



## ATTITUDE TOWARDS ANAEMIA AMONG ADOLESCENT GIRLS

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### ABSTRACT

*According to World Health Organisation, Adolescents are defined as the period of life spanning the ages between 10-19 years. It is a vulnerable period in the human life cycle for the development of Iron Deficiency Anaemia. According to National Family Health Survey-4, 51% of women aged 15 to 49 years are anaemic in Dindigul District. The main objective of the study is to estimate personal background of the adolescent girls and to measure the attitude towards anaemia. A cross sectional study was conducted with 30 adolescent girls from the selected Government school in Palani Block, Dindigul, Tamil Nadu, India. Data was coded, analysed and presented in frequency tables and inferential statistics through SPSS version 23. The attitude statements are significant at 1% level and the adolescent girls have positive attitudes towards anaemia. Thus the study concludes that still there is a need of intervention measures to improve anaemia prevalence and nutrition education to limit Iron Deficiency Anaemia and anaemia related problems.*

**KEY WORDS:** Anaemia, Adolescent girls, Attitude, Palani Block.

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### INTRODUCTION

According to the World Health Organization (WHO), anaemia is defined as a condition in which the number of red blood cells or their oxygen-carrying capacity is insufficient to meet physiologic needs. According to the WHO global database, anaemia is estimated to affect 1.6 billion people. The highest prevalence is found in preschool-age children (47.4%), followed by pregnant females (41.8%), non-pregnant females (30.2%), school-age children (25.4%) [2]. The World Health Organization (WHO) defines “adolescent” as an individual between 10 to 19 years of age. Adolescent girls demanded special attention in their health and nutritional care [4]. Apart from that, this life cycle stages has been important from the preventive intervention point of view, as any intervention at this stage will have a lasting impact on the life cycle of an individual. Intervention at this stage can rectify the development defects of early child [3]. Making adolescence as a key to give effect (general

education and health) is a positive thing. It is one of the important steps taken to improve women's health [11].

The main nutritional problems identified in adolescents are micronutrient deficiencies in general and Iron Deficiency Anemia (IDA) in particular. Over 50% adolescent girls consumed less than 50% Recommended Dietary Allowance (RDA) for energy while over 70% girls consumed less than 50% RDA of iron. Thus, adolescents are at high risk of iron deficiency and anaemia [5]. Problem stated in the present study is: keeping in mind the current scenario in Palani block, there is a strong feeling that poor dietary habits and anaemia prevalence are found among the adolescent girls.

Poor nutrition among the adolescent girls resulting in short stature and low lean body mass is associated with many adverse health problems particularly in future during motherhood. In India, NFHS-4 estimates reveal the prevalence of anemia to be 53% in adolescent girls in rural area. Early detection



and effective intervention of anemia among the adolescent girls improves the future productive life in terms of maternal and child health [13]. School-based nutrition education research studies were based primarily on a knowledge-attitude-behavior approach, while disease reduction/health enhancement studies were behaviorally oriented and generally based on social learning theory. Likewise, previous research nutrition and education are closely interlinked [12].

Knowledge Attitude Practice (KAP) assessment tool is a suitable instrument to assess and evaluate target group's current knowledge, attitude, and practices towards a specific problem under investigation; and it gives an effective feedback upon needs, problems, and possible barriers among the target group. In recent studies upon nutritional assessment Knowledge Attitude Practice evaluation has been commonly used [15]. Knowledge Attitude Practice questionnaire derived from Food and Agriculture Organisation (FAO) to use as an evaluation tool of KAP among adolescents. Furthermore, questions on attitude and practice related to IDA were used to identify the level of right attitude and practice towards health [10]. Hence it was decided to measure the attitude of the adolescent girls towards anaemia prevalence.

### OBJECTIVES OF THE STUDY

- To elicit personal background of the selected adolescent girls.
- To assess the subjects attitude towards anaemia.

### METHODOLOGY

Methodology is the general research strategy that outlines the way in which a research project is to be undertaken and, among other things, identifies the methods to be used in it [8].

