0%	4	4.856	9.49	S
	c.16 years old	2	4%	12	24%	1	2%				
2.	**Place of Residence:**										
	a.Rural	5	10%	16	32%	0	0%	3	0.879	7.82	S
	b.Urban	8	16%	20	40%	1	2%				
3.	**Religion:**										
	a.Hindu	10	20%	25	50%	0	0%				
	b.Christian	2	4%	10	20%	0	0%	4	17.059	9.49	NS
	c.Muslim	1	2%	1	2%	1	2%				
4.	**Types of Family:**										
	a.Nuclear family	10	20%	26	52%	1	2%	4	0.507	9.49	S
	b.Joint family	2	4%	6	12%	0	0%				
	c.Extended family	1	2%	4	8%	0	0%				
5.	**Occupation of the Father:**										
	a.Daily wages	0	0%	8	16%	0	0%				
	b.Private employees	11	22%	13	26%	1	2%	6	13.359	12.59	NS
	c.Government employees	0	0%	12	24%	0	0%				
	d.others	2	4%	3	6%	0	0%				
6.	**Occupation of the Mother**										
	a. Homemaker	5	10%	13	26%	0	0%				

	b.Private employees	8	16%	16	32%	0	0%	4	8.210	9.49	S
	c.Government employees	0	0%	7	14%	1	2%				
7.	**Education of the father** a.UG	6	12%	9	18%	0	0%	6	5.826	12.59	S
	b.PG	3	6%	11	22%	1	2%				
	c.School	2	4%	13	26%	0	0%				
	d.Others	2	4%	3	6%	0	0%				
8.	**Income per month** a.Rs.10,000-15000	4	8%	8	16%	0	0%	4	16.909	9.49	NS
	b.Rs.15,000-20,000	8	16%	27	54%	0	0%				
	c.above 20,000	1	2%	1	2%	1	2%				

NS: *Not Significant,* ***S:*** *Significant; P<0.05 = Significant, >0.05 = Not significant.*

The above table Showed that there was five significant Association between the knowledge regarding anemia and its dietary pattern among adolescent girls with their selected demographic variables (Age, Place of residence, Type of family, Occupation of the mother, Education of the father) $P < 0.05$

CONCLUSION

The study was carried out with a view to assess the knowledge regarding anemia and its dietary pattern of Adolescent girls (15-17 years) in a selected school at Kanchipuram. Data analysis shows that frequency and percentage distribution of knowledge regarding anemia and dietary pattern among adolescent girls. (26%) belongs to inadequate knowledge, (72%) belongs to moderately adequate knowledge, (2%) belongs to adequate knowledge. The finding of the study indicates the knowledge regarding anemia and its dietary pattern among adolescent girls. Anemia remains a significant public health concern in Tamil Nadu, particularly among women and adolescents. While the prevalence of anemia has shown some improvement, it continues to be a challenge requiring ongoing intervention and attention. The result suggests that there is moderately adequate of knowledge regarding anemia and dietary pattern among adolescent girls. From the above result we conclude that health awareness regarding anemia is the best intervention to improve the adolescent girl's knowledge.

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