A Qualitative Study on Perceptions and Barriers of Antenatal Iron - Folic Acid Supplements at Central Referral Hospital, Sikkim, India

Moirangthem Thoibi Devi Pradhan[1], Shashirani, Pangambam[2], Arkierupaia Shadap[3]

[1]Professor, Sikkim Manipal College of Nursing, Sikkim Manipal Institute of Medical Sciences, Sikkim Manipal University.
Corresponding Author Email: *moirangthem.thoibi[at]gmail.com*

[2]Professor, Associate Professor, Sikkim Manipal College of Nursing, Sikkim Manipal Institute of Medical Sciences, Sikkim Manipal University.

[3]Associate Professor, Associate Professor, Sikkim Manipal College of Nursing, Sikkim Manipal Institute of Medical Sciences, Sikkim Manipal University.

Abstract: ***Introduction**: As per the literature says, all pregnant women are strongly recommended to have iron supplements during pregnancy in developing Nations. The best choice of treatment of anemia is through oral intake while all the pregnant women is suggested to have oral iron intake preparations efficiently throughout the pregnancy. **Methods**: A qualitative study design and the tools used on antenatal women were structured interview open - ended questionnaire regarding the perception and barriers. **Result**: The finding reveals the perception of antenatal mother towards IFA was found to be negative for few antenatal mothers. Few of the antenatal mother percept that the big baby if due to IFA consumption. Few antenatal mothers have a positive perception that weakness and blood supply will be good for babies and good growth for the fetus. The antenatal women were not very clear concept on iron and folic acid consumption. All the antenatal mothers' perception was towards negative opinion. The barriers of the antenatal mothers were constipation, vomiting, not feeling like eating and most have no barriers, and personal barriers could be identified from the study. **Conclusion**: The findings show that most were aware of IFA is there, but no proper importance is given during pregnancy. The responses on perception were their opinion and thinking by the antenatal women. It includes a few negative perceptions and barrier of IFA and finally the study recommendation for proper counselling and understanding the importance of IFA.***

Keywords: Perception, barriers, antenatal, iron and folic acid, supplements

1. Introduction

Anemia is a common medical disorder that contributes significantly to maternal morbidity and mortality, intrauterine growth retardation, preterm delivery, and prenatal morbidity and mortality (1 - 9). In India >90% of anemia cases are estimated to be due to iron deficiency, because high iron requirements during pregnancy are not easily fulfilled by dietary intake, especially when iron bioavailability is poor (10 - 14). Because of religious reasons, poverty, or both, the Indian population observes dietary patterns that are largely vegetarian (15). Diet alone cannot supply the 30–40 mg Fe that is required for absorption of the 4–6 mg Fe/dl needed during the latter stages of pregnancy. Iron supplementation is strongly recommended for all pregnant women in developing countries (15 - 17). Oral iron intake is the treatment of choice, and almost all women can be treated effectively with oral preparations. There are 1.62 billion anaemic people, which is a quarter of the global population [1]. Approximately 42% of pregnant women are anaemic worldwide [1], whereas the prevalence of anaemia among Pakistani pregnant women is higher with 51% of them anaemic at any stage during their pregnancy [2]. Iron deficiency is the most common cause of the anaemia during pregnancy and it is the most widespread nutritional deficiency in the world [3, 4]. It has been observed that anaemia during pregnancy is associated with an increased risk of maternal mortality [5], low birth weight [6–8] and prematurity [6, 8, 9]. To prevent anaemia during pregnancy, the World Health Organization recommends, as a part of antenatal care (ANC) programs, a standard daily oral dose of 30–60 mg iron and 400 µg folic acid supplements to begin as early as possible and continue throughout pregnancy [10]. A recently published meta - analysis has identified a significant reduction of 19% in the risk of low birth weight associated with the use of antenatal iron supplements [11].

- NFHS - 3 2005 - 06 reported on pregnant women who are anemic i. e. < 11.0 g/dl is 62.1% in Sikkim
- According to Sikkim Development Report (2008) on pregnancy related anemia, 61.1% had severe anemia and 23.8% were moderately anemic
- NFHS - 4 2015 - 16 reported on pregnant women who are anemic i. e. < 11.0 g/dl in urban area is 33.6 % and in rural area is 23.6 % in Sikkim.

