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A STUDY TO EVALUATE THE EFFECTIVENESS OF PLANNED TEACHING PROGRAMME (PTP) IN TERMS OF KNOWLEDGE REGARDING PREVENTION AND MANAGEMENT OF IRON DEFICIENCY ANEMIA AMONG ADOLESCENT GIRLS OF SELECTED ENGLISH MEDIUM SCHOOLS OF GANDHINAGAR, GUJARAT

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ABSTRACT

The study is conducted with the main objective of "assessing the knowledge gained regarding Prevention and Management of Iron Deficiency Anemia among adolescent girls before and after the administration of planned teaching programme. An extensive literature search keeping in mind the main objective, suggested a Conceptual framework based on a system model, a guide for development,utilization and evaluation. The research approach adopted for the study was Pre-Experimental with one group pretest and post-test design. The Planned teaching Programme was developed for enhancing the knowledge regarding Prevention and management of iron deficiency anemia under expert guidance of Vice Principal, Associate Professor and Assistant Professor of C. M. Patel College of Nursing, Gandhinagar. The Planned Teaching Programme was developed.

The study comprised of total 60 samples from Selected English medium schools of Gandhinagar, Gujarat through purposive non probability sampling (purposive technique) technique.

There was significant association with pre-test knowledge scores and selected demographic variables such as Type of Family and sources of information. Therefore education and sources of information were significant with knowledge of samples.

The range of score in pre test was 6-20 and post-test was 17-26 out of 26. Thus, findings of the study reveals that, The mean pre-test knowledge score of samples on Prevention and Management of Iron Deficiency Anemia was 14.22 where as post-test knowledge score was 22.98. thus, mean post test knowledge score was significantly higher than the mean pre test knowledge score with the mean difference of 7.78.

It revealed that the Planned Teaching Programme was effective in increasing knowledge among the Adolescent girls.

The study concludes that among all participants Knowledge deficit existed in all area of Prevention and Management of Iron Deficiency Anemia. The findings indicated that Planned Teaching Programme prepared by the Investigator was effective in enhancing the knowledge of the samples towards Prevention and Management of Iron Deficiency Anemia.

INTRODUCTION

Anemia is a condition in which the number of red blood cells or the amount of hemoglobin is low. Red blood cells contain hemoglobin protein that it enables them to carry oxygen from the lungs and deliver it to all parts of the body. When the number of red blood cells is reduced or the amount of hemoglobin in them is low, the blood cannot carry an adequate supply of oxygen. An inadequate supply of oxygen in the tissues produces the symptoms of anemia.

Even there are many blood disorders; Iron deficiency anemia is most prevalent nutritional disorders in the world today. Iron is a necessary mineral for body function and good health. Every red blood cell in the body contains iron in its hemoglobin, the pigment that carries oxygen to the tissues from the lungs. But a lack of iron in the blood can lead to iron-deficiency anemia, which is a very common nutritional deficiency in children& adolescents.

To avoid being the part of this statistics the best solution is the appropriate preventive measures. There are three possible interventions for the prevention of anemia. These include dietary diversification, food fortification and individual supplementation. Dietary diversification involves promotion of a diet with a wider variety of iron containing food.

Encouraging families with deficient iron intake to eat meat, fish, or poultry; whole or enriched grain; and foods high in ascorbic acid.

Need For The Study

According to WHO the adolescent period is from the age of 10 years to 19 years that is second decade of life. It can be distinguished as early adolescence, age 10-13 years; middle adolescence, ages 14-16 years, late adolescence, age 17-20 years. The period of youth is from 15 through 24 years. The adolescents and youth together are phased as young people (10-24 years). The world's adolescent population (age 10–19 years) is estimated to stand at more than 1 billion, yet adolescents remain a largely neglected, difficult-to-measure, and hard-to-reach population in which the needs of adolescent girls, in particular, are often ignored. This area of adolescent health has been difficult to study, and there are many unknown factors and consequences for iron deficiency during adolescence in terms of standards, measurement indicators and health consequences. According to the population bureau in 1996, 30 % of the total populations were that of adolescents (284.02 million). The adolescence is the period of relatively good health in spite of the storms and stresses of rapid physical growth, physiological changes, sexual and emotion growth and development.

