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A study to assess the knowledge and attitude regarding antenatal diet among Primigravida Mothers in selected Hospital, Payyanur

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Abstract
Introduction: The present study entitled Study to assess the knowledge and attitude regarding antenatal diet among primigravida mothers In Selected Hospital, Payyanur".
Objective: Assess the knowledge and attitude regarding antenatal diet among primigravida mothers and associate the knowledge and attitude with demographic variables.
Design: Descriptive research design.
Setting: Selected Hospital, Payyanur"
Sample: Sample consists of Primigravida mothers. The sample size was 100.Sampling Technique: Non probability purposive sampling technique.
Conceptual frame work: Modified Rosen Stock's health belief model 1977. Outcome measure: Knowledge and attitude regarding antenatal diets through structured questionnaire.
Result: Knowledge sore on antenatal diets among 100 primigravida mothers32 (32.00per cent) have poor knowledge 42(42.00per cent) have average knowledge. 24(24.00per cent) have good knowledge. The mean of knowledge score was16.3. Mothers 21(21%) have poor attitude. 48(48.00per cent) have average attitude. 31(31.00percent) have good attitude. The mean attitude score was was 55.48. There is no association between knowledge with demographic variables. There is no association between attitudes with demographic variables.
Conclusion: The study reveals that if antenatal mothers have average knowledge and attitude regarding antenatal diet among primigravida mothers.

Keywords: knowledge, attitude, antenatal diet, primigravida mothers

Introduction

Nutritious diet is important for healthy pregnancy. Eating a healthy diet, balancing of carbohydrates, fat, and proteins and fruits and vegetables, ensures good nutrition. (Wikipedia 2015).

Women need calories during pregnancy to build up her tissues, to built fat stores, to make breast milk and for growth of placenta and fetus. During first 6th months of pregnancy, most of the extra food is needed to build up the mother's tissue and storing fat. Only small amount is needed for the growth of fetus. During the last 3month of pregnancy, more extra food is needed for the growing and to build the baby to store fat, iron and vitamin A. (Shanty gosh,2009) [11]

Pregnancy is highly demanding period for nutrition. This period is taking care of the Additional intake of nutrion food results in weight gain of 10-12kg during pregnancy.

Fibre rich foods like whole grains pulses and water should be taken to avoid constipation. (Rekha Sharma 2004) [10]

Adequate nutrition before and during pregnancy had greater potential for a long term health impact. Maternal Health is a complex, and is influenced by various genetic, social and economic factors infections and environmental conditions, many of which affect fetal growth.

Physiological adaptations resulted in improving utilization of nutrients either through increased absorption, decreased excretion or alternations in metabolism. (B. Srilaksmi, 2002) [12].

The nutritional level of women when becoming pregnant and during the time of pregnancy has significant influence on fetal, infant and maternal health outcomes. Deficiencies of nutrient such as calcium, iron, vitamins and iodine that can lead to poor maternal health status and pregnancy complications may make the mother and baby at risk. (Naomi R Rayes, 2013)

Pregnant women needed more of some nutrient than do non pregnant women. These nutrient needs are determined, by the stage of gestation in that the amount of fetal growth varies during the different stages of pregnancy. During the first trimester the synthesis of fetal tissues places relatively few demands on nutrition of mothers. Therefore during the first trimester when the fetus is very small, the needs are only slight greater than those before pregnancy. In contrast, the last trimester is a period of fetal growth when most of the deposition of fetal stores of energy sources and mineral occurs. Therefore as a fetal growth progresses during the second and third trimesters, the pregnant women's need for some nutrients increase. (Lowdermilk, 2012) [6]

A healthy diet during pregnancy is needed to provide all

nutrition's reguired by a mother and the growth of the baby. It is a common misconception that antenatal mothers which need to eat for both baby and her. Most of the additional nutrients that required at pregnancy can obtain by selecting and eating a high quality of nutrient diet. There are some specific recommendation are required. It include taking folic acid supplements in early period of pregnancy to decrease risk of neural tube defects. It is also necessary for antenatal mothers to be adopt a practice of good food hygiene to minimize the food poisoning in pregnancy. (Manjo Sharma, 2012) [10]

