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A DESCRIPTIVE STUDY TO ASSESS THE KNOWLEDGE ON PREVENTION OF ANEMIA AMONG SELECTED COLLEGE STUDENTS AT MALAPPURAM DISTRICT

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Abstract :

The present study was conducted to assess the "knowledge on prevention of anemia among selected college students at Malappuram district". Objectives: Assess the existing level of knowledge on prevention of anemia among college students, Find the association between knowledge on prevention of anemia among college students and selected demographic variables. Methodology: Quantitative approach was used and the study design was a Non Experimental Descriptive Study Design. In this study , sample were the college students who are studying in various colleges at Malappuram. The sample size was 100. The study samples were selected by non probability convenient sampling technique. Demographic data included with age, gender, course of study, family income, religion, area of residence and source of information used as tool-1 and a structured knowledge questionnaire related to prevention of anemia used as tool-2. Based on the questionnaire the knowledge score was arbitrarily classified into 3 groups as poor (0-6), average (7- 13), Good (14-20).Pilot study was conducted among college students at Al Shifa college of nursing among 10 samples. Main study was conducted on Al Shifa college of paramedical students with sample size of 100. The data obtained were analyzed on the basis of objective of the study using descriptive and inferential statistics. Result : The study findings revealed that the mean level of knowledge score was 9.44 with standard deviation 2.972. Conclusion: There was no association between selected demographic variables like age, gender, family income, religion and place of residence. Result also revealed that there was a significant association between the level of knowledge of college students and source of information.

Key words: Assess, Knowledge ,Prevention of anemia ,College students, Colleges BSc nursing students.

INTRODUCTION

Anemia is a major public health problem in the world wide and it affects young children and pregnant women. WHO estimates that 42% of children less than 5 years of age and 40% of pregnant women worldwide are anemic. Although pregnant reproductive women and young children are most susceptible. which may increase the risk of impaired cognitive and physical development and increased morality and morbidity rate.[2] Anemia, according to the World Health Organization (WHO) criteria, is defined as a hemoglobin concentration <13.0 g/dL (8.0 mmol/L) in adult men and <12.0 g/dL (7.5 mmol/L) in adult, non-pregnant women. It is a prevalent condition with many diverse causes such as blood loss, impaired production of erythrocytes, or increased destruction of erythrocytes . Because RBCs transport oxygen (O2), erythrocyte disorders can lead to tissue hypoxia. This hypoxia accounts for many of the signs and symptoms of anemia. Anemia is not a specific disease. It is a manifestation of a pathological process.[3] Most anemia cannot be prevented. However, iron- deficiency and vitamin deficiency anemia can be prevented by consuming the right diet, about which a dietician can guide you well. Sources of iron include red meat, dark-green leafy vegetables, beans and lentils, dried- fruits and iron-fortified cereals. Folate /Folic acid: Sources include dark-green leafy vegetables, whole fruits or fruit juices, kidney beans, green peas, peanuts and fortified products such as bread, cereal, pasta and rice. Sources of vitamin B 12 include dairy products, meat, soy products and fortified cereal. Sources of vitamin C include all citrus fruits whole or juiced, strawberries, peppers, broccoli, melons and tomatoes. All of these help the body to absorb iron better.[4] The prevalence of anemia increases with age and in the hospital settings. Anemia decrease the capacity for worth and increases health care costs.[7] Hemoglobin is an iron containing pigment in red blood cells which carry oxygen to tissues. Iron is one of the ingredient that the body need to make hemoglobin and we get iron from the food we eat. Low hemoglobin level is defined as a reduced number of red blood cells and subsequently their oxygen carrying capacity is insufficient to meet physiologic needs. Through most commonly diagnosed by low hemoglobin concentration or a low hematocrit, low hemoglobin can also be

