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To study the socioeconomic status of the pregnant women

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Abstract

The health of women from the time of conception through pregnancy, childbirth, and the postpartum phase is referred to as maternal health. Pregnant women must have access to enough high-quality, nutrient-dense food to meet their increased energy and nutritional needs during pregnancy, particularly in the second and third trimesters. Pregnant women's health is therefore significantly influenced by their dietary state. Better perinatal outcomes and improved mother and fetal health are linked to a healthy nutritional status throughout pregnancy. In this context, eating a nutritious, well-balanced diet is often advised. Pregnancy is a crucial time for the metabolic development of the unborn child. The health of the mother and the unborn child is affected by dietary habits before and throughout pregnancy. Environmental factors, placenta structure, maternal diets, and nutritional status during pregnancy have all been shown in the last ten years to have the potential to directly or indirectly affect the fetus's birth outcomes in addition to genetic potential. Enough nutrition must be given throughout pregnancy in order to support healthy fetal development.

Keywords: Pregnancy, Childbirth, Nutritious, Environmental Factors, Placenta

Introduction

A woman's life could change drastically during her pregnancy, potentially becoming a completely different person. It's possible that pregnancy is a physiological situation that causes a number of expected and typical alterations to the mother's organ systems. Gender can play a role in pregnancy, as can assisted reproductive technologies. Naturally, a woman gives birth forty weeks after her last menstrual period (LMP). Simply put, a pregnancy lasts nine months, with an average of 29 and a half days per month. Based on calculations, the gestation duration is around 38 weeks. During the first eight weeks after conception, an embryo is the developing child; from that point on, the term "foetus" is used until birth. Of course, there are three trimesters in a pregnancy. Weeks one through twelve comprise the primary trimester, which includes origination. Origination is the moment when the sperm gets the egg ready. At that point, the prepared egg descends the salpinx and joins the uterus, where it begins to shape the placenta and creating life. The greatest terrifying risk of an unsuccessful labor is conveyed within the first trimester (characteristic demise of developing life or kid). Week thirteen to week twenty-eight is the trimester. The embryo's development may be felt toward the middle of the trimester. If given excellent medical care, more than 90% of infants can survive outside the uterus by the time they are twenty-eight weeks old. The length of the trimester ranges from twenty-nine to forty weeks. Even though a pregnant woman may not always feel her best at some stages along the way, it is an incredible experience to feel a replacement life developing inside her body.

Every woman experiences pregnancy differently, and even the same mother's subsequent pregnancies may differ from one another. While some pregnancy-related discomforts are transient or don't affect all women, others last for several weeks or months. When counting from the first day of a woman's last menstrual cycle, or around the time before conception really happens, a typical pregnancy typically lasts forty weeks. A pregnancy is divided into three phases. Twelve to thirteen weeks pass during each of the periods. A very pregnant adult woman's body and the growing fetus undergo changes during each trimester.

The first month of pregnancy is when the arms, legs, brain, medulla, spinal cord, and nerves start to form in addition to the heart and lungs. The growth of fingers and toes, as well as the emergence of tooth buds, all occur during the third month of pregnancy. The epidermis is almost translucent, and the intestines start to form. The placenta develops to

supply nutrition to the developing fetus. Through a funiculus, the fetus is connected to the placenta, which is an organ. It represents the fetus's life line. The mother's nutritional state both before and throughout pregnancy affects the newborn's health. A healthy mother who ate well before becoming pregnant has a reserve of various nutrients that she can use to suit her fetus's needs without endangering her own health. Premature deliveries are less common in such moderately well-nourished women, who also give birth to healthy babies and experience fewer pregnancy problems. Premature births, stillbirths, and deformities were more common in newborns conceived during the hungry era than in those born within it. The mother's diet has a direct impact on the growth of the fetus and, consequently, on the size and health of the newborn. Low Birth Weight (LBW) newborns weighing less than 2,500g are born into this era due to inadequate food on the part of the mothers. Premature babies (those born before 37 weeks gestation) make up a disproportionately large portion of these babies, while the remainder have intrauterine growth retardation (IUGR).

