

## A study on Prevention of Anemia among Adolescent girls in urban community area, Bengaluru.

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### Abstract

A study on the Prevention of anemia among Adolescent girls at selected urban community area, Bengaluru. The aim of this study is to assess the level of knowledge on prevention of anemia. Descriptive design was adopted & the total population of the present study comprised of Adolescent girls, Bengaluru. 100 Adolescent girls were selected by using convenient sampling method through non-probability sampling approach. The key factors: age, sociodemographic status, menstrual history, and clinical details were recorded. Overall prevention of anemia was found to be 49.53%. The majority of the anemic girls 56.74% were having mild degree of anemia. Among 100 girls, 72.73% were from the early adolescent age group 10–14 years. Knowledge on Prevention of anemia 52.24% was high among the late adolescent's girls and those belonging to low socioeconomic class. There is a significant relationship between anemia and socioeconomic status, dietary modification, nutritional supplementation in addition, compliance with consumption of iron and folic acid tablets will prevent anemia to a great extent among adolescent girls.

**Keywords:** adolescent, anemia, Socio economic status.

### Introduction

Anemia is a global public health problem affecting all over the world with major consequences on health, social and economic development. It occurs at all life stages of the human being but is more prevalent in pregnant women and adolescent girls. Anemia among adolescent girls happens due to an increased requirement, physical growth, reproductive maturation and cognitive transformation in the continuum of life. It is believed that with increasing age, females are more prone to get anemia than males.

### Objectives of the study

1. To assess the existing level of knowledge regarding Prevention of anemia among adolescent girls in selected urban Community area, Bengaluru.
2. To find an association between the pretest knowledge score regarding Prevention of anemia among Adolescent girls in selected urban Community area, Bengaluru with their selected demographic variables.

## Research Hypotheses

**H1:** There will be significant association between pretest knowledge scores of Adolescent girls regarding Prevention of anemia and selected demographic variables.

## Research Methodology

Descriptive design is adopted for the present study.

### Setting

Setting is a physical location in which data collection takes place in a study. Based on the geographical proximity, feasibility of conducting the study and availability of the samples, the present study was conducted in yelachenahalli urban community area, Bengaluru.

## Population

The population referred to as the target population, which represents the entire group or all the elements like individuals or objects that meet certain criteria for inclusion in the study. The total population of the present study Comprised of Adolescent girls, Bengaluru.

## Sample

Adolescent girls in selected urban community area, Bengaluru.

### Sample size

The sample size of the present study consists of 100 Adolescent girls, Bengaluru.

### Sampling technique

Sampling refers to the process of selecting a group of people or other elements with which to conduct a study.

The sampling technique adopted for the study was a convenient sampling method through non-probability sampling approach was used for selection of subjects.

### Criteria for selecting the sample:

#### Inclusion Criteria:

- Girls those who are age group between 12-18 years.
- Adolescent girls, Who are all willing to participate in the study

#### Exclusion Criteria:

- Adolescent girls, who are sick at the time of data collection
- Adolescent girls, who are not available at the time of data collection.

## Section 1: Assessment of Demographic variables of the Adolescent girls.

**Table 1.1: Frequency and percentage distribution selected demographic variables of Adolescent girls**

S/N	Demographic Variable	Group	
		n	%
1.	Age (in years)		
	a. 12-13 years	36	36
	b. 14-15 years	24	24
	c. 16-17 years	30	30
	d. 17-18 years	10	10

/N	Demographic Variable	Group	
		n	%
2.	Religion		
	a. Hindu	58	58
	b. Muslim	06	06
	c. Christian	36	36
	d. If other	0	0
3	Class of study		
	a. 6 <sup>th</sup> Std.	35	35
	b. 7 <sup>th</sup> Std.	37	37
	c. 8 <sup>th</sup> Std.	24	24
	d. 9 <sup>th</sup> Std.	04	04
4	Educational status of the father		
	a. No formal education	07	07
	b. Primary school	00	00
	c. Secondary school	03	03
	d. PUC	28	28
	e. Degree and above	62	62
5	Occupation of Father		
	a. Coolie	24	24
	b. Agriculture	18	18
	c. Private employee	20	20
	d. Government Employee	38	38

