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RESEARCH ARTICLE

KNOWLEDGE, ATTITUDE AND PRACTICE REGARDING ANAEMIA IN ANTENATAL WOMEN - A PROSPECTIVE CLINICAL STUDY

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Abstract

Introduction: Anaemia is one of the most common nutrition deficiency disorders affecting pregnant women. During pregnancy they need for iron for mother and foetus gradually increases and will reach its highest level at the end of pregnancy. Poor dietary practice and low compliance to iron tablets among pregnant women are major contributors for high burden of anaemia. They should be awareness of anaemia among antenatal women and association of knowledge, attitude and practice of Nutrition during pregnancy and taking iron-rich food.

Objectives: To assess the knowledge, attitude and practice regarding anaemia in antenatal women.

Material & Methods: It was a prospective study conducted in the department of Obstetrics and Gynaecology, Kurnool Medical College and Hospital, Kurnool, Andhra Pradesh over a period of 3 month from November 1st 2022 to January 31st 2023. Data was collected by using a structured and Pretested questionnaire which asked question on nutrition in pregnancy, anaemia and associated factors.

Results: A total of 500 antenatal women, 344 of them had heard about iron deficiency anaemia, 304 of them know that poor nutrition causes the anaemia during pregnancy, 192 agreed that iron supplement or iron tablets can prevent anaemia, 201 of them don't know that spacing of pregnancies can prevent anaemia, 331 have not taken a regular iron tablets. The study reflects the ignorance, poverty and illiteracy among majority of the child bearing women coming to the Hospital.

Conclusion: Assessments of knowledge and practice and health education are essential step towards prevention of anaemia in pregnancy. Educating antenatal women about the importance of diet and implementing this into practice will help in the prevention of anaemia.

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Introduction:-

1. Anaemia is considered an international health problem; playing an important role in increasing morbidity and mortality among pregnant women, especially in developing countries. Anaemia is the lack of functioning red blood cells (RBCs) that leads to a decrease in the ability to carry oxygen causing complications during life time

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2. Women at the childbearing age are at the greatest risk, with prevalence of anaemia estimates 42% in pregnant women aged 15–49 and 30% in non-pregnant women, with Africa and Asia accounting for more than 85% in high risk groups where its causes are multi-factorial.
3. According to World Health Organization (WHO), Iron deficiency is the most common nutritional problem in the world that affects about 25% of the world population, especially women in the a child bearing age.
4. High risk groups to IDA are pregnant and lactating women, elderly adults, patients with a lot amount of blood loss, individuals with nutritionally-poor diets, infants, women of childbearing age and low socioeconomic status.
5. Women who had more than three children and who were older than 30 years, shorter birth spacing , with body mass index less than 20, decrease of antenatal care visits, decrease intake of vegetables, fruits and animal source and having intestinal parasites were positively at the high risk to anaemia.
6. Anemia during pregnancy is considered one of the main risk factors contributing to 20-40% of maternal deaths by direct or indirect way through preeclampsia, cardiac failure, antepartum haemorrhage, postpartum haemorrhage and puerperal sepsis
7. During pregnancy, severe cases of pregnant women of iron deficiency have poor outcome of neonates as low birth weight, intrauterine growth retardation, prematurity, birth asphyxia and intrauterine death

Aims and Objective:-

The study aims to describe the socio demographic profile, knowledge, awareness, source of information, attitude and practices regarding anaemia in antenatal women who are attending OPD in a Teaching hospital.

Materials and Methods:-

It was a prospective study conducted in the Department of Obstetrics and Gynaecology, kurnool Medical College and Hospital, kurnool, ANDHRA PRADESH over a period of 3 month from November 1,2022 to January 31,2023. This study was approved by Institutional Ethics Committee.

•After obtaining informed verbal consent, a predesigned standardized questionnaire was given to 500 antenatal mothers who attended OPD in the Department of Obstetrics and Gynaecology, Kurnool Medical college and Hospital, Kurnool.. Data on socio demographic profile, knowledge, attitude, practice regarding anaemia, statistical analysis was done using MS Excel. Results were expressed in terms of numbers and percentage.

