

# Food taboos in pregnancy and early lactation among women living in a rural area of West Bengal

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## ABSTRACT

**Introduction:** Pregnancy and lactation require greater need for nutrition for a mother but the situation becomes more complicated when a pregnant or a lactating woman follows or forced to undergo certain dietary restriction for the benefits of her baby. This study was conducted to know about the food taboos followed during pregnancy and early part of lactation by the women residing in a rural area. **Methods:** The study was conducted at different subcenters of Amdanga Community Development Block of North 24 Parganas district, West Bengal. The study was descriptive, observational with cross-sectional design, and was done through mixing of both quantitative and qualitative methods. Total four focus group discussions (FGDs) were conducted and 44 pregnant women and lactating mothers participated in those discussions. Notes and audio recording from FGDs were transcribed to written English language, analyzed, and principal domains were extracted. **Result:** Taboos were present regarding consumption of various fruits (banana, papaya, jackfruit, coconut), vegetables (brinjal, leafy vegetables), meat, fish, and eggs during pregnancy. These were followed mainly to prevent miscarriage, promote easy delivery, and prevent fetal malformations. Taboos in the lactation included avoidance of small fish, foods with multiple seeds, other “cold” foods, and fluid restriction in some areas. The taboos were followed spontaneously as the inhibitions were imposed only for a definite period. **Conclusion:** Though diminished, food taboos are still prevalent in the rural areas of West Bengal. Nutrition education in pregnancy and lactation may be strengthened in those areas.

**Keywords:** Dietary restrictions, food taboos, lactation, pregnancy, rural areas, West Bengal

## Introduction

Taboos are defined as a social or religious custom prohibiting or restricting a particular practice or forbidding association with a particular person, place, or thing.<sup>[1]</sup> Taboos differ from customs as custom is frequent repetition of the same behavior; way of behavior common to many; habitual practice; or method of doing which may not be inhibitory.<sup>[2]</sup> Taboos are often integrated with the culture, traditional in nature, and are carried out as convention or as per advice of the elderly.<sup>[3]</sup>

Every society, whether rural or urban, has own taboos in almost every aspect followed throughout the way of life. Particularly woman's life, starting from her birth through menarche, marriage,

child bearing, motherhood, and finally widowhood, is governed by various taboos. Out of this, taboos related with pregnancy and immediately after child birth are enumerable. These are mostly dietary but also affect woman's personal hygiene, rest, and lifestyle. A common belief supporting these pregnancy-related taboos is that breaking them may cause abortion or deformity in newborn.<sup>[4]</sup> Pregnancy imposes the need for considerable extra calorie and nutrients for a mother. An adequate balanced diet is, therefore, of utmost importance during pregnancy and lactation to prevent “nutritional stress.”<sup>[5]</sup> Dietary taboos related to these periods are not only fatal to a mother's health but also affect the fetus.

So, identification and addressing the influencing factors of the taboos are of utmost importance. With this background, this study was carried out to investigate existing food taboos during pregnancy and early lactation as well as reasons behind

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10.4103/jfmipc.jfmipc\_53\_17

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**How to cite this article:** Chakrabarti S, Chakrabarti A. Food taboos in pregnancy and early lactation among women living in a rural area of West Bengal. J Family Med Prim Care 2019;8:86-90.

following them among the woman living in a rural area of West Bengal.

## Materials and Methods

The study was conducted in Amdanga community development (CD) block, in the district of North 24 Parganas (the rural field practice area of a tertiary care hospital of West Bengal). It was a descriptive, observational study with cross-sectional design, and was done through a mixing of both qualitative and quantitative approaches. Data were collected through focus group discussion (FGD). All pregnant and lactating women of Amdanga CD block comprised the study population. Amdanga block is consisting of four Primary Health Centers (PHCs). From each PHC, one subcenter (SC) was chosen randomly. In the next stage, one FGD was arranged in each SC with the help of the respective health workers. All the women, having pregnancy of >20 weeks and mothers within first 6 months of their lactation, living in the villages under those SC were asked to participate in the FGDs. Altogether, 44 women participated in four FGDs. In total, 11 women participated in each of the FGDs conducted in Chankia (Adhata PHC) and Amdanga SC (Amdanga PHC), 12 women in Madhabpur SC (Beraberia PHC), and 10 women in Dhanias SC (Maricha PHC).

The study protocol was approved by the Institute Ethics Committee of the Tertiary Care Teaching Hospital. Before conducting FGD, ASHA and ANM (auxiliary Nurse Midwife) of the selected SCs were met; discussions were carried out with them to get an idea about the pregnancy-related food taboos prevalent in those areas. This had also helped to prepare the FGD guide. The FGD team was consisted of the two researchers and one ANM (from the respective SC). All FGDs were conducted between October and December 2015.

