KNOWLEDGE ON IRON DEFICIENCY ANEMIA AMONG REPRODUCTIVE AGE GROUP WOMEN

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Abstract

Background of the study: *Anemia continues to be a major public health problem in developing countries including India. It is the most common cause of malnutrition in the world and is the eighth leading cause of diseases in girls and women in developing counties. About one third of the global population is anemic (WHO 2010) [1]. Knowledge regarding the causes, prevention and management of iron deficiency among reproductive age women plays an important role in reducing the mortality and morbidity rates. The aim of this study is to assess the knowledge regarding iron deficiency anemia among reproductive age group women.* ***Methodology:*** *By using descriptive survey design, 50 women who met the criteria were selected by purposive sampling technique. Structured questionnaire was used to gather the data Data were analyzed by descriptive and inferential statistics.* ***Results:*** *Findings shows that 6% of reproductive age group women had inadequate level of knowledge regarding anemia, 72% had moderate level of knowledge and 22% of them had adequate level of knowledge.* ***Conclusion:*** *Overall findings of this study revealed that knowledge on iron deficiency anemia was inadequate among reproductive age group women. There is a need to improve the health care services, facilities and more importantly knowledge among the women on topics related to anemia and its prevention.*

Keywords: Anemia, Iron Deficiency, Knowledge, Reproductive age group women

Introduction: Anemia continues to be a major public health problem in developing countries including India. It is the most common cause of malnutrition in the world and is the eighth leading cause of diseases in girls and women in developing counties. About one third of the global population is anemic (WHO 2010) [1]. In India, two-third of women of child bearing age are estimated to suffer from iron deficiency anemia. Reports from National Nutrition Monitoring Bureau 2002 indicates that 15% of all maternal deaths are attributed to anemia. The highest prevalence of anemia among women in India is a burden for them, for their families, and for the economic development and productivity of the country. Iron deficiency anemia occurs more often in women than in men, the main reason is excessive loss of iron or demand of iron associated with menstruation and pregnancy. Nearly 400 million women were suffering from iron deficiency anemia world widely. In India according to The National Family Health Survey – which was undertaken between 2005-06 reports showed that, more than 55% of the women in India were anemic. In Karnataka, the incidence of anemia among married women was about 52.7% among rural married women and 46.7% among urban married women which seems to be very high.

In developing countries like India where the iron deficiency anemia is more prevalent and higher, many women conceive shortly after marriage. It is well known that pre-conceptional iron deficiency has adverse effects on pregnancy outcomes. During pregnancy due to inadequate iron supply to the fetus leads to intrauterine deaths, low birth weight, premature births, and the maternal mortality. World health Organization reported that the maternal mortality in India ranges from 27 to 194 deaths per 1000 live births.

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In India, iron deficiency anemia was mostly influenced by poverty, illiteracy, ignorance and lack of knowledge regarding iron deficiency anemia and dietary requirements and nutritive value of different foods. Most of the Indian women often take food left over by their husband. In some societies, men eat first and women last and poorly [2]. This is increasing the burden of iron deficiency anemia among them [3]. Iron deficiency anemia can be prevented by consumption of iron content food items from animal sources such as red meat, liver, etc. and plant sources such as green leafy vegetables spinach, drumstick leaves, beans, dates, dried fruits, and nuts which are available at their doorsteps. Indian council of medical research suggested that, at the community level iron deficiency anemia can be prevented by fortifying food with iron.

The study aimed to assess the prevalence of anaemia among tribal women of Kasaragod district, Kerala. The tribal settlements of Karadukka block panchayat of Kasaragod district were selected randomly a descriptive survey design was adopted. A descriptive survey was undertaken among 445 tribal women in reproductive age group. The results found that the majority (89%) of the tribal women had anaemia in which 62% and 11% of tribal women had moderate and severe anaemia, respectively [4].

A cross sectional study was conducted in Lahore Pakistan. In this study data was collected from 131 pregnant women. The result of study showed knowledge of pregnant women towards iron deficiency anemia was better, but negative attitude and low practice found. Pregnant women have knowledge, positive attitude but they are not practicing [5].

