

# Do Psychological Fear Factors in the Poor Pregnant Women Lead to Anemia?

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## ABSTRACT

**Background:** Anemia very specifically iron deficiency anemia remains a threat for the women of reproductive thereby increasing the maternal and neonatal mortality. Besides pregnancy depressions, there are a wide range of psychological fears that run in the minds of pregnant women in Rajasthan altering either their eating pattern or affecting their antenatal care and visits which directly or indirectly become a cause for anemia.

**Objectives:** The aim is to identify the psychological fear factors leading to anemia in the target group. **Materials and Methods:** Questionnaire-based, descriptive study of the pregnant women at Janana Hospital for their antenatal visits and delivery. Description statistics was applied to come to the inferences. **Results:** It was found that fear of the pandemic, violence by the intimate partner, fear of girl child, and the taunt arising from the mother having no male kept the pregnant women away from the antenatal care which led to a late diagnosis of anemia. Barrenness and occult practices altered their approach to diet which too became a cause for anemia. Mud eating also had an impact on anemia (picca).

**Conclusion and Recommendation:** Psychological factors have a role in causing anemia during pregnancy. Proper education, awareness programs specially in this pandemic period.

**Keywords:** Anemia, Antenatal care, Coronavirus disease 2019, Fear, Nutrition, Pandemic, Pregnancy, Psychological factors

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## INTRODUCTION

Anemia remains a worldwide issue of concern among the women of reproductive age not only in the developing countries but also in the developed countries. It continues to cause havoc by being the most prominent cause taking the life of the neonate and the mother or causing adverse delivery outcomes. Its repercussions can be felt not only at the time of birth, but even years after birth. The major causes attributed for the commencement of anemia in pregnant women are imbalanced and insufficient diet beside other causes. Various socio-demographic and economic reasons have been attributed for the same, but there are many hidden psychological factors which though not directly but indirectly play a great role in deciding for nutrition and diet and thus contribute largely for the onset of anemia during pregnancy. This paper focuses on such psychological factors faced by the poor pregnant women of Ajmer city which often lay hidden and go unnoticed but contribute tangibly and become a cause for developing anemia among pregnant women.

## MATERIALS AND METHODS

It was a questionnaire-based survey of the poor pregnant women coming for the antenatal care delivery at the Janana Hospital of the Ajmer city. Descriptive statistical is the tool applied to present the result of the study.

## RESULTS

This year the coronavirus disease 2019 (COVID-19) pandemic specially the second wave has hit hard. There were pregnant women who out of fear withdrew themselves from antenatal visits to the Anganwadis or hospital visits. This led to a late detection of their Hb level and a delayed treatment. 87 women had a psychological fear of which 87% women were anemic when they came at their last trimester or at the time of delivery. Violence of any sort has

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adverse effect on the health. Physical or mental violence by the in-laws or husband, deprived the women of a forceful or willful abstain from nutrition. 42 women who face violence, there were close to 79% who suffered with anemia. Anxiety or depression due to infertility or no children after the first birth and also too many girl children with no male child also affected their diet schedule. Thus, there were 80% women and 41.06% women who suffered anemia due these reasons. Often the above reasons led these illiterate women to practice occult. Occult practices again demand total or partial refraining from nutritious food. Therefore, a great percentage of 86% women underwent anemia because of this reason. Anxiety, tension, and deficiency of nutrients lead women to eat mud, slit, state, or bhoori (burned remains of the cow dung cakes). About 76% of such women were anemic. Social taboos cause mental trauma. No male sibling of the pregnant women is a social taboo. According to this taboo, if the mother had no brother, she cannot conceive a male child. This mental trauma inhibits the lady to enjoy a good health of mind and body. Nearly 46% of such women also faced with anemia (Table 1).

## DISCUSSION

### Factors that Altered or Disrupted their Antenatal Visits and thus Leading to Anemia

Fear of the pandemic COVID-19, Mental/Physical violence by the intimate partner, occult practices, no male sibling to the expectant mother these were the factors which hindered the mother for the usual visit to the Anganwadi's or the hospital. The result was that the pregnant women failed to diagnose their hemoglobin level at an early stage. It was only at the third trimester or during delivery they recognized the grievance of the problem. Therefore, many women had preterm birth, low birth weight, Intra Uterine Growth Retardation, Intra Uterine Death and varied other complications at or during delivery.

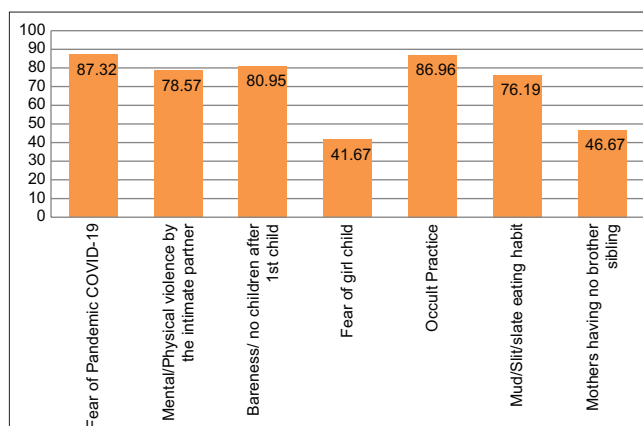
The second wave of the COVID-19 indeed proves to be fatal to the neonate as well the mother. Recent studies showed that hypoxemia which is due to maternal fever and pneumonia can result in preterm birth, early rupture of the membrane and an unusual display of the fetal heartbeat.<sup>[1]</sup> The fear of the has kept the poor pregnant women from proper antenatal visits which has shown the repercussions. Something similar was observed by the immigrant pregnant women who out of public fear did not go for antenatal visits and faced dangerous consequences.<sup>[2]</sup> Something similar was also observed by Fabi and Ludmir.<sup>[3]</sup>