OBJECTIVES OF THE STUDY

1. To assess the knowledge of adolescent girls in selected English medium School, Gandhinagar regarding prevention and management of iron deficiency anemia before and after the administration of planned teaching programme.
2. To assess the effectiveness of planned teaching Programme on prevention and management of iron deficiency anemia
3. To find the association between pre-test knowledge score with selected demographic variables.

Research Approach and Rationale

A Pre Experimental approach was used in the study to assess the effectiveness of a Planned Teaching Programme regarding Prevention and Management of Iron Deficiency Anemia among Adolescent girls of Selected English Medium Schools, Gandhinagar, Gujarat through Structured Knowledge Questionnaire.

Sample Sizeand Sampling Technique

Polite (2008) sampling is the process of selecting a portion of the population to represent the entire population. Researcher usually select sample from an accessible population rather than studying an entire target population.

Sample Size

Out of entire population selected 60 samples of Adolescent Girls in selected English Medium Schools, Gandhinagar, Gujarat.

Sampling Technique

The investigator has adopted Non probability Purposive sampling method to select the sample. The samples who met the criteria for sample selection were selected.

Criteria For Sample Selection

1. 60 adolescent girls in Selected English medium Schools, Gandhinagar
2. Adolescent girls who are studying in 11^{th} and 12^{th}
3. Adolescent Girls who are present at the time of the study in selected English Medium Schools Gandhinagar, Gujarat
4. Adolescent Girls who are willing to participate in the study

Descripition of The Tool

The Investigator has prepared a structured knowledge questionnaire to assess knowledge of sample on Prevention and Management of Iron Deficiency Anemia Tool was divided into 2 sections as follows:

Section –I

This tool was constructed by the investigator. It contained 9 items for obtaining information regarding Age, religion, type of family, stream, occupation of father and mother, Family income, resident, Source of Information of samples.

Section –II

Structured Knowledge Questionnaire consisted of total 26 multiple choice items and each item carries one mark. Total items were 26 and total maximum score was 26 Blue print was prepared according to the content area as well as level of cognitive domain, Knowledge, Comprehension and Application Out of 26 items, 15 (58%) falls in to knowledge aspects, 7 (27%) lie into comprehension whereas 4(15%) belongs to application aspects. The answer key for Structured Knowledge Questionnaire was prepared by Investigator.

Table: Blue Print of Knowledge Assessment Tool.

Content Area	QUESTION NO			Max. score	Total %
	Knowledge (Item No)	Comprehension (Item No)	Application (Item No)		
Introduction	2, 3, 4, 6, 7	1, 5	-	7	27%
Risk group & causes	8, 9	-	-	2	7%
Sign, Symptoms & Diagnostic test	10, 12	11	-	3	12%
Treatment and prevention	15, 17, 21, 22, 24, 26	18, 19, 20, 25	13, 14, 16, 23	14	54%
Total	**15**	**7**	**4**	**26**	
Percentage	**58%**	**27%**	**15%**		**100%**

Based on the objectives, an extensive search for literature was made to determine and develop the conceptual framework and methodology for the study. Conceptual framework was based on a system model, a guide for development, utilization and evaluation.

The research approach adopted for the study was Pre-Experimental with one group pretest and post-test design. The study was conducted in selected English medium schools of Gandhinagar, Gujarat. Planned Teaching Programme was developed on Prevention and Management of Iron Deficiency Anemia. The Planned teaching Programme was developed under expert guidance of Vice Principal, Associate Professor and Asistant Professor of C. M. Patel College of Nursing, Gandhinagar. The Planned Teaching Programme was developed for enhancing the knowledge regarding Prevention and management of iron deficiency anemia.

The study comprised of total 60 samples selected from Selected English medium schools of Gandhinagar, Gujarat through purposive non probability sampling (purposive technique) technique. The instrument used for collecting necessary data were Structured Knowledge Questionnaire assess knowledge of the Adolescent girls on Prevention and Management of Iron Deficiency Anemia.

The investigator collected data by establishing rapport with the subject and ensuring confidentiality of their response.

The data were analyzed and interpreted in terms of objectives of the study. Descriptive and inferential statistics were utilized for the data analysis.

Major Findings of The Study

The data were analyzed and interpreted in terms of objectives of the study. Descriptive and inferential statistics were utilized for the data analysis. Data were organized and presented in following manner: Findings on description of personal data of samples and Knowledge of samples.