6	Income of the family/month		
	a. <10000	17	17
	b. 10001-15000	23	23
	c. 15001-20000	20	20
	d. 20001 and above.	40	40
7	Previous knowledge related to prevention of anemia		
	a. Yes	88	88
	b. No	12	12
8	If Yes, Source of information		
	a. Television.	36	36
	b. Radio.	15	15
	c. Friends and relatives.	30	30
	d. Health personal.	07	07
	e. Any other sources (specify).	00	00

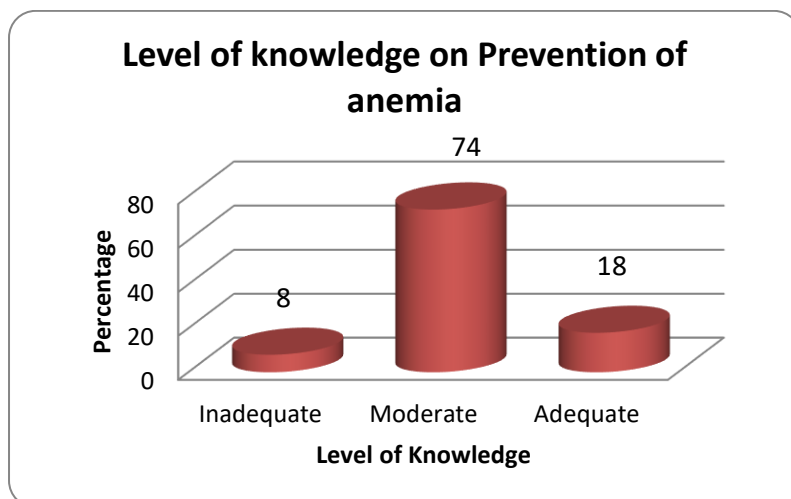
**Section 2: Over all aspect wise knowledge scores of Respondents:**

**Table 2.1: Frequency and distribution of Adolescent girls according to level of knowledge on Prevention of anemia among adolescent girls.**

**N = 100**

Level of Knowledge	Category	Respondents	
		No.	Percentage
Inadequate	<50% Score	8	8.0
Moderate	50-75% Score	74	74.0
Adequate	>75% Score	18	18.0

The above Table shows that majority 74(74%) of respondents had moderate knowledge, 18(18%) of respondents had adequate knowledge, 8(8%) of respondents had inadequate knowledge on Prevention of anemia among adolescent girls.



**Figure 2.1: Classification of respondents on pre-test knowledge level on Prevention of anemia among adolescent girls.**

**Table 2.2: Mean, SD and Mean Percentage of knowledge regarding Prevention of anemia among adolescent girls:**

Sl. No.	Aspect of Knowledge	No. of statements	Mean	SD	Mean %
1	Basic Information	10	5.43	0.86	54.3
2	Physical growth	8	4.53	0.58	56.62
3	Prevention of anemia	7	3.74	0.49	53.42
4	Over all knowledge	25	13.7	1.93	54.8

The above table reveals the aspect of pre-test knowledge of respondents in Prevention of anemia. The highest mean pre-test knowledge percentage was seen in the aspect of physical growth 56.62%, The means pre-test knowledge percentage was seen in the aspect of basic information of anemia was 54.3% & the lowest pre-test means knowledge percentage was seen in the aspect of Prevention of anemia was 54.8%.

**Figure 2.2: Aspect of knowledge of Prevention of anemia among adolescent girls.**

**Section -3: Association between knowledge with demographic variables of Adolescent girls.**  
**Table: 3. Association of pre-test level of knowledge of Adolescent girls regarding Prevention of anemia with Association between knowledge with demographic variables of Adolescent girls.**  
n=100