Table 1:- Socio-demographic characteristic of antenatal women who attended OPD in government general hospital kurnool, from November 1,2022 to January 31, 2023.

| Variables | Categories | No.of women | percentage |
|--------------------|---------------------------|-------------|------------|
| Age | 15-20y | 286 | 57.2 |
| | 21-25y | 188 | 37.6 |
| | 26-30y | 20 | 4 |
| | >30 y | 6 | 1.2 |
| Age at marriage | 15-20 y | 316 | 63.2 |
| | 21-25 y | 156 | 31.2 |
| | 26-30 y | 20 | 4 |
| | >30 | 8 | 1.6 |
| Address | Urban area | 126 | 25.2 |
| | Rural area | 292 | 58.4 |
| | Semi urban | 82 | 16.4 |
| Gravida status | 1 | 115 | 23 |
| | 2 | 210 | 42 |
| | 3 | 80 | 16 |
| | >4 | 95 | 19 |
| Stage of pregnancy | 1 st Trimester | 80 | 16 |
| | 2 nd Trimester | 260 | 52 |
| | 3 rd Trimester | 160 | 32 |
| Religion | Hindu | 368 | 73.6 |
| | Christian | 28 | 5.6 |
| | Muslim | 104 | 20.8 |

| | | | |
|----------------------------|-------------------------|-----|------|
| | Other | | |
| Type of family | Joint family | 320 | 64 |
| | Nuclear family | 180 | 36 |
| Birth spacing | 1-2 years | 290 | 58 |
| | 3-4 years | 95 | 19 |
| | Not having child before | 115 | 23 |
| Sources of information | Health personnel | 330 | 66 |
| | Radio/television | 96 | 19.2 |
| | News paper | 44 | 8.8 |
| | Friends/ Relatives | 30 | 6 |
| Number of Antenatal visits | 1 st | 216 | 43.2 |
| | 2 nd | 138 | 27.6 |
| | 3 rd | 36 | 7.2 |
| | 4 th | 110 | 22 |

Table 2:- Distribution of respondent's knowledge towards Anaemia among Antenatal women who attended OPD at government general hospital, kurnool from November 1, 2022 to January 31,2023.

| Variables | Categories | Frequency | percentage |
|---|---------------------------|-----------|------------|
| 1. Have you heard about iron deficiency anaemia | Yes | 344 | 68.8 |
| | No | 156 | 31.2 |
| 2. what is your source of information | Health care worker | 320 | 64 |
| | Printed materials | 150 | 30 |
| | Others/Media | 30 | 6 |
| 3. What is Anaemia | Poor Nutrition | 230 | 46 |
| | Iron deficiency | 135 | 27 |
| | Low Haemoglobin | 40 | 8 |
| | Don't know | 95 | 19 |
| 4. Signs & symptoms of anaemia | Exertional fatigue | 254 | 50.8 |
| | General body weakness | 161 | 32.2 |
| | Poor appetite | 45 | 9 |
| | All above | 10 | 2 |
| | Don't know | 30 | 6 |
| 5. Causes of anaemia | Poor Nutrition | 334 | 66.8 |
| | Bleeding during pregnancy | 20 | 4 |
| | Multi gravida & spacing | 26 | 5.2 |
| | All listed above | 35 | 7 |
| | Don't know | 85 | 17 |
| 6. Do you know how to prevent anaemia | Yes | 362 | 72.4 |
| | No | 138 | 27.6 |
| 7. How can we prevent anaemia | Good Nutrition | 223 | 44.6 |
| | Using iron supplement | 125 | 25 |
| | Eating Fruits | 52 | 10.4 |
| | All above | 40 | 8 |
| | Don't know | 60 | 12 |
| 8. Do you know drinking tea, coffee, milk reduce iron absorption in the body? | Yes | 86 | 17.2 |
| | No | 414 | 82.8 |
| 9. Do you know spacing child can prevent anaemia | Yes | 114 | 22.8 |
| | No | 386 | 77.2 |
| 10. Minimum Spacing Required | < 2years | 271 | 54.2 |
| | 2 years and above | 106 | 21.2 |
| | Don't know | 123 | 24.6 |
| 11. Causes of Anaemia during pregnancy | Less spacing between | 107 | 21.4 |