According to the WHO,<sup>[4]</sup> violence by intimate partner is not only a human rights issue but also a public health concern. As per the ICRW claims, over a half (52%) of Indian married females underwent an abusive relationship with husband in some part of their life Priya *et al.*<sup>[5]</sup> Violence whether mental, physical, emotional, psychological, or sexual lead to maternal complications such as low birth weight, abortions, maternal distress, and inadequate antenatal care. Martin *et al.*,<sup>[6]</sup> there are studies in the recent years that Abuse by the intimate partner also increases health concerns of the mother. Therefore, our study was supported by Silverman *et al.*<sup>[7]</sup> A similar study was done by Avanigadda and Kulasekaran.<sup>[8]</sup>

Illiterate women fall prey to occult practices or witchcraft for varied reasons. Thereby denying themselves not only from food but also from the basic facilities needed during pregnancy including hospital visits.<sup>[9]</sup> Prenatal care enacts an important role in preventing obstetrics. This is often deprived in pregnant women addicted to witchcraft and occult practices which they undertake for a male child or to remove bareness.<sup>[10]</sup>

### Factors that Caused a Disruption in their Nutrition and Led to Anemia

The factors that caused the pregnant women to be forced into a starvation or improper diet which resulted in anemia are occult practice or witchcraft, bareness or fear of another girl child, violence by the intimate partner, and mud/slit/slate eating. Fear and anxiety of bareness and girl child make the women to either do improper abstaining from food or follow occult practice. There was a case where a woman was fed on chapatis and chilies for nine months to receive a male child. Insufficient nutrition is only a resultant process of these psychological issues. But lack of nutrition has an impact in causing anemia in pregnancy. Bhutta *et al.*,<sup>[11]</sup> similar study was also shown by Branca, *et al.*<sup>[12]</sup>



**Figure 1:** Psychological fear factors and its association with anemia

**Table 1:** Psychological fear factors and its association with anemia

Psychological fear factor	No. of women affected	No of women with anemia in the affected group	Percentage
Fear of Pandemic COVID-19	71	62	87.32
Mental/Physical violence by the intimate partner	42	33	78.57
Bareness/no children after 1 <sup>st</sup> child	21	17	80.95
Fear of girl child	36	15	41.67
Occult Practice	23	20	86.96
Mud/Slit/slate eating habit	21	16	76.19
Mothers having no brother sibling	15	07	46.67
Total	229	170	74.23

COVID-19: Coronavirus disease 2019

A well-balanced diet is needed for a safe journey through pregnancy. There is need of a balanced diet, even excess can give a hazardous effects. Studies suggest that consumption of calcium more than 600 mg/day reduces the ability of the body to absorb iron. John and Sharma,<sup>[13]</sup> this may eventually lead to anemia or iron deficiency anemia. Similar studies have been proved by Lynch.<sup>[14]</sup> Ajmer has a high content of dolomite which is a mineral consisting of calcium magnesium carbonate according to Mizoguchi *et al.*<sup>[15]</sup> Women often led with anxiety, tension, and deprivation develop a habit of eating slate, mud, slit, and other substances which may have a high content of calcium thereby indirectly leading to the commencement of anemia during pregnancy.

## CONCLUSION

Anemia being a world health problem affecting the health of the women in their reproductive age; when they are encountered with various psychological fear factor become deadly and play havoc in the life of the pregnant women and also affect adversely on the birth outcomes due to late detection of anemia which becomes difficult to be treated. Among the various psychological issue fear of the corona virus was due to the present pandemic condition, this curtailed many women to avail the medical

facilities due to varied reasons, thus aggravating their condition. Besides this factor all the other factors like violence, fear of a girl child, bareness, occult practice, habit of eating pica and no male sibling of the mother were purely psychological fear of the mother which influenced greatly the eating pattern of the pregnant women which caused nutritional deficiency and thus lead to anemia (Figure 1).

## RECOMMENDATION

There is no doubt socio, economic and demographic factors have a major role in deciding for anemia in the pregnant women, but the psychological factors are often left unnoticed. They lie as a hidden treat causing great damage to the women in their reproductive age. There has to be a proper methodology developed to tackle such hidden evils which may not allow the various schemes taken by the government to tackle this social evil of anemia during pregnancy.

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## ETHICAL CLEARANCE

Ethical clearance was sought from the Ethical committee of the Victoria Hospital, under which Janana Hospital falls.

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## AUTHORS' CONTRIBUTIONS

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

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