Finding Related to The Demographic Variables of Samples

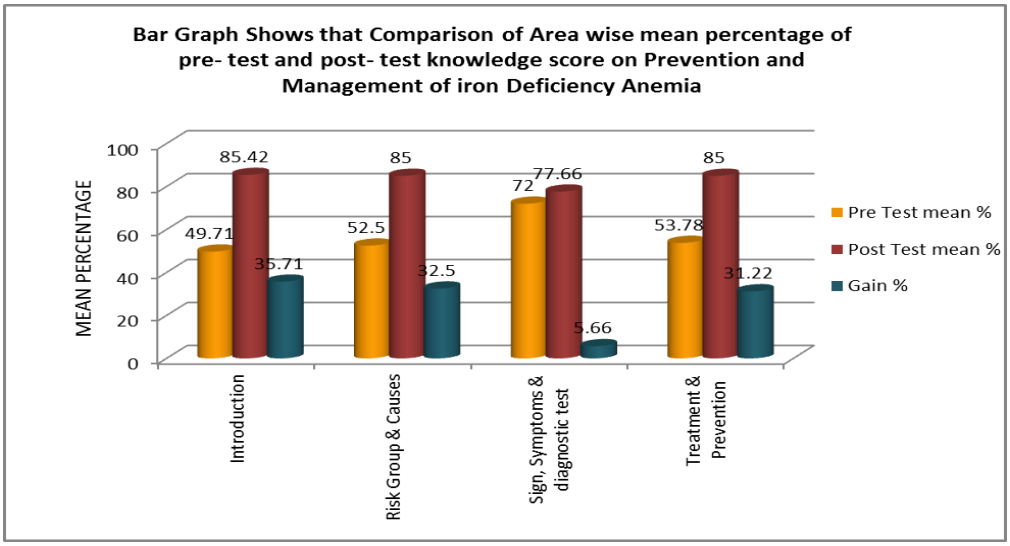
1. In the age, majority of 42(70%) samples were in the age group of 16 years, 18(30%) samples were belongs to 17 years and no sample 0(0%) belongs to 18 years.
2. In religion all the 60(100%) sample were belongs to hindu.
3. In the type of family, majority of 36 (60%) samples were belongs to nuclear family, 24(40%) samples were belongs to joint family and no one was belongs to extended family.
4. In stream highest 51(85%) samples were belongs to science and very less 9(15%) samples were belongs to general.
5. In Occupation of father, majority of 37(61.66%) samples' father were in Professional occupation, 22(36.66%) sample's father were self employed and very less 1(1.66%) sample's father was labrore and no one's father was farmer.
6. In Occupation of mother, majority of 42(70%) samples' mother were housewife, some 9(15%) sample's mother were self employed, 8(13.33%) sample's mother were in Professional occupation and very less 1(1.66%) sample's mother was laborer.
7. In Family income per month, highest 38 (63.33%) samples had belong to > `15000/-, 14(23.33%) are having up to `10001- `15000/- and very less 6 (10%) belong to `5000- `10,000/-.
8. In resident, majority of 141 (68.33%) samples were belongs to urban area and less 19 (31.66%) samples were belongs to rural area.
9. In Sources of information, 38 (63.3%) samples get the information from family and friends, 15 (25%) samples get the information from mass media, 7 (11.66%) samples get information from any other.

Area-wise Mean, Mean Percentage, Mean Difference, Percentage Gain of Knowledge Score of Samples on Prevention and Management of Iron Deficiency Anemia [N= 60].

Areas	Maximum score	Pre test			Post test			% Gain	Calculated "t" value	Mean difference
		Mean score	Mean %	SD	Mean score	Mean %	SD			
Introduction	7	3.48	49.71	1.03	5.98	85.42	1.18	35.71	12.63	2.5
Risk Group & Causes	2	1.05	52.5	0.67	1.7	85	0.67	32.5	5.01	0.65
Sign, Symptoms & Diagnostic Test	3	2.16	72	0.54	2.33	77.66	0.74	5.66	1.24	0.17
Treatment and Prevention	14	7.53	53.78	2.18	11.91	85	1.45	31.22	15.42	4.46
TOTAL	**26**	**14.22**		**2.7**	**21.92**		**2.49**			**7.78**

