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PREVALENCE OF ANEMIA AMONG TEENAGE GIRLS AND FACTORS RESPONSIBLE (AGE GROUP 13-19 YEARS)

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Introduction

In India, girls of the age 13 to 19 years observed to be suffering from anemia due to occurrence of physical as well as psychological changes. This phenomenon is not limited to India, while anemia is a major public health problem worldwide and is often ignored in both developed and developing countries.

During childhood, nutritional needs of boys slightly differ from that of girls. However in girls nutritional needs widens after the onset of puberty. Iron requirements peak during adolescence due to rapid growth and increase in blood volume. Though this vulnerable period has been focused by existing programmes it has to be constantly enhanced to

offset the added burden like menstrual blood loss which precipitates the crisis often. In developing countries parasitic infections and other infectious diseases are more common which peak the requirements of iron in the human body. Though this study has been planned to

highlight the burden of anemia in teenaged girls, it will also be helpful in drawing recommendations and rendering suggestions to evaluate and enhance the existing Anemia Control Programmes.

Objectives

1. To understand knowledge regarding balanced diet amongst teenage girls,
2. To study consumption pattern of teenage girls, and
3. To study awareness amongst teenage girls regarding relationship between diet and health, and,
4. To study influence of socioeconomic status on dietary pattern of teenage girls.

Methodology

Research work carried out at Jalna by randomly selecting samples of teenage girls, of age 13 to 19 years, belongs to Joint & Nuclear Family along with financial status of their families and their Food habits.

The Data were collected by 1.Primary Data and 2. Secondary data and determined weight class of the children by calculating BMI by collecting height in meter & weight in Kg of Children.

Primer data collected through interview and duly filled questionnaire while secondary data was through various references.

Details of sample size selected is as below,

Age Group	**Sample Size**	**Yearly Income of Family five lacks and above per annum**			**Yearly Income of Family below five lacks per annum**		
		Parents/Mothers education Status			**Parents/Mothers education Status**		
		PG	**UG**	**12th or matriculate**	**PG**	**UG**	**12th or matriculate**
13 to 15	24	4	4	4	4	4	4
15 to 17	24	4	4	4	4	4	4
17 to 19	24	4	4	4	4	4	4
Total	**72**	**12**	**12**	**12**	**12**	**12**	**12**

PG : Post Graduation, UG : Under Graduation

Hypothesis

1. Teenage Girls with family income more than 5 lakhs consume balanced diet,
2. Parents with lower education level unaware about the importance of nutritious food or balanced diet,
3. Teenage girls unaware about balanced diet , and
4. Socioeconomic condition hugely influence on health of teenage girls.

Findings

Anemic condition is derived on the basis of hemoglobin level in the blood of teenage girls. Details of hemoglobin level and anemic status is as below,

Hemoglobin (gm/dl)	**Anemic Status**
<7	Sever
7-10	Moderate
10-12	Mild
>12	Normal

A. Family Income : 5 lakhs and more per annum

a. As per Table 1, mostly, teenage girls belongs to family with higher educated parents, observed consuming balanced diet comprising pulses, eggs, vegetables, green salads, fruits and their parents are also equally concern about their meals. However we observed exception with few of them consuming fast/junk food, quite occasionally. In this category, **41.67%** girls observed to have **normal (>12)** hemoglobin level.

b. As the level of Parents education goes down, lesser becoming the understanding about importance of balanced diet for overall health/growth of teenage child. Even though Parents, who are under graduate, provides food comprising vegetables, pulses, however sometimes fruit, eggs. Here **33.33%** girls observed to have **normal (>12)** hemoglobin level.

c. Also observed, teenage girl with the age, are concern about their health and try to consume diet comprising at least vegetables, pulses etc.

d. Education level of Parents influences on understanding about nutritious food and due to lack of knowledge, unable to provide nutritious diet to their child.

Table 1 : Hemoglobin level in teenage girls belongs to higher income group (5 lakhs and above).