Justification of the study

Pregnancy causes women to become more aware of the necessity of good diet and to scour the internet for more nutrition-related information. Pregnant women are more keen to know what they should eat and what they shouldn't consume than they were before preconception and pregnancy. Nutritional deficits can occur as a result of a poor pregnant diet. Nutrition may be an important aspect of pregnancy that cannot be overlooked. Inadequate nutrition, particularly early in pregnancy, can affect foetal brain development and lead to problems in endocrine function, organ development, and energy metabolism in children.

The maternal diet must offer enough energy and nutrition to meet the woman's normal needs, as well as the needs of the growing foetus and allowing the mother to maintain her own stocks of nutrients needed for foetal and newborn health, as well as future breastfeeding practises. The best advice is to eat a balanced diet. In life, and particularly during pregnancy, a healthy and well-balanced eating routine is critical. It is estimated that an estimated 1,000,000 women die each year as a result of maternal causes, with 99 percent of these deaths occurring in the construction industry. Pregnancy-related malnutrition in developing countries is frequently attributed to a variety of socioeconomic factors. Poor awareness of basic healthy requirements during pregnancy, as well as practical and cost-effective ways to meet these requirements, exacerbates the problem. Even now, poor maternal dietary status and poor antenatal care, which result in increased ladies' risk, low birth weight, and stillbirth, plague many countries with fragile or growing economies.

Education is an important factor in health promotion. It's crucial to figure out what kind of coaching you'll need to achieve this aim. Although knowledge is not the same as behaviour, it will be a decisive factor in dietary choices. According to several reports, the recommended amounts of nutrients supported by the mothers' Recommended Daily Allowance (RDA) are not sufficiently supplied in most developing countries. The most significant impediments to change behaviour are knowledge, attitudes, and false beliefs. The health of the community is heavily influenced by foetal growth and maternal health throughout pregnancy. The need for nutrition education research derives from two fundamental factors: first, the need to advise individuals on how to use available foods efficiently, and second, the ever-changing nature of nutrition science. Nutrition education assists selected pregnant women in gaining new knowledge, attitudes, and confidence in order to improve their eating habits, as well as how to care for themselves and their baby during pregnancy.

Review of Literature

According to Nucci *et al*. (2001) [1], women in prenatal open facilities in large Brazilian cities who were overweight or undernourished were remarkably prevalent, regardless of their age range of 20 to 24 years. Approximately 25% of girls are overweight when they are born. Dark multiparous women who are more experienced, have lower educational attainment, and reside in southern or southeastern regions are likely to be overweight when they become pregnant. Unfavorable pregnancy outcomes are associated with the mother's overweight status. Raising awareness of those facts was essential to reducing the risks of obesity for expectant mothers and their offspring.

Rao (2001) [2] found that the main causes of concern in India are the high prevalence of low birth weight, high rates of child mortality and bleakness, and poor maternal sustenance. According to the "fetal place to begin of grown up sickness" theory, the Indian population is undergoing a health transition and is expected to see a larger prevalence of adult non-inheritable diseases like diabetes, hypertension, and cardiovascular illness. Some of the most significant difficulties are the interaction between mother sustenance and fetal growth, the effects of childhood undernutrition, the cooperation of prenatal nourishing encounters, and postnatal undernutrition.

According to Gokhale *et al*. (2002) [3], female illiteracy was more harmful in rural than in urban regions. Male literacy was helpful for increasing the use of services to lower the death rate in the scenario of high female illiteracy. Long-term health advantages will result from initiatives like giving women free education.

According to Jood *et al*. (2002) [4], the dietary habits of rural pregnant women were inadequate in terms of beets, green vegetables, other vegetables, sugar, jaggery, and natural products. As a result, their intake of protein, β-carotene, thiamine, riboflavin, niacin, and ascorbic acid was reduced. Their weights and statures were just below the indication, despite their poor nutritional intake. According to the BMI order, only around one-fourth of the responders were underweight. To reduce the risk of vitamin and mineral deficiencies, a greater use of cereals, beets, green, verdant vegetables, and natural goods is advised.

Objectives of the study

1. Determine the socioeconomic status of the pregnant women.
2. To evaluate pregnant women's dietary habits.

Research Methodology

This community-based cross-sectional study included both descriptive and analytical elements and focused on a subset

of pregnant patients from hospitals in the Allahabad District. One kind of observational study that examines data gathered from a community at a particular moment in time is the cross-sectional study, also known as the prevalence study.