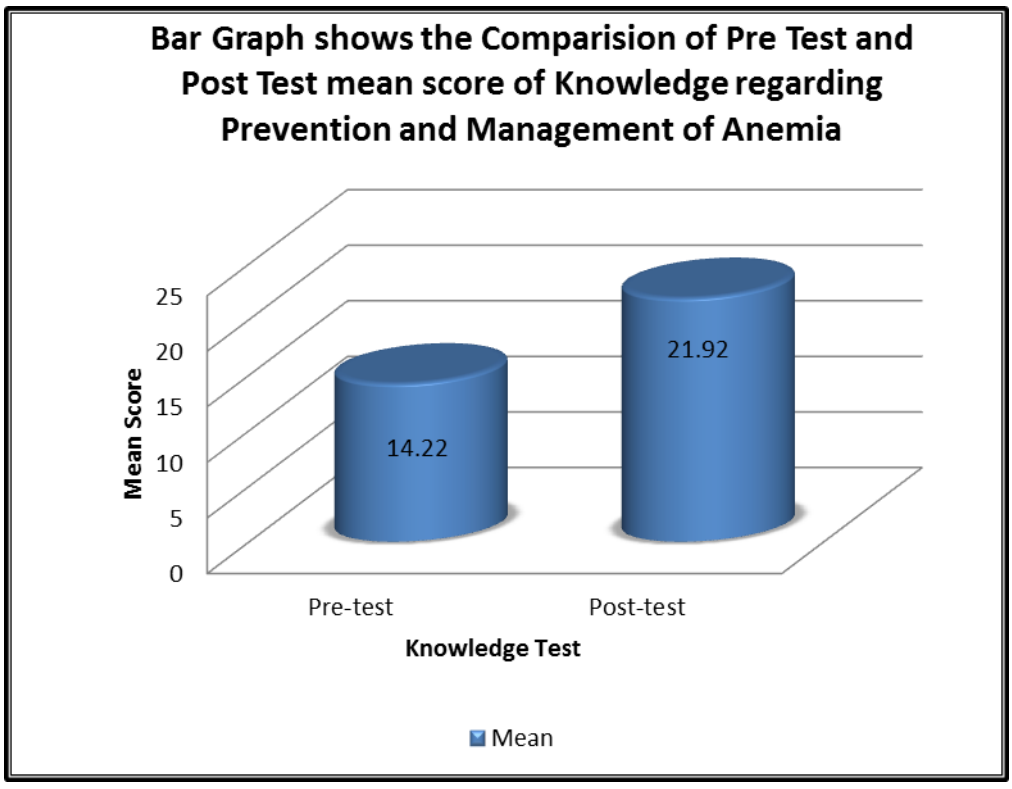
(**=% of post test knowledge score - % of pre test knowledge score)

10. The Data presented in above table 4.2 shows the comparison between pre-test knowledge score and post- test knowledge score obtained by sample regarding prevention and management of iron deficiency in all area.
11. The mean percentage gain in each area was computed. Area wise mean percentage in each area was computed.
12. There was maximum gain of knowledge in 'Introduction' area. In Introduction area mean percentages of pre –test was 49.71% and mean percentage of post-test was 85.42%. it indicates that the 35.71% gain in this area. It is the highest gain. Contrast to this, there was minimum gain in the area 'Sign, Symptoms & Diagnostic test'. In this area mean percentage of pre-test was 72% and mean percentage of post-test was 77.66%. it indicates that the 5.66% gain in this area.
13. Furthermore, there was 32.5% and 31.22% gain in 'Risk Group & Causes' and 'Treatment and prevention'. Hence they are 2nd and 3rd in gain after the Introduction. There was approximately equal gain in Risk Group & Causes and Treatment and prevention. It was 32.5% and 31.22% respectively compare to other areas.
14. Table revels that there was knowledge gain in all areas which indicates the effectiveness of the study in terms of prevention and management of iron deficiency in all area.



Findings Related To Knowledge of Sample Regarding Prevention And Management Of Iron Deficiency Anemia

1. The mean pre-test knowledge score of samples on Prevention and Management of Iron Deficiency Anemia was 14.22 where as post-test knowledge score was 22.98. The mean post test knowledge score was significantly higher than the me1an pre test knowledge score with the mean difference of 7.78.
2. The range of score in pre test was 6-20 and post-test was 17-26 out of 26.
3. Sample gain highest 35.71% in area of introduction.