Need for the study

Pregnancy associated with physiologic changes that resulted in increased volume of plasma and red blood cells and reduced level of concentrations of circulating nutrient-that help in binding of proteins and micronutrients. In many of developing countries, physiologic changes at pregnancy was aggravated by under nutritional diet, leading to nutrient deficiency states, like anemia, that can cause consequences for both mothers and baby. Micronutrients are of taken by antenatal mothers in developed countries, but their important are limited, and is except for prophylactic folic acid taken at period of periconceptional period. Women in developing countries may get advantages from multiple-micronutrient prophylaxis at pregnancy, but the underlying basis and reasons for changing from supplementation with iron and foliate with multiple micronutrients was not been debated in existing program. (Oladpo A Ladipo 2000)

Babies are depend on their mothers that provide a healthy environment for the grow and develop during pregnancy. Nutritional diet has been considered an important factor for developing healthy baby, but it could influence more than in weight of baby. It is well agreed that the quality of the environmentof maternal which helps infant develops in a good health and disease later in life. (Cindy Anderson, 2010) [10]

According to the USA Food and Drug Administration (FDA), three hundred extra calories in nutritional diet are needed to maintain a healthy pregnancy per day. These calories had taken from a balanced diet of fruits, vegetables, and whole grains and fats. A healthy, wellbalanced diet at pregnancy can also help to minimize many of pregnancy symptoms. The American Dietetic Association (ADA) recommended the following components of a healthy lifestyle at antenatal period: appropriate weight gain, eating of a variety of foods according to the Pyramid of food guide and timely supplementation of vitamin and mineral Fluid intake is an important role for healthy nutrition at antenatal period. Women must take enough water by drinking 6 to 8 glasses per day. An antenatal mother must speak with her physician about restricting her caffeine intake. All alcohol must be avoided during pregnancy (.Lucile children' Pakard hospital 2000)

Antenatal mothers in high-risk areas, deficiency of vitamin A occurs mainly at the last trimester is demand by both the child and the mother is highest. The deficiency of mother is demonstrated by the high chance of night blindness at antenatal period. (WHO 2010)

Material and Methods

Research Approch: The Quantitative Research Approach is adopted for the present study.

Research design: Descriptive study design was adopted for the study.

Settings: This study was conducted in Taluk Hospital Payyannur. It was located with 2 kilometers from Payyannur muncipality. In each centre contain the facilities like general OPD, well baby clinic, MCH, family welfare program 30 to 35 antenatal mothers per day were coming for check up.

Population: It included primigravida mothers with gestational week betweens 16 week up to 40th week.

Sample: It consists of 100 primigravida mother.

Sampling techniques: Non probability purposive sampling technique was adopted for the study.

Sampling criteria

Inclusion criteria

1. Primigravida mother who belong to 16 th week up to 40th week.
2. Mothers who are in single ton pregnancy

Exclusion criteria

Mothers who are having high risk such as oligohydramnios, renal diseases, pregnancy induced hypertension, gestational diabetic mellitus etc.

Description of the Tool

Tool consists of three sections

Section A: Demographic and obstetric profile it included pervious knowledge source from age, sample number, education, occupation, religion, food habit, gestational age

Section B: Self-administered questionnaire it contain 40 closed ended multiple question to assess the knowledge of mother about antenatal diet. It contains one right and three wrong answers. Correct answer scores one mark.

Maximum scoring is 40, the total score is divided into poor (score up to 14), average (score 15 to 19), good (score 20&above)

Section C: Attitude scale for assessment of diet during pregnancy. It contain 14statement to assess the attitude of mother about antenatal diet. Mother has to read statement and mark the box according to her attitude.

Maximum scoring is70.The total score is classified in to poor (score up to 50), average (Score 51 to60), good (score above 61).

Content validity

Content validity of the tool was obtained from nursing and medical experts. The tool was subjected to change according to suggestion of experts.

Reliability

The reliability of the tool was assessed using Guttman split half method and spear man brown coefficient. The reliability of knowledge score is 0.89 while the reliability of the attitude was.86.

Ethical clearance: Ethical clearance was obtained from the Institutional Ethical committee.

Pilot study: Pilot study was conducted in Saba Hospital Payyannur. 10 samples are taken for this study. This was done to know the feasibility of the study.

Data collection procedure

The data was collected after getting written permission from the medial officer of the government hospital. After getting permission data collection was done for 6 weeks on Tuesdays and Thursdays in the antenatal clinic of Government Taluk Hospital, Payyanur.

