Original Research Article

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Knowledge and practices of pregnant women regarding the iron supplementation during pregnancy

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ABSTRACT

Background: Anaemia in pregnancy has detrimental effects on maternal and child health. WHO says prevalence of anaemia during pregnancy is alarmingly high. The purpose of this study was to assess the knowledge, and practices of pregnant women regarding iron supplements and also to assess the reasons for non -consumption of FSFA tablets. The objectives were to study the knowledge, and practices of pregnant women regarding iron supplementation during pregnancy and to study the reasons for non-consumption of FSFA tablets.

Methods: The study was carried out on 350 pregnant women routinely attending the antenatal clinic in a rural training health centre over a period of 3 months from July 2015 to September 2015. Their knowledge and practices regarding iron supplementation were studied.

Results: Assessment of knowledge revealed that only 140 (40%) of the participants were aware of significance of consumption of FSFA tablets. Out of 350 only 221 (63.14%) pregnant women consumed the FSFA tablets. Out of 221 only 123 (55.65%) were consuming it correctly. Reasons for not consuming FSFA were forgetfulness in 48 (37.20%), side effects in 35 (27.13%), frustration with daily dose 23 (17.82%), ignorance 21 (16.27%), foul smell to tablets 20 (15.50%), misbelieves 7 (5.42%) and no response was given in 26 (20.15%).

Conclusions: The present study indicated the lack of knowledge regarding anaemia, iron rich foods and the importance of iron supplementation during pregnancy Educating antenatal women about importance of consumption of FSFA tablets and implementing this into practice will help for prevention of anaemia.

Keywords: Anaemia, Iron supplements, FSFA tablets, Pregnant women

INTRODUCTION

Anaemia is a global public health problem affecting both developing and developed countries with major consequences for human health. Around 2 billion people, accounting to over 30% of the world's population are anaemic, mainly due to iron deficiency. It is found especially among women of child-bearing age, young children and during pregnancy and lactating mother. Anaemia in pregnancy has detrimental effects on

maternal and child health and prevalence of anaemia during pregnancy is alarmingly high.⁴

During pregnancy, the need of iron for mother and fetus gradually increases and will reach to its highest level at the end of pregnancy. The reason for this high demand is mother's blood volume increases up to about 35%, fetus growth, placenta and other mother tissues which increase the need of iron up to three to five times in the second and third trimesters. In situations of low level of storage, this high demand could not be provided even by diet

enriched in iron and can only be partially compensated by an increase in iron absorption.⁵

Universal prenatal supple-mentation with iron-folic acid tablets is effective to prevent anaemia and iron deficiency at term. There is a high prevalence of anaemia in pregnant women at India (58%). in spite of iron supplementation program continuing for years. The purpose of this study was to assess the knowledge, and practices of pregnant women regarding iron supplements and also to assess the reasons for non-consumption of FSFA tablets.

Objectives

- 1. To study the knowledge, and practices of pregnant women regarding iron supplementation during pregnancy.
- To study the reasons for non -consumption of FSFA tablets.

METHODS

Study design

Cross sectional study

Study settings

The study was carried out on 350 pregnant women who were in their second and third trimesters and routinely attending the antenatal clinic in a rural health training centre Mudkhed, of Dr. S.C.GMC, Nanded over a period of 3 months from July 2015 to September 2015. Their knowledge and practices regarding iron supplementation were studied.

Inclusion criteria

Inclusion criteria were all pregnant women with gestational age >12 weeks and willing to participate in the study.

Exclusion criteria

Exclusion criteria were all pregnant women with gestational age <12 weeks and first antenatal visit to the hospital

Data collection was carried out using a predesigned, self-administered questionnaire in local language from pregnant women who consented to participate in the study.

The questionnaire had details of socio demographic data and questions to assess knowledge, and practices of these antenatal women regarding anaemia, iron rich food and iron supplementation. Knowledge part of the questionnaire had questions regarding their awareness of the term anaemia, significance of consumption of FSFA, complications due to anaemia and regarding consumption

of FSFA with a score of 1 for the correct response and a zero score for an incorrect or nil response. Questionnaire had 4 items on practice which included information on their diet, iron supplementation, timing of consumption of FSFA and reason for not taking FSFA.

