



A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURE TEACHING PROGRAMME ON KNOWLEDGE REGARDING ANEMIA AMONG ADOLESCENT GIRLS IN SELECTED TRIBAL AREA OF SURAT DISTRICT

Nursing

Ms. Jayshreeben Assistant Professor, Dept. of Community Health Nursing, Shree Swaminarayan Nursing College, Ekta Nagar, Narmada, Guj*Corresponding Author
Singabhai Vasava*

ABSTRACT

Anemia is a global nutritional problem with consequent mortality and morbidity on female of reproductive age. Objectives Of Study: 1. To assess the knowledge regarding anemia among adolescent girls in selected school of tribal area of Surat district before STP. 2. To re-assess the knowledge regarding anemia among adolescent girls in selected school of tribal area of surat district after STP. 3. To evaluate the effectiveness of structure teaching programme regarding anemia among adolescent girls in selected school of tribal area of Surat district 4. To find out association between pre-test knowledge score with selected socio demographic variables of adolescent girls. Methodology: In this study is pre-experimental one group pre-test post-test design was selected. The 60 adolescent girls were selected by the purposive sampling technique in tribal area of Surat. The 7 sociodemographic questionnaire & 30 self-structured knowledge questionnaire was used. Result: The pre-test majority 47 (78.3%) of the adolescent girls had inadequate knowledge level, 13 (21.7%) had moderate level of knowledge & Nobody (0%) scored adequate makes in pre-test. But is the post test, Majority 32 (53.3%) of the adolescent girl had adequate knowledge level and 26(43.3%) of them scored moderate knowledge level and 2(3.3%) of them inadequate knowledge. The association between pretest knowledge score with selected demographical variables such as Age (Year's), Monthly Income of the family member's (Rs) & Age of menarche was significant and other Religion, Education status, Residence area & Occupation was not significant at the level of 0.05 ($P < 0.05$). Conclusion is reached that is important of the adolescent girls to know about the anemia and also how to prevent anemia and this study are great help to adolescent girls to make healthy life style.

KEYWORDS

Anemia, Effectiveness, Stp, Knowledge, Adolescent Girls.

INTRODUCTION:

"Early Diagnosis Prevents anemia complications".

World Health Organization

Anemia is a condition characterized by reduction in the number of red blood cells and/or hemoglobin (Hb) concentration. Anemia is a global public health problem affecting both developing and developed countries and has major consequences for human health as well as social and economic development. It affects 24.8% of the world population.¹

The worldwide prevalence of anemia among adolescents is 15% (27% in developing countries and 6% in developed countries).²

This study aimed to analyses the change in the prevalence of anemia among adolescent women in India from 2015 to 2021 and identify the factors associated with anemia in this population. This study used information on 116,117 and 109,400 adolescent women (aged 15–19) from the fourth and fifth round of National Family Health Survey, respectively. Bivariate statistics and multivariable logistic regression were employed to identify the statistically significant predictors of anemia. The prevalence of anemia among adolescent women in India increased from 54.2% (99% CI: 53.6–54.8) to 58.9% (99% CI: 58.3–59.5) over the study period (2015–16 to 2019–21).³

Adolescents are at high risk of iron deficiency and anemia. This is due to rapid pubertal growth with sharp increase in lean body mass, blood volume, and red cell mass, which increases iron requirements for myoglobin in muscles and Hb in the blood.³

Objectives:

1. To assess the knowledge regarding anemia among adolescent girls in selected school of tribal area of Surat district before STP.
2. To re-assess the knowledge regarding anemia among adolescent girls in selected school of tribal area of Surat district after STP.
3. To evaluate the effectiveness of structure teaching programme regarding anemia among adolescent girls in selected school of tribal area of Surat district
4. To find out association between pretest knowledge score with selected socio demographic variables of adolescent girls.

Review of Literature:

Chauhan, S, Kumar. Et.al.2022: This study tries to fill this gap and study the prevalence of anemia and the associated factors among adolescent girls residing in Uttar Pradesh and Bihar, India. A cross-sectional survey data from the understanding the lives of adolescents and young adult survey. The sample size was 20,594 adolescent girls age of 10-19 years in Uttar Pradesh and Bihar, India. Descriptive

statistics and bivariate analysis were used to find the preliminary results. Multinomial regression analysis was carried out to provide the adjusted estimates. Overall, anemia was more prevalent among adolescent girls 20% moderate/ severe anemia was 0.24 and 0.49 time less likely among adolescent boys and girls, respectively, who had 10 and above years of schooling than adolescent with no schooling ($p < 0.01$). Rural adolescent were 1.49 times ($p < 0.05$) more likely to suffer from moderate/severe anemia than urban counterparts. Anemia among adolescent must be addressed through effective public health policy targeting adolescent residing in rural and tribal areas. There is need to disseminate information about anemia related programs, such as National Iron Plus Initiative through mass media.