### RESEARCH DESIGN AND SAMPLING

Cross sectional research design was carried Cross-sectional study design is a type of observational study design. In a cross-sectional study, the investigator measures the outcome and the exposures in the study

participants at the same time [14]. The study population consists of 30 adolescent girls from Palani block which is located in Dindigul District, Tamil Nadu, India. Sampling is concerned with the selection of a subset of individuals from within a defined population to estimate characteristics of the entire population [8].

### Sampling technique

Convenient sampling technique was used by the researcher to select the subjects. In this method, the investigators enroll subjects according to their availability and accessibility. Therefore, this method is quick, inexpensive, and convenient. It is called convenient sampling as the researcher selects the sample elements according to their convenient accessibility and proximity [6].

### Data collection procedure

Permission was obtained from District Educational Officer and Head Master for requirement of study participants. The data was collected through Google forms with a close ended structured questionnaire to the adolescent girls.

### Tool for attitude test

A structured questionnaire was used to assess the attitude of anaemia among adolescent girls. Questionnaire is one of the primary sources of data. It is an observational technique which comprises series of items presented to a respondent in a written form, in which the individual is expected to respond in writing [1].

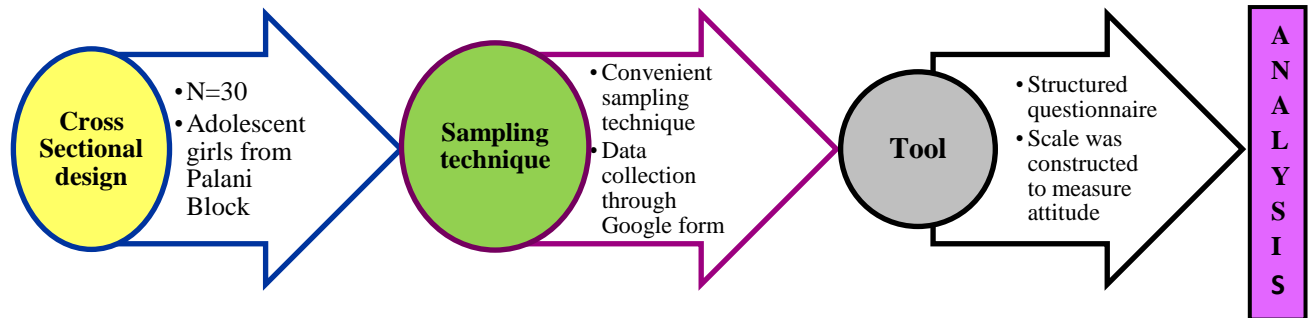
### Scale construction

Attitude scale was constructed and subjected to jury analysis by experts in the field of Nutrition and was refined based on their recommendations.

### Statistical analysis

The data were coded and analysed using SPSS version 23 to give clear picture of background information and to determine attitude level of school going adolescent girls. Quantitative data was analysed, tabulated and interpreted.

Fig.1 Research design of the study



## RESULTS

Table 1 Personal background of the adolescent girls

Variables	No. of students (N=30)	Percentage (%)
<b>Age</b>		
15 years	12	40
16 years	4	13.3
17 years	6	20
18 years	8	27
<b>Class</b>		
9 <sup>th</sup> Std	12	40
10 <sup>th</sup> Std	4	13.3
11 <sup>th</sup> Std	6	20
12 <sup>th</sup> Std	8	27
<b>Residency</b>		
Urban	19	63.3
Rural	11	37
<b>Family Structure</b>		
Nuclear family	19	63.3
Joint family	11	37
<b>Educational status of the mother</b>		
Illiterate	4	13.3
Primary education	4	13.3
Secondary education	9	30.0
Higher Sec education	5	16.7
Degree	8	26.7
<b>Family income</b>		
Rs.5000/- Rs.8000/-	7	23.3
Rs.8001/- Rs.10,000/-	13	43.3
Rs.10,001 and above	10	33.3

Socioeconomic factors of the adolescent girls are represented in the Table 1. Out of 30 adolescent girls 12(40%) are in the age group of 15 years and they are in class 9, about 8(27%) are in the age group of 18

years and they are in class 10. Nearly 6(20%) are in the age group of 17 years and they are in 11<sup>th</sup> standard.