Ethical consideration

Ethical approval for the study was obtained from the Institutional ethical committee at Government Medical College.

Statistical analysis

Data was entered in Microsoft excel and tabulated and analysed by using SPSS version 16 (Statistical Package for Social Science).

RESULTS

The study included 350 pregnant women attending the antenatal clinic of rural health training center. The sociodemographic characteristics of the study subjects are depicted in Table 1. The mean age of study participant was 23.4±3.3. Majority of women were in the age category of 20 to 24 year age group. More than half of women under study had middle school education. About one third of women participated were Muslim and two third were Hindu. Most of the participants were housewives. Majority of the study subjects belong to Class IV socioeconomic class.

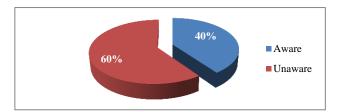


Figure 1: Awareness of consumption of FSFA during pregnancy among study subjects.

Assessment of knowledge revealed that only 140 (40%) of the participants were aware of significance of consumption of FSFA tablets. Out of 350 only 221 (63.14%) pregnant women consumed the FSFA tablets. 70 (20%) pregnant women were taking FSFA tablets irregularly or not taken it daily. 59 (16.86%) pregnant women have not at all taken FSFA tablets. About 160 (54.71%) pregnant women were aware about both the maternal and foetal complication. Most of the pregnant women 100 (28.57%) were unaware of other ill-effects of anemia like preterm labor, intrauterine fetal hypoxia, recurrent infections, failing lactation. About 52 (14.8%) mothers were aware of a only maternal complications of anemia in pregnancy, Around 38 (10.85%) women knew only fetal complications like growth restriction and infections leading to prematurity. Out of 221 only 123 (55.65%) were consuming it with water, 47(21.26%) with milk,24 (10.87%) with tea, 20(9.05%) with food and rest others. Out of 129 pregnant women who were not taking FSFA or taken it irregularly stated that forgetfulness was the major reason 48 (37.20%) for non-consumption. Other reasons were side effects in 35 (27.13%), Frustration with daily dose 23 (17.82%), Ignorance 21 (16.27%), Foul smell to tablets 20 (15.50%), Misbelieves 7 (5.42%) and no response was given in 26 (20.15%).

Table 1: Sociodemographic characteristics of the study subjects.

Characteristics	Number	Percentage (%)
Age in years		
<20	28	8.00
20-24	203	58.00
25-29	90	25.70
≥30	29	8.30
Religion		
Hindu	219	62.60
Muslim	97	27.70
Buddhist	33	9.40
Christian	1	0.30
Educational status		
Illiterate	24	6.85
Primary school	59	16.85
Middle school	108	30.85
High school	88	25.15
Intermediate	56	16.00
Graduation & above	15	4.20
Occupation		
House wife	300	85.70
Own business	17	4.90
Agriculture Labourer	27	7.70
Others#	6	1.70
Socio economic class (Modified B.G. Prasad		
classification)		
I	12	3.40
II	29	8.30
III	49	14.00
IV	165	47.10
V	95	27.10

Note -'others#' includes 2 teachers and 4 were doing private job.

Table 2: Reasons for non-consumption of FSFA.*

Reasons for not taking IFA tablets	Number (%)
Forgetfullnes	48 (37.20)
Side effects	35 (27.13)
Frustration with daily dose	23 (17.82)
Ignorance	21 (16.27)
Foul smell to tablets	20 (15.50)
Misbelieves (too big baby, hot to body) 7 (5.42)	
No response	26 (20.15)

^{*}Multiple response type table. Pregnant women included in the analysis have given multiple responses.

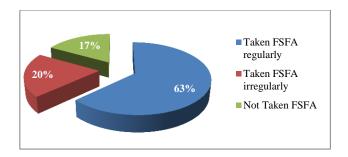


Figure 2: Distribution of study subjects as per the consumption of FSFA.

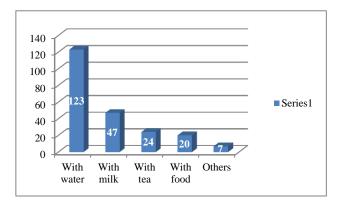


Figure 3: Distribution of study subject as per the practices of consumption of FSFA.

