



COMPLIANCE WITH IRON FOLIC ACID SUPPLEMENTATION AND ASSOCIATED FACTORS AMONG PREGNANT WOMEN ATTENDING ANTENATAL CLINIC AT HEALTH CENTERS IN RURAL AREA

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ABSTRACT

Background: Anemia is one of the important causes for maternal death and is a major factor responsible for low birth weight babies. Anemia in pregnancy accounts for one fifth of maternal deaths worldwide and 16% of maternal deaths are attributed to anemia in India. Public health intervention iron folic acid supplementations are prescribed to pregnant women for improving pregnancy outcomes and reducing maternal anemia over last three decades. Non-compliance is one important challenging factor in combating anemia.

Objective: The present study was carried out with aim to assess the prevalence of anemia and Compliance with Iron Folic acid Supplementation among the pregnant women in rural area.

Methods: A community based Cross sectional study was carried out, pregnant women selected by convenient sampling, attending antenatal clinic at health unit were interviewed using pre-tested pre-designed questionnaire.

Results: About half of the pregnant women were from age group 20-24 years, The prevalence of anaemia among pregnant women was 78%, out of which 60% of the pregnant women had a moderate anaemia, 32% mild anaemia and 8% were severe anaemic. Only 15% of pregnant women reported Satisfactory compliance of IFAS, where as 58% pregnant women were having Partial compliance, and 27% pregnant women shown Non-compliance for IFAS. The associated factors for non-compliance to IFAS, among pregnant women was majority 61% forgetfulness,

Conclusion: Educating women on early antenatal registration and compliance to Iron Supplementation is necessary to reduce the problem of anemia in pregnancy in rural India.

KEYWORDS : Pregnant women, Anemia, prevalence, IFAS, compliance.

INTRODUCTION:

Iron deficiency is the most common cause of anemia in pregnancy in most of developing countries and it continues to be a major health problem in India. Anemia is one of the important factor which decides the outcome of pregnancy, increases risk of preterm delivery, low birth weight babies and major cause of maternal mortality and morbidity. Anemia in pregnancy accounts for one fifth of maternal deaths worldwide and 16% of maternal deaths in India are attributed to anemia. India contributes to about 80% of the maternal deaths in South Asia.

World Health Organization estimates, prevalence of anemia among pregnant women in developed countries is about 14%, where 56% and as high 61% of women living in developing countries are anemic. Women often became anaemic during pregnancy because the demand for iron and vitamins is increased due to physiological burden of pregnancy. Anaemia ranges from mild, moderate to severe, according to the WHO classification hemoglobin level for each of this type of anemia in pregnancy at 10-10.9g/dl (Mild Anemia) 7-7.9g/dl (moderate anaemia) and less than 7gm/dl (severe anemia).

National Family Health Survey -2 shows that 54% of women in rural and 46% women in urban areas are anemics The relative prevalence of mild, moderate, and severe anemia are 13%, 57% and 12% respectively in India (ICMR data).

Since India has predominant rural population, pregnant women are amongst the most vulnerable population for iron deficiency anemia. Studies in India, (Prashant D.2017) the prevalence of anaemia in pregnancy was found 72.75%, where as in Karnataka State prevalence reported 62.6%. Another study, (Mishu Mangla, Deepak Singla (2015) the prevalence of anemia was found 98% among the pregnant females in the region of rural India. Out of these 41.76% had mild anemia, 37.05% had moderate anemia, 15.88% had severe anemia and 3.29% very severe anemia

according to ICMR classification of anemia,

India has policy to give iron supplementation to pregnant women for the purpose of improving pregnancy outcomes and reducing maternal anaemia. The India became the first developing country to take up a National Nutritional Anaemia Prophylaxis Program since 1970. The National protocols in India require the provision of 1 tablet containing 100 mg elemental iron and 0.5 mg folic acid for daily consumption to all women during pregnancy for 100 days. Effectiveness and success of such public interventions depend on the compliance to the Iron-folic acid tablets.

Though iron supplements are prescribed to pregnant women, the compliance to iron therapy is inconsistent. Non-compliance is one important challenging factor in combating anaemia Community iron supplementation programmes for pregnant women have lacked effectiveness; have failed partly because of low compliance (Seck BC, 2008). The compliance to iron supplementations influenced by several social and demographic factors (J.B.Sharma, 2010). Forgetfulness and both perceived as well as experienced side effects of IFA therapy were the important factors for non-compliance (P.Mithra, 2013) Therefore, this study was carried out to assess the prevalence of anaemia and compliance to IFAS among the pregnant women receiving antenatal care at primary health care centre in rural area.

OBJECTIVES:

1. To assess prevalence of anemia Among pregnant women.
2. To assess the knowledge about anemia among pregnant women,
3. To assess compliance of iron folic acid supplementation and the factors associated with compliance among the pregnant women attending antenatal clinic at rural health centers.

STUDY DESIGN

A community based cross-sectional study was carried out in

Maharashtra state, Palghar health unit, field practice area of Dept. of Community Medicine, between Octobers to December 2017. Pregnant women residing in rural area and attending antenatal clinics were interviewed using pre-tested pre-designed questionnaire. The subjects were selected using convenient sampling method till the required sample size of was reached.

