

Assessment of Pregnant Women's Knowledge, Attitude, and Practice Regarding Pregnancy Nutrition at a Tertiary Care Hospital

A Research on Pregnant Women's Knowledge, Attitudes, and Practices about Nutrition

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Abstract:-

Background: Pregnancy is a time period that the body goes through several physical and hormonal changes. Having sufficient nutrients for both mother and child is essential for good health. Eating the right foods in appropriate amount will give you the right balance of nutrients that you need to ensure you and your baby remain healthy throughout your pregnancy.

Objective: The objective of the study is to evaluate knowledge, attitude and practice of pregnant women regarding nutrition during pregnancy.

Materials and procedures: To ascertain the nutritional status of expectant mothers, a cross-sectional study was conducted. A study was conducted to evaluate the nutritional knowledge, attitude, and practice of 250 pregnant women who were randomly selected and attending AH&RC in a tertiary healthcare facility. Both ethics clearance and informed consent were acquired. Utilizing data collecting forms, SPSS software was used to analyze the data, and frequency and percentages were statistically tallied.

Results: According to the study, most expectant mothers are aware of the importance of nutrition during pregnancy and take appropriate action based on this knowledge. Of the 250 expectant mothers, 230 (92.0%) were aware that extra food is safe to eat while pregnant. 223 (89.2%) of them believed that eating more during pregnancy is beneficial to both the mother's and the unborn child's health. 160 people, or 64.0%, reported eating at least one extra meal outside of pregnancy.

Conclusion: Based on the data, the study draws the conclusion that although pregnant women exhibited a sufficient level of knowledge and attitude regarding diet and nutrition during their pregnancies, there was still a deficiency in the study population's nutritional practices.

Therefore, health care professionals should focus on enhancing nutritional practices throughout pregnancy.

I. INTRODUCTION

One of the most significant life experiences for every woman is becoming pregnant [1]. The body experiences a number of physical and hormonal changes throughout pregnancy. Maintaining a balanced diet during pregnancy supports both the fetus's growth and development and the mother's expected weight gain. [2][3].

Micro and macronutrient deficiencies increase the risk of neural tube abnormalities, premature birth, and low birth weight in the developing child. Additionally, poor diet quality during pregnancy is primarily associated with a lower socioeconomic status, a lower class of education, poor pre-pregnancy weight status, and a lower awareness of nutritional recommendations during pregnancy [4]. These conditions are more common among pregnant women. Researchers have found that many pregnant women in developing nations restrict their food intake for a variety of reasons, including cultural beliefs about the severity of delivery complications and the belief that larger babies make parturition more difficult, as well as the desire to have smaller babies, which reduces the risk of complications during childbirth [5]. Children who are malnourished are less able to fight off infections and are more likely to pass away from common childhood illnesses including respiratory infections and diarrheal illnesses. Those who make it out may find themselves caught in a never-ending cycle of recurrent illness and stalling development, frequently resulting in permanent harm to their social and cognitive development [6].

A growing number of women experience micronutrient deficiencies worldwide. It is estimated that 9.8 million pregnant mothers experience night blindness, 19.1 million pregnant women have low levels of retinol concentration, and nearly half of all pregnant women worldwide suffer from anemia. Globally, over 20 million babies are born underweight each year, and 800,000 neonatal deaths are caused by small for gestational age births each year as a result of maternal malnutrition [7].

The improvement of nutritional information through education affects attitudes, practice, and perceptions of healthy eating [10][11]. Undernourished people, defined as females with a body mass index (BMI) of less than 18.5, have been found to exhibit a persistent rise in death rates and an elevated risk of sickness in developing nations. The consequences of malnutrition in pregnant women include low birth weight babies, abortion, stillbirths, and increased perinatal and neonatal mortality. [12][13][14].

The Indian government has launched numerous initiatives, like as ICDS, RCH, NNAPP, and CSSM, to enhance the nutritional status of expectant and nursing mothers [15]. Pregnant women are flooded with information on a variety of subjects, such as healthy eating, getting enough sleep, exercising appropriately, taking supplements, and abstaining from alcohol and smoke. [16].

II. METHODS

A cross-sectional study was carried out at a hospital. Pregnant women who visited the ANC-OPD of the obstetrics and gynecology department at AH&RC, BG Nagar, participated in this study.

➤ *Inclusion criteria:*

- All pregnant women visiting OBG department of AH & RC.
- Those who are willing to participate in the study.

➤ *Exclusion criteria:*

- The study eliminated moms who were extremely sick, in labor, or had anomalies in their auditory system that prevented them from speaking or listening.
- Individuals who decline to participate in part in the research.

➤ *Study Procedure:*

Using article knowledge, attitude, and practices regarding nutrition among pregnant women visiting the antenatal care outpatient department of a tertiary care hospital in Pune, a 32-item questionnaire was designed. Pregnant women's knowledge, attitudes, and practices around nutrition during pregnancy were the major topics of the questionnaire.

