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RESEARCH ARTICLE

# A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED NURSING INTERVENTION ON KNOWLEDGE REGARDING PREVENTION OF ANAEMIA AMONG ADOLESCENT GIRLS IN SELECTED HIGH SCHOOLS OF RAJKOT CITY.

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**ABSTRACT**

Adolescent account for 1/5th of world's population and in India they account for 22.80% of total population (WHO). India continues to be one of the countries with very high prevalence of anaemia to be 70-80% in children, 70% in pregnant women and 24% in adult men.

The prevalence of anaemia is high in developing countries because of poverty, parasitism and malnourishment. It is high in India owing to low dietary intake, poor bioavailability of iron and chronic blood loss like that due to menstruation, recurrent abortions, multiple pregnancies and deliveries.

Adolescents have increased nutritional requirements demanding diet rich in protein, vitamins, calcium, iodine, phosphorus and iron due to rapid growth spurt and increased physical activity. NFHS-3 data shows in the age group 15-19 yrs, 56% girls and 30% boys were found to be anaemic.

The nutritional anaemia in this group attributes to high MMR, high incidence of low - birth weight babies, high prenatal mortality and fetal wastage and consequent high fertility rates. This phase of life is also important due to the ever increasing evidence that control of anaemia in pregnant women may be more easily achieved if satisfactory iron status can be ensured during adolescence.



## Introduction

Health is a state of complete mental, physical, Social and spiritual wellbeing & not merely the absence of disease or infirmity (WHO). Lord Buddha mentioned in his famous writing that "Health is the greatest gift, contentment the greatest wealth, faithfulness the best relationship. 'Health is not valued till sickness comes (Thomas Fuller).

Adolescent has been defined by the WHO as period of life spanning the age between 10-19yrs.The state of process of maturity a stage of development prior to maturity. Adolescent describes the teenage years between 13 & 19 and can be considered the transitional stage from childhood to adulthood.

World interest in adolescent health issues has grown dramatically in the past decade beginning with the international Year of Youth in 1985 and the World Health Assembly in 1989, when discussions were focused on the health of youth

## Statement of the Problem

A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED NURSING INTERVENTION ON KNOWLEDGE REGARDING PREVENTION OF ANAEMIA AMONG ADOLESCENT GIRLS IN SELECTED HIGH SCHOOLS OF RAJKOT CITY.

## Objectives of the study

1. To assess the pre test knowledge regarding prevention of anaemia among adolescent girls.
2. To impart structured nursing intervention regarding prevention of anaemia in adolescent girls.
3. To evaluate the post test knowledge regarding prevention of anaemia among the adolescent girls.
4. To assess the effectiveness of structured nursing intervention on knowledge regarding prevention of anaemia among the adolescent girls.
5. To find the association between pre test knowledge and selecting socio demographic variables

## Assumptions

Adolescent girls may have some knowledge regarding prevention of anemia..

## Hypotheses

H0 :- There will not be any significant change in the knowledge score of the adolescents regarding prevention of anaemia.

H1:- There will be significant difference between pre test and post test scores of the students on the knowledge regarding prevention of Anemia.

## Conceptual framework

Conceptual framework means interrelated concepts or abstractions that are assembled together in some rational scheme by virtue of their relevance to a common theme. The conceptual framework represents a less formal attempt at organizing the building blocks and provides a conceptual perspective. The conceptual framework of this study was based on modified rosenstock's health belief model. This model comprises of 3 components: 1. Individual perceptions 2. Modifying factors 3. Likelihood of actions The description of each component according to the theorist is as follows.

Methodology

Research Approach: quantitative research approach

Research Design : Pre Experimental (One group-pre test-post test design)

Research method : -

Research setting : selected high schools of Rajkot city.

Variables :

Independent: Structured Teaching Programme

Dependent: In this study knowledge regarding prevention of anaemia is the dependent variable.

Research population : Adolescent girls between age group 11-16 years

Target population : . Adolescent girls (11-16 yrs) of selected school

Sample size : 80

Sampling Technique : Non probability convenience Sampling Technique

Selection Criteria for Samples:

Inclusion criteria: •Adolescent girls who are willing to participate n the study. •Adolescent girls between 11-16 years of age. • Who can understand Gujarati.

**Exclusion criteria :**

Adolescent having physical problems such as sickle cell anaemia, irregular menstrual cycle.

## Description of the tool

**Section I:** The researcher prepared a self structured questionnaire as a tool for the study. The self structured questionnaire includes….

his section includes items seeking information SECTION: on demographic profile of sample such s Age, education, family income, type of family, number of siblings, religion, type of diet & g iron deficiency anemia. Researcher should not consider whether a test is valid t i s medical surgical lecturer, one gynae lecturer. om a iron supplements.

**Section II:**

This section includes self structured questionnaires for the adolescent girls to assess the knowledge regarding iron deficiency anemia.

## Results

Major findings of the study were as below:

**Section 1:**

Description of samples according to demographic characteristics by frequency and percentage.

Majority (61.25%) of the adolescents girls who were sample of this study beloged to the group of 14-16 years,(36.25%) were in the group of 12-14 years, only (2.5%) were in the age group of 16-18 years. Most (52.5%) adolescents girls were from the 9th standard while (47.5%) of them were from 8th standard. Majority of the sample (60%) belonged to income group 5001-10000rs. Per month, (20%) were belonged to income group of below 5000rs per month,(11.25%) were belong to income group of 10001-15000rs per month only (8.75%) were belonging to income group of above 15001rs. Per month. Majority (48.75%) of the family are joint family, (30%) families are single parent, (20%) families are nuclear family, only (1.25%) families are extended family. Most (42.5%) of the adolescents had two siblings, (38.75%0 of girls had one sibling, (13.75%) of girls had more than two siblings, while only (5%) of the girls had no siblings. Most (93.75%) families are hindu where only (6.25%) families are muslim. Most (92.5%) preferred vegetarian, (7.5%) of them were nonvegetarian, most (81.25%) adolescent girls are taken iron supplements were (18.75%) girls are not taken iron supplements.

