



Assessment of Knowledge about Iron Deficiency Anemia among the Adult Women in Selected Hospitals of Dhaka City

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Authors' contributions

This work was carried out in collaboration among all authors. Authors TS and AKS designed the study, performed the statistical analysis, wrote the protocol, and wrote the first draft of the manuscript. Authors IJ, MJAS and MRA managed the analyses of the study, sketch analytical plan, drafting of the article and revised the manuscript for important content and worked on advanced analysis with interpretation. Authors TS, KF and AKS managed the literature searches. Author MRA contributed in the data analysis, drafting and review the manuscript and contributed to review the manuscript critically and finalize the article with intellectual thought as supervisor. All authors read and approved the final manuscript.

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ABSTRACT

Iron deficiency is one of the most common nutrient deficiencies, affecting 2 billion people in worldwide. It is also the leading cause of anemia. Estimates of the national prevalence of anemia in Bangladesh have remained constant at 74% for the past 30 years. This high rate of anemia is a major public health concern for Bangladesh. The aim of the study was to determine the knowledge

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level about Iron Deficiency Anemia (IDA) & nutritional status among the adult women and the pregnant women in the selected hospitals of Dhaka city. A descriptive cross-sectional study was conducted for the study. A pretested semi-structured questionnaire was used for the data collection. The results showed that, majority of the respondents 140 (70%) were pregnant and 60 (30%) were non pregnant among 200 respondents. The Mean \pm (sd) age of study population was ± 33 years. From all respondents the literacy rate of women were maximum (69%) but knowledge about IDA & nutritional status were not enough at all. Among the respondents the knowledge about IDA & nutritional status of adult women were 23% good, 40% moderate and 37% very poor. In pregnancy period 74% of the respondents did not take their iron related drugs regularly. Most of the adult women and the pregnant women were not significant knowledgeable regarding IDA, nutritional education & modified dietary habit. So, campaign for awareness on healthy life style practice is required for reducing this problem. Overall Government approach is also recommended for the lower prevalence rate of IDA.

Keywords: Knowledge; iron deficiency anemia; adult women; pregnant women.

1. INTRODUCTION

Iron deficiency is one of the most common nutrient deficiencies, affecting 2 billion people worldwide [1]. It is also the leading cause of anemia and therefore contributes to disability and death. In developed areas of the world, only about 8% of the population has anemia, but in developing regions, the percentage of anemia averages 36% [2]. Estimates of the national prevalence of anemia in Bangladesh have remained constant at 74% for the past 30 years; this high rate of anemia is a major public health concern for Bangladesh, causing a loss of productivity totaling 1.9% of the national gross domestic product [3]. According to the World Health Organization (WHO), approximately 50% of all cases of anemia, defined as hemoglobin concentration less than 120 g/L in non-pregnant adults can generally be attributed to iron deficiency and the leading cause of iron deficiency is dietary inadequacy. In women of reproductive age, menstrual losses also contribute considerably to iron deficiency.

The World Health Organization (WHO) has estimated that more than 2 billion people worldwide are sufferings from anaemia with 50% of all anaemia was attributed to iron deficiency [4]. Its adverse health consequences affects people of all age groups and can results from non-nutritional and nutritional factors [5]. Poor nutritional status during adolescence is an important determinant of health outcomes at a later stage of life. Therefore, attention should be given to adolescent health and nutrition [6]. Besides girls, pregnant women, children (both pre-school and school age) are the most affected group by iron deficiency because of the rapid growth and the general cognitive development [7].

Anemia remains a major public health problem, affecting about a quarter of the world's population [8-10]. Anemia affects both the developing and the developed countries and it is an indicator of poor nutrition and poor health with major consequences of human health as well as for the social and economic development of a population [11]. Anemia is a severe problem in Bangladesh among most age population and geographic groups [12].

Lack of knowledge regarding anemia prevention is one of the major factors. Government of Bangladesh has taken some steps in left years but it has proven to be not sufficient. Many NGOs, both local and international have done many good jobs but quality of lifestyle which is directly related to health has not been improved to that optimum level.

