



PREGNANCY DIET - COMMON INDIAN DIET MYTHS

Asma Sajid	Dietitian, Department Of Clinical Nutrition And Dietetics, Fernandez Foundation.
Ankita Das	Dietitian, Department Of Clinical Nutrition And Dietetics, Fernandez Foundation.
Dr Pallavi Chandra Ravula	Consultant And Head Of Obstetrics, Fernandez Foundation, Hyderabad, Telangana, India.
Dr. Latha Sashi	Chief Nutritionist, Head Of Department Of Clinical Nutrition And Dietetics, Fernandez Foundation, Hyderabad, Telangana, India.

ABSTRACT

Maternal diet impacts growth and development of fetus. Pregnancy is a time in woman's life when she is more receptive to health advice. Many women have misconceptions regarding diet and nutrition during pregnancy because of prevalent practices. This survey aims to investigate food taboos and misconceptions during pregnancy which was done at a tertiary care hospital of Hyderabad over a six-month period from June to December 2023. A total of 100 women were interviewed and they were chosen based on the purposive sample technique and their willingness to share their knowledge. The focus of survey was to identify foods that were considered taboo in pregnancy and the perceived reasons. We summarized data descriptively using proportions. Majority of women avoided certain foods from basic food groups. The most common pregnancy myth identified was that certain foods cause an increase in "heat" in body (52%). Other misconceptions include "eating for two," (47%) "saffron consumption gives a fairer complexion to baby, (28%) and "increased fluids-increases amniotic fluids" (26%). More than 90% of women reported having at least one misperception about nutrition during pregnancy and were avoiding foods from the basic food groups. Therefore, it may be helpful to inform and educate about the facts for various myths in educational leaflets.

KEYWORDS : Pregnancy, Misconceptions, Food taboo

INTRODUCTION

Pregnancy is a critical phase in a woman's life when physiological nutrient demands are significantly enhanced.^{1,2} In order to meet the growing needs of both the growing fetus and the mother, a well-balanced and adequate diet is important throughout pregnancy.³ Many women have misconceptions about eating various foods while pregnant as a result of common behaviours.^{3,4} The diet limitations imposed during the vital stage of pregnancy due to misconceptions or food taboos may jeopardize the woman's ability to fulfill the increased demands for essential nutrients, thereby increasing the woman's risk of adverse pregnancy outcomes.^{5,6}

The societal and cultural context in which people reside, shapes their dietary habits, including adherence to food taboos. Food taboos restrict the consumption of particular foods, decreasing dietary diversity and quality and perhaps can have detrimental effects on one's health and nutritional status.⁴ Several studies from Asia and Africa have shown that women from diverse parts of the world are forced to refrain from healthful foods throughout pregnancy and the postpartum period due to cultural beliefs.^{8,9} For example, in a research conducted in India and South Africa, the most popular items avoided were fish, fruits (such as papaya), and eggs, all of which are high in essential nutrients.^{4,10}

The reasons for avoiding the food items included: a fear of miscarriage, labor, and an unfavorable bodily appearance for the infant. Even though numerous factors, including cost and access, might influence proper dietary intake during pregnancy, food taboo has been identified as one of the contributors to maternal undernutrition.^{9,10} There is insufficient information about dietary taboos/myths among our south Indian population. As a result, the goal of this study was to better understand dietary taboos and myths within the demographic, as well as the primary source of information influencing pregnant women's nutritional consumption.

Methodology

A survey was conducted in the Obstetric-nutrition department of a tertiary care facility in Hyderabad over six months from June to December 2023. The data was collected from hospital's Electronic Medical Records (EMR), which included nutritional screening based on modified "Malnutrition Universal Screening Tool" (MUST) and Subjective Global Assessment (SGA). One-on-one interviews were used to collect nutritional screening responses with participants chosen purposefully based on their first two hospital visits with the researchers. The survey excluded women with type 1 diabetes, pre-existing diabetes mellitus, or multifetal pregnancies. The interviewer, a nutritionist, was aware of the emotional implications of the questions she was asking and knew how to respond to them with compassion.

Nutritional Screening included questions on foods consumed and avoided during pregnancy as well as socio-demographic data such as age, educational background, occupation, pre-pregnancy BMI and number of pregnancies. The origins of all culinary taboos and cultural beliefs were also chronicled. The data was analyzed using percentages and descriptive statistics.