2. Materials and Methods

A Qualitative research study was conducted at Central Referral Hospital, East Sikkim. The samples of the study were antenatal mothers.100 samples were selected using purposive sampling technique. The data was collected by administering structured Interview on Perceptions and Barriers of antenatal iron - folic acid supplements and the data obtained was analyzed using descriptive statistics.

3. Results

The majority of antenatal mother 64% belonged to 28 - 37 years of age.15% of the antenatal mother were in the age of 38 - 47 years whereas 21% are in the age of 18 - 27 years.

The majority 89% of the antenatal mother were primi gravida and 19 % were multigravida and 2% were grand multigravida.

All the antenatal mother 100% were in the second trimester of gestational age of pregnancy and all the antenatal booking was done in the second trimesters.

Few antenatal mothers 21 % are having one or two children living and about the last child birth

Majority 82% of the antenatal mothers are belonging to nuclear family and 18% belongs to joint family. The most of the antenatal mothers had monthly income of Rs.10001 – 14000.

All the most all the antenatal mothers is compliance to IFA except one Antenatal mother had left to take the IFA. They did not consume any other medication during their pregnancy.

All the antenatal mothers are literate in their educational status none of them are illiterate among 100 samples.

The occupation of antenatal mothers are professional 8%, skilled 20%, semi - skilled13% and unskilled 59% (private business, self - employed and house wife)

Most of the antenatal mothers were belongs to 60% are Hindu religion, 15% Christianity, 20% Buddhism and 5% Muslim in religion. There was no co - morbid illness among the antenatal mothers. The source of information about IFA are almost from doctors only.

Majority 90% of the antenatal mothers belongs to above poverty line and few 10% are below poverty line.

The perceptions and the responses given by the antenatal mothers about the IFA consumptions was not a single answer it includes a wide range of expression about IFA consumption, most of the antenatal they were not much aware of the of the medication, says***" I don't know the name of the medicine"***it shows that the antenatal mother are not even knowing the medicine what they are taking means they take it as a granted and not giving importance of IFA tablets.

And antenatal mothers started IFA tablets after 2nd& 3rd trimester they are supposed to start by 1st& 2nd trimester. Here I, found that most of the mothers visited the health centers or Doctors after 2nd& 3rd trimester because they don't have adequate knowledge and awareness. According to WHO all pregnant women should receive 30 – 60 mg iron tablets daily whereas 0.4 mg of folic acid as recommended for pregnant women to prevent maternal anemia, puerperal sepsis, low birth rate and preterm birth. In the 1st& 3rd trimester the hemoglobin threshold for diagnosing anemia is 110 gram per liter [110 g/L]. in the 2nd trimester the threshold is 105g/l. WHO guidelines shows 12 weeks of gestation is the best time to start IFA tablets or 14 - 16 weeks. All pregnant women should receive 30 IFA tablets per month for at least 6 months total of 180 IFA tablets.

Majority of the women were aware of the medication taken by them but the antennal mothers had a limited information about the benefits of IFA supplements. The antenatal mothers to be facilitating factors for the uses of IFA supplements. They have a financial capacity to purchase the medicine. Majority of the antenatal mothers were purchased the medicine from the commercial medical store only few antenatal mothers were getting the Government provided medicine. Most of the antenatal mothers have been started taking the IFA in between 14 to 16 weeks of pregnancy. After taking the medicine 70 out of 100 antenatal mothers express that they can have a good diet and increase in normal diet.

According to majority of the antenatal mothers, the advantages of having IFA tablets which helps in growth of foetus and their own health. Few of them expresses that they feel more healthier than early and strong enough to do their daily activities. One antenatal mother expresses and perceive that she will have a big baby after having IFA tablets and it will be difficult in delivery, therefore she avoids taking the IFA tablets.

