

Knowledge of primigravida mothers on antenatal nutrition

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ABSTRACT

Background: Maternal nutrition plays a critical role in fetal growth and development. Maternal nutrition refers to the nutritional needs of women during the antenatal and postnatal period (i.e., when they are pregnant and breastfeeding) and also may refer to the pre-conceptual period (i.e. adolescence). **Objective:** The objective was to assess the knowledge of primigravida mothers in the age group of 18-30 years regarding antenatal nutrition. **Materials and Methods:** Non-experimental small-scale survey was carried out among 50 primigravida mothers visiting selected hospitals, Haldwani block, Uttarakhand. Formal written permission was obtained from the authority of the college and hospital; informed consent was obtained from mothers to conduct the study. Demographic data of the subjects and data related to knowledge of mothers regarding nutrition were collected on areas of effects on fetus and mother, and antenatal nutrition and nutritional sources were collected. **Results:** The results revealed that about 24 (48%) primigravida mothers had good knowledge and 26 (52%) had inadequate knowledge regarding nutrition during antenatal period. **Interpretation and Conclusion:** Pregnancy is being most precious period in every woman's life. It needs continuous care for safe confinement, early detection of difficulties and prompt treatment in an appropriate period. Women in general and also during pregnancy stage are vulnerable segment of the population. It was found that maximum 52% of the primigravida mothers had inadequate knowledge regarding nutrition during antenatal period. Lack of awareness of health workers in community area is also making the situation worse which directly affects health of mother and fetus.

Key words: Antenatal period, fetus, primigravida mother, antenatal nutrition

INTRODUCTION

Antenatal care (ANC) is one of the crucial factors in ensuring healthy outcomes in women and newborns. Nutrition education and counseling not only is an integral part of ANC but also it influences maternal and child health outcomes.^[1-3] Malnutrition in pregnancy not only effects newborn but also impairs the mother's health.

When the pregnant woman's diet does not meet required nutrients for her and fetus, the fetal requirements are met by withdrawing these from the tissues of the pregnant mother. This further weakens the mother and increases the probability of serious life-threatening complications and increases susceptibility of low birth weight infant who will not be able to feed appropriately during the early stages of life.^[3] An underweight mother has 30% higher risk of delivering a LBW baby than her well-nourished counterpart.^[4] The availability and access to ANC are very changeable across India with the key determinants being place of residence (urban/rural), socioeconomic, and several other cultural factors.^[5] Fact that most of the fetal weight gain occurs during the last trimester, the influences of nutrients are not limited to the second or third trimester. Animal studies have highlighted that inadequate diet around peri-implantation stage affects fetal growth to a crucial extent.^[6] Studies have shown that pregnant women in urban poor settlements in Delhi had a poor dietary intake with majority of women consuming <50% of recommended dietary allowances for protein, iron, and

vitamin A with their intake not being significantly different from their non-pregnant counterparts.^[7,8] The feeding practices for female children and adolescent girls are discriminatory which lead to poor nutritional status among young girls. Anemia is the most common nutritional deficiency disorder in the world. Iron deficiency anemia is the most widespread micronutrient deficiency during pregnancy affects one billion people worldwide, and the United Nations Children's Fund's emphasizes this global problem and goal to reduce the prevalence of anemia (including iron deficiency) to one-third by 2010.^[9] Among all the social determinants of maternal mortality, status of women in the society plays an important role. Women in poor household have reduced access to nutrition, rest, health education, and health care, all of which are essential for safe pregnancy.^[10]

MATERIALS AND METHODS

Research Objectives

The objective was to assess the knowledge of primigravida antenatal mothers regarding antenatal nutrition visiting selected hospitals, Haldwani.

Study Design, Population, Sample Size, and Sampling Technique

A cross-sectional survey was carried out among 50 antenatal mothers visiting selected hospitals, Haldwani Block, Uttarakhand. Participants were in the age group of 18-30 years. The sampling technique adopted was convenient sampling.

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Tools and Procedure

The tool consisted of demographic pro forma and self-reported structured knowledge questionnaire which was categorized into knowledge regarding antenatal nutrition, knowledge regarding nutritional effects on mother and fetus, knowledge regarding sources of nutrition, and knowledge regarding miscellaneous. The antenatal mothers were first explained about the research study, and their willingness to partake in the study was identified, followed by which informed consent was taken and data were collected individually.

RESULTS

Section 1. Description of Sample Characteristics

The data were collected from 50 antenatal mothers visiting selected hospitals of Haldwani block, Uttarakhand. Frequency and percentage were computed for describing the sample characteristics and is shown in Table 1.

The data presented in the Table 1 show that maximum number of 26 (52%) mothers were in the age group of 22-26 years. Majority of the 44 (88%) antenatal mothers were homemakers, and most of the 29 (58%) of antenatal mother’s source of information was ASHA workers.

Section 2: Knowledge of Mothers on Antenatal Nutrition

The data presented in Figure 1 show that maximum number of 44 (88%) mothers were aware of intake of food and constituents of diet during pregnancy.

Section 3. Knowledge Regarding Nutritional Effects on Mother and Fetus

Information regarding nutritional effects was collected and is presented in Figure 2.