diagnosed using red blood cells count, Mean corpuscular volume, Blood reticulocyte count, Blood film analysis, or hemoglobin electrophoresis.[6] At the population level and the clinical practice hemoglobin concentration are the most common hematological assessment used to define low hemoglobin. The critical role of hemoglobin is to carry oxygen to the tissues. Most common clinical symptom of low hemoglobin, Includes fatigue, shortness breath, bounding pulse, palpitations and conjunctival and planar pallor. clinical signs and medical history are used to diagnose low hemoglobin when hematological data are unavailable, but they are limited in their ability to detect low hemoglobin.[6] Despite its multi factorial etiology, anemia might be (iron, folic acid and vitamin B12) inherited (thalassemia and sickle cell) environment or pollutants (lead), infectious (malaria), socioeconomic (low maternal level of education and low household income), demographic factors (age and gender) autoimmune (hemolytic anemia), malabsorption (achlorhydria) and Cancer.[7] Iron deficiency anemia is the most common cause of anemia recent analysis by WHO on global anemia prevalence between 1995 and 2016 using popular representative data on preschool children and women of reproductive age from 257 sources representing 107 countries.[8] Anemia is associated with low work capacity, a poor pregnancy outcome as well as lasting effects on learning and cognitive functions, attention behavior, health and growth until today. Iron deficiency anemia is still the most prevalent and common type of Iron deficiency in the developing countries, which result from long term negative iron imbalance. The prevalence of iron deficiency anemia is higher in less developed countries as compared to developed countries. Although the diagnosis of iron deficiency is relative simple, it may go unnoticed for a long time due to its non specific clinical signs.[9] Since adolescence and adults are among the population groups who are most affected by it. The present study was conducted to assess the knowledge on prevention of anemia among college students. Need of normal hemoglobin level among the college students is essential to maintain normal physical and mental function

NEED AND SIGNIFICANCE:

Low hemoglobin level is considered as a major public health problem in developing countries as well as developed countries affecting quality of life and work capacity of large population throughout the world. It is being observed that prevalence of anemia is more in students of both the gender due to several factors like improper nutrition intakes, socio economic background etc.[10]The low hemoglobin level is considered a major public health problem in Yemen. The cross sectional study was conducted to determine prevalence and risk factors of Iron deficiency anemia among apparently healthy Yemen students at Hodeida university. The overall prevalence of iron deficiency anemia was 30.4% of 54.00% were females and 46.0%were males. Students aged 20- 22 years were found more anemic with prevalence of 59.2% than students aged 17-19 years .This study revealed that the Majority of University student ,especially females have iron deficiency anemia that that might become worse by malnutrition lifestyle habits and lack of awareness .[11] Among the study subjects which was conducted among health science students of a university in South India ,43% had anemia as per the WHO criteria. There was a significant preponderances of female students with as compared to male. When assessed by WHO criteria of anemia severity. Majority of anemia subjects had mild anemia and only less than two percentage had severe anemia.[12] Low hemoglobin is a nutritional disorder world wide. According to WHO adolescent age group is defined as life span between 10-19 years .In India ,the prevalence of anemia among adolescent girls were 56% and then amount to an average of 64 million girls at any point in studies conducted in different regions of India shown that the prevalence of anemia was 52.5% in Madhya Pradesh, 37% in Gujarat, 41.1% in Karnataka, 58.4% in Tamil Nadu . In Kerala 19.13% is among college students and 96.5% in tribal area. The major risk factors identified from the above studies were socio economic status, blood loss, nutritional status, hand hygiene and worm infestations.[13] Anemia is the commonest micronutrient deficiency across the world. The burden of disease is high in underdeveloped and developing countries. Anemia itself is not a disease but a symptom of underlying deficiency. A large portion of iron deficiency is preventable with appropriate and timely intervention. Adolescence is a crucial phase for growth and development. Increased physiological demands, poor attitude of young children towards nutrition, lack of awareness amongst parents about healthy diet etc., are some of the reasons that makes anemia common among college students. In college students, anemia has been linked to affecting physical disorders, growth, and mental retardation, and also increases reproductive morbidities. Anemia caused due to iron deficiency may reduce infection resistance, impaired physical growth and mental development.[14]

POPULATION: The population for the present study was college students.

SAMPLE AND SAMPLING TECHNIQUES: In this study, sample were the college students who are studying in various colleges at Malappuram. The sample size was 100. The study samples were selected by non probability convenient sampling technique.

TECHNIQUE- Self reporting

SETTING OF THE STUDY : The study was conducted in selected college at Malappuram district (Al Shifa college of Nursing , Al Shifa college of paramedical science).
Main study – Al Shifa college of nursing.
Pilot study– Al Shifa college of paramedical science.

THEORETICAL FRAMEWORK : To describe the relationship of the concepts of this study , Rosen stock's becker and Maiman's Health Belief Model has been utilized.

CRITERIA FOR SAMPLE SELECTION:

These are the certain criteria, which is used for selecting the samples suitable for conducting the study. It includes inclusion criteria & exclusion criteria.