Research Methodology:

Research Approach: Quantitative research approach

Research Design: Pre-experimental one group pre-test and post-test design



O₁ - Pre-test
 X – STP (Regarding anemia)
 O₂ - Post-test

Target Population: Adolescent girls of selected school of tribal area of Surat district.

Study Setting: Shanti Niketen High School, Zankhvav, Dist.Surat

Sample Size: 60 Adolescent Girls

Sampling technique: Non-Probability in Purposive sampling method was used

Criteria For Sample Section:

Inclusion Criteria:

- Adolescent girls those who are present at the day of data collection
- Adolescent girls those who are able to read & write in Gujarati.
- Students who are registered in the school.

Exclusion Criteria:

- Adolescent girls those who are not willingly to participate in the study.

Research Variable:

- **Independent Variable:** Independent variable in this study is

structured teaching programme on knowledge regarding anemia.

- **Dependent Variable:** are adolescent girls of tribal area of Surat district.
- **Socio Demographic variable:** Demographic variable in this study includes age, religion & type of family.

Assumption:

- Adolescent girls may have inadequate information regarding anemia.

Hypothesis:

- **H₁:** There will be a significant difference between mean pre-test and post-test knowledge scores among Adolescent girls regarding anemia.
- **H₂:** There will be a significant association between the pre-test knowledge of Adolescent girls regarding anemia with their selected demographic variables.

Tools: Self Structure Knowledge Questionnaires

Development & Data Collection Of Tool: Section: A- Demographic profile: This section includes 7 socio demographic questionnaire such as age, religion and type of family.

Section: B- 30 Self Structured Knowledge Questionnaire regarding anemia. This section divided in 3 parts:

Part-A: This area includes 07 item regarding the general information, Introduction & definition of the anemia.

Part-B: This area includes 15 items regarding causes, types, Sign - symptoms & diagnosis of the anemia.

Part C: This Area include 08 items regarding prevention & Management of the anemia.

Scoring key:

Every "right" questions were awarded a score "1" (one) and every "wrong" response was awarded a score of "0" (zero). Thus, a total of 30 marks were given for knowledge assessment. To interpret the level of knowledge the score was distributed as follows:

Maximum score = 30

Adequate knowledge: 67% to 100% (21-30)

Moderate knowledge: 34% to 66% (10-20)

Inadequate knowledge: ≤33% (≤10)

The tools content validity was done in 5 Expert in nursing (Community Health Nursing), 2 Expert Dr.in Community Medicine & 1 Expert in Statistician. The reliability was conduct in 06 sample by the split half method that the value obtained was ($r=0.71$) which indicates that tool is reliable.

The research problem and objectives were approved in research committee. After the formal administrative permission of was obtained for approval of the study at Shantiniketan High School, Zhankhvav, Th. Mangrol, Dist.Surat, Gujarat from 8th, 9th, 10th, 11th & 12th Adolescent Girls. The data collection was done within given period 1 week. (19.12.2023 to 26.12.2023) & Informed written consent of the participants. The data confidentiality was maintained.

Plan For Data Analysis:

The data obtained were analyzed in terms of the objects of the study, using Descriptive and Inferential analysis. Data was entered in Master data sheet and analyzed using SPSS software version 25. The data obtained was using both descriptive statistics and inferential statistics.

RESULTS & DISCUSSION :

The Socio demographic characteristics of adolescent girls. In the present study, out of 60 adolescent girls (01) 1.7 % were having age between 12-13 years, (49) 81.7% adolescent girls were having age between 14-15 years, (10) 16.7% adolescent girls were having age between 16-17 years & None 00% adolescent girls having age above 17 years. Out of 60 adolescent girls (49) 81.7 % were having religion is Hindu, (3) 5% having religion Muslim & (08) 13.3% adolescent girls

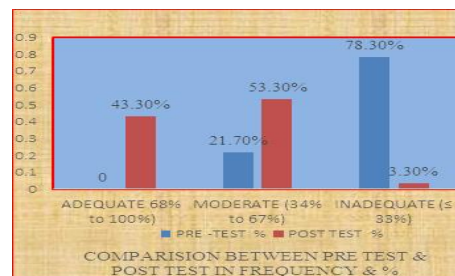
were having religion Christian. The adolescent girl's education status out of 60 there were (04) 6.7% is 8th standard, were (42) 70% is 9th standard, there were (03) 5% is 10th standard & there were (11) 18.3% is 12th standard. Out 60 there were 21.7% (13) are residence area in rural area, were is 78.3% (47) living in tribal area. Types of family is (34) 59.7% were joint family, (23) 38.3% is nuclear family and (03) 5% single parent family. The Monthly income of the family in (RS) (11) 18.3% parents were belonging to <5000 (23) 38.3% parents were belong to 5001-10,000, (11) 18.3% income 10,001-15,000 and (15) 25% parents were belonging to above 15,000 Rs. Family income. The age of menarche of adolescent girls (56) 93.3% were age between 10-13 years & (4) 6.7% were age between 14-17 years.