2. METHODOLOGY

A descriptive cross-sectional study was conducted at Salahuddin Specialized Hospital & Delta Hospital Ltd in Dhaka city. The study was conducted from May 2017 to May 2018. Data was collected from hospital on going adult women & pregnant women of outdoor records. A total 200 adult women were randomly selected for interviewing. A presented semi-structured questionnaire was used for data collection. The collected data were analyzed by computer statistical software program (SPSS version 16).

3. RESULTS

The study enrolled 200 adult women. Mean \pm (sd) age of study population was 30 years and the median age (inter quartile range) was 33(30-35) years. The mean age (sd) was (33 \pm vs 34,

p=0.025). According to age distribution, the maximum respondents belong to 30% in 30-35 years of age. The next common is 27.5% in 20-25 years age group, 10% in 40 & above, 17.5% in 35-40 years and 15% in 25-30 years age group (Table 1).

Among 200 respondents out of them 70% were pregnant & 30% were non-pregnant. From all respondent study population only 31% were completely illiterate and knowledge status of there is not satisfactory. From overall study population, only 23% of adult women knowledge status about IDA is good, 40% moderate and 37% is very poor or completely does not know about IDA. Among study participants 53% percent reported to have the average amount of iron related food not intake 22% of them took as much as they can and the remaining 25% took as little as possible and 74% percent of the respondents did not take their drugs regularly but the remaining 26% percent took regularly.

Table 1 revealed that Mean± (sd) age of study population was 30 years and the median age (inter quartile range) was 33 (30-35) years. The mean age (sd) was (33± vs. 34, p=0.025). According to age distribution, the maximum

respondents belong to 30% in 30-35 years of age. The next common is 27.5% in 20-25 years age group 10% in 40 & above 17.5% in 35-40 years and 15% in 25-30 years age group.

Fig. 1 showed that, among total female respondents under study 70% was pregnant & 30% was non-pregnant.

Fig. 2 showed that, educational status 31% were illiterate, Secondary School Certificate (S.S.C) completed 19%, primary 11%, pre-primary 9%, Masters 7%, Higher Secondary School Certificate (H.S.C) 5% and graduation 2%.

Fig. 3 showed, regarding occupational status Housewife was predominant 60%, Student 12%, unemployed 11%, Garments worker 9% and other service holders 8%.

Table 2 showed, 75% of the study participant had family income ranged 5000-15,000 taka per month. Family income ranged from 5000-10,000 taka in 42% study participants, 20% had family income superior to 15000 Taka and 4% had family income lower than 5000 Taka per months and 1% respondent didn't say any comment on household income.

Table 1. Age wise distribution of adult women (n=200)

Age	Number of participant	Percentage
20-25	55	27.5
25-30	30	15
30-35	60	30
35-40	35	17.5
40 & above	20	10

Mean age (sd) was (33± vs. 34, p=0.025)