| | | | |
|-----------------------------------|--------------------------|-----|------|
| 12. Any infection causing anaemia | child | 294 | 58.8 |
| | Poor Nutrition | 15 | 3 |
| | Infections | 34 | 6.8 |
| | All the above | 40 | 8 |
| | Don't know | 10 | 2 |
| | Urinary tract infections | 51 | 10.2 |
| | Malaria | 85 | 17 |
| | Dengue | 63 | 12.6 |
| | worm Infestation | 10 | 2 |
| | Don't Know | 291 | 58.2 |

Table 3:- Frequency distribution of attitudes of respondents towards Anaemia among Antenatal women who attended OPD at government general hospital, kurnool, from November 30, 2022 to January 31,2023.

| Variables | Categories | Frequency | Percentage |
|---|-------------------|-----------|------------|
| 1.Do you believe that regular visit use to health of mother &foetus during pregnancy? | Strongly disagree | 0 | 0 |
| | Disagree | 5 | 1 |
| | Agree | 285 | 57 |
| | Strongly Agree | 170 | 34 |
| | I Don't know | 40 | 8 |
| 2.Iron supplement can affect health of mother &foetus ? | Strongly disagree | 5 | 1 |
| | Disagree | 31 | 6.2 |
| | Agree | 217 | 43.4 |
| | Strongly Agree | 168 | 33.6 |
| | I Don't know | 79 | 15.8 |
| 3.Drinking coffee, tea or milk can affect iron absorption | Strongly disagree | 80 | 16 |
| | Disagree | 160 | 3.2 |
| | Agree | 60 | 1.2 |
| | Strongly Agree | 10 | 2 |
| | I Don't know | 190 | 38 |
| 4.Iron supplement or iron tablets can prevent anaemia | Strongly Disagree | 34 | 6.8 |
| | Disagree | 91 | 18.2 |
| | Agree | 192 | 38.4 |
| | Strongly Agree | 141 | 28.2 |
| | I Don't know | 42 | 8.4 |
| 5.Regular meals or feeding can prevent anaemia | Strongly Disagree | 14 | 2.8 |
| | Disagree | 21 | 4.2 |
| | Agree | 324 | 64.8 |
| | Strongly Agree | 136 | 27.2 |
| | I Don't know | 5 | 1 |
| 6.Pregnant women should consume iron tablets in spite of healthy diet | Strongly Disagree | 30 | 6 |
| | Disagree | 50 | 10 |
| | Agree | 260 | 52 |
| | Strongly Agree | 90 | 18 |
| | I Don't know | 70 | 14 |
| 7.Promotion of family planning methods for spacing will prevent anaemia | Strongly Disagree | 41 | 8.2 |
| | Disagree | 170 | 34 |
| | Agree | 60 | 12 |
| | Strongly Agree | 37 | 7.4 |
| | I Don't know | 192 | 38.4 |
| 8.Spacing children can prevent anaemia | Strongly Disagree | 46 | 9.2 |
| | Disagree | 155 | 31 |
| | Agree | 67 | 13.4 |
| | Strongly Agree | 31 | 6.2 |
| | I Don't know | 201 | 40.2 |

| | | | |
|---|-------------------|-----|------|
| 9.Any pregnant women can be affected by anaemia | Strongly Disagree | 47 | 9.4 |
| | Disagree | 51 | 10.2 |
| | Agree | 160 | 32 |
| | Strongly Agree | 132 | 26.4 |
| | I Don't know | 110 | 22 |

Table 4:- Distribution of respondents practice towards Anaemia among antenatal women who attended OPD at government general hospital, kurnool, from November 30, 2022 to January 31, 2023.