Table 1: Frequency and percentage distribution of pre-test & post-test score among adolescent girls on the basis of knowledge score. N=60

Level of knowledge	PRE-TEST SCORE		POST-TEST SCORE	
	Frequency	Percentage %	Frequency	Percentage %
Adequate (67% to 100%)	00	00	26	43.3%
Moderate (34% to 66%)	13	21.7%	32	53.3%
Inadequate (≤ 33%)	47	78.3%	02	3.3%

The table 1 & graph 1 showing the comparison between that pretest knowledge regarding the anemia in adolescents' girls that adequate knowledge was 0(0.00%), moderate knowledge 13 (21.70%) and Inadequate knowledge 47 (78.3%), but posttest adequate knowledge 26(43.3%), Moderate Knowledge 32(53.3%) & Inadequate knowledge 02(3.33%).

N=60



Graph 1: Bar Diagram showing that level of knowledge in Pre test and Post test

Table 2: Comparison between pretest & post test score knowledge score among adolescent girls N=60

Area	Max. Score	Pre -Test (a)		Post -Test(b)		Effectiveness (a-b) value
		Mean±SD	Mean%	Mean±SD	Mean%	
Part-A	07	4.23±2.29	14.10%	7.34±3.40	24.46%	3.11±1.11 (10.36%)
Part-B	15	3.78±2.01	12.60%	5.23±2.21	17.43%	1.45±0.2 (4.8%)
Part-C	08	Mean±S.D	6.93%	4.43±2.08	14.76%	2.35±0.19(7.83%)
Total	30	10.09±6.19	33.63%	17±7.69	56.65%	6.91±1.50(23.03%)

Table 2 showing that comparisons of area wise Mean ±S.D., Mean Score % between pretest & Post test. The effectiveness of part A Mean ±S.D. 3.11±1.11, Mean score 10.36%, Part-B Mean ±S.D. 1.45±0.2, Mean Score 4.8%, Part-C Mean ±S.D. 2.35±0.19, Mean Score 7.83%. The Overall improvement Mean ±S.D. 6.91±1.50, Mean Score 23.03%.

Table 3: Significance difference between Pre test & Post Test knowledge score on anemia of adolescent girls N=60

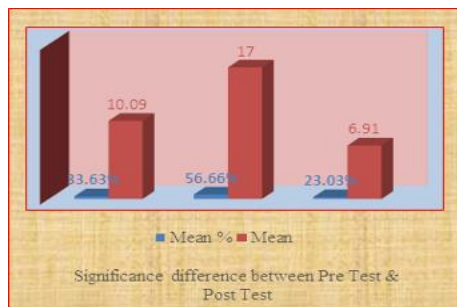
Parameter	Mean±S.D.	Mean %	Paired "t" Test	Result
Pre -Test	10.09±6.19	33.63%	15.32***	HS
Post- Test	17±7.69	56.66%		P<0.05
Improvement	6.91±1.50	23.03%		df=59

Note: *** Denote significant at $\alpha=0.05$ level

Table 3 & Graph 2 showing that Pre-test Mean $\pm$ S.D. 10.09 $\pm$ 6.19, Mean % 33.63% but post-test Mean $\pm$ S.D. 17 $\pm$ 7.69, Mean %56.66%. The overall effectiveness of Mean $\pm$ S.D. 6.91 $\pm$ 1.50, Mean %23.03%, Paired “t” test value 15.32***df=59, P<0.05 level was highly significant. Hence it can be interpreted that the STP was very effective in all areas.

The association between Pre test knowledge score with selected demographical variables such as Age (Year's), Monthly Income of the family member's (RS) & Age of menarche was significant and other Religion, Education status, Residence area & Occupation was not significant at the level of 0.05 (P<0.05).

N=60



Graph 2: Showing that Comparisons between pre-test & Post Test

Summary: The Pre-test of Mean % 33.63% but after given the STP Mean %56.65%. The overall effectiveness of Mean % 23.03%, Paired “t” test value 15.32***df=59, P<0.05 level was highly significant. Hence it can be interpreted that the STP was very effective in all areas. The Association of Pre test knowledge score with selected demographical variables like age(Year's), Monthly Income of the family member's & Age of menarche was significant and other were not significant.

Conclusion is reached that is important of the adolescent girls to know about the anemia and also how to prevent anemia and this study are great help to adolescent girls to make healthy life style.

Implications:

Nursing education: Nurse educator must be educated regarding anemia. Nurse educator can organize continuing nursing education programs on effectiveness of anemia among adolescent girls.

Nursing administration: It can plan and organize to conduct workshops, role play or conference regarding anemia among various groups.

Nursing practice: School health nurse can implement teaching programmer to enhance the knowledge regarding anemia.

Nursing research: The findings of the study would help to expand the scientific body of professional knowledge upon which further research can be conducted. Encourage further studies on anemia.

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