Note -'others[#]' includes 5 with lemon sharbat and 2 with jiggery.

DISCUSSION

Anaemia prevention programme is recently strengthened by Government of India with Iron plus guidelines with gains from NRHM and MOFHW and support of workers like ASHA, FHW and ANM. Pregnant women can get IFA tablets free of cost at all Government hospitals or through distribution by these workers during house to house visits. In spite of these efforts anaemia in pregnancy still stands as a major health problem. Compliance to IFA pills is an important factor determining anaemia status of the women.

In our present study it was revealed that only 140 (40%) of the participants were aware of significance of consumption of FSFA tablets besides regular diet. Similiarly, Nivedita et al found that Only 32.6% gave the correct response that pregnant women should take iron supplementation inspite of taking a healthy diet. Out of 350 only 221 (63.14%) pregnant women consumed the FSFA tablets. 70 (20%) pregnant women were taking FSFA tablets irregularly or not taken it daily, 59 (17%) pregnant women have not at all taken FSFA tablets. Similiarly Balasubramaniyam et al found that 51% had a regular intake of iron tablets, 32% had irregular intake, and 17% had not taken iron supplementation.

In our present study most of the pregnant women 160 (54.71%) were aware about both the maternal and foetal

complication. In contrast Kulkarni et al in her study observed that most of the pregnant women were unaware of other ill-effects of anemia. Out of 350 only 221 (63.14%) pregnant women consumed the FSFA tablets. Out of 221 only 123 (55.65%) were consuming it correctly with water. Reasons for not consuming FSFA were forgetfulness in 26.66% to be a major reason, Similiarly Dutta et al found forgetfulness to be a major reason for non-consumption. Taye et al observed that misbelieves such as too many tablets would harm the baby and fear of side effects were the major reasons given for noncompliance. 8

CONCLUSION

Most of the participant had a very poor level of knowledge about anaemia. Therefore, pregnant woman should receive adequate information from health providers about iron folate supplementation. They should be aware of the benefits and importance of taking the supplementation.

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Ethical approval: The study was approved by the

Institutional Ethics Committee

REFERENCES

- Worldwide prevalence of anaemia 1993–2005. WHO Global database on anaemia. Geneva: World Health Organization; 2008 Available at. http:// whqlibdoc.who.int/publication/2008/978924159665 7 _eng.pdf. Accessed on 7 April 2017.
- 2. World Health Organization. Micronutrient deficiencies. Available at http://www.who.int/utrition/topics/ida/en/. Accessed on 7 April 2017.

- 3. Park K. Park's textbook of preventive and social medicine. 23rd ed. Jabalpur: M/s Banarsidas Bhanot Publishers; 520.
- Nivedita K, Shanthini FN. Knowledge, attitude and practices of pregnant women regarding anemia, iron rich diet and iron supplements and its impact on their hemoglobin levels. Int J Reprod Contracept Obstet Gynecol. 2016;5:425-31.
- Balasubramanian T, Aravazhi M, Sampath SD. Awareness of Anemia among Pregnant Women and Impact of Demographic Factors on their Hemoglobin Status. Int J Sci Stud. 2016;3(12):303-5.
- Pena-Rosas JP, Viteri FE. Effect and safety of preventive oral iron+folic acid supplementation for women during pregnancy. Cochrane Library; 2009.
- 7. Guidelines for control of Iron Deficiency Anaemia: National Iron plus Initiative; 2013.
- 8. Taye B, Abeje G, Mekonen A. Factors associated with compliance of prenatal iron folate supplementation among women in Mecha district, Western Amhara: a cross-sectional study. Pan African Med J. 2015;20:43.
- Kulkarni KK. KAP Studies Among Indian Antenatal Women: Can We Reduce the Incidence of Anemia? J Obstetr Gynaecol India. 2015;65(5):320-2.
- 10. Dutta AJ, Patel PB, Bansal RK. Compliance to Iron Supplementation Among Pregnant Women: a Cross Sectional Study in Urban Slum. Natl J Community Med. 2014;5(4):457-62.

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