**Section II:**

Analysis of data related to the effectiveness of structured nursing intervention on the knowledge of adolescent girls regarding prevention anemia.

In post test, majority (68.75%) of the adolescent girls had excellent knowledge (score 16-20) regarding anemia and (31.25%) of them had very good knowledge (score 11-15) regarding anemia and its prevention.

**Section III:**

Analysis of data related to knowledge of adolescent girls regarding prevention of anaemia.

In post test, majority (68.75%) of the adolescent girls had excellent knowledge (score 16-20) regarding anaemia and (31.25%) of them had very good knowledge (score 11-15) regarding anemia and its prevention.

**Section IV:** Analysis of data related to the comparison between the pre test knowledge and post test knowledge in the adolescent girls regarding prevention of anemia.

**Section v:**

Analysis of data related to the association between knowledge and demographic variables of adolescent girls. The p-value corresponding to education was small at 0.001, hence the null

hypothesis is rejected. There is significant difference between the average value of pre test and post test knowledge related to prevention of anemia in the adolescent girls, these gives and interpretation that there is a significant gain in the knowledge score of the samples in the post test phase.

## Discussion

Anemia is found to be a mild public health problem in the study groups. The findings of the study have been discussed with reference to the objectives and hypothesis. Socio economic and geographical variation may be the reasons for different prevalence of anemia in adolescent girl across countries. Using different cutoff points for anemia may also resulted varied prevalence of anemia. This study was conducted to assess the prevalence of anemia among adolescent girls between 12-18 years of age and the result found was majority girls had knowledge regarding the anemia. this statical analysis for association results highly significant. The knowledge score of the samples shows a marked increase as seen in the post test score of the experimental group, which indicate that the structured nursing intervention is effective in increasing the knowledge of the samples regarding anemia in adolescent girls. Age wise, (61.25%) of the adolescents girls who were sample of this study belonged to the group of 14 -16 years,(36.25%) were in the group of 12-14 years, only (2.5%) were in the age group of 16-18 years. In this study standard wise (52.5%) adolescents girls were from the 9th standard while (47.5%) of them were from 8th standard. Majority of the sample (60%) belonged to income group 5001-10000rs. Per month, (20%) were belonged to income group of below 5000rs per month,(11.25%) were belong to income group of 10001-15000rs per month only (8.75%) were belonging to income group of above 15001rs. Per month. According to type of family Majority (48.75%) of the family are joint family, (30%) families are single parent, (20%) families are nuclear family, only (1.25%) families are extended family. Most (42.5%) of the adolescents had two siblings, (38.75%0 of girls had one sibling, (13.75%) of girls had more than two siblings, while only (5%) of the girls had no siblings. Most (93.75%) families are hindu where only (6.25%) families are Muslim.

## Nursing Implications

⇒ Nursing practice The study reveals that there is need for motivation and education of adolescent girls on anaemia and it's prevention. This study stresses that there is a need to involve teaching staffs in planning and conducting programs related to prevention of anemia for the girls attending high schools.

⇒ The study revealed that there is a lack of knowledge in adolescent girls regarding anemia. The major implication of the study in nursing education is to enhance the knowledge level of adolescent girls regarding anemia. Nurse educators should give more importance to anemia and it's prevention in the curriculum as they deal with adolescent students, who are future nurses and need to have adequate knowledge in educating and preventing the community from anemia.

⇒ Nursing administration plays a vital role in nursing practice, to bring about any change in nursing, the administration should take the responsibility and take up the challenge, which will improve the standard of nursing practice.

## Nursing Research

The study has already revealed that there is a lack of knowledge among adolescent girls in selected schools of Rajkot city regarding anemia and its prevention and there was a remarkable improvement in the knowledge of adolescent girls regarding prevention of anemia after structured nursing intervention. Intervention in caring for patients are purely nursing interventions, where more research can be carried out on patient satisfction.

## Recommendations:

⇒ A similar study needs to be conducted in many other schools and colleges in order to strengthen the findings.

⇒ The similar study can be replicated on a large sample for the generalization.

⇒ A teaching program for the teachers about the consequences of anemia and its prevention in campus must be periodically done to enhance their knowledge.

⇒ Further research can be carried out on treatment modalities and preventive measures of anemia in adolescent girls.

⇒ The similar study can be replicated on adolescent girls having anemia.

## Limitations:

⇒ The study is confined to adolescent girls attending high school of Rajkot city.

⇒ Adolescent girls in the age group of 12-18 years

⇒ The study was school based and the result of this study are representative of school going adolescent girls but not necessarily representative of all the girls in this age group in the study area. Hence, the external validity of the study is limited.

⇒ Socio demographic information was obtained from the students, which was not validated by visiting their houses. Hence, conclusion drown from socio economic variables should be drown cautiously.

**Conclusion:** The various findings of the study show that the knowledge regarding anemia in adolescent girls has been improved through structured nursing intervention. There is an association between the knowledge level and variables such as age, Education, family income, type of family, no. of siblings, religion, type of diet, iron supplement. This study has also proved that structured nursing intervention improves knowledge and helps to manage the anemic problems in adolescent girls.

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