Steps for data collection

- **Step1:** Provide a questionnaire to collect the demographic variable & obstetrical data from mother
- **Step2:** Provide a questionnaire and statement to participant to assess the knowledge and attitude of antenatal diet.

Statistical analysis

Descriptive statistics (mean and percentage) and inferential statistics (chi-square) were used to analyze the data. Chi-square was used to analyze the association between the findings with selected demographic variables.

Results

The data collected is tabulated and analysis is presented as follows

- **Section A:** Distribution of respondents according to demographic variables.
- **Section B:** Distribution of respondents according to their knowledge and attitude score.
- **Section C:** Association between knowledge of antenatal diet with demographic variables.
- **Section D:** Association between attitudes of antenatal diet with demographic variable.

Section A

Table 1: Distribution of respondents according to demographic variables NO: 100

S. No	Demographic variable	No of respondents	Percentage
1	Age in years		
	a. Up to 22yrs	37	37. 00
	b. 23 to 26yrs	34	34.00
	c. Above 27yrs	29	29.00
2	Religion		
	a. Hindu	89	89.00
	b. Others	11	11.00
3	Education		
	a. Primary education	6	6.00
	b. Secondary education	52	52.00
	c. Higher secondary education and above	42	42.00
4	Occupation		
	a. home makers	82	82.00
	b. others	18	18.00
5	Income		
	a. Rs.1000 to 5000	58	58.00
	b. Rs.6000 to 10000	32	32.00
	c. Rs.11000 to 15000	10	10.00
6	Food habit		
	a. non vegetarian	90	90.00
	b. vegetarian	10	10.00
7	Source of information		
	a. Health workers	90	90.00
	b. others	10	10.00
8	Gestational age		
	a. 16 to 24weeks	36	36.00
	b. 25 to 33weeks	24	24.00
	c. above 34 weeks	40	40.00

Section B

Table 2: Description of respondents according to mean knowledge score regarding antenatal diet.

S.NO	Knowledge Score	No of respondents	Percentage
1	Up to 14(poor)	32	32.00
2	15to19(Average)	44	44.00
3	20 &above	24	24.00

The above table represents distribution of respondents according to their knowledge score 16.33 regarding antenatal diets. Among 100 respondents, 32(32.00per cent) were up to 14 scores 44(34per cent) were between15 to 19 scores, 24(24.00per cent) were above 20 (20.per cent)scores.

Table 3: Description of respondents according to mean attitude score regarding antenatal diet

S. No	Attitude Score	No of respondents	Percentage
1	Up to 50(poor)	21	21.00
2	51to60(Average)	48	48.00
3	61 & above (good).	31	31.00

The above table represents the distribution of respondents according to their mean attitude score55.48 regarding antenatal diet. Among 100 respondents, 21(21.00per cent) were up to 50 scores 48(48.00per cent) were between51 to 60 scores, 31(31.00per cent) were above 61 scores

Section-C

Distribution of respondents according to mean value of knowledge and attitude.

Table

S. No	Assessment	Mean
1	Knowledge	16.33
2	Attitude	55.48

Section-D

Table 4: Association of knowledge score regarding antenatal diet among respondents with demographic variables.

Demographic variables	Knowledge score			Df	λ2
	Up to 14	15 -19	20 &above		
Age					
Up to 22	13	14	10	4	2.576 (NS)
23-26	8	17	9		
27 & above	11	13	5		
Religion					
Hindu	27	39	23	2	1.850 (NS)
Others	5	5	1		
Education					
Primary	2	3	1	4	1.850 (NS)
Secondary	9	21	12		
Higher secondary & above	11	20	11		
Occupation					
Homemakers	26	38	18	2	1.3777 (NS)
Others	6	6	6		
Income					
Rs 1000- 5000	20	28	10	4	4.023 (NS)
Rs6000-10000	10	12	10		
Rs11000-15000	2	4	4		
Food Habit					
Non Vegetarian	29	39	22	2	.179 (NS)
Vegetarian	3	5	2		
Gestational age in weeks					
16-24	11	14	11	4	3.374 (NS)
25-33	6	11	7		
34& above	15	19	6		
Source of information					
Health workers	29	42	20	2	2.794 (NS)
Others		2	4		

NS- Not significant

Section E

Table 5: Association of attitude in antenatal diet among respondents with demographic. Variables