It was found that majority of the 38 (76%) antenatal mothers were aware of effects of unripe papaya and about 50 (100%) of the mothers were aware of methods for prevention of anemia. Maximum number of the 44 (88%) mothers were aware of diet require to prevent constipation during pregnancy. Most of the 37 (74%) of the mothers were aware of effects of anemia during pregnancy, and only 18 (36%) of the mothers were aware of malnutrition of fetus during pregnancy.

Section 4: Knowledge Regarding Sources of Antenatal Nutrition

It was found that maximum number of mothers 39 (78%) were aware of iron-rich sources, and only 26 (52%) of the mothers were aware of fat-rich sources as shown in Figure 3.

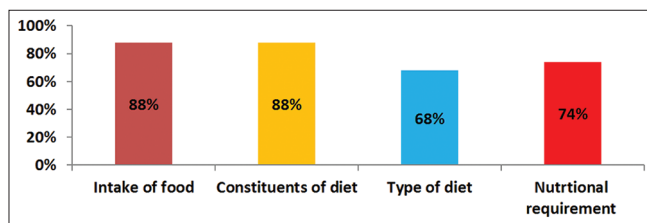


Figure 1: Percentage distribution on knowledge of mothers on antenatal nutrition n = 50

Table 1: Description of the subjects based on demographic variables

Sample characteristics	Frequency (%)
Age (year)	
18-22	16 (32)
22-26	26 (52)
26-30	8 (16)
Religion	
Hindu	41 (82)
Muslim	9 (18)
Sikh	-
Others	-
Mothers Education	
Professional or honor	-
Graduate or post graduate	15 (30)
Intermediate or post high school diploma	15 (30)
High school certificate	10 (20)
Middle school certificate	6 (12)
Primary school or literate	4 (8)
No formal education	-
Husband Education	
Professional or honor	2 (4)
Graduate or post graduate	21 (42)
Intermediate or post high school diploma	17 (34)
High school certificate	7 (14)
Middle school certificate	2 (4)
Primary school or literate	1 (2)
No formal education	-
Mothers occupation	
Professional	-
Semiprofessional	1 (2)
Skilled worker	1 (2)
Semiskilled worker	3 (6)
Unskilled worker	1 (2)
Homemaker	44 (88)
Husband occupation	
Professional	14 (28)
Semiprofessional	5 (10)
Skilled worker	16 (32)
Semiskilled worker	14 (28)
Unskilled worker	1 (2)
Homemaker	0 (0)
Income status	
≤10,000	7 (14)
10,000-30,000	24 (48)
30,000-50,000	10 (20)
50,000 or above	9 (18)
Sources of information	
ASHA worker	29 (58)
Doctors	12 (24)
Nurses	5 (10)
Other sources (literature, magazine etc.)	4 (8)

DISCUSSION

Malnutrition in pregnancy not only effects newborn but also impairs the mother’s health status. When antenatal diet does not meet the required nutrients for her and fetus, the fetal requirements are met by withdrawing these from the tissues of the pregnant mother. This increases the probability of serious

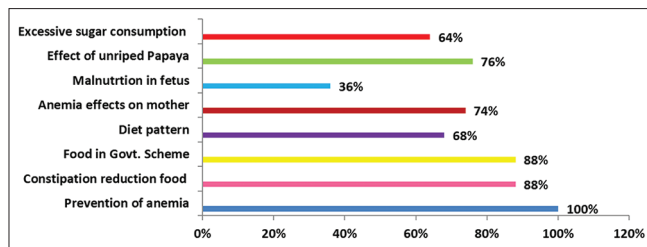


Figure 2: Percentage distribution on knowledge regarding nutritional effects on mother and fetus

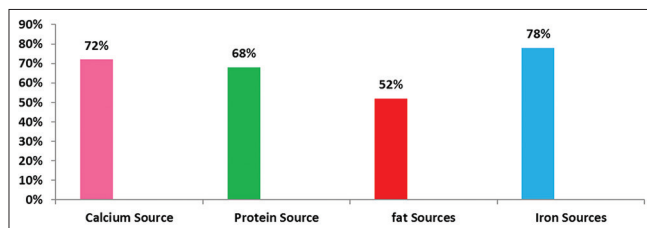


Figure 3: Percentage distribution on knowledge regarding nutritional sources $n = 50$

complications and the chances of delivering low birth babies who is unlikely to feed adequately early in life.^[11] In the present study, it was found that majority of the antenatal mothers 24 (48%) had average knowledge regarding diet during pregnancy which was supported by the study conducted by Suchithra^[12] which reported that 13 (65%) of antenatal mothers had average knowledge regarding antenatal nutrition. It was good to know that mothers had some knowledge regarding dietary sources and food items to be chosen during antenatal period, but it becomes equally important to make mothers aware about the food sources for nutritive content in it.

CONCLUSION

Balanced nutrition is most vital, especially during pregnancy, as it is not only the mother who requires nutrition but also fetus. Maternal nutrition during pregnancy has gained interest over the years due to the understanding that there is an increased physiologic, metabolic, and nutritional demand associated with pregnancy. Women in developing countries suffer from nutritional deficiencies, but sociocultural factors including superstition and taboos that may be associated with malnutrition are not well studied.^[13] The study was limited to structured knowledge questionnaire. A similar kind study can be replicated on larger scale by comparing the antenatal mothers' knowledge and dietary taboos in rural and urban areas regarding nutrition to be taken during pregnancy.

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