The sample size was set by the prevalence rate of malnutrition in Uttar Pradesh, which was 25.3 percent of the women (NFHS-4, 2015-16). The actual sample size for the study was calculated using the method for single population percentage based on this prevalence rate.

According to quantitative analysis, the sample size was estimated to be 300, but at the time of the study, 260 pregnant women between the ages of 20 and 40 were available for the study. Hospitals, nursing homes, and PHC respondents were gathered (Primary Health Centres). The technique of systematic purposive sampling was used.

Inclusion criteria- All pregnant women in their first and second trimesters who are between the ages of 20 and 40

Exclusion criteria- All participants were excluded from the study, with the exception of pregnant women in their first and second trimesters.

Results and Data Interpretation

Table 1: Distribution of respondents according to their BMI and pregnancy trimesters

S.no.	BMI category	(n) Number of respondents	(%) Percentage of respondents	Average weight gain(kg)	Reference weight gain(kg)
1.	**First trimester**	**108**			
a.	<18.5	7	6.5	1.45	0.7-1.4
b.	18.5-24.9	80	74.0	0.94	
c.	25.0-29.9	21	19.5	0.77	
2.	**Second trimester**	**152**			
a.	<18.5	8	3.0	4.5	5.6-6.4
b.	18.5-24.9	101	38.9	4.35	
c.	25.0-29.9	38	14.7	4.24	
d.	>30.0	5	1.9	2.5	

All of the chosen pregnant women were split up by trimester, and the chosen responders were split up by BMI for each trimester. Weight increase was a very significant and positive symptom for every pregnant lady in every trimester, as shown in Table. Weight increased normally in the first trimester, however the table indicated that weight gain increased less in the second trimester than the reference average. However, we discovered that there was less weight increase when we looked at weight gain based on BMI.

Because both extremes have effects for both the mother and the fetus, all pregnancies should begin with a body mass index of 20 to 26. A weight gain of 11 to 13 kg is ideal throughout pregnancy. The usual weight gain during the first trimester is between 700 and 1400 grams. For the remainder of the pregnancy, 350–400 g each week is typical. It is never advisable to try to lose weight when pregnant.

Table 2: Distribution of selected pregnant women according to their past medical history

Past medical problem		
	n=Frequency	Percentage (%)
DM + High B.P.	4	1.5
DM + High B.P. + Hypothyroidism	3	1.2
DM + Hypothyroidism	3	1.2
High B.P. + HY pothyroidism	6	2.4
High blood pressure	8	3.0
Obesity	8	3.0
Obesity + infertility	4	1.5
Obesity + High B.P.	20	7.7
Renal problems	4	1.5
No past medical problem	200	77

According to Table, a number of pregnant women who were chosen had health issues before to becoming pregnant. The majority of expectant mothers (77%) had no prior health issues. Approximately 7.7% of those surveyed had both high blood pressure and obesity. Approximately 3.0% of the chosen respondents were obese and had high blood pressure, respectively. 1.5% of the pregnant women who were chosen had obesity and infertility, 1.5 percent had diabetes mellitus and high blood pressure, 2.4 percent had hypothyroidism and high blood pressure, and 1.2 percent had diabetes mellitus, high blood pressure, and hypothyroidism combined. Of those surveyed, 1.2% had both diabetes and hypothyroidism, and 1.5% had a kidney condition. Some medical issues developed as a result of their disrupted lifestyle, while others were genetically inherited from their parents. According to Taleb (2011) [12], 40% of the women surveyed have multiple illnesses, including diabetes, hypertension, anemia, and other conditions like asthma, brucellosis, renal failure, and allergies. This difference is significant (p = 0.0001). According to 15.38% of women, anemia is the most prevalent nutritional issue that arises during pregnancy.

