

Knowledge and Attitude of Primigravida Mothers of Rural Area Regarding Nutritional Needs and Prevention of Iron Deficiency Anaemia during Pregnancy

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Abstract

Background: Pregnancy is an exciting yet physiologically demanding period as a woman nurtures a growing fetus. The physiological, biochemical, and hormonal changes impact nutritional needs and the body's efficiency in utilizing nutrients. Nutrition is the cornerstone of human health. **Objectives:** To assess the knowledge and attitude of primigravida mothers regarding nutritional needs and prevention of iron deficiency anemia during pregnancy and to determine the association between pretest knowledge and attitude levels with selected socio-demographic variables. **Methodology:** A quantitative approach with an exploratory descriptive survey design was used. A total of 50 primigravida mothers from selected primary health centers in Vijayapura district were selected using a convenient sampling technique. Data was collected using a structured knowledge questionnaire and an attitude scale. **Results:** The study revealed that the mean knowledge score was 10, median 9, mode 7, with a standard deviation of 3.62, and a score range of 4-19. The majority (56%) of participants had a moderate level of knowledge, 30% had poor knowledge, and 14% had good knowledge. The mean attitude score was 31.44, median 31.50, mode 34, with a standard deviation of 5.74, and a score range of 20-44. The majority (74%) had a favorable attitude, 18% had a positive attitude, and 8% had a non-favorable attitude. A statistically significant association was found between levels of knowledge and sources of information at a 0.05 significance level. **Conclusion:** Education for antenatal mothers is essential to prevent nutritional deficiency disorders during pregnancy and ensure a positive pregnancy outcome.

Keywords: Knowledge, Attitude, Nutritional Needs, Iron Deficiency Anemia, Primigravida Mothers, Rural Areas.

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INTRODUCTION

The World Health Organization (WHO) highlights pregnancy and childbirth as significant life events that should bring joy and hope. While pregnancy is a natural physiological process, it carries risks for both the mother and infant. These risks are significantly reduced in developed countries due to better healthcare access. However, in developing countries, maternal mortality remains high due to inadequate care. WHO reports 430 maternal deaths per 100,000 live births globally, with 480 deaths in developing countries and 27 in developed nations.

Nutrition is a crucial factor influencing maternal and fetal health. Inadequate nutrition during pregnancy increases the risk of intrauterine growth restriction (IUGR), low birth weight (LBW), preterm birth, and neonatal mortality. Conversely, excessive

nutrient intake may lead to pregnancy complications such as preeclampsia, gestational diabetes, macrosomia, and an increased need for cesarean deliveries.

Many Indian mothers lack knowledge about antenatal, intranatal, and postnatal care due to illiteracy, poverty, and inadequate healthcare access. Dietary inadequacies are common during pregnancy, making education on nutrition crucial. Studies suggest that increased nutritional knowledge can positively influence dietary habits. Therefore, assessing primigravida mothers' knowledge and attitudes toward nutrition and anemia prevention is vital for developing effective educational interventions.

Objectives

1. To assess the knowledge and attitude of primigravida mothers regarding nutritional

needs and prevention of iron deficiency anemia during pregnancy.

- To determine the association between pretest knowledge and attitude levels with selected socio-demographic variables.

Hypotheses

H01: There is no statistically significant association between pretest levels of knowledge and selected socio-demographic variables.

H02: There is no statistically significant association between pretest levels of attitude and selected socio-demographic variables.

METHODOLOGY

Research Approach: Quantitative Research Approach.

Research Design: Exploratory Descriptive Design.

Sampling Technique: Non-Probability; Convenient Sampling.

Sample Size: 50 primigravida mothers.

Study Setting: Selected primary health centers of Vijayapura district.

Method of Data Collection: Face-to-face interview.

TOOLS USED:

Section I: Socio-demographic variables of participants

Section II: Structured Knowledge Questionnaire

- Comprised 21 multiple-choice questions on nutritional needs and anemia prevention.
- Scores ranged from 0-21, classified as: Poor knowledge (<7), Average knowledge (8-14), Good knowledge (>14).

Section III: Structured Attitude Scale

- Comprised 10 statements on nutrition and anemia prevention.
- Responses ranged from strongly agree to strongly disagree.
- Scores ranged from 10-50, classified as: Non-favorable attitude (10-23), Favorable attitude (24-36), Positive attitude (37-50).

Data Collection Procedure

Administrative permissions were obtained from selected primary health centers. The investigator explained the study's purpose to participants and assured confidentiality. Data collection was done through face-to-face interviews. Descriptive and inferential statistics were used for data analysis.

RESULTS

a. Socio-Demographic Characteristics:

Among the 50 participants:

- Age:** 52% were 18-22 years old, 34% were 23-26 years, and 14% were 27-30 years.
- Religion:** 52% were Hindu, 38% Muslim, 8% Christian, and 2% others.

- Education:** 22% had primary education, 36% had high school education, 34% completed pre-university, and 8% had diplomas or degrees.
- Occupation:** 52% were housewives, 14% engaged in agricultural work, 24% had jobs, and 10% were in other occupations.
- Source of Information:** 34% received information from healthcare workers, 30% from mass media, 22% from family, and 14% from friends.
- Gestation Period:** 34% were in the first trimester, 46% in the second, and 20% in the third.
- Exposure to Nutrition Education:** 68% had previous exposure, while 32% did not.

b. Knowledge Scores:

The mean knowledge score was 10, median 9, mode 7, with a standard deviation of 3.62. The majority (56%) had moderate knowledge, 30% had poor knowledge, and 14% had good knowledge.

c. Attitude Scores:

The mean attitude score was 31.44, median 31.50, mode 34, with a standard deviation of 5.74. The majority (74%) had a favorable attitude, 18% had a positive attitude, and 8% had a non-favorable attitude.

d. Association between Knowledge and Demographic Variables:

A statistically significant association ($p < 0.05$) was found between knowledge levels and sources of information.

CONCLUSION

Education on nutrition and anemia prevention is essential for antenatal mothers to ensure healthy pregnancy outcomes. Strengthening awareness through health education programs can improve maternal health and prevent complications.

Recommendations:

- Conduct targeted nutritional awareness programs for antenatal mothers.
- Enhance accessibility to healthcare resources in rural areas.
- Strengthen the role of healthcare workers in disseminating maternal nutrition information.

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