



A STUDY ON KNOWLEDGE REGARDING PREVENTION OF IRON DEFICIENCY ANEMIA AMONG ADOLESCENT GIRLS IN SELECTED PRE-UNIVERSITY COLLEGES OF MANGALURU

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ABSTRACT

Introduction: Adolescent period is a critical link between childhood and adulthood, characterized by significant physical, psychological, and social transitions. Adolescent girls are particularly vulnerable to nutritional problems and anemia is one among them. Adequate knowledge can promote good practice and help in the prevention of iron deficiency anaemia.

Objectives: The study was carried out to determine the knowledge regarding prevention of iron deficiency anemia among adolescent girls and to find the association between knowledge scores and selected demographic variables.

Materials and method: A descriptive survey approach was used in the study, non probability purposive sampling technique was used to select 100 adolescent girls and data was gathered using the structured knowledge questionnaire on iron deficiency anemia. Data was analyzed by using descriptive and inferential statistics.

Results: The study result showed that majority (84%) of study sample had moderately adequate knowledge, 11% had inadequate knowledge and 5% had adequate knowledge on prevention of iron deficiency anaemia. There was no significant association found between knowledge scores and the selected demographic variables of the adolescent girls ($p > 0.05$)

Conclusion: This study concluded that majority (84%) of the study sample had moderately adequate knowledge on prevention of iron deficiency anemia so it is advisable to provide educational programs for the adolescent girls regarding iron deficiency anemia.

Key Words: Knowledge, Prevention, Iron deficiency anaemia, Adolescent girls

INTRODUCTION

Adolescence has been defined by WHO as the period of life span, the age between 10- 19 years. It is a formative period of life when maximum amount of physical, psychological and behavioural changes take place¹. Adolescence is a critical stage in the life cycle, when health of the female is affected due to growth spurt, beginning of menstruation, poor intake of iron due to poor dietary habits and gender bias² which may lead to iron deficiency anaemia among the adolescent girls.

The average monthly menstrual blood loss is about 45 ml and causes the loss of about 22mg of iron³. Anemia during adolescence limits its growth and delays the onset of menarche, which in turn may later lead to cephalopelvic disproportion.⁴

About 75% teenage girls, do not meet their dietary requirements for iron, compared to only 17% of teenage boys.⁵

Total nutrient requirements are increased during adolescence period to support a dramatic growth and development. Eating right food at right time will prevent nutritional deficiencies especially iron deficiency disorders.⁶

The prevalence of anaemia is disproportionately high in the developing countries, due to poverty, inadequate diet, worm infestations, pregnancy/ lactation and poor access to the health services.⁷ Iron deficiency anaemia is one of the most prevalent common nutritional deficiencies in the world especially among adolescent girls⁴. According to WHO 2014 survey estimation the highest prevalence of anaemia is in

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pre-school children (47.4%), and the lowest prevalence is in men (12.7%) nearly 50% of women in reproductive age are anemic.⁸ National family health survey in 2006 stated that 56% adolescent girl are anaemic in India.⁹ In the world health report of world health organization, it was seen that the worldwide mortality rate of iron deficiency anaemia was 60,404,000 and mortality rate in India was 13,704,953 in 2005¹⁰. A study was conducted on prevalence of iron deficiency anaemia among adolescent girls in 16 districts of India in 2006. The survey showed that 90.1% adolescent girls were exposed to moderate iron deficiency anaemia and 71% of girls were exposed to severe iron deficiency anaemia.¹¹

The prevalence of iron deficiency anaemia among adolescent girls is consistently high nowadays because most of the adolescent girls have an intention to maintain a slim structure. An influence of junk foods and fast foods will reduce the intake of dietary iron rich foods.¹² To prevent iron deficiency anaemia, teenage girls and young women need to be aware of the condition. Education and motivation can bring in awareness and it is hoped that other females will also be more inclined to eat iron-rich foods and foods that are iron sources, practice home-based methods of food fortification and monitor monthly bleeding.¹³ The study was conducted on women of reproductive age in a rural area showed that 55.8% of the participants had inadequate knowledge and 44.2% had adequate knowledge on prevention of iron deficiency anemia.¹⁴ Adolescent girls are very important section of our society as they are our potential mothers and future homemakers.¹⁵ Therefore they should be targeted in providing education regarding iron deficiency anaemia and help them to have a healthy life.

