



## KAP STUDY ON NUTRITIONAL AWARENESS AMONG PREGNANT WOMEN IN A TERTIARY CARE CENTRE

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### ABSTRACT

Adequate and balanced nutrition is important for a healthy pregnancy and better outcome. So the pregnant women has to be provided a healthy diet and they should know about nutrients to be taken during pregnancy.

**Aim :** This study was done to analyze the knowledge, attitude and practices of pregnant mothers towards nutrition in pregnancy in a tertiary care centre (Government Mohan Kumaramangalam Medical College Hospital, Salem, Tamil Nadu, India).

**Methodology :** It is a cross sectional study conducted among 1000 antenatal women attending outpatient clinic from July 2017 to December 2017. Data were collected by giving semistructured questionnaire related to demographic profile, Socio economic status, literacy, knowledge, attitude and practices about nutrition in pregnancy.

**Results :** Only 8% of women had good knowledge, 57% had average & 35% had poor knowledge about nutrition in pregnancy. 53% were lacking in their knowledge about harmful effects of over and under nutrition. Most of the women were lacking in their knowledge about common local sources of nutrition.

**Conclusion :** There is need to educate the pregnant women more about nutrition in pregnancy. There is also a need for increased awareness regarding nutritional intervention programs to improve the health status of women.

**KEYWORDS :** Maternal nutrition, Antenatal care, Pregnancy.

### Introduction

Adequate and balanced nutrition is essential for all humans especially the pregnant mothers who is nurturing the growing fetus. Pregnancy is the period of dynamic change for a mother requiring lot of care. During this period the fetus is nourished directly by the mother through placenta. Since the baby totally relies upon its mother for nourishment, the pregnant women has to be provided with an adequate and well balanced diet (1).

Nutritional deficiency during antenatal period may contribute to suboptimal embryonic and fetal nutrition, congenital malformation, intrauterine growth restriction, preterm delivery and maternal anemia (2). IUGR in turn leads to cardiovascular and metabolic disorders in adult life. Long term followup studies showed that men and women who were small and or disproportionate at birth have more risk of Coronary artery diseases, Hyperlipidemia, Hypertension and Type II Diabetes in their adult life (3). Food choices depends upon socioeconomic factors, knowledge, beliefs and perception about nutrition and health (4).

Our objective is to assess the antenatal women about their knowledge, attitude and practices about nutrition in pregnancy.

### Materials & Methods

This study was conducted at antenatal outpatient department of Government Mohan Kumaramangalam Medical College Hospital, Salem, Tamil Nadu, India. It is a cross sectional study conducted among 1000 antenatal mothers over a period of 6 months from July 2017 to December 2017. Semistructured questionnaire related to nutrition in pregnancy in their own language was given. Antenatal mothers who are willing to participate in the study were included. Data were collected and analyzed. Ethical committee approval was obtained for conducting the study.

### Results

It was observed that 56% of the respondents belong to age group of 21 - 25 years, followed by 21% in the age group of 20-30 years. 15% were in age group of 15-20 yrs and 7% were > 30 years of age. 50% got married before 20 yrs, 48% between 21-25 yrs and only 2% after 25 years. The educational status revealed that 10% were illiterate, 4% have completed primary education, 10% studied upto middle school, 33% have completed high school and 22% higher secondary education and 21% were diploma or degree holders.

Among the study population 42% were primigravida and 58% were gravida 2 and above. 14% of the respondents were in first trimester of pregnancy, 33% were in second trimester 53% in third trimester. 54% were in joint family and 46% were in nuclear family.

Majority of the women were home makers and only 11% were working. 89% of patients husbands were labourers and daily wages, 7% were self employed and 4% were in clerical jobs. 74% of the respondents were in socioeconomic status class IV, followed by 16% in class V & 10% were in class III in our study group.

Major source of information regarding nutrition in pregnancy in our study group was the medical officer of the Primary Health Centre 42%, followed by family members 29%, then the village health nurse 24%, the media played only 5% as source of information. Mother is the important family member to most of the patients for giving information about nutrition.

Regarding their knowledge about maternal nutrition only 8% of women had good knowledge & 57% had average & 35% had poor knowledge about nutrition in pregnancy. 77% of the mothers preferred to have increased intake of greens (drumstick leaves), fruits (apple, pomegranate, dates), vegetables, milk and egg during pregnancy and 9% preferred to have increased rice intake.