The FGDs took place in a familiar setting and in local language (Bengali) in order to motivate participants and to create a comfortable environment. Before starting the FGD, informed consent was obtained from the participants after explaining them the context of the study and all participating women were asked about their sociodemographic condition (such as age, literacy status, religion, monthly income of the family, decision maker of the family, literacy status of the decision maker, etc.). Each FGD lasted for around 1.5 h. Detailed notes along with audio recording were taken in each session and later were transcribed to written English language. Quantitative data regarding their sociodemographic conditions were entered into excel sheet and expressed as frequency and percentage (categorical data) and mean  $\pm$  SD (continuous data). Observation notes were analyzed and principal domains/themes were extracted.

## Results

In total, 44 women participated in four FGDs. Their age ranged from 18 to 32 years. They had education maximum up to class X. About 31.8% of them were Hindu and 68.2% were Muslim. They

were from both nuclear (45.5%) as well as joint families (54.5%). Interestingly, none of them were decision maker in the family. All women living in nuclear family stated “husband” as decision maker (45.5%). Father-in-law (22.7%), mother-in-law (27.3%), and brother-in-law (4.5%) were decision makers in the joint families. Respondents did not know about the educational status of the decision maker in the family in 18.2% cases. Otherwise decision maker in the family were illiterate (22.7%), middle school passed (29.4%), and higher secondary passed (22.7%). Sociodemographic characteristics of the respondents are summarized in Table 1.

Foods were generally considered as “hot” and “cold” food. Most of the women admitted that “pregnancy is a hot state.” So, consumption of hot food during this period is harmful to mother. It can also cause abortion. Cold food has cooling effect on her body. Yogurt and vegetables, specially gourds (and except brinjals and cabbage), were considered to be cold. On the contrary, these hot foods are essential immediately after delivery. It helps mother to recover from the trauma of labor and increases milk secretion. Hot foods include papaya, banana, coconut, pineapple, red chillies, jackfruit, meat, and egg. During nursing, cold foods are forbidden as it can cause diarrhea, common cold of the baby, and decrease the milk secretion of the mother.

Generally, foods were avoided during pregnancy because of three possible causes: miscarriage, difficulty in labor, and fear of abnormality in child. Papaya, parwar (patal), and pine apples were very well-known food mentioned or admitted by most

**Table 1: Sociodemographic characteristics of the respondents (n=44)**

Characteristics	No. (%)	Range	Mean (SD)
Age of the respondent			
≤20	11 (25.0)	18-32	22.73 (±3.24)
21-25	25 (56.8)		
26-30	6 (13.6)		
≥31	2 (4.5)		
Religion			
Hindu	14 (31.8)	-	-
Muslim	30 (68.2)		
Type of family			
Nuclear	20 (45.5)	-	-
Joint	24 (54.5)		
No. of child			
0	24 (54.5)	0-3	0.8 (±0.06)
1	8 (18.2)		
2	9 (20.5)		
3	3 (6.8)		
Schooling of respondents (years)			
Nil	3 (6.8)	0-10	4.91 (±2.45)
1-4	17 (38.6)		
5-8	21 (47.7)		
9-10	3 (6.8)		
Total family income			
≤5,000	29 (65.9)	3,000-10,000	4967.67
5,001-7,500	11 (25.0)		(±1456.33)
7,501-10,000	4 (9.1)		

of the participants as causing miscarriage. The participants of FGD in Chankia particularly pointed that eating meat (mutton) during pregnancy might result in long hairs over the body of the baby. So, they avoided it. The other two FGD participants know about these taboos but did not practice. Fused banana was known to cause twin pregnancy and was avoided by all. Green coconut water was considered forbidden during pregnancy as it causes opacity of eyeball (the Bengali words used “chokher moni gholate hoy”). Participants from Dhania FGD mentioned eating egg everyday can make the baby smell bad, but other FGD’s participants did not agree. Those foods having sticky appearance (such as tender jackfruit, banana stem) were not consumed during pregnancy as it hinders clearing the greasy material (vernix) over the new born’s body. Generally, dark colored fruits and vegetables were avoided as it might cause dark complexion of baby. Most of them were advised not to eat more during pregnancy as baby will grow big and delivery would be difficult. Few women followed it too, in spite of nutritional advice obtained from the ASHAs. The followers argued that natural tendency of vomiting during pregnancy were created by God so that woman could not eat more. The fruits which were hard and had to be opened such as coconut and bel were avoided in pregnancy as it caused difficult/obstructed labor. In their words, “coconut shapes like a uterus. If coconut is eaten, uterus will become hard like it. Baby will not come out normally. You may have to break uterus like coconut to deliver the baby.” Similar argument was put for fish caught by net. Women of Amdanga village knew the fact but could not follow it thoroughly as most of the fishes are caught by net in their area. They also admitted that increasing caesarean section may be due to eating these fishes. The important findings are listed in Table 2.

