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Prevalence Of Anemia Among Adolescent Girls In Keezhamoongiladi, Tamil Nadu

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ABSTRACT

Background: Anemia is a significant public health concern particularly among adolescent girls in India.

Objective: To assess the prevalence of anaemia among adolescent girls in Keezhamoongiladi near Chidambaram, Cuddalore district, Tamil Nadu and identify its severity.

Methods: A cross sectional study was conducted among 100 adolescent girls aged 18 - 19 years in Shree Raghavendra College of Arts and Science, Tamil Nadu. Haemoglobin levels were estimated using cyan methemoglobin method, and anaemia was classified according to WHO standards.

Results: The study found that 68.21% of adolescent girls were anaemic with 29.90% having mild anaemia, 28.97% having moderate anaemia and 9.34% having severe anaemia.

Conclusion: The study highlights the high prevalence of anaemia among adolescent girls in the Keezhamoongiladi village in Tamil Nadu, emphasizing the need for awareness and education on preventive measures through lifestyle modifications and dietary practices supplementation with iron rich food items are recommended to enhance the haemoglobin levels and reduce anaemia prevalence.

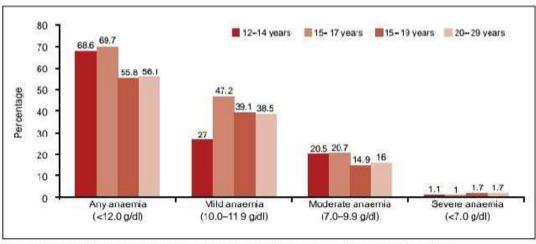
I. Introduction

The word "anaemia" derives from an ancient Greek word anaimia meaning "lack of blood". Anaemia is a major health problem characterized by a deficiency of red blood cells or haemoglobin in the blood is a widespread health concern particularly among adolescent girls. Adolescence is a transition period between childhood and adulthood [1]. During adolescence, there are periods of rapid mental physical, psychological, and cognitive development enhances school performances, problem solving abilities and productivity of adolescents [1]. These developmental changes influence the nutritional needs of adolescents. Adolescents constitute over 21.4% of the population in India and adolescent girls constitute about 10% of Indian population [2]. According to World Health Organization (WHO), globally anaemia affects approximately

1.62 billion people making it a significant public health issue, nearly a quarter of the world's population suffer from anaemia with the highest prevalence observed in low- and middle-income countries particularly in South Asia and Sub-Saharan Africa. India bears a substantial burden of anaemia with prevalence rates varying across regions and demographic groups.

According to National Family Health Survey (NFHS-4) conducted in 2015-2017 and (NFHS-5) conducted in 2019- 2021 the prevalence of anaemia has worsened in the country in recent years.

Fig. 2.2: Prevalence of anaemia among adolescent girls (12–19 years) and young women (20–29 years) in India⁶⁷



Source: NFHS-3, 2005-06 and the National Nutrition Monitoring Bureau Survey (NNMBS), 2006

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	S.No	State/UT	NFHS	Adolescent girls age 15-19 years who are anaemic (%)
		India	NFHS-5	59.1
	1	IIIuIa	NFHS-4	54.1
4	2	Karnataka	NFHS-5	49.4
			NFHS-4	45.3
		Kerala	NFHS-5	32.5
	3	Relala	NFHS-4	37.8
	4	West Bengal	NFHS-5	70.8
			NFHS-4	62.2
	5	Puducherry	NFHS-5	58.4
			NFHS-4	55
	6	Tamil Nadu	NFHS-5	52.9
			NFHS-4	54.2
100				

II. MATERIALS AND METHODS

A cross sectional study has been carried out among adolescent girls of 18-19 years, studying in Shree Raghavendra College of Arts and Science in Keezhamoongiladi near Chidambaram, Cuddalore district in Tamil Nadu. Totally 107 adolescent girls were included for the study. Adolescent girls with chronic diseases were excluded and adolescent girls willing to participate were included for the study. Informed consent was obtained from the adolescent girls to drain blood for haemoglobin estimation. The level of haemoglobin was assessed by the cyan methemoglobin method. The WHO cut off levels were taken as standards to classify the Anaemic status of Adolescent girls. After assessing the haemoglobin level of the adolescent girls, the values were compared with

WHO standard values and segregated into normal (>12.0 g/dl), mild (10.0-11.9 g/dl), moderate (7.0-9.9 g/dl), and severe levels (<7.0 g/dl).

III. DATA COLLECTION PROCEDURE

The investigators got permission from the college authorities and consent from the adolescent girls to participate in the study. The investigators explained the objectives of the study to the adolescent girls. Blood samples were drained from adolescent girls by the lab technician to assess the haemoglobin level.

IV. STATISTICAL ANALYSIS

The data collected were grouped and analyzed using descriptive statistical methods.

V. RESULTS

Out of 107 samples, 34 adolescent girls' haemoglobin levels were normal. The remaining 68.21% were found to be anaemic. Majority of the adolescent girls were under the category of mild level anaemia 29.90% (10.0-11.9 g/dl). The results indicate that 28.97% of adolescent girls were in the moderate anaemic status (7.0-9.9 g/dl). Only 9.34% of adolescent girls were in the category of severe anaemic level (< 7.0g/dl). The result of the present study correlates with the study on the prevalence of anaemia among adolescent girls of rural Telangana was assessed by Pancha Sheela S Reshmi and Anant Arun Rao Takalkar (2020), which showed that prevalence of anaemia was 59% in the adolescent girls.

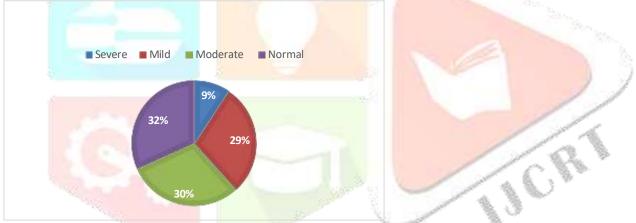


Figure 1: Anemia classification of participants.

VI. CONCLUSION

In this study most of the adolescent girls were under the category of anaemic. Generating awareness is the most important aspect of anaemia control program. This will be achieved by educating the adolescent girls about their preventive measures of anaemia, lifestyle modification and dietary practices. Further, the study results showed that the supplementation with iron rich food items are need of the hour to enhance the haemoglobin level of the adolescent girls. Improved haemoglobin levels will be helpful for the adolescent girls for their better life and to decrease the anaemia prevalence statistics in the near future.

VII. REFERENCES

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