

A DESCRIPTIVE STUDY TO ASSESS THE LEVEL OF KNOWLEDGE REGARDING ANEMIA AMONG PRIMI GRAVIDA WOMEN ATTENDING THIMIRI PRIMARY HEALTH CENTRE, ARCOT

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ABSTRACT

Background: Anemia is a common health problem among pregnant women, especially in rural areas. It poses a significant risk to both maternal and fetal health. **Objective:** To assess the level of knowledge regarding anemia among primi gravida women at Thimiri PHC. **Methods:** A descriptive cross-sectional study was conducted among 60 primi gravida women at the Rural Thimiri Primary Health Centre (PHC) Arcot. Non-probability purposive sampling technique was used to select participants. The structured knowledge questionnaire were used. Data were analyzed using descriptive statistics. **Results:** The study revealed that the majority of participants had moderate knowledge (60%), while 25% had inadequate and 15% had adequate knowledge about anemia. **Conclusion:** The findings indicate a need for enhanced health education programs focusing on anemia during antenatal visits.

Key Words: Assess, level of knowledge, Anemia, primi gravida women.

INTRODUCTION

Anemia is a widespread public health issue affecting millions of pregnant women globally, especially in low- and middle-income countries like India. It is defined by the World Health Organization (WHO) as a condition in which the hemoglobin level falls below 11 g/dL during pregnancy. Anemia in pregnancy increases the risk of maternal morbidity and mortality, preterm birth, low birth weight, and other adverse perinatal outcomes.

Among pregnant women, primi gravida those experiencing pregnancy for the first time are particularly vulnerable due to their limited experience and often lower awareness of maternal health issues. Factors such as poor nutritional intake, low iron and folic acid supplementation, early marriage, frequent infections, and lack of access to healthcare services contribute significantly to the high prevalence of anemia in rural areas.

In rural settings like Thimiri, limited access to health education and antenatal care services further exacerbates the risk. Primary Health Centres (PHCs) are the first line of healthcare in rural India and play a crucial role in maternal care and education. Assessing the knowledge of primi gravida women about anemia is essential to identify gaps and implement targeted interventions that promote healthy pregnancy outcomes.

This study aims to assess the level of knowledge regarding anemia among primi gravida women attending the rural Thimiri PHC, with the intention of informing educational strategies that can improve maternal health and reduce the burden of anemia in this vulnerable group.

Need for the Study

Anemia in pregnancy continues to be a significant public health concern in India, particularly in rural areas where healthcare access and nutritional awareness are



limited. According to the National Family Health Survey-5 (NFHS-5), the prevalence of anemia among pregnant women in India is approximately 52.2%, indicating that more than half of all expectant mothers suffer from this preventable condition. In Tamil Nadu, the prevalence is also high, contributing to increased maternal and neonatal complications.

Primi gravida women are at greater risk due to their inexperience and often inadequate knowledge about nutrition, iron-rich foods, and antenatal care. Without timely intervention and education, anemia can lead to serious outcomes such as preterm delivery, low birth weight, intrauterine growth restriction, and even maternal death.

A study by Kavitha et al. (2021) found that only 38% of pregnant women had adequate knowledge about anemia, and most lacked awareness about the importance of iron-folic acid supplementation and dietary practices. Another study by Suresh et al. (2020) in rural Karnataka reported that primi gravida women had significantly lower knowledge scores compared to multigravida women, emphasizing the need for targeted health education.

Furthermore, WHO (2021) stresses the importance of early detection and health education to reduce anemia-related complications. Primary Health Centres (PHCs), especially in rural areas like Thimiri, serve as the first point of contact for pregnant women. Thus, PHCs are ideal platforms to assess and improve awareness regarding anemia.

Given the high prevalence and the preventable nature of anemia, it becomes crucial to assess the level of knowledge among primi gravida women. This will help in identifying gaps and tailoring antenatal education programs to reduce maternal and fetal health risks.

Statement of the Problem

A Descriptive Study to Assess the Level of Knowledge Regarding Anemia Among Primi Gravida Women attending at Rural Thimiri Primary Health Centre, Arcot.

OBJECTIVE OF THE STUDY

- To assess the level of knowledge regarding anemia among primi gravida women’s.
- To associate the level of knowledge with selected demographic variables.

METHODOLOGY

A descriptive cross-sectional research design was used to assess the level of knowledge regarding anemia

among primi gravida women. The study was conducted at the Rural Thimiri Primary Health Centre (PHC) Arcot, which provides antenatal services to women in surrounding rural communities. The target population for this study included primi gravida women attending antenatal clinics at the Thimiri PHC during the study period. A total of 60 primi gravida women were selected for the study. Non-probability purposive sampling technique was used to select participants who met the inclusion criteria.