Age	Sample each	Parents/Mothers education status																					
		Post Graduate (PG)								Under Graduate(UG)						12th Or below(Business)							
		Hemoglobin Level								Hemoglobin Level						Hemoglobin Level							
		<7	%	07 to 10	%	10 to 12	%	>12	%	<7	%	07 to 10	%	10 to 12		>12	%	<7	%	07 to 10	%	10 to 12	%	>12	%
13 to 15	4	1	25.0	1	25.0	-		2	50.0	1	25.0	2	50.0	1	25.0			1	25.0	1	25.0	2	50.0		
15 to 17	4			1	25.0	2	50.0	1	25.0			1	25.0	2	50.0	1	25.0	1	25.0	1	25.0	2	50.0		
17 to 19	4			1	25.0	1	25.0	2	50.0	1	25.0			1	25.0	2	50.0	1	25.0	1	25.0	1	50.0	1	25.0
Total	12	1	8.3	3	25.0	2	25.0	5	41.67	2	16.67	3	25.0	4	33.33	3	25.0	3	25.0	3	25.0	5	41.36	1	8.3

B. Family Income : Below 5 lakhs per annum

a. Mostly, teenage girls belongs to family with higher educated parents, observed consuming diet comprising pulses, vegetables, and some time green salad or fruits. However Parents, due to financial constraints, even aware, do not afford to provide balanced diet there by, in this category, only **25.0%** girls observed to have **normal (>12)** hemoglobin level.

b. Here also, as the level of Parents education goes down, lesser becoming the understanding about importance of balanced diet for overall health/growth of teenage child and again financial constraint confine them to provide balanced diet. However they try hard to at least ensure that the diet to have pulses, vegetables. Here, parents with under graduate, **16.67%** girls observed to have **normal (>12)** hemoglobin level. In case of parents with education level 12th & below, no teenage girl observed with normal hemoglobin level.

c. Also observed, teenage girl with the age, are concern about their health and try to consume diet comprising at least vegetables, pulses etc.

d. Education level of Parents influences on understanding about nutritious food and due to lack of knowledge, unable to provide nutritious diet to their child

Table 2 : Hemoglobin level in teenage girls belongs to lower income group (below 5 lakhs).

Age	Sample each	Parents/Mothers education status																	
		Post Graduate (PG)								Under Graduate(UG)								12th Or below(Business)							
		Hemoglobin Level								Hemoglobin Level								Hemoglobin Level							
		<7	%	07 to	%	10 to	%	>12	%	<7	%	07 to	%	10 to		>12	%	<7	%	07 to	%	10 to	%	>12	%
15	4	1	25.0	1	25.0	2	50.0			1	25.0	2	50.0	1	25.0			1	25.0	2	25.0	1	25.0		
17	4	1	25.0	1	25.0	1	25.0	1	25.0	1	25.0	1	25.0	2	50.0			2	25.0	1	25.0	1	25.0		
19	4			1	25.0	1	25.0	2	50.0	1	25.0			1	25.0	2	50.0	1	25.0	2	25.0	1	50.0		
Total	12	2	16.67	3	25.0	4	33.33	3	25.0	3	25.0	3	25.0	4	33.33	2	16.67	4	33.33	4	33.33	3	33.33		

% : Percentage of Sample observed to Sample Drawn

Limitations

1. We presume that all the information provided by the respondents is true & factual,
2. Data collected from sample size 72 only, which is miniscule to generalize the trend as found.
3. The data collection has been done from a limited geographical area. Hence the findings & conclusions have got their own limitations.

Conclusion

1. Socioeconomic factors are influencing over prevalence of anemia amongst teenage child. Higher the education and financial status, more the changes of teenage child becoming normal (with >12 hemoglobin level).
2. Looking at the findings, it is imperative to make teenage girls aware of the importance of having balanced diet to keep them healthy. This is possible if they receive information during their school days. Hence, we recommend, school curriculum to include health related subject with information on consumption of cost effective diet suitable to remain healthy and maintain the required hemoglobin level of >12.

References

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