It revealed that the Planned Teaching Programme was effective in increasing knowledge among the Adolescent girls.

Association with Pre Test Knowledge Scores Of Sample Regarding Prevention And Management Of Iron Deficiency Anemia And Selected Demographic Variables

The findings of the study reveals that there was significant association with pre-test knowledge scores and selected demographic variables such as Type of Family and sources of information Therefore education and sources of information were significant with knowledge of samples.

CONCLUSIONS

Findings leads to the major conclusion are following:

Knowledge deficit existed in all area of Prevention and Management of Iron Deficiency Anemia.

The findings indicated that Planned Teaching Programme prepared by the Investigator was effective in enhancing the knowledge of the samples towards Prevention and Management of Iron Deficiency Anemia.

Implications and Utilizations

Health is an individual responsibility. Primary health care emphasizes the development of self-care abilities. The present study, making Adolescent girls aware of and help them to gain knowledge regarding Prevention and Management of Iron Deficiency Anemia.

The findings of the study have several implications in the Nursing Practice, Nursing Education, Nursing Administration and Nursing Research.

Nursing Practice

In the Prevention and Management of Iron Deficiency Anemia nurses plays a vital role. The findings of study reveal that Adolescent girls have lack knowledge regarding Prevention and Management of Iron Deficiency Anemia. The study finding can be used to bring out awareness among the Adolescent girls regarding the need for developing knowledge for improving amount of Iron in Adolescent girls, Nurses may give the health education, dietary recommendations to Adolescent girls regarding Prevention and Management of Iron Deficiency Anemia. The head nurses or public health nurse can also develop a clinical

teaching programme for nurses regarding Prevention and Management of Iron Deficiency Anemia.

Nursing Education

Today demands of consumers are quality assurance care. Every prof ession has to satisfy this demand and nursing is no exception to it. Only through standard education can there be a standard practice. The result of the study can be used by nursing teacher, nurses and nursing student. As an informative illustration. Nursing students and working nurses should be taught about the recent advancement related to Prevention and Management of Iron Deficiency Anemia. Within the scope of the curriculum, the learning experience should provide opportunities to the students, to plan and prepare health education materials on Prevention and Management of Iron Deficiency Anemia.

Nursing Administration

The findings of the study reveal the need to conduct an ongoing In Service Education Programme for the nurses who are working in Hospital, PHC, CHC OR SC. The "In service education programme" should include both theoretical and practical input. This can also bring awareness among nurses. Administrators need to provide training to new nurses regarding Prevention and Management of Iron Deficiency Anemia.

The appropriate policy or act should be made to prevent Anemia which is prevalent because of Iron deficiencies in Iron Deficiency Anemia.

Nursing Research

There is need to conduct further research in India in the field of Prevention and Management of Iron Deficiency Anemia for Adolescent girls. This is needed to bring out the facts which emphases the need and the extent of ignorance about complications and untreated Iron Deficiency Anemia.

The result of the study contributes to the body of Knowledge of nursing. In future, the Investigators can use the findings and the methodology as reference material. It highlights the areas that require future exploration. Other researchers can conduct further studies in the same field and can utilize the suggestions and recommendations.

There is need to include training programmes, so that the Nurses will have adequate knowledge and facilities to attend the Adolescent girls with Iron Deficiency Anemia well in advanced.

Recommendations

The following recommendations are made on the basis of the findings of the present study.

1. A similar study can be replicated on a large sample covering the different State of India. So that findings can be generalized for a large population.
2. A similar study can be conducted on antenatal women or children.
3. A study can be conducted to assess the knowledge of antenatal women regarding Iron Deficiency Anemia in selected rural and urban areas of Gandhinagar, Gujarat.
4. A comparative study can be conducted in order to compare the knowledge regarding Prevention and Management of Iron Deficiency Anemia in between experimental group and control group of samples.
5. A study can be conducted by using other teaching strategies.
6. A survey can be conducted on assess knowledge of adolescent girls regarding Prevention and Management of Iron Deficiency Anemia with a view to develop information booklet.
7. A survey can be conducted to assess Iron status of adolescent girls from different schools of Gandhinagar, Gujarat state.
8. A true experimental study may be carried out to standardize the planned teaching programme.

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