The current study was carried out in the AH & RC OBG department. The ethics committee's clearance was acquired prior to the study commencing. Following ethical committee approval, all volunteers who met research requirements were informed of the purpose of the study. A consent document was acquired from the involved parties. Well-designed data collection forms and validated questionnaires were used to gather the data needed for the study.

Microsoft Excel spreadsheets were used to record all of the data that had been gathered, and their accuracy was double checked. The IBM SPSS statistics program for Windows was used to carry out the static analysis.

III. RESULT

The study comprised a total of 250 pregnant women who visited the ANC OPD. The majority belonged to the 23–27 age group, with a mean age of 24.61 ± 3.1 years. 104 (41.6%) of them belonged to the lower middle class. According on the observation of subjects' educational status, 106 (42.4%) of the subjects were graduates or postgraduates. The bulk of moms underwent four ANC checks, with 135 (54%), primi gravida, and 131 (52.4%) in their third trimester most completed their four ANC visits. The majority of the expectant mothers were homemakers.

This study investigates the pregnant women's knowledge, attitudes, and practices.

230 (92%) of the 250 participants knew a lot about increasing food when pregnant. Of the respondents surveyed, 228 (91.2%) were aware of the different dietary groups, whereas 22 (8.8%) were not. Of the participants, 152 were unaware of the sources of macronutrients, while 98 (or 39.2%) had strong awareness of the sources of carbs, proteins, and fats.

A total of 223 individuals (89.2%) had a positive attitude towards eating more during pregnancy, and 160 subjects actually practiced eating more throughout their current pregnancy.

Table1: Socio-demographic characteristics of study subjects [1]

variables	categories	Frequency percentage
Age (years)	18-22	70(28.1%)
	23-27	129(51.6%)
	28-32	41(16.4%)
	33 and above	10(4%)
Residence	Rural	180(72%)
	Urban	70(28%)
Family social status	Upper middle	49(19.6%)
	Lower middle	104(41.6%)
	Upper lower	66(26.4%)
	Lower	31(12.4%)
Level of education of pregnantmothers Gravida	Illiterate	6(2.4%)
	Primary	17(6.8%)
	Secondary	67(26.8%)
	Higher secondary	54(21.6%)
	Graduation	106(42.4%)
Level of education of spouse	Illiterate	7(2.8%)
	Primary	34(13.6%)
	Secondary	84(33.6%)
	Higher secondary	53(21.2%)
	Graduation	72(28.8%)
Gravida	Primi gravida	135(54%)
	Multi gravida	115(46%)
Gestational age of pregnantmothers	First Trimester	47(18.8%)
	Second Trimester	72(28.8%)
	Third Trimester	131(52.4%)
Number of AHRC visits	1	52(20.8%)
	2	40(16%)
	3	28(11.2%)
	4	130(52%)
Occupation of pregnant mothers	Housewife	214(85.6%)
	Labourer	9 (3.6%)
	Pvt. Job	27(10.8%)
Occupation of spouse	Labourer	64(25.2%)
	Job	91(36.6%)
	Semi-skilledworker	47(18.8%)
	Small business	45(18%)
	Not working	3(1.2%)

Table 2: Pregnant mother's knowledge regarding nutrition during pregnancy [1]

Knowledge	YES	NO
Knowledge about need of extra amount of food during pregnancy	92%	8%
Knowledge about different food groups	91.2%	8.8%
Knowledge about sources of micronutrients	39.2%	60%
Knowledge about sources of micronutrients	34.4%	65.6%
Knowledge about need of iron and folic acid supplements	86.4%	13.6%
Knowledge about use of iodized salt for cooking	51.6%	48.4%
Whether tea and coffee good for health during pregnancy	22.8%	77.2%
Knowledge about avoidable substances during pregnancy	94%	6%

Table 3: Pregnant mother's attitude regarding nutrition during pregnancy [1]

Attitude	agree	Neutral	Disagree
It is good to take extra food during pregnancy	89.2%	10%	0.8%
It is good to have different types of food during pregnancy	78.4%	19.6%	2%
Skipping a main meal everyday will not affect pregnant women's health	6.8%	50.4%	49.6%
It is good to have iron and folic acid supplementation	93.6%	2.8%	3.6%
It is good to have calcium supplementation	94.8%	5.2%	0%
It is good to prepare food using iodized salt	45.6%	54%	0.4%
It is good to drink 3-5L of water daily during pregnancy	67.6%	30%	2.4%
It is good to have alcohol pregnancy	0.4%	1.2%	98.4%
It is good to have tobacco during pregnancy	0%	1.6%	98.4%

Table 4: Pregnant mother's practices regarding nutrition during pregnancy [1]

Practices	Yes	No
Added at least 1 additional meal from non-pregnant diet	64%	36%
Eat 2-3 servings of nuts or legumes per day	82%	18%
Eat 2-3 servings of meat or fish per day	10%	90%
Eat 2 servings of green leafy vegetables per day	94.4%	5.6%
Eat 2-3 servings of fruits per day	96.8%	3.2%
3 servings of cereals, whole grain or other complex carbohydrates per day	74.8%	25.2%
Use iodized salt for cooking	46.4%	53.6%
Consume iron and folic acid supplementation daily	94.4%	5.6%
Consume calcium supplementation daily	88.8%	11.2%
Consume tea and coffee with meal	38.8%	61.2%
Consume tobacco in your current pregnancy	0.4%	99.6%
Consume alcohol in your current pregnancy	2%	98%
Avoided one or more food during pregnancy	67.6%	32.4%
Drink 3-5 liter of water daily	74.8%	25.2%
Consuming any other food/medicine to have better outcome of the pregnancy	32.8%	67.2%

