



Nursing Science

A PRE-EXPERIMENTAL STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE REGARDING IRON DEFICIENCY ANEMIA AMONG ADOLESCENT GIRLS OF SALT BROOK SENIOR SECONDARY SCHOOL, MIRZA, KAMRUP (R) ASSAM

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ABSTRACT

Background of the Study: Iron Deficiency Anemia is a widespread nutritional condition worldwide. Anemia caused by an insufficiency of red blood cells due to inadequate iron in the body that prevents oxygen rich blood from reaching body tissues is known as Iron Deficiency Anemia, which gradually worsen if the body cannot produce enough blood cells from iron. **Aim:** To evaluate the effectiveness of Structured Teaching Programme on knowledge regarding Iron Deficiency Anemia among adolescent girls. **Method:** Quantitative research approach and pre-experimental research design was adopted and 60 samples were collected through convenient sampling technique. **Result:** In the pre-test 6(10%) have adequate knowledge, 15(25%) have moderately adequate knowledge, and 39(65%) have inadequate knowledge regarding Iron Deficiency Anemia. In the post-test 45(75%) have adequate knowledge, 12(20%) have moderately adequate knowledge, and 3(5%) have inadequate knowledge regarding Iron Deficiency Anemia. The calculated paired 't' test of $t=14$ was found to be statistically significant at $p<0.05$ level which infers that a Structured Teaching Programme regarding Iron Deficiency Anemia among adolescent girls was found to be effective in improving the level of knowledge regarding Iron Deficiency Anemia. Concerning religion chi-square ($\chi^2=9.6, p=0.047, df=6$) had shown a statistically significant association with the pre-test level of knowledge regarding Iron Deficiency Anemia among adolescent girls. **Conclusion:** The study concluded that participants have inadequate knowledge in pre-test and majority have adequate knowledge in post-test regarding Iron Deficiency Anemia which revealed significant improvement in the post-test and there is also an association with religion of adolescent girls with the knowledge score.

KEYWORDS : Knowledge, Iron Deficiency Anemia, Structured Teaching Programme, Adolescent Girls

INTRODUCTION

Iron Deficiency Anemia is a condition in which the total body iron content is decreased below a normal level, affecting haemoglobin synthesis. RBC appears pale and small. Anemia may be caused by several factors like nutrient deficiency through improper diet or improper absorption of nutrients. Other factors of anemia among adolescent girls are poor living conditions, menstrual irregularities, parasitic infestation, low socioeconomic status, family size, low consumption of vitamin C-rich food, parent's level of education, etc. Iron Deficiency Anemia is the most common type of anemia that varies widely by age, sex, and race. symptoms of Iron Deficiency Anemia are fatigue, pale skin, dyspnea, cheilosis, cold hands and feet, weakness, brittle nails, dizziness etc. it is a major health problem in developing countries. Iron Deficiency Anemia is one of the vast factor affecting adolescent health consequently adding in deprivation of growth and development. it is a condition that bring life threatening risks in the child bearing period.

Objectives Of The Study

1. To assess the pre-test knowledge regarding Iron Deficiency Anemia among adolescent girls.
2. To evaluate the effectiveness of a Structured Teaching Programme regarding Iron Deficiency Anemia among adolescent girls.
3. To find out the association between pre-test knowledge scores regarding Iron Deficiency Anemia among adolescent girls with selected demographic variables

Review Of Literature

1. M Deepti, Choudhary Dr. P, et al, (2021), A one-group pre-test post-test experimental descriptive research design is used to collect the sample from selected areas of Mohali of 100 adolescent girls. The sample is collected through a purposive sampling technique. The data is collected by socio-demographic questionnaire and self-instructional module. In the pre-test 58(58%) had inadequate knowledge 40(40%) had moderate knowledge and 2(2%) had adequate knowledge, and in post-test 15(15%) had moderate knowledge and 85(85%) had

adequate knowledge regarding Iron Deficiency Anemia.

2. Kaveri (2019): A Quasi-experimental one-group pre-test post-test research was used and a study was conducted among mothers of preschool children at the selected hospital in the Dindugal district. The sample size was 30 and the sampling technique was purposive. After assessing pre-test knowledge Structured Teaching Programme was given and post was conducted. In pre-test 21(70%) had inadequate knowledge and 9(30%) had moderate knowledge. In the post-test, 24(80%) had adequate knowledge and 6(20%) had moderate knowledge regarding Iron Deficiency Anemia.

Research Methodology

Research Approach: Quantitative Research Approach

Research Design: Pre-Experimental one group pre-test post-test research design

Variables:

Independent Variables: Structured Teaching Programme

Dependent Variables: Knowledge

Demographic Variable: Age, educational status, type of family, place of residence, religion, dietary pattern, family income, menstrual pattern.

Setting of the Study: Salt Brook Senior Secondary School, Mirza, Assam

Population: Adolescent girls.

Target Population: Adolescent girls of age group 15 to 18 years

Accessible Population: Who are studying in 11th and 12th standard.

Sample Size: 60 adolescent girls

Sampling Technique: Convenient sampling technique

Inclusion Criteria

- Adolescent girls who are willing to participate.
- Adolescent girls who are present at the time of data collection

Exclusion Criteria

- Adolescent girls who are not willing to participate
- Adolescent girls who are absent at the time of data collection

Tools and Techniques: Structured knowledge questionnaire was used to assess the level of knowledge and the technique was self report.