RESULTS AND DISCUSSIONS

A total of hundred (100) pregnant women participated in the survey. Out of which 50 women were primigravidae and 50 were multigravida. Participants ranged in age from 21 to 40 years old, with a mean BMI of 24 kg/m² with educational backgrounds ranging from secondary school to postgraduate studies. Employment levels also varied, with more than half of the individuals (63%) unemployed and 37% employed (Table 1)

Table 1: Socio-demographic characteristics of the respondents

S NO.	Characteristics of respondents	Categories	Percent (%)
1	Median Age	28 Years	-
2	Median BMI	24.2 kg/m ²	-

3	Educational status	Undergraduate	33%
		Graduate	37%
		Postgraduate	30%
4	Occupational status	Employed	37%
		Unemployed	63%

It was observed that neither the number of pregnancies nor the educational degree had demystified the food taboos instilled in pregnant women. Therefore, a structured nutrition education programme during their first visits of antenatal care is crucial. The survey highlighted the following : Foods considered taboo in pregnancy and the perceived reasons for the same. Sources of Information for the Pregnancy Food Myths . Foods considered taboo and the perceived reasons : Pregnant women, spouses, and family members felt that certain foods should be avoided during pregnancy (Table 2)

The survey revealed that one or more food groups were avoided during pregnancy due to food taboos. Women avoided the following food groups the most during pregnancy: wheat roti (29%), green leafy vegetables (such as gogu and amaranth) (9%), some fruits or dried fruits (53%), curd (29%), and eggs and fish (14%). The participants explained the taboo as follows: "Although bananas, citrus fruits, and curd are supposed to make mothers and babies feel cold, roti, gogu, amaranth, eggs, and fish may cause the body to produce heat." The majority of the foods identified as taboo are high in key macro and micronutrients, which are important for maternal health as well as fetal growth. The current survey's findings support previous studies in which dietary taboos during pregnancy were found to be more detailed, nutritionally pertinent and differ only in the type and reasons associated with avoidance of that food.

Women who avoid wheat (such as roti) during pregnancy may be deficient in vitamins B1, dietary fiber, iron, magnesium, and phytochemicals, whereas those who avoid green leafy vegetables may be deficient in micronutrients and fiber unless alternative food sources are added in their diet. According to the survey, fruits that are typically avoided are high in vitamins A and/or C, both of which are required during pregnancy. Severe vitamin A deficiency in the mother can result in insufficient vitamin A storage in the body, compromising the baby's lung development and survival during the first year of life. Similarly, vitamin C deficiency might affect iron absorption and increase the risk of pre-eclamptic toxemia.

If a pregnant woman's diet excludes curd, eggs, chicken, and fish, as well as any vegetarian protein sources, due to flatulence or food allergies, the diet may be low in high biological value protein. Thus, avoiding certain foods may have adverse implications for the fetus.

According to the survey, the majority of these pregnant women preferred rice, starchy vegetables, fried snacks, pickles, papads, and soft drinks, all of which are classified as high fat, salt, and sugar foods (HFSS foods).

Pregnancy Food Myths and Sources of Information.

1) Heat-Causing Foods":

The most common myth was that particular foods cause "heat" in the body. The influencers were mainly (52%) the participants' families, 10% friends, and 11% from the internet.

2) Hydration and Amniotic Fluid:

A sizable proportion of participant's families (26%) believed that drinking plenty of water increases amniotic fluid levels. This myth was also endorsed by 6% of friends and discovered online by 3%. It is evident optimum hydration (2.5-3lit/day) is essential in pregnancy but there is no conclusive evidence that excess water is beneficial for increasing amniotic fluid.

3) Saffron and Fairer Skin:

A smaller percentage of respondents (28%), however, said

that their relatives thought eating saffron results in an infant with a fairer complexion. Only 2% reported having read it from an online source. However, scientific research suggests that the complexion of a baby is determined by heredity.

These findings emphasize the impact of family and friends on pregnancy diet, as well as the importance of internet information sources (Figure 1). Further research is needed to explore the impact of these myths on dietary choices during pregnancy.

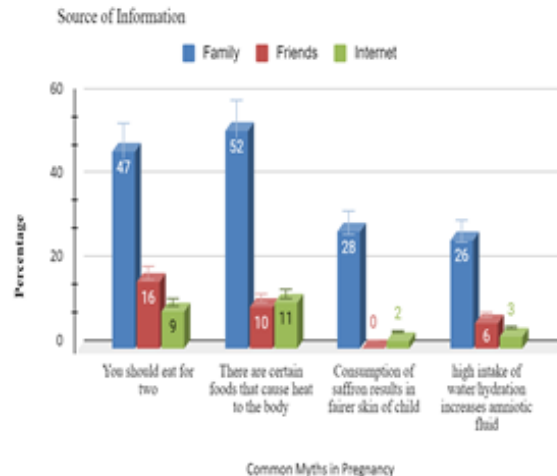


Figure-1: Pregnancy Food Myths and Sources of Information.

