



A Descriptive Study to Assess the Level of Knowledge Regarding Antenatal Diet among Primigravida Mothers visiting SGT Hospital with a view to develop a Pamphlet Regarding Antenatal Diet

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ABSTRACT

Motherhood is a great responsibility; it is women worthy period of life and a crown of honour. Although pregnancy is a natural phenomenon doesn't mean it's uncomplicated. Propitious pregnancy care is a chief essence for healthy mother and child. Experts recommend that the A balanced diet, healthy weight gain, regular exercise, and the proper use of vitamin and mineral supplements are essential elements of a healthy lifestyle throughout pregnancy. The maternal nutrition plays a key role in the growth and development of the fetus and long term health of the child. Prenatal nutrition relates to nutritional intake and food preparation done before, during, and after pregnancy¹. A balanced intake of nutrition is important in any phase of life but during pregnancy it becomes even more vital as a pregnant woman not only nourishes herself but also her baby. During pregnancy the only source of nourishment is mother to fetus for its proper growth and development so it is very important that mother takes balanced amount of all essential nutrients in her diet so that nutritional imbalance and its adverse consequences can be prevented. The aim of conducting the study was to assess the level of knowledge regarding antenatal diet among primigravida mothers with a view to develop a pamphlet on antenatal diet. A non-experimental descriptive study design was used to assess the level of knowledge regarding antenatal diet among primigravida mothers visiting SGT Hospital. A total of 100 primigravida mothers were selected through non-probability purposive sampling technique. A structured questionnaire was used to collect data regarding antenatal diet. Descriptive and Inferential statistics was used to analyse data. The results showed that majority 57% of primigravida mothers were having moderate knowledge, 35% primigravida mothers were having poor knowledge and only 8% primigravida mothers were having good knowledge regarding antenatal diet. The mean knowledge score was 13.52 with median being 13 and a standard deviation of ± 4.5 . Demographic variables such as age, education level, monthly income of family and residential area have significant influence on knowledge level of mothers ($p < 0.05$). This study concludes that primigravida mothers have sub-optimal level of knowledge regarding antenatal diet and there is a need to improve their knowledge.

Keywords: Assess, Knowledge, Antenatal diet, Primigravida, Pregnant

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INTRODUCTION

Pregnancy is certainly a blessing bestowed upon humankind through the grace of god yet also the most vulnerable period for mother and baby. The growth and development of the foetus and the long-term health of the child are significantly influenced by the mother's nutrition. Nutrition refers to eating a healthy and balanced diet which includes carbohydrates, fats, proteins, vitamins, minerals and water in adequate quantity². Prenatal nutrition relates to nutritional intake and food preparation done before, during, and after pregnancy. A balanced intake of nutrition is important in any phase of life but during pregnancy it becomes even more vital as a pregnant woman not only nourishes herself but also her baby. Nourishment of fetus begins at the time of conception so nutrition of mother is essential before during and after pregnancy as well as during lactation. The mother is the kid's only source of sustenance for the first half of the crucial 1000-day period (from conception to 6 months), first while the child is still in the womb and then for the first six months of life when exclusive nursing is advised.¹ Eating correctly during pregnancy entails more than just increasing the mother's intake of food. The woman must also take her diet into account. The health and life of the foetus depend on the mother's ability to provide nutrition and oxygen to her child. There is no question that diet throughout the prenatal and preconceptional phases has a substantial impact on the outcome of pregnancy as well as long-term health and development.² A woman who is well nourished will be able to adequately nourish the growing fetus. Fetal malnutrition results from