Demographic variables	Attitude score			Df	λ2
	Up to 50	51 -60	61 &above		
Age					
Up to 22	5	19	13	4	2.185 (NS)
23-26	8	16	10		
27 & above	8	13	8		
Religion					
Hindu	19	42	28	2	.212 (NS))
Others	2	6	3		
Education					
Primary	1	3	2	4	.076 (NS)
Secondary	11	25	16		
Higher secondary & above	9	20	13		
Occupation					
Homemakers	17	41	24	2	.836 (NS)
Others	4	7	7		
Income					
Rs 1000- 5000	14	31	13	4	5.280 (NS)
Rs6000-10000	6	13	13		
Rs11000-15000	1	4	5		
Food Habit					
Non Vegetarian	18	45	27	2	1.469 (NS)
Vegetarian	3	3	4		
Gestational age in weeks					
16-24	9	14	14	4	2.794 (NS)
25-33	5	12	12		
34& above	7	22	22		
Source of information					
Health workers	29	42	20	2	2.794 (NS)
Others		2	4		

NS- Not significant

Discussion

Pregnancy is the most beautiful stage in a woman's life. It brings lots of emotional and physiological changes. It also demands changes on the body during pregnancy. Good nutrition during pregnancy helps the mother and baby healthy. In this stage the body needs additional nutrition for the developing fetus, pregnant woman and the postnatal period. These demands have to be met both child and mother' shealth. The diet before and at pregnancy should be rich in calories, proteins, vitamins and minerals. Needs of diet should be varies in the three trimesters. The diet at pregnancy should be consist of fruit and vegetables, wholegrain and cereals, low-fat foods and meats, chicken and fish, dried beans, nuts and seeds.

Demographic variable for antenatal diet

The distribution of demographic variable of 100 respondents as follows:

On the basis of age group 37(37.00 Per cent) were up to 22yrs. 34 (34.00per cent) were Per cent between 23-26 yrs29 (29 Per cent) w ere above 29 yrs. regarding the religion 89(89.00 Per cent) were Hindu and11 are belong to others. Regarding education 6(6.00 Per cent) were belong to primary education, 52(52. 00Per cent) belong to secondary education and 42(42.00 Per cent) were belong to higher secondary and above. Regarding occupation 82(82.00 Per cent) were belong to home makers and 18(18.00 Per cent) were belong to others. Regarding income 58(58.00 Per cent) were between 1000 - 5000, 32(32.00 Per cent) were between 6000-10000 and 10(10 Percentage) were 11000-15000.Regrding food habit 90 (90.00 Per cent) were belong to non vegetarian and 10 Percentage were belong to vegetarian. Regarding Source of information 90 (90.00 Per cent) were belong to health workers and 10 (10 Per cent) were belong to others. Regarding gestational age 36(36.00 Per cent) were belong to 16 -24 weeks 24(24.00 Per cent) were belong to 25-33 weeks and 40(40.00 Per cent) were above 34 weeks

Assess the knowledge regarding antenatal diet among prime gravid mothers

Among 100 respondents, knowledge score of antenatal diet among primigravida mothers 32 (32.00Per cent) have poor knowledge, 44(44.00 Per cent) have average knowledge and 24 (24.00 Per cent) have good knowledge. The mean score of knowledge score of 100 respondents was 16.33.

Eileen R. 2010 *et al.* did study for describe the difference between low- and middle income pregnant women's nutritional, usually dietary intake and weight gain. The present study was supported by this study. Descriptive design was used for this study. Sample size is 109 pregnant women. They assess the knowledge by giving the questionnaire and setting of the study was selected community hospitals. Result of this

study was body mass index gained less weight in women with low pre pregnant body and tended to gain more weight than recommended in women with high BMI. Most women had inadequate knowledge of nutrition and their dietary intake was not meeting all requirements of nutritional diet.

Assess the attitude regarding antenatal diet among prime gravid mothers Among 100 respondents, attitude score of antenatal diet among primigravida mothers 21(21.00 Per cent) poor attitude, 48(48.00per cent) have average attitude and 31(31.00 Percentage) have good attitude. The mean score of attitude score of 100respondents was 55.48

Associate the knowledge and attitude of antenatal diet with demographic variables

Associate the knowledge with demographic variable

There is no significant between the knowledge score of respondents at. 05 levels there is no association with demographic variables. The mean knowledge score of respondents were
16.33

Associate the attitude with demographic variable

There is no significant between the attitude score of respondents at. 05 levels. There is no association with demographic variables. The mean attitude score of respondents were 55.48

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