| Variables | Categories | Frequency | Percentage |
|---|------------|-----------|------------|
| 1.Have you drink tea, coffee & milk with meal? | Yes | 414 | 82.8 |
| | No | 86 | 17.2 |
| 2.Have you used regular iron tablets | Yes | 169 | 33.8 |
| | No | 331 | 66.2 |
| 3.Will you take three regular meals? | Yes | 351 | 70.2 |
| | No | 149 | 29.8 |
| 4.Have you taken Folic acid supplements in current pregnancy? | Yes | 174 | 34.8 |
| | No | 326 | 65.2 |
| 5.Do you have the habit of eating red meat, liver, chicken, fish? | Yes | 219 | 43.8 |
| | No | 281 | 56.2 |
| 6.Do you include fibre rich food frequently? | Yes | 154 | 30.8 |
| | No | 346 | 69.2 |
| 7.Do you include green leafy vegetables in your diet every day? | Yes | 171 | 34.2 |
| | No | 329 | 65.8 |

Results:-

Socio-demographic characteristics of respondents:

A total of 500 antenatal women were participated in the study with a respondent rate 95%. Socio-demographic characteristics of the respondents as indicated in Table 1 above showed that 292(58.4%) were rural and 286(57.2%) were between 15-25 years old. Regarding their marital status, 316 (63.2%) were married in between 15-25 years. In respect of Number of Pregnancies and stage of pregnancy, majority were in second gravida i.e 210 (42%) and 2nd trimester i.e 260 (52%) respectively. In terms of their religion, majority were Hindu i.e 368 (73.6%) and next were muslimi.e 104 (20.8%). Majority of them from Joint family i.e 290 (58%). With regard to years of child spacing, majority were in 1-2 years i.e 290 (58%) and no. of antenatal visits were high in 1st visits i.e 216 (43.2%). Source of information was mainly obtained from health personnel i.e 330 (66%). (Table 1)

Knowledge towards anaemia among Antenatal women:

Only 344 (68.8%) of the respondents had heard about iron deficiency anaemia. Among the respondents, majority came to know about Anaemia from the health care workers i.e 260 (52%).Majority of the respondents knew anaemia means poor nutrition i.e 230 (46%), signs and symptoms of anaemia were exertional fatigue i.e 254 (50.8%) and causes of anaemia were poor nutrition i.e 334 (66.8%). Majority of them know how to prevent anaemia.i.e 362 (72.4%) i.e by taking good nutrition 223(44.6%). Majority of them, don't know that drinking tea, coffee, milk reduce iron absorption in the body i.e 414 (82.8%) and birth spacing can prevent anaemia.i.e 386 (77.2%). Majority of them believed that less than 2 years spacing of pregnancies will help to prevent anaemia.i.e 271 (54.2%). Most of them know that poor nutrition i.e 304 (60.8%) causes the anaemia during pregnancy. Majority of them i.e 291 (58.2%) don't know that any infection which is causing anaemia. (Table 2)

Attitude of respondents towards Anaemia among antenatal women:

Out of 500, about 285 (57%) agreed that regular visit would improved the health of mother &foetus during pregnancy and 217 (43.4%) agreed that iron supplements could affect the health of mother &foetus. Majority of them, 190 (38%) don't know that drinking coffee, tea or milk could affect iron absorption, 192 (38.4%) don't know that promotion of family planning methods for spacing can prevent anaemia and 201 (40.2%) don't know that spacing child can prevent anaemia. Majority of them, 192 (38.4%) agreed that iron supplement or iron tablets can prevent anaemia, 324 (64.8%) agreed that regular meals or feeding can prevent anaemia and 260 (52%) agreed that pregnant women should consume iron tablets in spite of healthy diet. Majority of them, 160 (32%) agreed that any pregnant women can be affected by anaemia. (Table 3)

Practice towards Anaemia among antenatal women:

Out of 500, 414 (82.8%) drink tea, coffee & milk with meals, 351 (70.2%) had three regular meals. Majority of them, 331 (66.2%) don't take regular iron tablets, 326 (65.2%) have not taken Folic acid supplements during current pregnancy, 281 (56.2%) do not have the habit of eating red meat, liver, chicken, fish as well as 346 (69.2%) do not take fibre rich food frequently and 329 (65.8%) do not include green leafy vegetables in their diet every day.