69% had restriction for some foods during pregnancy and 31% had such no restriction for any foods. Fruits like papaya, pineapple, meat, oily and spicy foods, tea, coffee and carbonated drinks were among the foods restricted during pregnancy.

Regarding their knowledge about variety of foods as carbohydrates, proteins and fats 24% had poor knowledge, 67% had average and only 9% had good knowledge. Protein powder given at the noon meal centres were taken by 59% of the women in our study. About adequate weight gain in pregnancy 54% had good knowledge and 46% had no knowledge. Knowledge about over and under nutrition in pregnancy was poor in 53% of the women, 43% had average and only 4% had good knowledge. Effects of under nutrition known to them are decreased birth weight of baby, anemia, hypertension. Effects of over nutrition known to them are vomiting, indigestion, diabetes, hypertension, increased birth weight of baby and difficult vaginal delivery.

67% of the mothers were aware of the health schemes like Dr.

Muthulakshmi Reddy scheme and Amma Baby Care kit provided by the state government and Janani Suraksha Yojna by the central government. Almost all the respondents told they want to gain more knowledge about nutrition in pregnancy as it will be useful for them and their baby as well.

**Discussion**

In our study only 8% had good knowledge , 57% had average & 35 % had poor knowledge about nutrition in pregnancy. This poor knowledge about nutrition in pregnancy is similar with study conducted by Renu Gupta et al (5) and Naomi et al (6) which showed 36% and 30 % respectively. This is due to low literacy and poor socioeconomic status of the participants in the study.

Nutritional knowledge about variety of foods as carbohydrates, proteins and fats was poor in 24%, average in 67% and good in 9% of the respondents. This is similar to the study by Gameda et al. (7) which showed 21 % of their respondents were only aware of carbohydrates and 29 % know about proteins.

In our study only 4% had good knowledge, 43% had average and 53% had poor knowledge about the effects of over and under nutrition, whereas the study by Gupta R from Kanpur, Uttar Pradesh, India showed 32% of pregnant women had good knowledge about the effects of over and under nutrition in pregnancy. And it is similar to the study conducted by Sindu et al (8) which showed only 17 % had knowledge about the effects of over and under nutrition in pregnancy.

Source of information regarding maternal nutrition in pregnancy was given 42% by the medical officers of the PHC, 24% by VHN and 29% by family members in our study group. Whereas the study by Renu Gupta et al has showed major source of information from family members 41% and only 20% of the attending doctors as source of information. Study by Sindu et al also showed major source of information by the family members 81%.

In our study 67% of the mothers were aware of the state and central government health schemes for antenatal mothers. whereas the study by Renu Gupta R et al concluded 71% of the mothers are not aware of government schemes.

**Conclusion**

The results of the study are matter of concern. Although the respondents are well aware of the government schemes for pregnant mothers, their knowledge about the role of adequate nutrition, constituents and source of balanced diet, effects of over and under nutrition are inadequate. So there is a need to improve their knowledge by giving nutritional counselling and guidance in the antenatal period. This is due to poor literacy still prevailing in low socioeconomic group. Definitely there is a need to educate the pregnant mothers about nutrition in pregnancy and balanced diet in order to prevent short and long term consequences for them and their children.

**Age distribution**

Age in years	Percentage
15 - 20	15%
21- 25	56%
26-30	21%
> 30	7%

**Habitat**

Rural	68%
Urban	32%

**Educational status of the mothers**

Educational status	Percentage
Illiterate	10 %
Primary school	4%
Middle school	10%
High school	33%
Higher secondary	22%
Diploma or degree	21%

**Spouse occupation**

Occupation	percentage
Labourers and daily wages	89%
Clerical jobs	4%
Self employed	7%

**Source of information regarding nutrition in pregnancy**

Source of information	Percentage
PHC Medical officers	42%
Family members	29%
Village Health Nurse	24%
Media	5%

Knowledge about nutrition in pregnancy	
Good	8%
Average	57%
Poor	35%

Knowledge about over and under nutrition	
Good	4%
Average	43%
Poor	53%

Knowledge about variety of foods as carbohydrates, proteins and fats	
Good	9%
Average	67%
Poor	24%

Knowledge about adequate weight gain in pregnancy	
Yes	54 %
No	46%

Awareness about health schemes	
Yes	67 %
No	43%

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