



# “A study to evaluate the effectiveness of informational pamphlet regarding home management of anemia and its prevention among adolescent girls at Sunshine Public School, Bangalore”.

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**Abstract :** Adolescence, a critical phase of human development spanning from puberty to legal adulthood, witnesses a substantial prevalence of anemia among adolescent girls in India, reaching alarming levels of 60-70%. In response to this public health concern, this study adopted an evaluative research approach employing a one-group pre-test and post-test design at Sunshine Public School, Bangalore. The research involved a purposively selected sample of 40 adolescent girls. Data was collected using a self-administered knowledge questionnaire and analyzed using descriptive statistics. The initial assessment revealed that the majority of participants (97.5%) had inadequate knowledge about anemia and its home management, with only 2.5% possessing moderately adequate knowledge. However, following the implementation of an informational pamphlet teaching intervention, a significant improvement was observed.

**Keywords -** Adolescence, Home management, Anemia, Self-administered knowledge questionnaire.

## INTRODUCTION

Adolescence is crucial and transformative stage of every human development. It is the transitional period between childhood and adulthood, typically spanning from around ages 10 to 19. Adolescent girls in India experience a period of significant physical, emotional, and social development. Nutrition is a crucial aspect of adolescent development, as this is a period of rapid growth and development, both physically and mentally. Anemia is a significant public health issue in India, particularly among adolescent girls. Anemia is a condition characterized by reduction in the number of red blood cells or hemoglobin (Hb) concentration. Hemoglobin is the main part of red blood cells and helps to binds oxygen. Blood is a vital liquid that pumps through your veins and arteries and all throughout human body. It can affect your health and quality of life. Anemia can affect people of all ages, races and ethnicities. According to previous reports more than one-third of the world's population, mainly due to iron deficiency, is suffering from anemia, and India is one of the high-prevalence countries. The National Family Health Survey (NFHS) reports a prevalence of anemia among children to be 70%–80%. This study was focused on adolescent girls to bring awareness regarding anemia to prevent further problems in future. The study was conducted to provide information regarding anemia and teach home management to prevent anemia.<sup>1,2,3</sup>

## NEED OF THE STUDY.

Anemia is the most common nutritional disorder in world wide. According to WHO adolescent age group is defined as life span between 10-19 years. In India prevalence of anemia among adolescent girls were 56% and this amounts to an average 64 million girls at any point in time. Studies conducted in different regions of India shown that the prevalence of anemia was 52.5% in Madhya Pradesh, 37% in Gujarat, 41.1% in Karnataka, 85.4% in Maharashtra, 21.5% in Shimla, 56.3% in Uttar Pradesh, 77.33% in Andhra Pradesh, 58.4% in Tamil Nadu and Kerala (19.13% among college students and 96.5% in tribal area).

A descriptive study was conducted in selected areas of Mohali to assess knowledge regarding prevention and prevalence of anemia among adolescent girls. The study was carried out with 100 adolescent girls through purposive sampling technique. The researcher used demographic questionnaire and self- instructional module to collect the data. During data collection, in pre-test mostly 58% adolescent girls had inadequate knowledge and other 42% had moderate knowledge whereas in post-test 85% girls achieved adequate knowledge. The study concluded with gain of knowledge after the structured teaching program and the significant association between knowledge and demographic data.

A descriptive study was conducted in selected rural areas of Mysore to assess the knowledge of adolescent girls regarding the prevention of iron deficiency anemia. The study chose non-probability convenient sampling technique was to select 100 samples. The tool consists of demographic data and a structured questionnaire to assess the knowledge regarding prevention of iron deficiency anemia among adolescent girls. The study findings revealed that most of adolescent girls were having average knowledge regarding the prevention of iron deficiency anemia. The study result found the necessity to improve knowledge, so information booklet was distributed among the samples.<sup>4,5,6</sup>

## RESEARCH METHODOLOGY

The methodology of research consists of approach of the study, sample of the study, data and sources of data, study's variables, and analytical framework. The following details are discussed below:

### 3.1 Population and Sample

Population is the entire aggregation of cases that meet a diagnosed set of criteria. The target population of the study were the adolescent girls in Sunshine Public School, Bangalore. The study included 100 adolescent girls from 7<sup>th</sup>, 8<sup>th</sup> and 9<sup>th</sup> standard with the prior permission of Principal of Sunshine Public School and Principal of RR College of Nursing. The study was conducted with informatic and preventive approach from 14<sup>th</sup> August 2019 to 20<sup>th</sup> August 2019. The samples were gathered based on inclusion and exclusion criteria.

The study comprised 40 samples who were selected by non-probability convenience sampling technique and were studying in selected school in Bangalore during the study.