Table 3: Distribution of selected pregnant women according to their family history

Family history		
	N = Frequency	Percentage (%)
Obesity	10	3.8
Diabetes	40	15.4
High blood pressure	30	11.6
Obesity + high blood pressure	7	2.7
Diabetes mellitus + high blood pressure	8	3.0
Obesity + diabetes mellitus + high blood pressure	5	1.9
No family history	160	61.6

According to Table, a family history of obesity, diabetes mellitus, and hypertension was present in a subset of pregnant women. The majority of pregnant women who were chosen (61.6%) had no family history. Approximately 15.4% of pregnant women who were chosen had a family history of diabetes mellitus, 11.6% had a family history of hypertension, and 3.8% had a family history of obesity. Multiple disease responses are possible; for example, 3.0%

of respondents reported having a family history of both high blood pressure and diabetes mellitus. 1.9% of respondents had a family history of obesity, diabetes mellitus, and high blood pressure, while 2.7% of pregnant women had a family history of both conditions combined.

Table 4: Distribution of selected pregnant women according to their clinical examinations

Clinical survey		
	n=Frequency	**Percentage**
General appearance		
Good	80	30.6
Fair	150	57.6
Poor	30	12
Appetite		
Good	75	29
Fair	100	38.4
Poor	85	32.6
Eye colour		
Normal	240	92.4
Pale	20	7.6
Skin colour		
Normal	240	92.4
Pale	20	7.6
Fatigue		
Present	185	71.2
Absent	75	28.8
Morning Sickness		
Yes	120	46.2
No	140	53.8
Abdominal pain		
Yes	110	42.0
No	150	58.0
Behaviour Al implication		
Normal	155	59.6
Irritable	105	40.4

The clinical examinations of the responders are displayed in Table. Just 12% of respondents had poor general appearance, compared to 30.6% who belong to the good general appearance group and 57.6% who had a fair general look. While 32.6% of respondents had weak appetites, the majority of respondents (38.4%) had good appetites. Certain pregnant women have morning sickness, nausea, vomiting, and heartburn throughout the first trimester of pregnancy, which results in a lack of appetite. 29% of respondents reported having a good appetite after the first trimester, when they feel better and their appetite grows as a result of an increase in their blood volume and the weight of the fetus. The skin and eye colors of 92.4 percent of responders were normal, whereas 7.6 percent were pale due to anemia in certain pregnant women. About 71.2% of those surveyed reported feeling exhausted throughout pregnancy due to various difficulties and the extra weight they were carrying, which affected their posture. Of those surveyed, 28.8% felt normal. About 46.2% of respondents experienced morning sickness, or nausea and vomiting, as a result of their first trimester of pregnancy, while some women who had finished their first trimester experienced nausea and vomiting because some pregnant women experienced morning sickness symptoms throughout their pregnancy. The highest percentage of respondents (53.8%) did not experience morning sickness symptoms because they had finished their first trimester. While over 42% of pregnant women had abdominal pain, the majority of responders (58%) did not. During pregnancy, abdominal pain may be a typical side effect of the body changing to make room for the developing kid. While some stomachaches are rather common and usually do not endanger the mother and child, some might be more dangerous. The behavioral implications were irritable for 40.4% of respondents and normal for 59.6% of respondents. Women are irritable during pregnancy due to hormonal changes, weight gain, morning sickness, nausea, and vomiting, among other things.

Conclusion

During pregnancy, nutrition is an issue that demands specific attention. Pregnancy nutrition is an important public health concern. The most significant regulators of human foetal growth are maternal nutrition and health. A healthy woman will give birth to a healthy child. Pregnancy is a moment of dynamic transformation for a mother that necessitates a great deal of attention. During this time, the mother feeds the foetus directly through the placenta. Because the baby is completely reliant on its mother for nutrition, the pregnant lady must be given a sufficient and well-balanced diet.

Women who are malnourished are more likely to give birth to weak babies, which results in a high infant mortality rate. Mothers can develop a variety of health problems as a result of poor nutrition, including cardiovascular disease, diabetes, cancer, and being overweight or obese. Lack of proper nutrition for the growing foetus by pregnant women is a major cause of stillbirths before the commencement of labour. As a result, a balanced diet is crucial for the health of both mothers and their infants.

The majority of mothers in India are poor and malnourished. In comparison to other developing nations, maternal and newborn mortality rates are high (57 infant mortality per 1000 live births, UNICEF, India). In light of this, we must improve the health of prenatal moms in order to improve overall health. One of the most common causes of maternal and perinatal mortality and morbidity. It is responsible for 20% of maternal mortality due to direct causes and 20% due to indirect factors. In over 70% of the cases, nutritional problems were discovered to be the culprit.

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