It was observed that most women interpreted food taboos from peers and relatives. These findings are consistent with previous research, which found that pregnancy-related food taboos were more common among women who had heard about them or had friends who avoided them.¹² According to the survey, women also sought information on maternal nutrition and dietary practices mostly from family and friends. This is in line with research showing that during pregnancy, which may be a very uncertain time, women often revert to customary or comfortable behaviors.¹³

CONCLUSIONS

The survey identified food taboos as well as pregnancy-related habits. Wheat roti, green leafy vegetables, curds, fruits such as papaya, pineapple, citrus fruits, dried fruits and nuts such as almonds, figs, dates, non-veg foods like egg, and fish were among the most commonly forbidden items. Eliminating any of these foods affects the diversity of the diet required during pregnancy and will affect the mother and fetus nutritional status later in life. Therefore, there is a need for nutrition education as well as raising public awareness of the potential nutritional repercussions of adhering to food taboos. A healthy pregnant pamphlet addressing dietary myths and misunderstandings should be created and distributed as a short-term intervention at Antenatal care follow-ups.

REFERENCES

1. Tsegaye, D., Tamiru, D., & Belachew, T. (2021). Food-related taboos and misconceptions during pregnancy among rural communities of Illu Aba Bor zone, Southwest Ethiopia. A community based qualitative cross-sectional study. *BMC pregnancy and childbirth*, 21(1), 309. <https://doi.org/10.1186/s12884-021-03778-6>
2. Cetin, I., Buhling, K., Demir, C., Kortam, A., Prescott, S. L., Yamashiro, Y., Yarmolinskaya, M., & Koletzko, B. (2019). Impact of Micronutrient Status during Pregnancy on Early Nutrition Programming. *Annals of nutrition & metabolism*, 74(4), 269-278. <https://doi.org/10.1159/000499698>
3. Rockliffe, L., Peters, S., Heazell, A. E., & Smith, D. M. (2021). Factors influencing health behaviour change during pregnancy: a systematic review and meta-synthesis. *Health psychology review*, 15(4), 613-632.
4. Ansong, J., Asampong, E., & Adongo, P. B. (2022). Socio-cultural beliefs and practices during pregnancy, child birth, and postnatal period: A qualitative study in Southern Ghana. *Cogent Public Health*, 9(1), 2046908.
5. Acire, P. V., Bagonza, A., & Opiri, N. (2023). The misbeliefs and food taboos during pregnancy and early infancy: a pitfall to attaining adequate maternal

- and child nutrition outcomes among the rural Acholi communities in Northern Uganda. *BMC nutrition*, 9(1), 126.
6. Enriquez, J. P., & Archila-Godinez, J. C. (2022). Social and cultural influences on food choices: A review. *Critical Reviews in Food Science and Nutrition*, 62(13), 3698-3704.
 7. de Diego-Cordero, R., Rivilla-Garcia, E., Diaz-Jimenez, D., Lucchetti, G., & Badanta, B. (2021). The role of cultural beliefs on eating patterns and food practices among pregnant women: a systematic review. *Nutrition reviews*, 79(9), 945-963.
 8. Walters, C., Bendulo, P., & Stoecker, B. J. (2019). Assessment of dietary diversity, antenatal care, food taboos, meal frequency, and nutritional status of pregnant adolescents in rural Malawi: a cross-sectional study. *African Journal of Food, Agriculture, Nutrition and Development*, 19(3), 1455-14570.
 9. Tela, F. G., Gebremariam, L. W., & Beyene, S. A. (2020). Food taboos and related misperceptions during pregnancy in Mekelle city, Tigray, Northern Ethiopia. *Plos one*, 15(10), e0239451.
 10. Tugume, P., Mustafa, A. S., Walusansa, A., Ojelel, S., Nyachwo, E. B., Muhumuza, E., ... & Ssenku, J. E. (2023). Unravelling taboos and cultural beliefs associated with hidden hunger among pregnant and breast-feeding women in Buyende District Eastern Uganda
 11. Abere, M., & Azene, A. G. (2023). Food Taboo and associated factors among pregnant women attending antenatal clinics at Bahir Dar City, North West Ethiopia, 2021: cross-sectional study. *Scientific Reports*, 13(1), 7790.
 12. Amare, W., Tura, A. K., Semahegn, A., & Teji Roba, K. (2022). Food taboos among pregnant women and associated factors in eastern Ethiopia: A community-based cross-sectional study. *SAGE Open Medicine*, 10, 20503121221133935
 13. McKay, F. H., Vo, M., George, N. A., John, P., Kaushal, J., & van der Pligt, P. (2024). Cross-cultural food practices and nutrition seeking behaviors among pregnant and postpartum Indian women living in Australia. *Health Care for Women International*, 1-23.