A descriptive study was conducted in Egypt to assess knowledge and attitude about iron deficiency anemia amongst pregnant women recruited during routine antenatal care in the antenatal clinic in Assiut University Women Health Hospital. Personal data, body mass index, lab test, knowledge and attitude of women about anemia were the variables that are involved in this study. The participants in general were less knowledgeable with positive attitude to iron deficiency anemia and nearly one third of women had iron deficiency anemia. To overwhelm iron deficiency anemia, health education should include antenatal care that focuses on intake of iron rich foods. The study recommended to increase the awareness of pregnant women about anemia prevention through mass media which will have direct impact on prevention of anemia [6].

The cross-sectional study was done in Lahore, Pakistan. Design applied with convenient sampling technique; and sample of 150 girls 20–21-year-old was taken to identify correlation between Hb levels and KAP scores among girls 20-21year-old. Present study findings are suggestive of increasing trend of iron deficiency anemia among young girls of reproductive age group. Attitude towards desired good dietary habits and importance of balanced diet is found to be poor among young girls [7].

There are numerous nutritional programs existing for children, adolescents as well as for pregnant and lactating mothers to create awareness and to decrease the prevalence of iron deficiency anemia among them. When compared with women in reproductive age there are very less effort has been put forward to create an awareness regarding iron deficiency anemia among the women. Therefore, the present study is an attempt to explore their knowledge and create awareness by distributing an informational booklet regarding iron deficiency anemia its management and its prevention which will help the women to change their attitude towards their health.

Materials and Methods: Descriptive research design was selected for this study. Study was conducted in selected rural area of Lucknow. Through purposive sampling technique 50 women from rural area was selected. Structured questionnaire was used to gather the data. Questionnaire consists of two sections. Section A includes demographic variables. The demographic variables included in the study were: age, religion, type of family, educational status, occupation, income per month, type of diet, source of information etc. Section B consists of 27 questions to assess the knowledge on iron deficiency anemia. Maximum score was 50. Interpretation of the score: 26 to 50 – Adequate Knowledge, 13 to 25 - Moderate Knowledge, below 12 – Inadequate knowledge. Data were analysed by descriptive and inferential statistics.

Results: Among all the participants 28% of the participants were in the age group of 20-25years, 26% were in the age group of 26 - 30 years, 10% of them were in the age group 31-35 years, 16% of them were in between 36 - 40 years, and 20% of them were in between 41 - 45 years. Regarding educational

status majority of the participants 28% has completed primary level of education, 16% secondary level of education, 16% under graduate level of education, 6% post graduated level of education and 34% of them were illiterates. Majority of them 82% were married, 16% unmarried and 2% of them were widowed. 4% self-employed, 6% private employed, 2% of them were working in government departments, and 88% of them women were housewives. Maximum number of participants 64% income was below Rs. 5000 per month, 22% of participants income was Rs. 5001-10,000 per month, 8% of them earns Rs.10,001-15,000 per month, 2% of them were in between Rs. 15,001-20,000 and 4% of them earns more than Rs. 20,000 of per month. Majority of them 82% were vegetarian in diet and 18% of them were non vegetarians. All of the participants had previous information about anaemia. Source of information for 28% women was family and friends, 28% from media, 26% from books and 18% from other sources. Table 1 shows that out of 50 samples 6% women were having inadequate knowledge, 72% are having moderate knowledge and adequate level of knowledge was present in 22% of participants.

Table – 1 Level of knowledge on iron deficiency anaemia among reproductive age group women

Level of knowledge	*Frequency*	*Percentage*	*Mean*	*Standard deviation*
Inadequate knowledge	*3*	*6*	*20.20*	*6.64*
Moderate knowledge	*36*	*72*		
Adequate knowledge	*11*	*22*		

Discussion: Anemia in women of reproductive age is a major public health challenge for low- and middle income countries with a long-term negative impact on the health of women, their children, and the economic growth of the society. Even though the world health organization targeted a 50% global reduction of anemia among women of reproductive age by 2025, with the current trend it is unlikely to achieve this goal [8]. The knowledge and household practices of women towards the prevention of iron deficiency anemia differ from region to region and with individual woman [9]. This study determines the level of knowledge regarding iron deficiency anemia among women from rural areas of Lucknow.