The investigators during their clinical practice have come across many adolescent girls with iron deficiency anaemia and they were interested to study whether the adolescent girls possess adequate knowledge on iron deficiency anaemia. Therefore a study was conducted to assess the knowledge regarding prevention of iron deficiency anemia among adolescent girls.

MATERIAL AND METHODS

A descriptive survey design was used for this study. The sample consisted of 100 adolescent girls who were studying in a selected college of Mangaluru. Ethical clearance was obtained from the institution ethics committee. Formal permission was taken by the authorities. Sample was selected by non probability purposive sampling technique. The variable under study was knowledge of adolescent girls regarding prevention of iron deficiency anaemia. The demographic variables were age, religion, parent education, parent occupation, type of family, area of residence, monthly income, source of information regarding iron deficiency anemia.

With the informed consent to participate in the study the data was collected using structured knowledge questionnaire on iron deficiency anemia. Then the data was analyzed by using descriptive and inferential statistics.

RESULT

The study revealed that majority (53%) of girls were in the age group of 15-16 years. All were Muslims by religion. Regarding parental education, majority (46%) were with high school education. Majority (57%) of the student's parents had business as occupation. Majority (86%) belonged to nuclear family. Majority (73%) were residing in urban area. Majority (41%) had family income of Rs.10000-20000/month. Among the sample who received the information regarding prevention of iron deficiency anaemia, 47% received from media and 45% from family and friends.

It was seen that majority (84%) of the study sample had moderately adequate knowledge, 11% possessed inadequate knowledge and 5% had adequate knowledge regarding prevention of iron deficiency anaemia. The mean knowledge score of adolescent girls was 13.05 ± 3.056 . When area wise knowledge was assessed it was seen that the mean % for the knowledge score regarding general question about iron deficiency anemia was 59.85%, causes or risk factor of iron deficiency anemia was 43%, signs and symptoms of iron deficiency anemia was 35.8%, physiology and diagnostic measures of iron deficiency anemia was 59%, management of iron deficiency anaemia was 43.66%, prevention of iron deficiency anemia was 64.5% respectively. The study did not show any significant association between the knowledge score and the selected demographic variables ($p > 0.05$).

DISCUSSION

The current study results are also supported by a study conducted to assess the effectiveness of structured teaching program on knowledge regarding iron deficiency anaemia and its prevention among 60 adolescent girls of Bhavnagar where the study showed that in the pre test 53.3% had inadequate knowledge and 46.7% had moderate knowledge on prevention of iron deficiency anaemia.¹⁶ The current study findings are also consistent with a study which was conducted to assess the effectiveness of planned teaching program on prevention of anaemia among 60 adolescent girls in Belgaum, which showed that all the adolescent girls in pre-test had average knowledge¹⁷

CONCLUSION

This study concluded that majority (84%) of the study sample had moderately adequate knowledge on prevention of

iron deficiency anemia so it is advisable to provide educational programs for the adolescent girls regarding iron deficiency anemia.

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Table 1: Overall mean, median , standard deviation , mean percentage of knowledge score

n=100

Max. possible score	Range	Mean	Median	SD	Mean%
27	16	13.05	13	3.056	48.33%

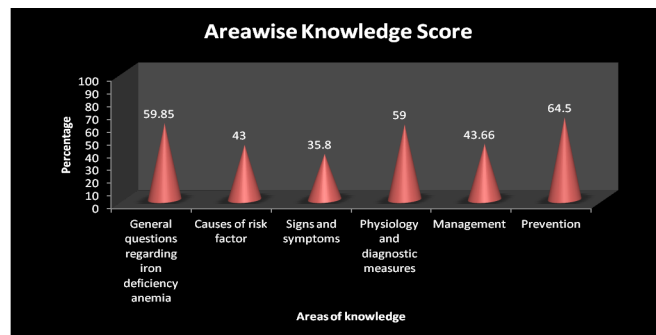


Figure 1: Cone diagram showing area-wise mean% of knowledge score of adolescent girls

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