Inclusion Criteria:

- Women who are primi gravida (first pregnancy)
- Attending ANC (antenatal care) clinic at Thimiri PHC
- Willing to participate and provide informed consent
- Able to understand and respond to the questionnaire

Exclusion Criteria:

- Women with known cognitive impairments or communication difficulties
- Multigravida women
- Women who were not available during the data collection period

A structured knowledge questionnaire was developed and validated by experts in nursing and public health. The questionnaire consisted of 25 multiple-choice questions, covering the following domains:

- Causes of anemia
- Signs and symptoms
- Complications
- Preventive measures
- Iron and folic acid supplementation

Scoring Interpretation:

- Inadequate Knowledge: 0–8 correct answers
- Moderate Knowledge: 9–17 correct answers
- Adequate Knowledge: 18–25 correct answers

After obtaining ethical clearance and permission from the PHC, participants were approached during their ANC visits. The purpose of the study was explained, and informed consent was obtained. The questionnaire was administered in the local language (Tamil) as needed, and responses were collected on the spot.

The collected data were analyzed using descriptive statistics: Frequency and percentage for demographic variables and knowledge levels.

Chi-square test was used to find the association between knowledge scores and selected demographic variables.

Table 1: shows that majority of primi gravid women 60% had moderate knowledge, 25% had inadequate knowledge were 15% were adequate.

Knowledge Level	Frequency(n)	Percentage (%)
Inadequate Knowledge	15	25%
Moderate knowledge	36	60%



Adequate knowledge	9	15%
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Table 2: depicts that there was a significant association between education level and knowledge regarding anemia ($p < 0.05$) while other variables such as age, occupation, income, family type and source of information did not show a significant association.

Demographic variables	Chi-square value	df	p value	Significance
Age	3.21	2	0.20	Not Significant
Education	9.76	2	0.01	Significant
Occupation	2.45	2	0.29	Not Significant
Monthly income	1.87	2	0.39	Not Significant
Type of family	1.34	1	0.25	Not Significant
Source of health information	5.11	3	0.16	Not Significant

Figure 1: shows that most participants (50%) were aged between 22-25 years, indicating that early twenties is a common age range for first pregnancies in rural areas.

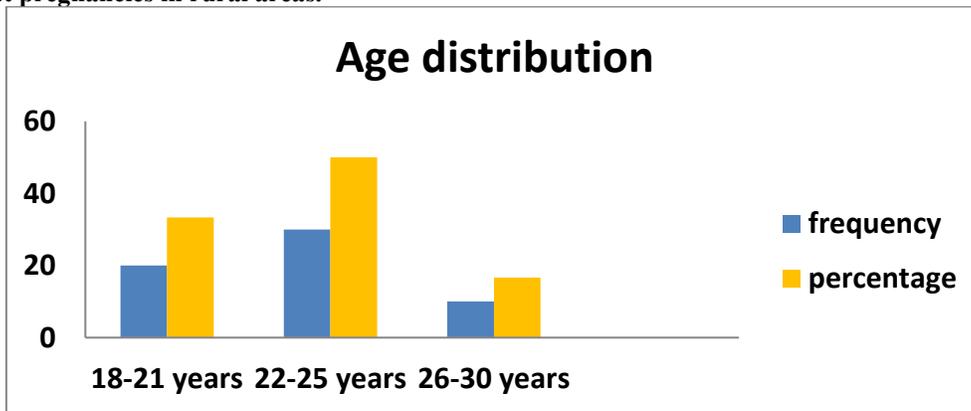


Figure 2: show that majority (41.7%) had secondary education, followed by 23.3% with primary education. Only 13.3% had no formal education, suggesting a moderate literacy level in the population.

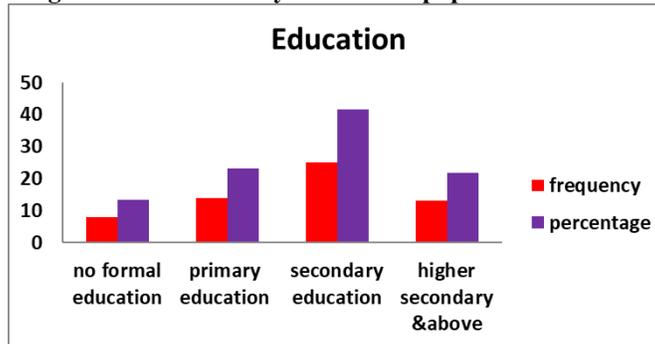


Figure 3: shows that 45% of the families earned Rs.5001-10000/month, showing that most belonged low-income groups, potentially impacting access to nutritious food and healthcare.



