EFFECTIVENESS OF PLANNED TEACHING PROGRAMME ON KNOWLEDGE REGARDING IRON DEFICIENCY ANEMIA AND ITS MANAGEMENT

Mrs. Jasmi Johnson, Mrs. S. Andal, Mrs. Pratibha Srivastava, Mr.Madan Mohan Gupta, Mr. Subin Raj R.,

Faculty of Nursing, Rama University, Mandhana, Kanpur, U.P. India

Email Id: jasmi.rcn.mnd@ramauniversity.ac.in

Abstract: Iron deficiency anemia is one of the most prevalent nutritional deficiencies in the world, and more than half of the population in India is anemic. A pre-experimental research study was conducted at selected government schools of dehradun. Convenient sampling technique was used to select 100 adolescents and data were collected with self structured questionnaire. Planned teaching programme was administered as an intervention. The overall pre test mean score was 12.28 with SD of ±3.178. The overall post test mean score was 27.51 with SD of ±3.870 is evident that there is increase in mean score in the post test after administration of Planned teaching programme. The association of pre test level of knowledge with demographic variables of school adolescent girls showed association between pre test knowledge and type of family but there were no association between Knowledge and other demographic variables at $p > 0.05$ level. On the basis of the present study, the researcher concluded that "Planned Teaching Programme regarding Iron deficiency anemia and its management" to adolescent girls, who were studying in government schools was found effective as their level of knowledge improved significantly.

Key words: Iron deficiency Anaemia, Adolescent, planned teaching programme.

Introduction

Iron is one of the micronutrient. It is used for formation of haemoglobin, Oxygen transportation, brain development, regulation of body temperature and muscle activity[1]. Young population ranges from 10-24 years of age which includes adolescents & youth both. Adolescence refers more broadly to the phase of human development encompassing the transition from childhood to adulthood. In terms of age, it is the period of life that is extended from 10-19 years referred as adolescence; 15-24 years age termed as youth[2].

Adolescent girls have iron deficiency more often because their bodies can't store as much iron and lose blood during menstruation. Iron deficiency can cause fatigue that impairs the ability to do physical work and also affect memory or other mental function in teens[3].

In modern times life style changes especially in dietary habits such as eating junk food, fast food, dieting to lose weight resulted in many health problems in adolescent girls specially of urban areas. Lack of knowledge, poor social economic status is the common cause of malnutrition in adolescent girls of rural areas[4].

Adolescent girls with nutritional anaemia attributes to the high maternal mortality rate, the high incidence of low birth weight babies, high perinatal mortality and the consequent high fertility rates. Importance need to be given during adolescent life due to the ever-increasing evidence that the control of anaemia in pregnant women can be more easily achieved if a satisfactory iron status can be ensured during adolescence[5].

For the improvement of the nutritional status, education plays a major role. Girls are more likely to be victim due to various reasons. In a family with limited resources, the female child is more likely to be neglected[6]. Prevalence of anemia was high in adolescent girls from low socio-economic families and joint families due to inadequate intake of diet by the adolescent girls[7].

Objectives of the study

- To assess the pre-test and post test knowledge level of adolescent girl on Iron deficiency anaemia and its management.
- To evaluate the effectiveness of planned teaching programme on iron deficiency anaemia and its management.
- To find out the association between the pre-test-level of knowledge of adolescent girl with their selected demographic variables.

Hypothesis:

H1: There will be a significant difference between pre test and post test level of knowledge among adolescent girls studying in selected government schools.

H₂: There will be a significant association between pre test knowledge score of adolescent girls with their selected demographic variables.

Material and Methods used:

Research design: Pre experimental pre-test post test design.
Research approach: Experimental approach was adopted for the study.
Setting of the study: The study was conducted in Government schools, Maldevta and Nalapani, Dehradun.
Population: Population for the present study consists of adolescents girls in Government schools, of Maldevta and Dehradun.
Sampling and sample size: In this study convenience sampling technique is used to select the 100 adolescent girls who are studying in Maldevta and Nalapani, Dehradun.

Variables:

Dependent variable: In this present study knowledge of adolescent girls was the independent variables.
Independent variable: planned teaching programme on iron deficiency anaemia and its management.

Demographic variable: Age, education, dietary habit, residence, family type, family income, source of information.

Sampling criteria

Inclusion criteria
- Adolescent girls who were willing to participate in the study.
- Participant who were available during the period of data collection.

Exclusion criteria
- Adolescent girls those who are not interested,
- Absence at the day of data collection

Development and description of tools used in the study

Structured knowledge questionnaire was used for data collection. The tool consists of two sections:
Section-A: Consist of socio-demographic data including age, education, dietary habit, residence, family type, family income, source of information .*Section-B*: Consist of 20 closed ended questionnaires for assessing the knowledge

level regarding iron deficiency anaemia and its management.

Data collection procedure

As the first step in the data collection procedure, the investigator met the concerned authorities of selected government schools for their support and cooperation to conduct study successfully. The formal permission was taken from the schools adolescent girls for the data collection. Appropriate orientation was given to the adolescent girls about the aim of the study and knowledge was assessed through a structured knowledge questionnaire. Confidentiality, security and identity of participants were maintained throughout the study. A planned teaching programme was given to all school adolescent girls. Post test was conducted by using the same tool

Plan for data analysis

The data was analyzed on the basis of objectives of the study. The obtained data was analyzed by using descriptive and inferential statistics. The data analysis was done with following steps.