Discussions:-

1. In our study, only 22% had more than 4 antenatal visits, but when compared to study done by Maj Sivapriya S⁽¹⁾ 75% had more than 4 antenatal visits. The majority (43.2%) of the study participants had 1 antenatal visit.
2. In our study, only 50.8% knew about the fatigue was the symptom of anaemia, whereas, the study done by Archana Dhok⁽²⁾ and team mentioned that 85% knew that fatigue was symptom of anaemia. In our study, only 66.8% knew that poor nutrition was the cause of anaemia whereas, in the study done by Archana Dhok&etc mentioned that 74% knew that poor nutrition was the cause of anaemia.
3. In our study, 44.6% knew that they can prevent anaemia by taking good nutrition, whereas, the study conducted by Abdu Oumer⁽³⁾ and team mentioned that only 31.3% knew the same. Similarly, 72.4% knew how to prevent anaemia whereas the same study mentioned that only 58.6% knew how to prevent anaemia.
4. In our study, only 23% were the 1st pregnancy women, where as 51.6% were the 1st pregnancy women mentioned in the study conducted by Masresha Leta Serbesa⁽⁴⁾ and team. In the same study, it was mentioned that 88.3% had heard about iron deficiency anaemia whereas in our study, only 68.8% heard about iron deficiency anaemia.
5. In our study, source of information regarding anaemia, they got it from the health care workers was 52% but it was 60% in the study conducted by Raksha M⁽⁵⁾ and team. In the same study, it mentioned that The number of antenatal women and the trimester in which they first reported to the hospital in 2nd trimester were 51% and it was almost same i.e 52% in our study.

Conclusion:-

1. In our study most of antenatal mothers are not aware of importance of antenatal care and the importance of iron supplementation and nutrition. Most of them not having knowledge of birth spacing also. So these are the main causes for anaemia among antenatal mothers in community.
2. We feel educating the public / family members / especially antenatal mothers regarding the importance of Nutrition, iron supplementation, birth spacing and deworming is needed to overcome the risk of anaemia, which is the root cause of maternal and perinatal morbidity and mortality. This can be done by small group discussion among antenatal mother and showing flip charts, small videos in antenatal clinics.

Conflict of interest

Nil.

References:-**1. Maj Sivapriya S , Lt Col LaxmipriyaParida**

- A Study to Assess the Knowledge and Practices Regarding Prevention of Anaemia among Antenatal Women Attending a Tertiary Level Hospital in Pune.

<https://www.ijsr.net/archive/v4i3/SUB152254.pdf>

2. Archana Dhok, Ajay Meshram, Lata KanyalButola, Ruchir Khare

- Knowledge, Attitude and Practice Study Among Rural Antenatal Women Regarding Anaemia, Iron Rich Diet and Iron Supplement.
- International Journal of Current Research and Review Research Article DOI: <http://dx.doi.org/10.31782/IJCRR.2021.13617>

3. Abdu Oumer , Arif Hussein

- Knowledge, Attitude and Practice of Pregnant Mothers towards Preventions of Iron Deficiency Anemia in Ethiopia: Institutional Based Cross Sectional Study.
- doi: 10.35248/2375-4273.19.07.238

4. Masresha Leta Serbesa, Sr Maleda Tefera Iffa

- Knowledge, attitude and practice on prevention of iron deficiency anemia among pregnant women attending ante-natal care unit at public hospitals of Harar Town, Eastern Ethiopia: institutional based cross-sectional study.

- Int J Pregn& Chi Birth. 2019;5(2):48– 55. DOI: 10.15406/ipcb.2019.05.00146

5. Raksha M, Shameem VPA

- Knowledge, attitude and practice study regarding anemia in antenatal women
- DOI: <http://dx.doi.org/10.18203/2320-1770.ijrcog20161856>.