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Nursing

A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE REGARDING IMPORTANCE OF IRON SUPPLEMENTS AMONG ADOLESCENT GIRLS

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ABSTRACT The present study was aim to assess the effectiveness of structured teaching programme on knowledge regarding the importance of iron supplements among adolescent girls at Govt. H.S.S., Balaramapuram. The objectives of the study were to assess the level of knowledge regarding importance of iron supplements, to assess the effectiveness of STP on knowledge regarding importance of iron supplements, to find the association between pre-test knowledge with selected demographic variables. The sample consisted of thirty adolescent girls at Govt. HSS, Balaramapuram, Chosen by convenient sampling technique. The data was obtained by using demographic variables and questionnaire. The data was analyzed by descriptive and inferential statistics. The mean value is 11.87. The result of the study revealed that there is a good knowledge regarding the importance of iron supplements among adolescent girls after STP. No significant association found between level of knowledge and demographic variables. The study concluded that the STP is more in improving the knowledge regarding the importance of iron supplements among adolescent girls at Govt. HSS, Balaramapuram.

INTRODUCTION

Iron is a mineral that is naturally present in many foods, added to some food products and available as a dietary supplement. Iron is an essential component of hemoglobin, an erythrocyte protein that transfers O_2 from lungs to the tissues. As a component of myoglobin, a protein that provides oxygen to muscles and support metabolism. Iron is also necessary for growth and development, normal cell functioning and synthesis of some hormones and connective tissues.

Adolescence, the time period between 10-19yrs of age is characterized by rapid growth and development. It is a period in the human life cycle when up to 45% of skeletal growth and 15% to 20% of adult height is achieved and up to 37% of total bone mass is accumulated. Such remarkable physical growth and development significantly increases the macro and micro nutrients needs of adolescents. Amongst the common nutrient deficiencies commonly observed in adolescent girls is iron deficiency. Adolescent girls from the developing world are prone to get iron deficiency because of an accelerated increase in one requirements for iron due to rapid potential growth with sharp increase in lean body mass, blood volume and red cell mass, which increases iron needs for myoglobin in muscles and haemoglobin in the blood. Low dietary intake of iron and poor bioavailability of iron consumed against significant increase in the requirements, leads to high rate of infection and worm infection.

Adolescence is an important period of nutritional vulnerability due to increased dietary requirements for growth and development. Iron needs are elevated as a result of intensive growth and muscular development, which implies an increase in blood volume; thus, it is extremely important for the adolescent's iron requirement to be met. Diet, therefore, must provide enough iron and, moreover, nutrients producing adequate iron bio availability to favor element utilization and thus be sufficient for needs at this stage of life. Currently, many adolescents consume monotonous and unbalanced diet which may limit mineral intake and or bioavailability, leading to iron deficiency and, consequently, to ferropenic anemia, a nutritional deficit of worldwide prevalence. Iron deficiency, apart from provoking important physiological functions, can adversely affect adolescence cognitive ability and behavior. Accordingly, promoting the consumption of a varied, adjusted and balanced diet by adolescence will facilitate iron utilization, benefiting their health both at present and in adulthood.

Need For The Study

Worldwide, the prevalence of anemia is high in non industrialized nations where prevalence is 3 to 4 ones higher than developed countries. Africa, Eastern Europe and Western Pacific have a large burden of disease. With over 1 billion people on the regions estimated to be anemia. That said anemia in South Asia is more prevalent than other regions in the world, with nearly 800 million affected. While the prevalence of iron deficiency among women and children in the developed countries is lower when compared to developing countries, a high prevalence is still reported in high risk groups of preschool aged children and pregnant women.

The estimated prevalence of anemia in developing countries is 39% in children<5 yrs, 98% in children 5-14 yrs, 42% in women 15-59 yrs, and 48% in adults>60 yrs. These staggering figures have important economic and health consequences follow and middle income countries.

MATERIALS AND METHODS

The Research approach adopted was quantitative evaluative approach and the design selected for this study is pre experimental design, one group pre-test post-test design. This study was conducted in Government H.S.S. Balaramapuram. Convenient sampling technique was used for the study. Written permission is obtained from the principal, Government H.S.S. Balaramapuram School and informed consent was obtained from each sample. Pre-test was conducted by using structured interview questionnaire. On the same day after pre-test assessment the STP was given by investigator using power point presentation. After pre-test, the investigator informed the time of post-test interview schedule. After 7 days post-test was conducted using same structured interview questionnaire.

RESULTS

Section 1: Frequency And Percentage Distribution Of Demographic Variables Among Adolescent Girls. N=30

SL NO	Demographic variables	Frequency(n)	Percentage(%)
1	Age 14years	30	100
2	Religion Hindu Muslim Christian	10 18 2	33 60 6
3	Residence Urban Rural	7 23	23 77

4	Types of family		
	Joint	9	30
	Nuclear	21	70
5	Dietary pattern		
	Vegetarian	5	16
	Non vegeterian	25	83
6	Educational status of parents	17	56
	Primary education	5	17
	High school	5	17
	Higher secondary college	3	10

a) Majority of samples belongs to the age group 14 years (100%) and there is no other age group
b) Majority of the samples are Muslim (60%) and minority of the samples are Christians (6%)
c) Majority of the samples are from rural (77%) and minority of the samples are from urban (23%)
d) Majority of the samples are from nuclear family (70%) and minority of the samples are from joint family (30%)
e) Majority of the samples are taking non vegetarian diet (83%) and minority of the samples are taking vegetarian diet (16%)
f) 56% samples have an educational qualification of primary education and 10% of the samples have an educational qualification of college.

Section 2: Frequency And Percentage Distribution Of Pre-test And Post-test Score Of Level Of Knowledge Regarding Importance Of Iron Supplements Among Adolescent Girls.
In pre-test 3% sample have poor knowledge, 24% samples having average knowledge, 63% samples having good knowledge, 10% samples having very good knowledge and no one have excellent knowledge. On post-test 7% samples have poor knowledge, 7% samples have average knowledge, 56% samples have good knowledge, 23% samples have very good knowledge, 7% samples have excellent knowledge.

Section 3: Comparison Of Pre-test And Post-test Knowledge On The Importance Of Iron Supplements Among Adolescent Girls.
The mean knowledge score pre-test was 11.87 with standard deviation 3.28. In post-test the mean score was 13.3 with standard deviation of 4.48. Thus the difference in level of knowledge was confirmed by paired t test value (2.78) and the result were found to be significant with p value (0.01). These findings indicated that the structured teaching programme is more effective in improving the knowledge level.

DISCUSSION
The present study was focused on to assess the effectiveness of structured teaching programme on the importance of iron supplements among adolescent girls from the study it was revealed that in pre-test majority of the samples (63%) have good level of knowledge regarding the importance of iron supplements among adolescent girl. In post-test majority of the samples (24%) have average level of knowledge regarding the importance of iron supplements among adolescent girls.

CONCLUSION
Assessment level of knowledge regarding the importance of iron supplements among adolescent girls exhibited that there is an effectiveness of structured teaching programme on the importance of iron supplements among adolescent girls. In pre-test majority of the samples (63%) have good level of knowledge regarding the importance of iron supplements among adolescent girl. In post-test majority of the samples (24%) have average level of knowledge regarding the importance of iron supplements among adolescent girls.

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