not providing enough nutrients to meet foetal needs. Experts recommend that the key components of a healthy lifestyle during pregnancy include a balanced diet, appropriate weight gain, regular exercise and appropriate use of vitamin and mineral supplementation [3]. Macronutrient requirements rise throughout pregnancy in order to support foetal growth and preserve the mother's homeostasis. Micronutrients, such as folic acid to avoid neural tube abnormalities and iodine to prevent cretinism, are also essential for enhancing pregnancy outcomes. The primary factor affecting gestational weight increase is energy intake. Extra energy is needed for the growth of existing tissue as well as the synthesis of new tissue (such as the fetus, placenta, and amniotic fluid) (uterus, breast and maternal adipose tissue). Pregnancy energy needs vary by trimester, mother's activity level, pre-pregnancy body mass index, and metabolic rate. The range of global energy intake estimates is 2000 to 2500 calories. Lower protein and calorie consumption during pregnancy has been linked in studies to preterm birth [4]. While EPA may lessen the synthesis of thromboxane A2 from AA, potentially reducing the risk of preeclampsia and timing of parturition, DHA may have an impact on the development of the brain and retina in the fetus [4]. Folate is very vital in early stage of embryonic and fetal development as it is involved in amino acid metabolism, protein synthesis and cell multiplication. Supplementation of folic acid during pre-conception and early weeks of pregnancy can prevent neural tube defect defects by 40% to 80% [5]. Nutritionists and dieticians has emphasized the importance of nutrition during pregnancy repeatedly over years but recently it has gained more importance due to increasing problems of obesity and malnutrition during pregnancy which has caused increased cases of maternal and fetal morbidity and mortality. Moreover, studies have revealed that poor nutrition in antenatal period might be related to spontaneous abortion. According to the Lancet 2013 nutrition series, maternal undernutrition during pregnancy is a key factor in stunted growth and poor foetal development. Early in pregnancy, women with heights 145 cm or BMIs 18.5 kg/m are more likely to birth infants that are tiny for gestational age. According to the World Health Organization's 10 facts on nutrition, 24 percent of babies globally are believed to be born with birth weights below ideal range as a result of inadequate nutrition for expectant women. 8 Between 20 and 30 percent of expectant mothers experience some form of vitamin insufficiency. Several studies have indicated that nutritional knowledge and practice are influenced by various factors such as socio-economic status, education level, and cultural influences which are often further more complicated by food taboos and myths consequently leading to poor nutrition level. Studies have found that food items which are nutritious, safe and locally available were often restricted or denied [6]. Pregnancy and delivery outcomes are negatively impacted by inadequate maternal nutrition; women living in rural areas are particularly at risk. Therefore, preventing nutritional imbalance during pregnancy is the best way to handle the issue. Being pregnant can act as a powerful drive to alter or change behavior [7]. Researchers have discovered that pregnant women are quite sensitive to dietary and lifestyle recommendations because they know that doing so would directly affect the health of the unborn child. Thus, in order to prevent both immediate and long-term effects for the health of the mother and the foetus, it is best to inform women about their nutritional requirements and diet while they are pregnant [8, 9, 10].

Purpose of the study

The purpose of the study is to assess the level of knowledge regarding antenatal diet among primigravidae mothers visiting SGT Hospital and to development a pamphlet regarding antenatal diet.

Objectives of the study

1. To assess the level of knowledge regarding antenatal diet among primigravidae mothers visiting SGT hospital.
2. To determine association of level of knowledge regarding antenatal diet among primigravidae mothers with selected demographic variables.
3. To develop and distribute pamphlet regarding antenatal diet.

MATERIAL AND METHODS

Research Approach: Quantitative research approach was considered to be most suitable in view of the present study "To assess the level of knowledge regarding antenatal diet among primigravidae women".

Research design: The research design used in this study was "Non-Experimental Descriptive research design".

Setting of the study: The setting for present study was out-patient department and obstetrics and gynecology ward of SGT Hospital, Gurugram.

Study population

The target population is the total population that the researchers are interested in and to whom they would like to apply the findings of their study. Women who are primigravidae were the study's target population.

The accessible population is the total number of instances that meet the specified inclusion or exclusion requirements and that can be used as study subjects. The accessible population was the primigravidae women visiting SGT Hospital, Gurugram in July and August month.