Scoring Key: The correct answer was given score of "1" and wrong score "0". Total score was "21".

Category of Knowledge Level:

Adequate knowledge: 15-21 (>67%)

Moderate knowledge: 8-14 (35-66%)

Inadequate knowledge: 0-7 (<34%)

Content Validity of the Tool: The prepared instrument along with the problem statement and objective was submitted to three experts: 2 in the field of Medical Surgical Nursing and 1 in the field of Obstetrics and Gynaecological Nursing for establishing the content validity.

Ethical Consideration

1. Written permission from the principal of Salt Brook Senior Secondary School, Mirza.
2. The subjects were assured of the confidentiality and anonymity of the data obtained and oral consent was taken.
3. Participants had the liberty to leave the study at any point in time.
4. The study utilizes non-invasive procedures and it was ensured that there would be no physical or psychological harm to the participants.

RESULTS

Table 1 : Frequency And Percentage Distribution Of Demographic Variables

Sl. No	Demographic Data	Data Group	Frequency (n=60)	Percentage (%)
1.	Age in years	15-16	27	45%
		17-18	33	55%
2.	Religion	Hindu	42	70%
		Muslim	15	25%
		Christian	3	5%
3.	Type of family	Nuclear	48	80%
		Joint	12	20%
4.	Monthly income	<20,000	6	10%

Table 3: Association Of Pre-test Knowledge With Selected Demographic Variables

Demographic Variables	Inadequate		Moderately Adequate		Adequate		Chi-square Value
	NO.	%	NO.	%	NO.	%	
1. Age in years							2.86 ,
15-16	17	28.33	6	10	4	6.66	NS
17-18	22	36.66	10	16.66	1	1.66	
2. Religion							9.6,
Hindu	30	50	9	15	1	1.66	*
Muslim	7	11.66	6	10	4	6.66	
Christian	2	3.33	1	1.66			
3. Type of family							1.07,
Nuclear	31	51.66	13	21.66	4	6.66	NS
Joint	7	11.66	3	5	2	3.33	
4. Monthly income (in Rs)							3.86,
<20,000	5	8.33	2	3.33			NS
20,001-30,000	13	21.66	7	11.66	1	1.66	
30,001-40,000	10	16.66	4	6.66	1	1.66	
>40,000	11	18.33	3	5	3	5	
5. Occupation							3.66,
Govt. employee	19	31.66	9	15	3	5	NS
Private employee	3	5	3	5			
Business	14	23.33	3	5	2	3.33	
Others	3	5	1	1.66			
6. Food habit							
Non-vegetarian	39	65	16	26.66	5	8.33	
7. Heard about Iron Deficiency Anemia							1.1,
Yes	24	40	10	16.66	5	8.33	NS
No	15	25	5	8.33	1	1.66	
8. Present Residence							2.25,
Hostel	7	11.67	3	5	2	3.33	NS
Home	25	41.67	10	16.67	3	5	

		20,001-30,000	21	35%
		30,001-40,000	15	25%
		>40,000	18	30%
5.	Occupation of the head of the family	Government employ	30	50%
		Private employ	6	10%
		Business	21	35%
		Others	3	5%
6.	Food habit	Non-vegetarian	60	100%
7.	Heard about iron deficiency anemia	Yes	39	65%
		No	21	35%
8.	Residence	Hostel	12	20%
		Home	36	60%
		Paying guest	6	10%
		Rent	6	10%
9.	Pattern of menstrual cycle	Regular	36	60%
		Irregular	24	40%

n=60

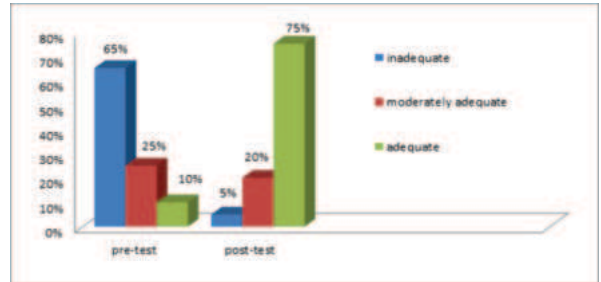


Fig 1: Bar Diagram Showing The Percentage Distribution Of Pre-test And Post-test Knowledge Regarding Iron Deficiency Anemia Among Adolescent Girls

Table 2: Effectiveness Of Structured Teaching Programme On Knowledge Regarding Iron Deficiency Anemia Among Adolescent Girls

Knowledge	Mean /S.D	Mean Difference	paired 't' test & p-value
Pre-test	7.6 ± 4.19	8.75	t= 14 *
Post-test	16.35 ± 3.85		p<0.05

p<0.05

*= Significant

Paying guest	4	6.67	2	3.33			
Rent	3	5	1	1.66			
9. Pattern of menstrual cycle							2.96, NS
Regular	21	35	12	20	4	6.66	
Irregular	18	30	4	6.66	1	1.66	

NS= Non significant

*= significant

CONCLUSION

Based on the analysis of the findings of the study, the following inferences were drawn. There was an evident increase in the knowledge in all the areas including in the study after the administration of a Structured Teaching Programme on Iron Deficiency Anemia among adolescent girls. Thus it was proved that a Structured Teaching Programme was an effective method for providing knowledge regarding Iron Deficiency Anemia among adolescent girls.

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