With regards to the above - mentioned perception of the antenatal mothers, I as a researcher analyzed that their perception is a negative and that is their mind set of having such type of thinking about the IFA. [For recommendations – need awareness and sensitization, quality counselling and family support]

According to the interview 15 out of 100 antenatal mothers had a side effects of IFA consumptions. They said that they are having some problems like vomiting, sleepy, weakness, dizziness, black stools, loose stool and even constipation. ***"I, sometimes experiences difficulty in toileting".*** My observation with regards to their perception that they need to have high fiber diets including increase intake of fluids. [For recommendations – need to analyze in details and suggests them to visit the concern Doctors time to time].

Most of the antenatal mothers reported that they encouraged to have the IFA tablets by the ASHA workers, Doctors, relatives and friends. But the few antenatal mothers have started self - idea to have an IFA tablets and to consult with doctors. My observation is that they are little educated but they are not well aware and sensitize about the advantages of IFA tablets which helps during pregnancy. It shows that self - motivation and self - reliance is the best way of taking or compliance of supplements.

As per the 90% of the antenatal mothers expresses ***"nothing*** "with regards to the question – Why do you think it is necessary to take IFA tablets during pregnancy? My views regarding their expression ***"Nothing"*** with regards to the above - mentioned question that they might not be well educated or well aware or not clear concept of having IFA tablets. If they could be aware or well informed that they have to visit Health centers or concerned Doctors in a regular basis. It can help to motivate them to have an IFA tablets.

The consumption of the recommended dose is also often hampered by personal and social barriers, including management of side effects, low priority given to IFA and anemia, forgetfulness and conflicting advice where IFA supplements use during pregnancy is not a social norm.

The barriers might be internal and external for consumption of IFA supplements and its outcome will be maternal anemia. Further, the mothers who have already first child are little conscious about the IFA in their second pregnancy.

The key points to remember by the antenatal mothers were the symptoms during pregnancy are well known but women don't feel personally at risk, the antenatal mothers visited the primary delivery channel for pre - natal IFA supplementation in most of our country but accessibility and delayed first visit remains critical barrier to increase coverage and adherence.

Health workers and health professionals also required training on pre - natal supplements guidelines and counselling skills to manage the side effects and monitor adherence. The Government sector and private sector should consider the community - based deliver of IFA supplements to improve the frequency of contacts and personalized concern support for the antenatal mothers throughout pregnancy. We health care professionals including Doctors, Nurses, ASHA have to make effective strategies and good communication for the antenatal mothers to convince or encourage to consumption of IFA tablets and its importance and benefits.

The community health workers should aware and sensitize the antenatal mothers about the importance and benefits of IFA tablets. Their duty is to provide community - based delivery and continuous counselling about the IFA supplements and refer to the nearest ANC and monitor accordingly.

50% of the antenatal mothers are nearby to the centers ***"My Health Centre is walkable distance*** "said by the antenatal mothers. And rest 50% antenatal mothers have purchased the IFA tablets from the medical stores. With this regards my observation is that the some of the antenatal mothers are nearby the canters but they used to purchase from medical store. It shows that their belief system or mindset that the free supply is not effective.

Some of the antenatal mothers have taken the IFA tablets supplements for 4 – 6 months duration and few antenatal mothers had even shorter amount of time, like wise some mothers had only for 2 - 3 months, some antenatal mothers had only one month and one antenatal mother even stopped taking the IFA supplements. Keeping in view of above observation that the antenatal mothers are not aware about their health and baby's health. This data indicates some women are receiving information from the health care provider the benefits of taking IFA supplements during antenatal periods. Yet, more than half of the antenatal mother stated that they did not know much about the IFA supplements and how to manage the mild side effects of IFA. Actually, the antenatal mothers should have more quarries about the IFA supplement but in my studies, they don't have many quarries because lack of knowledge, information, awareness and sensitization about the IFA supplements.

Some antennal mother has negative side effects such as, vomiting, nausea, loose and black stool. Some had difficulty in defecation and constipation. Few mothers felt weakness, dizziness & lethargy, unpleasant test of food but they were not given quality counselling after their own complains.