Inclusion Criteria

The samples are selected with the following predetermined criteria. The study includes,

1. Colleges students.

** Who were present at the time of data collection.
** between the age group of 17-24 years.

Exclusion Criteria

The study exclude the sample who are,

1. College students

** Who are not willing to participate.
** Who attended teaching program on prevention of anemia.

TOOLS OR INSTRUMENTS

Tool used for the study was:

Tool 1 Demographic data –

It includes age, gender , course of study, family income , religion, area of residence and source of information.

Tool 2 Structured knowledge questionnaire related to prevention of anemia.

It consist of 20 items of multiple choice questions with 4 alternative responses for assessing the knowledge on prevention anemia.

DESCRIPTIVE STATISTICS

The investigator adopted

- The selected socio demographic data was analyzed by using frequencies and percentages.

INFERENTIAL STATISTICS

The investigator adopted

- Chi square test, to determine the association between the dependent variable and the selected demographic characteristics under study

THE RESULTS ARE PRESENTED IN

SECTION A: Distribution of demographic characteristics of selected college students.

SECTION B: Assessment of level of knowledge on prevention of anemia among selected college students.

SECTION C: Association between knowledge on prevention of anemia among selected college students and selected demographic variables.

Section A: Distribution of demographic characteristics of selected college students.

The characteristics of the study population were as follows

- Regarding the age, 4% were belonged to the age group of 17-18 years, 62% were belonged to the age group of >18-20 , 26% were belonged to the age group of >20-22 and 8% belonged to the age group o f>22-24.
- Regarding to gender, 16% were belonged to male and 84% belonged to female
- Regarding to the course of study, 0% were from nursing, 32% from DRT , 50% from DMLT and 18% from Optometry.
- Regarding to the family monthly income 22% of below 10,000 ,54% were having 10,001- 50,000, 21% were having 50001-10,0000 and 0% were having above 10,0000.
- Regarding to religion 7% were belonged to Hindu and 91% were belonged to Muslim and 2% were belonged to Christian .
- Regarding to the place of residence 55% were from urban area and 45% were from rural area .
- Regarding to the source of information 52% gained through school, 14% through family,33% through social media and 1 % through others .

Section B: Assessment of level of knowledge on prevention of anemia among selected college students.

The analysis of the existing level of knowledge on prevention of anemia among selected college students revealed that 6 (6%) had good knowledge 80 (80%) had average knowledge 14 (14%) had poor knowledge.

Section C: association between knowledge on prevention of anemia among selected college students and selected demographic variables.

The result reveals that there is no significant association between knowledge and selected demographic variables like age, gender, course of study, family income per month, religion, place of residence. There is significant association between knowledge score and selected demographical variables like source of information .

DISCUSSION

The purpose of the study was to assess the knowledge on prevention of anemia among selected college students at Malappuram district. A descriptive study was conducted among 100 selected college students at Malappuram. A structured questionnaire on prevention of anemia was administered. Convenient sampling technique was used to select the sample. The findings were tabulated, analyzed and interpreted. With respect to the level of knowledge, 6 %good knowledge, 80% had average knowledge and 14% had poor knowledge regarding the prevention of anemia. The present study was supported by a study assessed knowledge and practices of dietary iron intake and anemia among early adolescents in the Asante. A kim Municipality of Ghana. A cross- sectional study was conducted among 137 adolescents, aged 10-14 years. The mean age of participants was 11.5 years. About 40% had knowledge of iron deficiency anemia, 29.4% knew anemia causes, 86% knew symptoms of anemia, and 35% knew anemia consequences. Although 41.2% of participants knew its prevention as eating iron rich foods, 31.4% knew the food sources of iron, and 4.4% mentioned animal based foods as rich sources, with the bulk (27%) mentioning plant-based foods instead. Moreover, 18.2% knew iron enhancers, while 0.7% knew iron inhibitors. The study findings showed that there was no significant association between level of knowledge on prevention of anemia and selected demographic variables like age, gender, course of study, family income per month, religion, place of residence. The present study was supported by a cross sectional study which was conducted to determine prevalence and risk factors of Iron deficiency anemia among apparently healthy Yemen students at Hodeida university. The overall prevalence of iron deficiency anemia was 30.4% of 54.00% were females and 46.0% were males. Students aged 20- 22 years were 51 found more anemic with prevalence of 59.2% than students aged 17-19 years .This study revealed that the Majority of University students, especially females have Iron deficiency anemia that that might become worse by malnutrition lifestyle habits and lack of awareness.

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