- *Ethical clearance* was obtained from the Institutional Ethical committee, permission from the concern authorities for data collection were obtained. Written informed consent was obtained from the study participants prior to the enrolment in the study. *Inclusion Criteria*; all Antenatal mothers of second and third trimester attending antenatal clinic, received IFA supplementation and taken tablet at least 15 days prior to data collection. Pregnant women detected to any other chronic diseases and those who were not willing to participate were excluded from the study.
- A *structured questionnaire* of closed-ended questions were administered to obtain demographic information, gestation age, use of IFA supplementation, maternal knowledge about anemia., Clinical assessment of pregnant women for sign symptoms of anemia, followed by observing their latest hemoglobin levels from their records at the time of the interview. Type of anaemia was carried out using WHO criteria.

DATA ANALYSIS

The outcome variable for this study was compliance with IFAS, assessed based on the reported number of IFAS tablets taken in the preceding 15 days before the interview. The IFAS compliance status was defined as the number of IFA tablets taken in the preceding 7 days, a week. Pregnant mothers who took at least 70% of the expected dose of the IFAS tablets daily 5-6 tablets in the week, were considered Satisfactory Compliance with IFA Conversely the respondents who took less than five IFAS tablets were considered as partial compliance and less than three considered as non-compliance.

RESULT

A total of 100 pregnant women participated in the study. Socio demographic profile of the pregnant women were as follows: About half 55% of the pregnant women were from age group 20-24 years, followed by 37% of them from 25-29 years of age, less 7% and 1% of pregnant women in the age group of 30-34 years and 35-40 years respectively. Majority 82% of the study participants belonged to Hindu religion About 36% of the study participants resided in nuclear family, while 56% resided in joint type of family. The educational level of pregnant women, 31% and 33% had attained primary and secondary level education where as 23% had completed graduate level education, yet 13% were found to illiterate among the participated pregnant women. Majority of 74% the women were Housewives. According to gestational age of pregnant women; 76% were in *Second trimester* (between 13- 28 weeks), weeks) and 24 % were in *Third trimester* (between 29- 38weeks) of pregnancy. About half of 51% of pregnant women was primigravidae and remaining half pregnant women were multigravidae.

- *Knowledge* regarding anemia among pregnant women was computed; 23% pregnant women had good knowledge score, about half 47% of pregnant women had average level knowledge, while 30% of them had poor knowledge level about anemia. Nivedita K, (2016) study conducted in Karnataka showed that overall 52.5% of the participants had good knowledge regarding anemia.
- *The prevalence of anaemia* was found out 78% pregnant women were those who had latest Hb level of less than 11 gm%, similar to study Prashant D.(2017) the prevalence of

anaemia in pregnancy was found 72.75%.among pregnant women. According to severity of anaemia classification (Figure No.1) found that 60% of the pregnant women had a moderate anaemia with Hb 7-9.9g/dl, 32% of the women had mild anaemia with Hb 10-10.9 g/dl, and 8% of the pregnant women were had severe form of anaemia with Hb less than 7 g/dl. **Mild Moderate Severe**

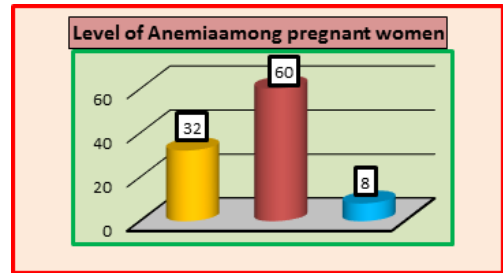


Figure No. 1. Distribution of pregnant women according to severity of anaemia.

- *IFA supplementation*; Majority 78% women were registered during second trimester and 69%.of pregnant women visiting antenatal clinic regularly. All most all had received the IFA supplementation tablets from health centre.
- *Compliance of IFA supplementation*; only 15% of pregnant women reported *Satisfactory compliance* of IFA, more than half 58% of pregnant women had *Partial compliance*, and *Non-compliance* 27% pregnant women had not taken IFA tablets regularly. Where as NFHS 3 survey 5 reports shows only 23.1% of pregnant women consumed iron and folic acid for 90 days. More than half 58% of pregnant women had *Partial compliance*. There was a moderate level of compliance towards IFA tablets (J.B.Sharma ,2010), where as compliance with IFAS was found to be poor (P.Mithra,2013) with key social and demographic factors playing an important role.
- *The associated factors* for *Non-compliance* to IFA tablets; behavioral factors such as forgetfulness was most common factor reported by majority 61% of pregnant. Other factors like belief among pregnant women about consumption of IFA tables causes big size baby may have problem at the time of delivery was reported by 5%, dislike of IFA tablet taste was 4% and shortage of tablets in Health centre was also reported by 1% study participant. Similar finding supported by P Mithra (2013), and J.B.Sharma (2010) the main reason for skipping the dose among the subjects was forgetfulness (48.8%) important factors for non-compliance.In present study the association with the level of Hb% and the compliance of the IFA tablets is significant

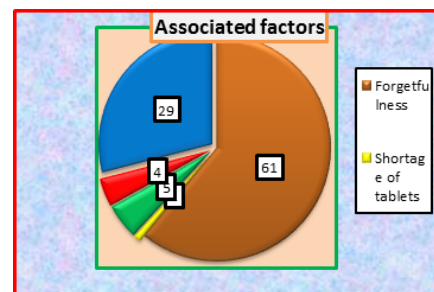


Figure.no.2.Factors associated with the non-compliance to IFAS among pregnant women.

CONCLUSION

Routine intake of iron supplements during pregnancy improves maternal health and pregnancy outcomes. Compliance with iron/folic acid supplementation can be

increased by providing women with clear instructions about tablet intake and educating them on the health benefits of the tablets. Community health workers, Auxiliary Nurse midwives, Ananwadi workers and ASHAs plays a very important role in preventing anemia and its outcomes and improving maternal health in rural India.

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