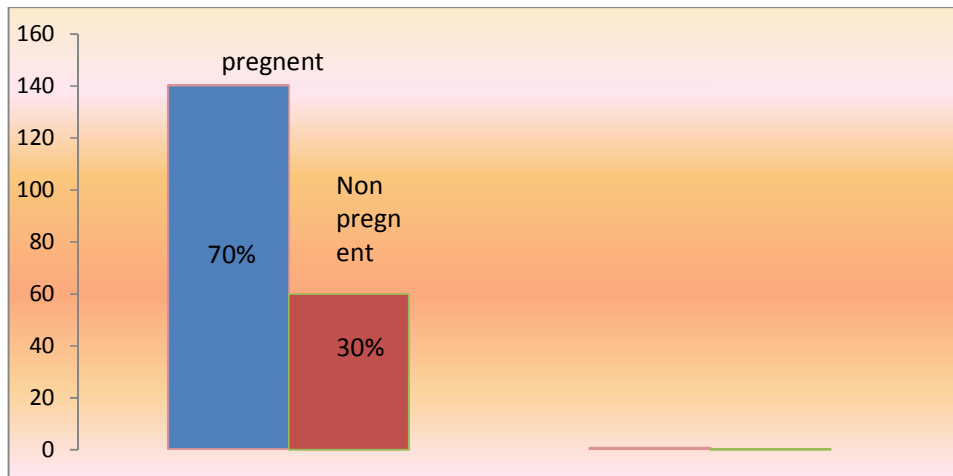


Fig. 1. Distribution of pregnant and non-pregnant respondents

Fig. 4 showed, out of 200 participants 42% reported family history of IDA and 37% did not know about family history of IDA and 21% didn't have family history of IDA.

In our observation 31% woman know, 65% women do not know & rest of the women slightly know about iron deficiency.

It emerges from this table that 23% of the women surveyed answer the question correctly, 40% answer moderately and 37% are completely unaware of the IDA concept.

Fig. 5 showed, among study participants, 53% percent reported to have the average amount of iron related food not intake, 22% of them took as much as they can and the remaining 25% took as little as possible.