Inclusion Criteria : Women who were primi gravida, Mothers who were willing to participate in the study and women who were available at the time the sample was collected

Exclusion Criteria : The multipara women were excluded from the study & Women who were not able to read and write Hindi.

Sample: The sample for present study was primigravidae women.

Sample size: The sample size for the present study was 100 primigravidae women who were visiting SGT Hospital, Gurugram.

Sampling technique : Non-Probability Purposive sampling technique

Variables

The variables in the present study are discussed as:

Dependent Variable- Knowledge regarding antenatal diet

Demographic Variable- Age, Religion, Gestation week, Educational status, Occupational status, Family income, Educational status of husband, Occupation of husband, Dietary preference, Source of information and Type of residence.

Development of the tool

Based on the study's goal, the researcher created the tool. Before the tool was developed, the following actions were taken. The tool presentation's substance was adequate thanks to the literature review. Literature review, through study of books and journals, personal experiences of researchers and opinions from the experts of OBG department helped in the devising of tool.

Description of the tool

The tool consisted of two sections:-

Section A: Demographic Variables

Section B: Antenatal Diet Knowledge Questionnaire

Section A: Demographic variables

Demographic variables consisted of 11 items for primigravidae women visiting SGT Hospital, Gurugram. It included Age, Religion, Gestation week, Educational status, Occupational status, Family income, Educational status of spouse, Occupation of Spouse, Dietary preference, Source of information and Type of residence.

Section B: Antenatal diet knowledge questionnaire

Antenatal Diet Knowledge Questionnaire was a self-structured tool that comprised of 30 items related to diet and nutrition in antenatal period. Each item was a multiple choice question with four options. For every correct answer 1 point was given to participant and every wrong answer no point or a 0 was given. Scores of questionnaire were divided for level of knowledge as follows:

Range of Score	Level of Knowledge
0-10	Poor
11-20	Moderate
21-30	Good

Validity and Reliability of tool

For determining the reliability of tool, split half method was used. The correlation coefficient of two halves of test was 0.69. The Spearman -Brown prophecy formula was used to determine internal consistency of entire test. The reliability of entire test was found to be 0.82.

Ethical Consideration

The pilot and main study was conducted after approval from the Department of Research Committee. Permission was obtained from concerned head. The study was explained to the participants and the consent was obtained from them. Assurance was given on the confidentiality of the data collected.

Data Collection procedure

A formal administrative approval was obtained from Medical Superintendent of SGT, Hospital. Primigravidae women visiting OPD and wars of Obstetrics and Gynecology were identified. Self-introduction and rapport was established with participants. The purpose and need of study was explained to the participants and informed consent was obtained. Data was collected with Google forms as structured questionnaire. Time taken to collect data from each participant was around 20 minutes.

RESULT AND DISCUSSION

The research data needs to be processed and analyzed in some systematic fashion so trends and the pattern of relationship can be detected. Analysis is a method of categorizing, ordering, manipulating and summarizing data to obtain answer to research question. Analysis is the process of careful scrutinizing the data by placing it in categories and applying the statistics packages. Data was collected after obtaining formal permission from the concerned authorities to conduct final study. The study was conducted on primigravida mothers visiting SGT Hospital, Gurugram.

Section A

The demographic characteristics of primigravida mothers visiting SGT University, Gurugram shown in Table -1. The selected demographic variables included the age, religion, gestational age, dietary preferences, educational status, occupational status, and family's monthly income, area of residence and source of antenatal diet information.

