

# **A Study to Assess Knowledge Regarding Prevention and Management of Iron Deficiency and Iron-Deficiency Anemia Among Women in a Selected Rural Area of Kanpur, Uttar Pradesh**

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## **ABSTRACT**

*Iron deficiency (ID) and iron-deficiency anemia (IDA) remain major public health concerns among women, particularly in developing regions. Variations in clinical practices and limited awareness often hinder effective prevention and management. This study aimed to assess knowledge regarding ID and IDA among women in a rural area using a descriptive approach.*

*A structured methodology was applied, and women were assessed on their understanding of identification, prevention, and treatment of ID and IDA. Findings revealed that 45% of participants had moderate knowledge, 35% had inadequate knowledge, and only 20% demonstrated adequate awareness.*

*The study highlights the importance of early recognition of symptoms and risk factors. Preventive strategies such as iron supplementation for pregnant women and other high-risk groups were identified as essential. Oral iron therapy was recognized as the primary treatment method.*

*The findings emphasize the need for structured health education programs to improve awareness and promote standardized care practices.*

**Keywords:** Iron deficiency, iron-deficiency anemia, women, awareness, prevention

## **INTRODUCTION**

Iron deficiency and iron-deficiency anemia continue to affect women worldwide, especially in low- and middle-income countries. Women of reproductive age are particularly vulnerable due to menstrual blood loss, pregnancy-related demands, inadequate dietary intake, and limited access to healthcare services.

In India, anemia remains highly prevalent, with Uttar Pradesh reporting significant rates. Despite national programs promoting iron and folic acid supplementation, gaps in awareness and healthcare practices persist. Addressing these gaps is essential to improve early detection, prevention, and management, particularly in rural settings.

## NEED FOR THE STUDY

Iron deficiency anemia remains a serious concern among women in rural areas due to poor nutrition, lack of awareness, and limited healthcare access. Although government initiatives exist, their effectiveness is reduced by low compliance and insufficient knowledge.

Women in areas like Chaubepur, Kanpur, often face additional barriers such as low literacy, cultural practices, and socioeconomic challenges. These factors contribute to inadequate understanding of anemia and its consequences.

Assessing women's knowledge is important to identify gaps and design targeted educational interventions. Nurses and healthcare workers can play a key role in improving awareness and promoting healthy practices.

## PROBLEM STATEMENT

A study to assess knowledge regarding prevention and management of iron deficiency and iron-deficiency anemia among women in Chaubepur, Kanpur, Uttar Pradesh.

## OBJECTIVES

- To assess knowledge about iron deficiency and iron-deficiency anemia
- To evaluate awareness of preventive measures
- To examine knowledge regarding treatment and management
- To determine the relationship between knowledge and demographic variables

## HYPOTHESES

### Research Hypotheses:

- Women in the study area have adequate knowledge regarding prevention and management of ID and IDA
- Higher education is associated with better knowledge levels

### Null Hypotheses:

- Women do not have adequate knowledge regarding prevention and management
- There is no association between education level and knowledge

## ASSUMPTIONS

- Participants will provide honest responses

- Participants will understand and respond appropriately to the questions

**METHODOLOGY**

**Research**

Descriptive research approach

**Research**

Cross-sectional design

**Setting:**

Chaubepur, Kanpur, Uttar Pradesh

**Population:**

Women in the selected rural area

**Sample**

100 women

**Sampling**

Non-probability convenience sampling

**Inclusion Criteria**

- Women who can read and write Hindi or English
- Women willing to participate
- Women available during data collection

**Exclusion Criteria**

- Women who were seriously ill

**Approach:**

**Design:**

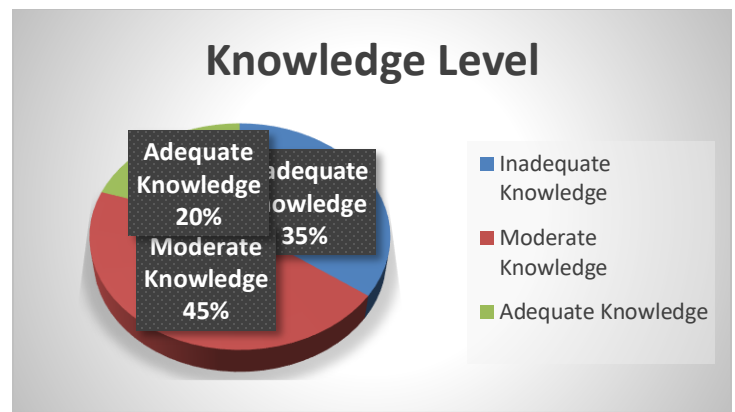
**Size:**

**Technique:**

**RESULTS**

**Knowledge Levels**

S. No.	Knowledge Level	Score Range (%)	Number of Women (n=100)	Percentage (%)
1	Inadequate Knowledge	0 – 33%	35	35%
2	Moderate Knowledge	34 – 66%	45	45%
3	Adequate Knowledge	67 – 100%	20	20%
	<b>Total</b>		<b>100</b>	<b>100%</b>



**SECTION A: DEMOGRAPHIC VARIABLES**

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No	Demographic Variable	Category	Frequency (n)	Percentage (%)
1	Age (years)	18–25	25	25%
		26–35	40	40%
		36–45	20	20%
		46–55	15	15%
2	Education Level	Illiterate	20	20%
		Primary	25	25%
		Secondary	30	30%
		Graduate & above	25	25%
3	Occupation	Housewife	60	60%
		Employed	40	40%
4	Marital Status	Married	80	80%
		Unmarried	20	20%
5	Monthly Income	<10,000 INR	35	35%
		10,001–20,000 INR	40	40%
		>20,000 INR	25	25%

**Interpretation:**

Most participants were **aged 26–35 (40%)**, **married (80%)**, **housewives (60%)**, and had **secondary or higher education (55%)**. The majority had a **monthly income of 10,001–20,000 INR (40%)**.

**SECTION B: KNOWLEDGE ASSESSMENT**

The knowledge of women regarding prevention and management of ID&IDA was assessed using a structured questionnaire. Scores were classified into three levels:

The study found that **45% of women had moderate knowledge**, **35% inadequate**, and only **20% adequate knowledge** regarding prevention and management of ID&IDA.

**DISCUSSION**

The findings indicate that a large proportion of women have limited or moderate knowledge about iron deficiency anemia. This may be due to lack of education, poor access to healthcare, and minimal exposure to health information.

Similar studies in rural areas have reported comparable results, showing that awareness remains insufficient. Education and community-based interventions are essential to improve knowledge and encourage preventive practices.

## CONCLUSION

This study revealed that most women had only moderate or inadequate knowledge regarding prevention and management of iron deficiency anemia. Awareness about nutrition, supplementation, early symptoms, and treatment options was limited.

Demographic factors such as education, age, and income significantly influenced knowledge levels. These findings highlight the need for focused health education programs to improve awareness and reduce the burden of anemia among women.

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