Sl. No	Demographic variable	sample(n)		knowledge level of Respondents				Chi square ( $\chi^2$ value)
				≤ median		> median		
		n	%	No. 48	%	No. 52	%	
1.	Age (in years)							9.82 df=3 <b>S</b>
	a. 12-13 years	36	36	21	58.33	15	41.66	
	b. 14-15 years	24	24	7	29.16	17	70.83	
	c. 16-17 years	30	30	12	40	18	60	
	d. 17-18 years	10	10	08	80	02	20	
2.	Religion							3.56 df=2 <b>NS</b>
	a. Hindu	58	58	31	53.44	27	46.55	
	b. Muslim	06	06	4	66.66	2	33.33	
	c. Christian	36	36	13	36.11	23	63.88	
	d. If other	00	00	00	00	00	00	
3	Class of study							7.92 df=3 <b>S</b>
	a. 6 <sup>th</sup> Std.	35	35	15	42.85	20	57.14	
	b. 7 <sup>th</sup> Std.	37	37	23	62.16	14	37.83	
	c. 8 <sup>th</sup> Std.	24	24	7	29.16	17	70.83	
	d. 9 <sup>th</sup> Std.	04	04	3	75	1	25	
4	Educational status of the father							6.6 df=3 <b>NS</b>
	a. No formal education	07	07	6	85.71	1	16.66	
	b. Primary school	00	00	00	00	00	00	
	c. Secondary school	03	03	1	33.33	2	66.66	
	d. PUC	28	28	16	57.14	12	42.85	
	e. Degree and above	62	62	25	40.32	37	59.67	

Sl. No	Demographic variable	sample(n)		knowledge level of Respondents				Chi square ( $\chi^2$ value)
				≤ median		> median		
		n	%	No. 48	%	No. 52	%	
5	Occupation of Father							9.7 df=3 <b>S</b>
	a. Coolie	24	24	18	75	06	25	
	b. Agriculture	18	18	06	33.33	12	66.66	
	c. Private employee	20	20	09	45	11	55	
	d. Government Employee	38	38	15	39.47	23	60.52	
6	Income of the family/month							4.47 df=3 <b>NS</b>
	a. <10000	17	17	12	70.58	05	29.41	
	b. 10001-15000	23	23	11	47.82	12	52.17	
	c. 15001-20000	20	20	08	40	12	60	
	d. 20001 and above.	40	40	17	42.5	23	57.5	
7	Previous knowledge related to Prevention of anemia							3.98 df=1 <b>S</b>
	a. Yes	88	88	39	44.31	49	55.68	
	b. No	12	12	09	75	03	25	
8	If yes, Source of information							8.74 df=3 <b>S</b>
	a. Television.	36	36	17	47.22	19	52.77	
	b. Radio.	15	15	05	33.33	10	66.66	
	c. Friends and relatives.	30	30	11	36.66	19	63.33	
	d. Health personal.	07	07	06	85.71	01	14.28	
	e. Any other sources	00	00	00	00	00	00	

Note: S-Significant at 5% level ( $p < 0.05$ ); NS- Not significant at 5% level ( $p > 0.05$ )

### Research hypothesis-3

H<sub>1</sub>: There is a significant association between pretest knowledge scores regarding Prevention of anemia among Adolescent girls and selected demographic variables.

### Null hypothesis- 3

H<sub>01</sub>: There is no significant association between pretest knowledge scores regarding Prevention of anemia among Adolescent girls and selected demographic variables.

The results of Chi-square analysis presented in the table 3.1, shows the outcomes of association between knowledge regarding Prevention of anemia among Adolescent girls with selected demographic variables. The chi square test was carried out to determine the association of knowledge regarding Prevention of anemia among Adolescent girls with selected demographic variables such as Age, Religion, Class of study, Education of the father, Occupation of the father, Family income, previous knowledge related to prevention of anemia, If yes source of information.

The knowledge on Prevention of anemia among Adolescent girls was significantly associated with Age ( $\chi^2=9.82$ ,  $df=3$ ), Class of study ( $\chi^2=7.92$ ,  $df=3$ ), occupation of the father ( $\chi^2=9.7$ ,  $df=3$ ), previous knowledge related to Prevention of anemia ( $\chi^2=3.98$ ,  $df=1$ ), If yes source of information ( $\chi^2=8.74$ ,  $df=3$ ) and not significantly associated with Religion, Education of the father, & Family income at 5% ( $P<0.05$ ).

### Conclusion:

Anemia is a major public health problem among school adolescents in the urban areas. Knowledge on prevention of anemia was high among girls who were above 16 years of age and girls who belonged to lower socioeconomic groups. Special importance should be given for developing corrective measures against nutritional anemia among adolescent girls. There is a need for regular supply rich in iron content vegetables like beetroot juice adherence regarding consuming these juice among adolescent girls. Hence, the knowledge on Prevention of anemia is appropriate and feasible, it can contribute to Prevention of anemia methods in their daily living activities.

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