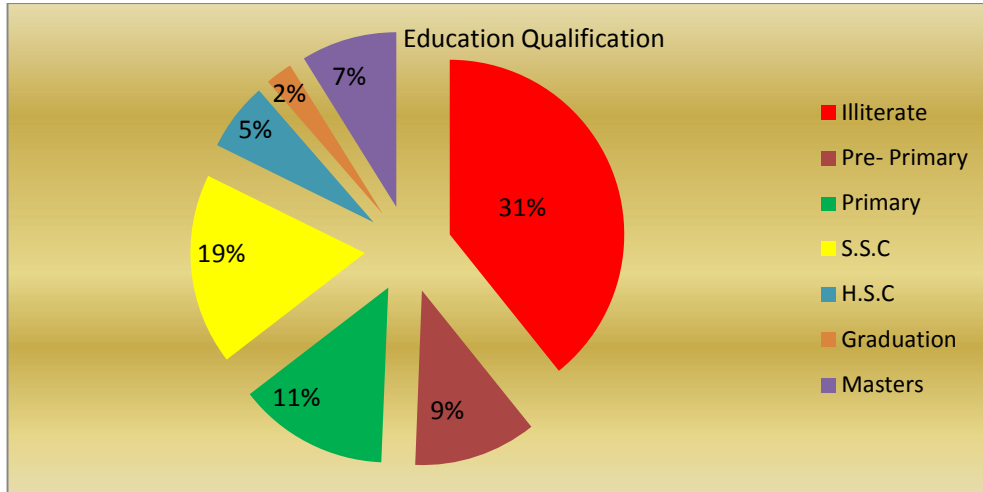


Fig. 2. Distribution of respondents according to educational status

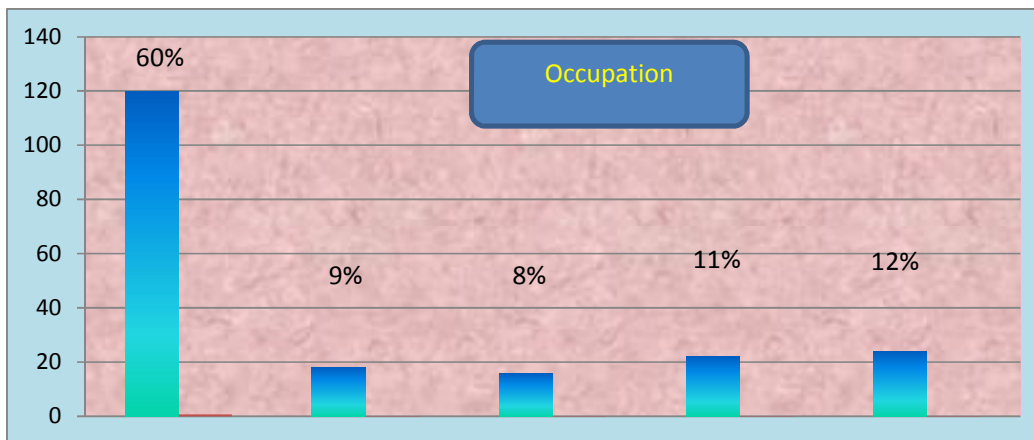


Fig. 3. Distribution of respondents according to occupation

Table 2. Distribution of respondents according to monthly Household income

Monthly income in taka	Number	Percentages
<5000 Tk	8	4%
5000-10000 Tk	84	42%
10000-15,000 Tk	66	33%
>1,5000 Tk	40	20%
No Comments	2	1%
Total	200	100%

Fig. 6 showed, 74% percent of the respondents did not take their drugs regularly but the remaining 26% percent took drugs regularly.

4. DISCUSSION

The goal of this study to assess the knowledge about Iron Deficiency Anemia (IDA) among the adult women in the selected area in Dhaka city in Bangladesh. The study found that socioeconomic and lifestyle variables play a significant role regarding the prevalence of IDA. Iron deficiency is one of the most common nutrient deficiencies affecting 2 billion people worldwide. It is also the leading cause of anemia and therefore contributes to disability and death [1]. In developed areas of the world, only about 8% of the population has anemia, but in developing regions the percentage of anemia averages 36% [2]. Estimates of the national prevalence of anemia in Bangladesh have remained constant at 74% for the past 30 years. This high rate of anemia is a major public health concern for Bangladesh, causing a loss of productivity

totaling 1.9% of the national gross domestic product [3].

In this study it was found that, among 200 respondents out of them 70% were pregnant & 30% were non-pregnant. From all respondent study population only 31% were completely illiterate and knowledge status of there is not satisfactory. From overall study population, only 23% of adult women knowledge status about IDA is good, 40% moderate and 37% is very poor or completely does not know about IDA. Among study participants, 53% percent reported to have the average amount of iron related food not intake, 22% of them took as much as they can and the remaining 25% took as little as possible and 74% percent of the respondents did not take their drugs regularly but the remaining 26% percent took regularly.

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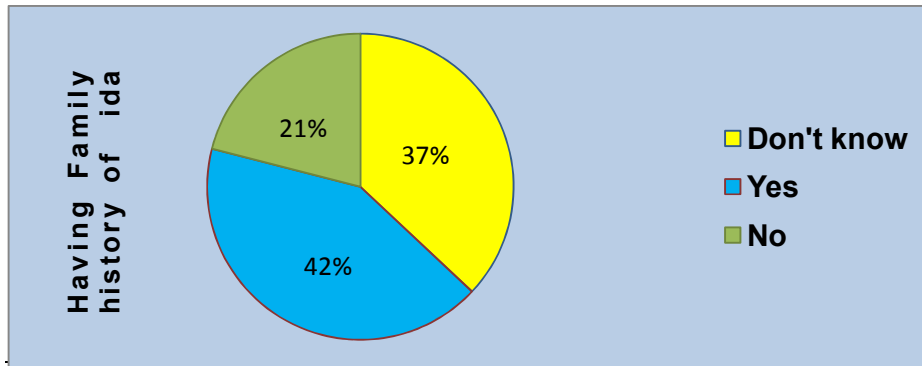