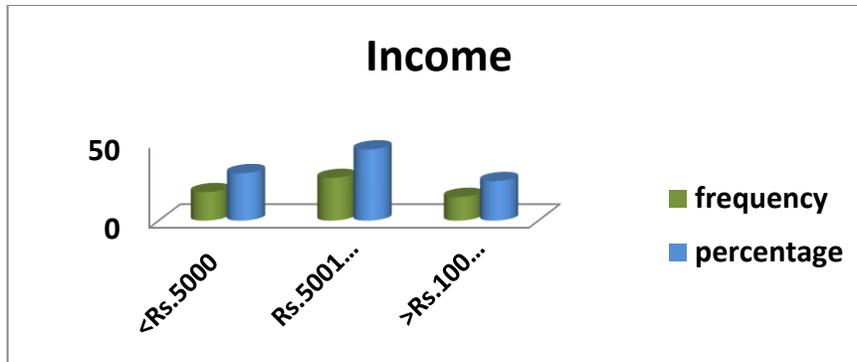
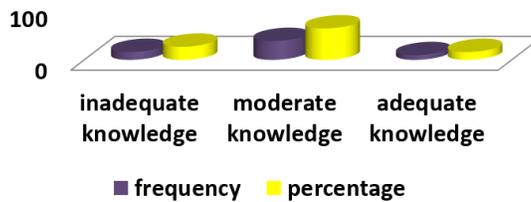


Figure 4: shows that majority of primi gravid women (60%) had moderate knowledge regarding anemia.25% had inadequate knowledge while 15% had adequate knowledge.

level of knowledge



DISCUSSION

Objective 1: To assess the level of knowledge regarding anemia among primi gravida women

The study findings showed that 25% of the participants had inadequate knowledge, 60% had moderate knowledge, and 15% had adequate knowledge.

This indicates that the majority of primi gravida women possess only a moderate understanding of anemia during pregnancy. Their awareness of causes, symptoms, complications, and preventive measures such as iron-rich diet and iron-folic acid supplementation was limited.

This result is similar to the study conducted by Kavitha et al. (2021), which found that only 38% of antenatal mothers had sufficient knowledge about anemia. Lack of formal education, poor access to health education, and limited exposure to antenatal counseling were contributing factors.

These findings emphasize the need for strengthened antenatal education programs focusing on maternal nutrition and anemia prevention, particularly for first-time mothers in rural settings.

Objective 2: To associate the level of knowledge with selected demographic variables

The study examined the relationship between knowledge scores and selected variables such as age, education, occupation, and income. The analysis revealed that there was a significant association between knowledge level and educational status ($p < 0.05$). No significant association was found between knowledge and age, occupation, or income.

This finding is consistent with a study by Suresh et al. (2020), which showed that education plays a vital role in improving maternal health knowledge. The authors concluded that targeted health education interventions should especially focus on less-educated primi gravida women.

NURSING IMPLICATIONS

1. Nursing Practice:

Nurses working in antenatal clinics, especially in rural areas, should assess the knowledge level of pregnant women regarding anemia during every visit.

2. Nursing Education

Nursing curricula should emphasize community-based maternal health education, including teaching strategies for rural and low-literacy populations.

3. Nursing Administration:

Administrators should arrange for regular training programs for staff nurses and health workers to enhance their teaching skills and update their knowledge.

4. Nursing Research:

Future research can focus on developing and evaluating structured teaching programs on anemia for pregnant women.

Comparative studies between rural and urban settings can be conducted to assess differences in knowledge and practices regarding anemia.



RECOMMENDATION

- Strengthen Antenatal Health Education Programs
- Involve Community Health Workers
- Develop and Distribute IEC Materials
- Include Family Members in Education
- Implement Structured Teaching Programs
- Conduct Periodic Screening and Monitoring
- Encourage Further Research.

CONCLUSIONS

The present descriptive study was conducted to assess the level of knowledge regarding anemia among primi gravida women attending the Rural Thimiri Primary Health

Centre at Arcot. The findings revealed that the majority of the participants had moderate knowledge, while a considerable proportion had inadequate knowledge about anemia, its causes, symptoms, complications, and prevention strategies.

There was a significant association between knowledge level and educational status, indicating that education plays a key role in health awareness among pregnant women. Other demographic factors such as age, occupation, and income showed no significant association with knowledge level.

The study highlights the urgent need for effective antenatal health education programs, especially tailored to primi gravida women in rural settings.

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