### 3.2 Data and Sources of Data

For this study on the first day the samples were explained regarding the study and prior information were given regarding maintaining confidentiality of their response. A written consent was obtained from each sample before data collection. The distribution of validated self-administered questionnaire was done and asked every sample to answer it. The informational pamphlet was distributed after the pre-test. The post-test was conducted using same self-administered questionnaire on the 6<sup>th</sup> day after the pre-test.

### 3.3 Conceptual framework

Variables of the study contains dependent, independent and demographic variable. The study used the dependent variable as knowledge of adolescent girls regarding home management of anemia and its prevention, the independent variable as informational pamphlet and the demographic variable as age, education, diet, menstrual cycle, type of family and religion.

The conceptual framework offers a comprehensive outlook for the fields of nursing administration, research, and education. The conceptual framework utilized for the study was General Open System model (1968) by Karl Ludwig von Bertalanffy. The main concept of the General Open System model is input, throughput and output. Input refers to matter, energy and information that enters into the system through boundaries. Throughput refers to processing, where the system performs the energy and information. Output refers to matter, energy and information that are processed. Feedback refers to the environment responds to the system; output used by the system in the adjustment, correction and accommodation to the interaction with the environment.

### 3.4 Analysis and Interpretation

The data obtained from the participants were coded numerically, tabulated, and entered into a spreadsheet in order to achieve the stated objectives of the study. Both descriptive and inferential statistical analysis were used to analyze the data. The interpretation of analyzed data given as follows:

#### 3.4.1 Distribution of samples

Descriptive statistics has been utilized to determine the maximum, minimum, standard deviation, mean and normal distribution of the data of all the variables of the study. Majority of 33(82.5%) adolescent girls were 13- 14 years, 16(40%) were studying in 8<sup>th</sup> standard, 19(47.5%) of the girls were Hindu, 34.85% of the girls belonged to nuclear family, 11(27.5%) of their family had income between Rs 10,001-15,000/ month, 34(85%) of the girls had no information regarding anemia and out of 40 adolescent girls only 4(10%) of them had information through family member.

### 3.4.2 Descriptive and Inferential statistics

**Table 3.4.2 Assessment of the level of knowledge before and after informational pamphlet distribution.**

SL No.	LEVEL OF KNOWLEDGE	PRE-TEST		POST-TEST	
		Frequency	Percentage (%)	Frequency	Percentage (%)
1.	Inadequate (<50%)	39	97.5%	-	-
2.	Moderate adequate knowledge (50-75%)	01	2.5%	19	47.5%
3.	Adequate (>75%)	-	-	21	52.5%
4.	Overall	40	100%	40	100%

Table 3.4.2 shows the in the pre-test, a majority 39(97.5%) had inadequate knowledge, 1(2.5%) had moderately adequate knowledge and none of them had adequate knowledge. But after intervention of informational pamphlet, a majority, 19(47.5%) was found with moderately adequate knowledge, 21(52.5%) had adequate knowledge and none of them remain in inadequate knowledge. These findings evidenced the increase in knowledge regarding home management of anemia and its prevention among adolescent girls after the intervention of informational pamphlet.

**Table 3.4.3 2 Descriptive statistics of knowledge scores**

SL No.	ASPECTS OF KNOWLEDGE	MAX. SCORE	PRE-TEST				POST-TEST			
			Range	Mean	SD	Mean %	Range	Mean	SD	Mean %
1.	General information regarding anemia	22	2-12	6.65	2.38	30.22	9-21	15.7	3.10	71.36
2.	Prevention of anemia	08	0-5	2.37	1.6	29.68	2-8	5.27	2.09	65.93
	Overall	30	5-16	8.82	3	29.41	15-29	21.15	4.36	70.1

The above table 2.2 shows the pre-test range was 2-17, mean 8.82%, standard deviation was 3, mean percentage was 29.41% and the post test range was 15-29. Mean 20.97. standard deviation was 4.36 and mean percentage was 70.1%. similarly. in pre-test the mean score percent of knowledge in the aspect of general information regarding anemia was 30.22%. knowledge regarding prevention of anemia was 29.68% and after the intervention it was found to increase to the mean score percent of knowledge in the aspect of general information regarding anemia was 71.36%, knowledge regarding prevention of anemia was 65.93%. the post test score was comparably more than the pre-test score, it evidence that the increase in knowledge was found after informational pamphlet.

## IV. RESULTS AND DISCUSSION

The findings of the study showed the improvement of post-test result than pre-test result regarding home management of anemia and its prevention. Based on hypothesis of the study:

H1- There will be significant difference between pre test and post test knowledge regarding home management of anemia and its prevention among adolescent girls.

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