- Organized data in a master sheet or computer.
- Personal data analyzed in term of frequencies and percentage.
- Relationship between the variables and association was analyzed by using inferential statistics.

Data analysis and major findings

Section 1: Demographic data

1. Major findings of the study revealed that 59% adolescent girls were belongs to the age group of 17-18 years, 31% were belongs to the age group of 15-16 years and 13-14years (10%).
2. Majority 80% of the adolescent girls were from 12th standard and 20% from 10th standard.
3. Majority 86% adolescent girls were vegetarian and 14% non vegetarians.
4. Majority 72% adolescent girls belonged to rural area and 28% lives in urban area.
5. Majority 57% adolescent girls belonged to nuclear family and 43% to joint family.
6. Majority 56% of adolescent girls gained the information on Iron Deficiency anemia and its management from books and 10% from news paper.18% of adolescent girls gained the information from TV and 16% were from other source of information.

Section 2: Level of knowledge score among adolescent girls regarding iron deficiency anaemia and its management
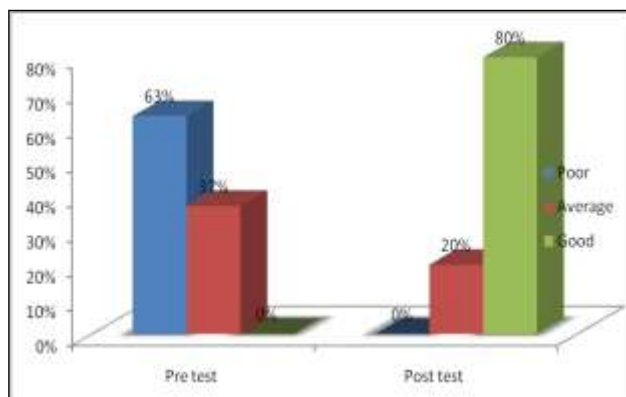
The knowledge level among adolescent girls in pre-test shows around 63% of adolescent girls had poor level of knowledge and none of the adolescent girls had poor knowledge in post test. When compared average level of knowledge in pre test it was 37% and 20% in post test. Whereas good level of knowledge in pre test was 0% and 80% in post test.

Fig 1 .Percentage distribution of knowledge score of the adolescent girls on iron deficiency anemia and its management.

Table. 1 The Comparison between total pretest and post test knowledge scores among adolescent girls on Iron deficiency anemia and its management.

N=100

Knowledge score	Mean	SD	t-value	Df	Level of significance
Pre test total	12.2	3.178	48.0	99	Significant
Post-test total	27.5	3.870			

Section 3 Effectiveness of planned teaching programme on pre-test and post-test knowledge scores among adolescent girls on Iron deficiency anemia and its management.

The mean Pre-test Knowledge score of the school adolescent girls was 12.2 with a standard deviation of 3.178, has increased to 27.5 with a Standard deviation 3.870 in post-test. The large SD indicates greater variability in the data where as smaller SD indicates less variability in the data. The paired t-test was computed to find the Effectiveness of Planned teaching programme on Knowledge regarding Iron deficiency anemia and its management. The calculated value of 't' test is 48.315 which is greater than the tabulated value of 't' with 99 degree of freedom i.e.1.98. It shows that the planned teaching programme was highly effective as there was a significant increase in the post-test knowledge scores among adolescent girls regarding Iron deficiency anemia and its management.

Section 4 Determine the Association between pre -test Knowledge score of adolescent girls with their selected demographic variable

The chi-square analysis was carried out to determine the association between Knowledge and demographic variables. There was a association between pre test knowledge and type of family but there were no association between Knowledge and Age, education, residence, dietary pattern, Family Monthly Income, and Source of Information. It was evident from results that adolescent girls was influenced by their type of family but they not influenced by their Age, education, residence, Dietary pattern, Family Monthly Income, and Source of Information. Hence, the research hypothesis (H2) was accepted for association of Knowledge with type of family and not accepted for any association with their remaining demographic variables.

Recommendations

Based on the findings of the study the following recommendations have been for further study:
1. Experimental study can be conducted to assess the effectiveness of nutrition intervention on anemia. This study can be replicated with different population on a large sample thereby generalizing the finding for a large population.
2. A similar study could be replicated on a sample with different demographic characteristics and with different techniques.

3. A survey study could be initiated to check the hospitalized anemic adolescents.
4. An interventional study could be conducted to improve the physical and psychological problems of adolescents due to severe anemia.

Conclusion

Nutritional education plays a role in improving knowledge of healthy nutrition and lifestyle choices. On the basis of the present study, the researcher concluded that "Planned Teaching Programme was regarding Iron deficiency anaemia and its management" to adolescent girls, who studying in government school was found effective as their level of knowledge was improved significantly. Researcher also discussed the iron deficiency anemia as an entity of concern among school adolescent girls. It is therefore, recommended that measures should be taken to promote awareness of iron deficiency anemia and develop a healthy culture among adolescents.

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