Fig. 4. Distribution of respondents according to family history

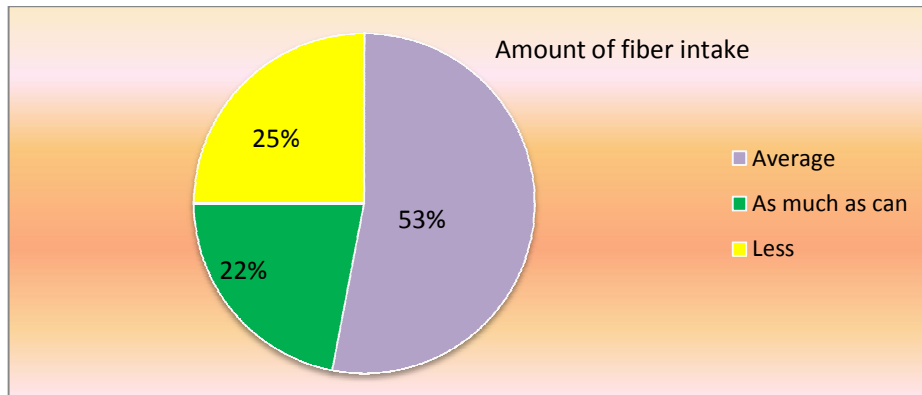


Fig. 5. Distribution of the respondents according to amount of dietary Iron Related food not intake

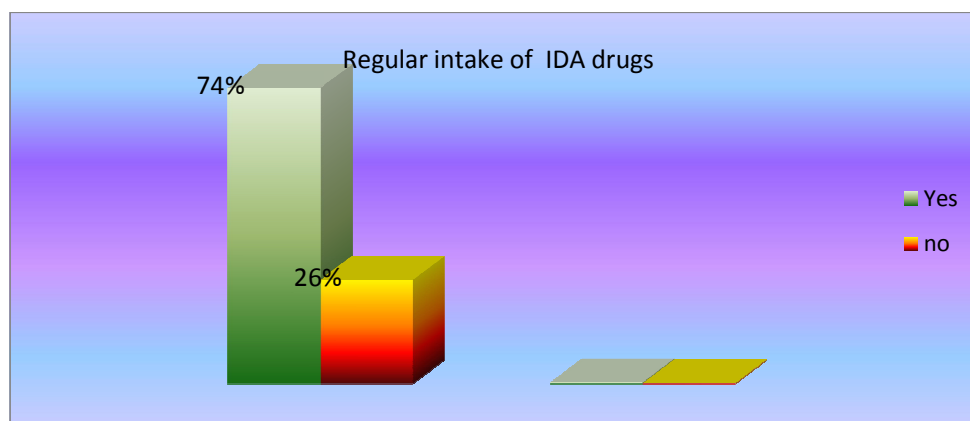


Fig. 6. Distribution of respondents according to regular intake Iron related drugs in their pregnancy period

Table 3. Knowledge about iron deficiency anemia (IDA)

Knowledge status	Members	Percentages (%)
Know	46	23%
Moderately know	80	40%
Does not know	74	37%
Total	200	100%

Table 4. Knowledge about iron deficiency

Particular	Number	Percentages (%)
Yes	62	31
Sometimes	130	65
No	08	04
Total	200	100

5. CONCLUSION

The prevalence of anemia was much lower than expected (17%) compared to previous estimates of 38% for the Bangladeshi female non-pregnant population and in case of pregnant women over 72% for the overall population. The majority of the women of our country are not educated as well as health concern about them. It is irony of fate that not only illiterate but also educated women are not concern enough about their health. As a result though the prevalence rate of anemia is lower than before now but not satisfactory at all as our women are more educated than before. As our women are gradually becoming educated, so their knowledge status also being updating too but not concern enough at all. As a result comparately higher prevalence is existing.

However, The knowledge status of adults women are about 23% women knowledge status is good,

about 40% is moderate & about 37% members of adults women is very poor or completely ignore about IDA.

6. RECOMMENDATION

- Iron Deficiency knowledge among the patients specially in female should be expanded.
- More illustrative interventional study should be carried out.
- Campaign for awareness and life style modification for health to be arranged.
- Increase government aid.
- Supply sufficient medicine & arranged medical camp.
- Government should take awareness program by using mass media.
- Encourage people as well as create public awareness about IDA & to take enough vegetables & fruits and any other types of Iron containing diets.

CONSENT

As per international standard or university standard, patients' written consent has been collected and preserved by the authors.

ETHICAL APPROVAL

It is not applicable.

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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