Most of the antennal mothers are not given adequate information on IFA supplementation the temporary side effects is the main contribution towards the poor compliance and adherences to the IFA supplements. This lack of complete information to the antenatal mothers can lead to misconception about the IFA supplementation that one antenatal mother says ***"that I may deliver a big baby after having IFA supplements".***

According to them they don't have any fear or anxiety or financial problem to take the IFA supplements and to consult with the Doctors or some health centers but they have some misconceptions and myth about the IFA supplements.

4. Discussion

The main findings highlighted that majority of women were aware of the perceived benefit of antenatal IFA supplements whoever the women had limited information about IFA supplement. The facilitating factors for the women's used of supplements where they had Knowledge of the benefits, they had trust on the health care provider, the supplements were available, they had the financial capacity to buy. This study found that most of the women were aware of antenatal IFA supplementation and the benefits of the use of these supplements during pregnancy for maternal health and growth of the foetus. However, the women's perceptions about the benefits of the use of antenatal IFA supplements were mainly focused on maternal health. The knowledge and they were more aware of the advantages of supplementation such as curing anaemia, improving haemoglobin levels and improving foetal growth and development. The healthcare providers reported prescribing or providing are been asked to get the supplements from the commercially available IFA Tablets. The information received by the pregnant women about the supplements from the healthcare providers was not uniform and did not explain the various aspects of the supplements, such as the description and management of minor side effects, possible ways to remember to take the supplements daily, and explanations of the advantages of the supplementation. The current study also investigated several facilitating factors and barriers to the use of IFA supplements. The recognized behavioural and cultural issues which influence the use of IFA supplements among women can play a useful role in the development of interventions to improve the coverage. There is a need to develop behaviour change communication interventions for IFA supplementation at the national, provincial and the district level. Further, a separate set of interventions are required to test in urban and rural settings of Sikkim to improve the coverage of IFA supplements.

5. Conclusion

Though IFA was introduced since 1972 significant number of cases of anemia have been reported till date. By knowing the perception and Barriers we would be able to changes in the attitude of antenatal population which will in turn decrease the prevalence of anemia thus encouraging healthy mother and healthy baby.

Acknowledgement
The author would like to thank the authority of Sikkim Manipal university and the participants for their contribution and support, without which the study would not have completed.

References

[1] Introduction to anemia. Available from http: //en. wikipedia. org/anemia. accesed on December 8: 2009.
[2] eMedicine Health Anemia overview. Available from URL. http: //www.emedicine health. com/anemia/article em. htm. Accessed on January 9: 2010
[3] whoindia. Addressing iron deficiency anemia. Available from URL. http: //www.whoindia. org/en/section6/section324 - 1467. htm. Accessed on January 9: 2010
[4] National family health survey. India 2005 - 2006. Available from URL www.mohfw. nic. in/NFHS - 3%20nutrional%20status%status%20of %20adults.
[5] A. nesimi k. O. Mustafa. Anemia prevalence and its affecting factors in pregnancy women. Biomed res (India) 2004: 16 (1): 111 - 14.
[6] Health central. Anemia complication. Available from URL http: //www.healthcentral. com/ency/408/guide /000057 3html. Accessed on nov.2009.
[7] Fags. org. nutrition and wellbeing. A - Z. Available from URL http: //www.fags. org/nutrition/ A - Ap/Anemia. html. Accessed on nov.2009
[8] K. deeksha. Nath. A. kailash. prevention of nutritional anemia in Noida, India. Indian journal of paediatrics. Volume 69, number 7/July, 2002
[9] The mercks manual medical library. Anemia in pregnancy. URL. http: //www.merck. com/mmpe/sec18/ch261/b. html.
[10] S. R. pasricha. R. sonia. Anemia, iron deficiency. Am. J. Trop. med. hyg 78 (3) 2008.
[11] Agarwal. K. N. Sharma D. K. prevalence of anemia in pregnancy and lactating mother in India. Indian journal of medical research. August 2006. Vol.124. ppg173 - 178
[12] Polit D Hungler PB. Nursing Research, Principles and methods Lippincott, philedelphia; 1999
[13] Burns N, Grove SK. The practice of nursing research conduct, critique and utilization.4th ed. philadelphia; W. B. Saunders; 2001.

Paper ID: SR25301093933 DOI: https://dx.doi.org/10.21275/SR25301093933