Majority of the adolescent girls 19(63.3%) belongs to urban area and nuclear family. Whereas 11(37%) belongs to rural area and joint family.

Out of thirty adolescent girls mother 9(30.0%) were educated upto secondary education, 8(26.7%) were degree holders, 5 (16.7%) were educated upto

higher secondary level. Only 4(13.3%) of the mothers were illiterate and educated upto primary level.

Most of the income 13(43.3%) was between Rs.8001/- to Rs.10, 000/-. Only 7(23.3%) of the adolescent girls family were below the poverty line. Those who are in the bracket of above Rs.10, 000/- constituted 10(33.3%).

**Table 2 Attitude of the subjects regarding anaemia**

S.No	Attitude Statements	Mean	SD	t value	P value
1.	Treatment of anaemia is expensive	2.00	.830	6.59*	.000
2.	Consuming deworming tablets will kill the worms.	1.07	.794	4.82*	.000
3.	Regular exercise helps in curing anaemia.	1.47	.730	3.50*	.002
4.	Food supplementation will prevent anaemia.	1.57	.728	4.26*	.000
5.	Drinking tea/coffee after meals will hinder the absorption of iron.	1.83	.531	8.60*	.000
6.	Consuming beet root and red meat gives red colour to the blood.	1.43	.679	3.49*	.002
7.	Anaemia in Adolescent Girls, increases susceptibility to infection and impairs learning ability.	1.40	.724	3.02*	.005
8.	Cheap/low cost fruits contain fewer vitamins.	1.77	.817	5.13*	.000
9.	Eating fish makes worms.	1.80	.551	7.95*	.000
10.	Drinking lime juice/orange juice will help in better absorption of iron.	1.87	.681	6.96*	.000

[Note: The values are considered statistically significant\* if the P value is less than or equal to 0.05 (P ≤ 0.05).]

Table 2 shows that the mean difference is significant for all the aspects Thus the analysis depicted that the statements have significant difference between the attitudes of the respondents towards anaemia.

### DISCUSSION

[9] Found that the main source of information for the students were family members and school teachers. The teachers and family members training will likely increase students' knowledge, influence their attitudes and motivate their practice. Health educators, therefore, should be involved in education of parents and teachers. The present study found that 40% of the subjects belong to the age group of 15 and they were in 9<sup>th</sup> standard. Majority of the respondents 63.3% belongs to urban and nuclear family. About 30.0% of the mothers were educated upto secondary level. Only 13.3% of the mothers were illiterate and they are educated upto primary level. The statements are significant towards anaemia. The attitudes are interconnected with knowledge and practices.

### CONCLUSION

School based nutrition education has potential to improve dietary practices that affect young persons' health, growth, and intellectual development. This health educational intervention will enhance adolescent girl's knowledge, skills and support to build positive attitudes towards preventing nutritional anaemia [7]. This particular age group helps the adolescent girls to grasp easily and helps in sharing their knowledge to

their peer groups. The GOI launched programme called "12 by 12 initiatives" addressing the problem of anaemia in adolescents, in collaboration with WHO and UNICEF, Federation of Obstetrics and Gynaecological Society of India. The programme is aimed to achieve haemoglobin levels of 12 g% by the age of 12 years by 2012. Under Rajiv Gandhi Scheme for Adolescent Girls-SABALA programme initiated in 2011, AGs are being received weekly supplementation of IFA tablets and biannual deworming (Albendazole) tablets. Despite all these programmes, the prevalence of anaemia among women and AGs is alarming [16]. Awareness to be strengthen to the Adolescent girls and their mothers regarding Anaemia Prophylaxis Programme, Anaemia Control Programme, ICDS Programme, Deworming Prophylaxis Programme etc.,

### REFERENCES

1. Ajayi, V. O. (2017). *Course Title : Course Code : Advance Statistical Methods in Education Course of Study : PhD Science Education Presentation Title : Distinguish between primary sources of data and secondary sources of data Candidate Names : Oluwatosin Victor Ajayi Lecturer. (September). Retrived from https://doi.org/10.13140/RG.2.2.24292.68481.*
2. Alli, N., Vaughan, J., & Patel, M. (2017). *Anaemia: Approach to diagnosis. South African Medical Journal, 107(1), 23-27. https://doi.org/10.7196/SAMJ.2017.v107i1.12148*
3. Athira, C., & Maneesh, P. (2016). *Adoloscence girls development and ICDS: A case study of*