Knowledge of reproductive age group women regarding prevention of anemia: Results of this study shows that out of 50 samples, 6% women were having inadequate knowledge, 72% are having moderate knowledge and adequate level of knowledge was present in 22% of participants. Findings of this study was consistent with other similar studies. A cross-sectional study done in Indonesia shows that women in reproductive age in Teladan Health Care Center had fair level of knowledge (52.1%), good level of knowledge (43.7%), only 4.2% with poor level of knowledge about iron-deficiency anemia.

There were significant relationships between educations towards level of knowledge. While, there is no significant relationship between age and occupation towards level of knowledge about iron-deficiency anemia [10]. Another similar cross-sectional study conducted in 330 female adolescents aged between 15-19 years from five schools in five governorates in Gaza stripe Palestine indicated that 84% could not tell if a person was having anemia. About 81.3% of them were not aware of the consequences of iron deficiency anemia among pregnant women and 91.6% have no knowledge about the causes of IDA. Also 89% did not know which iron rich foods can be easily absorbed, while 74.8% did not know which food reduce iron absorption. Furthermore 81.7% adolescents usually consume citrus fruits and 68% of them did not consume it on daily basis [11]. A study was done in Karnataka. A descriptive survey design was adopted and 120 women were selected for the study using cluster sampling technique. Findings of the study revealed that the women of reproductive age had inadequate knowledge on iron deficiency anemia

and its prevention [12]. The table shows that there is no significant association between knowledge and demographic variables of reproductive age group women.

Table 2: Association of level of knowledge on iron deficiency anaemia among reproductive age group women with their demographic variables.

Demographic Variables		Level of Knowledge			Chi Square	Remarks
		Inadequate	Moderate	Adequate		
Age	20 – 25	1	9	5	$X^2 = 0.2352$ df= 8 p = 15.51	NS
	26 -30	1	9	3		
	31 -35	0	4	1		
	36 -40	0	6	2		
	41 -45	0	7	2		
Education	Primary	0	15	2	$X^2 = 0.584$ df = 8 p = 15.51	NS
	Secondary	0	4	3		
	Under Graduate	1	4	3		
	Post Graduate	0	0	1		
	Illiterate	2	13	2		
Marital Status	Married	2	33	6	$X^2 = 0.780$ df = 4 p = 9.49	NS
	Unmarried	1	3	4		
	Widow	0	0	1		
Occupational Status	Self-Employee	1	0	1	$X^2 = 0.3724$ df = 6 p = 12.59	NS
	Private Employee	0	1	2		
	Government Employee	0	1	0		
	House wife	2	34	8		
	Coolie	0	0	0		
Income in Rupees per Month	Below 5,000	3	25	8	$X^2 = 0.3904$ df = 4 p = 9.49	NS
	5,001-10,000	0	7	1		
	10,001-15,000	0	3	1		
	15,001-20,000	0	1	0		
	Above 20,000	0	0	1		
Dietary Pattern	Vegetarian	2	28	11	$X^2 = 2.576$ df = 2 p = 5.99	NS
	Non-Vegetarian	1	8	0		
Previous Level of Knowledge	Yes	3	36	11	$X^2 = 0$ df = 2 p = 5.99	NS
	NO	0	0	0		
Source of Information	Friends	1	12	1	$X^2 = 0.5598$ df = 6 p = 12.59	NS
	Media	0	11	4		
	Books	0	8	5		
	Any other	2	6	0		

NS – Not significant

Conclusion: Women are the future of tomorrow; hence they need to have adequate knowledge on iron deficiency anaemia. Iron deficiency anaemia is the major problem among reproductive age group women and leads to high morbidity and mortality rates among females. Overall findings of this study reveal that knowledge on iron deficiency anemia is inadequate among reproductive age group women.

There is a need to improve the health care services, facilities and more importantly knowledge among the women on topics related to anemia and its prevention [13]. The researcher believes that the Self-Instructional Module will help the women to modify their behaviour in regard to knowledge on iron deficiency anaemia.

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