Table 1: Demographic data of study sample (N=100)

DEMOGRAPHIC VARIABLES	FREQUENCY	PERCENTAGE %
Age (in years)		
15-19	35	35%
20-24	65	65%
25-29	00	00%
>29	00	00%
Religion		
Hindu	66	66%
Muslim	31	31%
Sikh	03	03%
Other	00	00%
Gestational Age		
First Trimester (First three months)	20	20%
Second Trimester (Second three months)	47	47%
Third Trimester (Last months of pregnancy)	33	33%
Educational Status		
Illiterate	00	00%
Primary Education	28	28%
Secondary Education	54	54%
Graduate or above	18	18%
Occupation		
Housewife	80	80%
Government employee	05	05%
Private employee	08	08%
Any other	07	07%
Dietary Preference		
Vegetarian	62	62%
Non-vegetarian	38	38%
Family's monthly income (Rs)		
<10,000	21	21%
10,001-20,000	56	56%
20,001-30,000	19	19%
>30,000	04	04%
Husband's Education		
Illiterate	00	00%
Primary Education	10	10%
Secondary Education	51	51%
Graduate or Above	39	39%
Husband's Occupation		
Unemployed	03	03%
Government Job	16	16%
Private Job	52	52%
Farmer	17	17%
Any other	12	12%
	Source of information	
	Books and Newspaper	02 02%
	Television or Internet	09 09%
	Doctors	38 38%
	ASHA worker	10 10%
	Family	41 41%
	Residential Area	
	Rural	84 84%
	Urban	16 16%

Section B

The presented in table 2 regarding the level of knowledge depicts that more than half (57%) of primigravida mothers had moderate level of knowledge regarding antenatal diet, 35% of mothers had poor level of knowledge while only 8% women had good level of knowledge regarding antenatal diet.

Table 2: Range, Mean, Median and Standard Deviation of knowledge scores regarding eye donation

Descriptive statistics	Range of Scores obtained by study participants	Mean \pm SD	Median
Knowledge Scores	6-26	13.52 \pm 4.5	13

Maximum=30

Minimum= 0

The shown in table2 depicts the range, mean, median and standard deviation of knowledge scores regarding antenatal diet among primigravida mothers. It shows that knowledge scores varies from 6 to 26 with mean score of 13.52, median 13 and standard deviation 4.5. The findings association between knowledge level and selected demographic variables depicts that the chi-square values for knowledge score and demographic variables among primigravida women visiting SGT Hospital. The association was found significant at level $p < 0.05$. Associations which were found significant are age of primigravida women, education level of primigravida women, monthly income of family and residential area. Whereas associations for selected demographic variables of primigravida women i.e. religion, gestational age, occupation, dietary preference, husband's education, husband's occupation and source of information were found insignificant. Hence the research hypothesis H_1 was partially accepted and partially rejected.

DISCUSSION

The research findings of the present study "A descriptive study to assess the level of knowledge regarding antenatal diet among primigravidae mothers visiting SGT Hospital with a view to develop a pamphlet regarding antenatal diet" are discussed based on the following objectives. The analysis of the data on level of knowledge regarding antenatal diet among primigravida mothers visiting SGT Hospital found that 35% had Poor level of knowledge, 57% had Moderate level of knowledge and 8 % Good level of knowledge. The mean knowledge score was 13.52 with median being 13 and a standard deviation of ± 4.5 . In congruence with these findings conducted [5]. The results revealed that 32% mothers had poor knowledge score, 42% had average knowledge score and 24% had good knowledge score. The mean knowledge score was 16.3. The analysis of the data to determine association of level of knowledge regarding antenatal diet among primigravida mothers with selected demographic variables revealed that significant associations were found between age of primigravida mothers, education level of primigravida mothers, monthly income of family and residential area. Whereas associations for selected demographic variables of primigravida women i.e. religion, gestational age, occupation, dietary preference, husband's education, husband's occupation and source of information were found insignificant [9]. The results showed that highly significant associations were found between knowledge scores when compared to their age, educational status, religion and previous source of information.

CONCLUSION

The present study concluded that majority percentage (57%) of primigravida mothers had moderate knowledge level regarding antenatal diet while 35% had poor level of knowledge while only 8% of primigravida mothers had good knowledge level. The association of selected demographic variables such as age, education, income of family and residential area with knowledge level was found statistically significant at $p \leq 0.05$.

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