- anganwadi centres in Kannur District , Kerala. *Indian Journal of Economics and Development*, 4(February), 1–5.
4. Bej, P. (2015). Adolescent health problems in India : A review from 2001 to 2015. 27(04).
  5. Chauhan, A., & Chauhan, S. (2016). Knowledge , Attitude , And Practices Of Adolescent Girls Towards Iron. I(Ii), 163–168.
  6. Elfil, M., & Negida, A. (2017). Sampling methods in Clinical Research; an Educational Review. *Emergency (Tehran, Iran)*, 5(1), e52. Retrived from <https://doi.org/10.22037/emergency.v5i1.15215>.
  7. Hossain M, T., & Khan Luies, S. (2017). Designing a School based Health Education Program to Prevent Nutritional Anaemia among the Adolescent Girls in a Rural School in Bangladesh. *Journal of Health Education Research & Development*, 05(03). <https://doi.org/10.4172/2380-5439.1000229>
  8. Igwenagu, C. (2016). *Fundamentals of Research Methodology and Data Collection*. LAP Lambert Academic Publishing, (June), 4. Retrieved from [https://www.researchgate.net/publication/303381524\\_Fundamentals\\_of\\_research\\_methodology\\_and\\_data\\_collection](https://www.researchgate.net/publication/303381524_Fundamentals_of_research_methodology_and_data_collection).
  9. Idonije, B., Oluba, O., & Otamere, H. (2011). A study on knowledge, attitude and practice of contraception among secondary school students in Ekpoma, Nigeria. *Jpcs*, 2(6), 22–27.
  10. Jalambo, M. O., Sharif, R., Naser, I. A., & Karim, N. A. (2017). Improvement in Knowledge, Attitude and Practice of Iron Deficiency Anaemia among Iron-Deficient Female Adolescents after Nutritional Educational Intervention. *Global Journal of Health Science*, 9(7), 15. <https://doi.org/10.5539/gjhs.v9n7p15>
  11. Patimah, S., Royani, I., Mursaha, A., & Thaha, A. R. (2016). Knowledge, attitude and practice of balanced diet and correlation with hypochromic microcytic anemia among adolescent school girls in maros district, South Sulawesi, Indonesia. *Biomedical Research (India)*, 27(1), 165–171.
  12. Perveen, R. (2017). Assessing the Influence of Nutrition Education among Adolescent Girls (13-16 Years). *Advances in Obesity, Weight Management & Control*, 6(4), 144–147. <https://doi.org/10.15406/aowmc.2017.06.00167>
  13. Saravanakumar, P., Muthusundari, A., Medicine, C., & Medical, G. S. (2017). Prevalence of Anemia Among the Tribal Adolescent Girls in Javvadu Hills in Thiruvannamalai, Tamil Nadu. (6), 25–27. Retrieved from <https://pdfs.semanticscholar.org/725b/104c194235529632ab034dbda7393c7eb759.pdf>
  14. Setia, M. S. (2016). Methodology series module 3: Cross-sectional studies. *Indian Journal of Dermatology*, 61(3), 261–264. Retrived from <https://doi.org/10.4103/0019-5154.182410>.
  15. Shahzad, S., Islam, K., Azhar, S., Fiza, S., & Ahmed, W. (2017). Impact of Knowledge , Attitude and Practice on Iron Deficiency Anaemia Status Among Females of Reproductive Age Group ( 20-21-year-old ) Studying in Government Home Economics College. 3(4), 31–36. <https://doi.org/10.21276/iabcr.2017.3.4.09>
  16. Upadrasta, V. P., Ponna, S. N., Bathina, H., S., B., Kapu, A. K. R., Sadasivuni, R., & Mitaigiri, C. (2019). Knowledge, attitudes and practices of adolescent school girls regarding prevention of iron deficiency anaemia. *International Journal Of Community Medicine And Public Health*, 6(6), 2694. <https://doi.org/10.18203/2394-6040.ijcmph201923462394-6040.ijcmph20192346>