IV. DISCUSSION

Pregnancy-related food habits of the mother have a significant impact on the long-term health and nutritional status of the growing fetus as well as the mother. The nutritional status and long-term health of the expectant mother and her developing fetus are significantly influenced by the mother's eating habits during pregnancy. The purpose of the current study is to evaluate the degree of maternal attitude, awareness, and knowledge regarding nutrition during pregnancy. An analysis was conducted on the responses provided by expectant moms who were interviewed.

In order to determine the level of knowledge, awareness, and maternal attitude regarding nutrition during pregnancy, Kiran S. Sangwan et al. conducted a descriptive cross-sectional study in the antenatal care outpatient department (ANC-OPD) of BJGMC and SGH, Pune, from January 2021 to February 2021. According to the survey, 91.5% of the participants knew that eating more meals is necessary during pregnancy. Of those surveyed, 95.7% felt that eating more food when pregnant is beneficial to both the mother and the unborn child. In actuality, 67% of pregnant women added extra food.

In a comparable fashion, of the 250 pregnant women who visited AH & RC for our study's examination of knowledge, awareness, and practice regarding nutrition

during pregnancy, 220 (92%) were aware that they needed to eat extra during their pregnancy, while just 20 (8%) were unaware. 150 (60.8%) of the individuals were unaware about the origins of macronutrients, while 98 (39.2%) subjects knew a lot about the sources of carbs, proteins, and fats. 164 (65.6%) of the individuals lacked information regarding the sources of macronutrients, while 86 (34.4%) had good understanding about them. According to a study by Kayamkani Abedulla Khan et al., 66.5% of pregnant women believe they should consume a variety of foods, but their level of understanding about the need to eat more during pregnancy than they did when they weren't pregnant was lower than it was in our study.

Mother Attending Antenatal Care at Selected Health Center of Horo Guduru Wollega Zone, Oromia Region, Ethiopia, according to Ebisa Olike Keyata, conducted a facility-based cross-sectional study that ran from January to June 2017 on a total of 405 expectant mothers. to evaluate pregnant women's knowledge, attitude and practice about maternal nutrition. According to the study, there were 36.5%, 29.4%, and 25.4% of pregnant mothers with poor knowledge, perception, and practices, and 63.5%, 70.6%, and 74.6% of pregnant mothers with good knowledge, perception, and practices. This study unequivocally demonstrates that inadequate knowledge, perception, and practices were present in fewer than half of the expecting mothers receiving antenatal care in the research area.

The results of this study indicate that, of the 250 participants, 223 (89.2%) agreed to eat greater amounts of food during pregnancy, while 25 (10%) were neutral about it and 2 (0.8%) disagreed. These findings relate to the participants' attitudes toward pregnancy nutrition. In comparison to the study conducted by EbisaOlikaKeyata, which found that 29.4% of the population had a poor attitude toward the importance of mother and infant nutrition, this study demonstrates a high positive attitude regarding the need and importance of extra food during pregnancy, with 70.6% of the studied population having a positive attitude.

The dietary practices of pregnant women revealed that, of the 250 subjects, 160 (64%) added at least one extra meal from a non-pregnant diet, while 90 (36%) subjects did not alter their diet intake and continued as before. The results are consistent with a study by Mizan Tepi University et al. that found 36.6% of participants followed healthy eating habits.

Pregnant women's awareness of nutrition can be enhanced by providing them with nutrition education on their ANC visit. Pregnant women's nutrition knowledge should be improved by implementing specialized interventions programs that expand the existing focus of iron supplementation during pregnancy to audience-specific practical nutrition education. The findings of this research will help the authorities make the right decisions about fortifying food, raising public awareness, and putting supplementing plans into place in order to improve its nutritional content. The development, implementation, and evaluation of focused nutrition education programs for women is necessary to enhance their nutritional knowledge, habits, and practices, which will ultimately result in healthier diets and better results for their unborn babies.

V. CONCLUSION

Based on the results, the study draws the conclusion that although the study population's practices on nutrition are still missing, pregnant women exhibited a good level of knowledge and attitude regarding diet and nutrition during their pregnancies. Therefore, health care professionals should focus on enhancing nutritional practices throughout pregnancy.

LIMITATION

- Lack of standardized questionnaire instead data collection form was used
- Inability to estimate food intake based on the consumption of particular nutrients
- Lack of time and participant interest

RECOMMENDATIONS

- This study can be conducted for longer period for getting a clear understanding about the knowledge of nutrition, attitude and practice of pregnant women
- Educational programs to increase the awareness about importance of nutrition during pregnancy

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