Food taboos during lactations were less compared with that of the pregnancy and they were mostly followed for first 21 days or 1 month according to the sex of the child. Usually diet was restricted after childbirth, and postpartum isolation was done to remove the polluting effects of childbirth. Garlic and onion fried in oil or ghee was given twice daily to the mother for a week to recover fast (termed as “naari sukano” in local language). For the same reason, dry foods (without much gravy) were given to mother. Water restriction was also mentioned in the FGD of Chankia, but the amount of restriction could not be ascertained. Cold foods were generally avoided and a number of vegetables were restricted

due to their effect of decreasing breast milk. These included vegetables with multiple seeds, such as cucumber, watermelons, beans, and guava. Infantile colic and diarrhea were said to be the reason for restricting those foods. Sour foods were avoided as baby might have hyperacidity from it. Small fishes, which are usually eaten without removing fish bones, were avoided as it could go to baby through breast milk and cause choking. Mothers were also forbidden to eat very hot and spicy food, food prepared in day before, and food from any ceremony and they followed it.

Majority of the respondents pointed their mother, mother-in-law, other senior female members and female neighbors as the advisor of those taboos. When they were asked whether they believed it themselves or just have followed as told, most of them remained silent, and only few answered. The commonest answer was “I don’t believe it from my heart. But I thought that this restriction is not life-long, only for a short period.... So it is better to follow. If by any means, any problem occurs during or after delivery all would blame me. So I followed.” They were also asked whether they were forced to follow those restrictions. “No” was the answer. Some mothers from Madhabpur told that they were repeatedly advised by the older females to eat less during pregnancy. Participants also admitted that they were told by the health workers to eat vegetables, fruits but not to take something which they did not like. The respondents did not know exactly the function of each food in the body, too.

## Discussion

This study was conducted in the women living in a rural area of West Bengal. They had mean education up to 4.91 years. They were all booked cases and visited nearest health facility (SC) at least once. So, food taboos in pregnancies were few among them in comparison to the other previous studies from other parts of India<sup>[4,6,7]</sup>. A qualitative study conducted in Bihar points that Strong cultural practices prevent pregnant women from eating adequately, especially among women living in large multigenerational family.<sup>[7]</sup> Dr Avasarala noted in his study that the dietary restrictions are practiced in 92% woman in South India.<sup>[3]</sup> Concept of “hot” and “cold” food seems to be old<sup>[8]</sup> and are well known to the other societies of India<sup>[9]</sup> and abroad. A study from Karachi reports that 12% believes in restricting “hot” food during pregnancy.<sup>[6]</sup> Another study from Calicut mentioned that conventionally hot foods were avoided in pregnancy in fear of abortion and the cold food in nursing period to have a good-quality breast milk.<sup>[5]</sup> taboos regarding consumption of fish caught by net was also reported in other part of the world. A study in Malaysia noted that “fish that have been caught by other people besides the pregnant woman’s husband using a chain-weighted circular throwing net, by line fishing and by ‘*bubu*’ may cause difficulty in baby delivery.<sup>[10]</sup> It was supported by Jerzy Kuzma *et al.*<sup>[4]</sup> Similarly, prohibition of jackfruit was also present in few studies,<sup>[9,10]</sup> but they mentioned that sticky rubbery sap from the jackfruit will collect inside the pregnant woman’s womb and prevent baby from coming out. Same reports were given for Flour in some studies, though

**Table 2: Food taboos in pregnancy and their possible reasons**

Food item	Reason for restriction
Papaya, pineapple, parwar	Miscarriage
Tender jackfruit, banana stem	Fetal abnormality
Leaves of plants having hairy stem, red meat, dark colored vegetables	
Eggs	
Coconut, bel fruit, cabbage, fish caught by net	Obstructed labor, ruptured uterus
Fused banana, other fused fruit	Twin pregnancy

no women in this study mentioned it. Fused double banana (as a cause of twin pregnancy) was mentioned by almost all studies.<sup>[4,5,7,9,11]</sup> Some noted that it was avoided by all women in reproductive age groups.<sup>[11]</sup> in this study; participant admitted that they did not take any fused double fruits (banana, mango) during pregnancy. Papaya, mango, and guava were forbidden in pregnancy in a study conducted in rural area of Karnataka, India, but in this study, no general prohibition was there regarding fruits. Papaya is well known to cause abortion. In a study done by Puri and Kapoor, it is reported “one of the strong beliefs is that papaya can cause abortion.”<sup>[10]</sup> A study among 1,200 women from all districts of Tamil Nadu in India showed that 82% of women avoided papaya during pregnancy.<sup>[12]</sup> Saffron was believed to be responsible for fairer skin of the baby by the participants of few studies.<sup>[9,12]</sup> But, on the contrary, in this study, respondents were forbidden to eat any dark colored vegetables to prevent dark complexion of baby. A study conducted in Bihar stated that strong cultural practices prevented pregnant women from eating adequately especially among women living in large multi-generational homes.<sup>[7]</sup> Jerzy Kuzma *et al.*<sup>[4]</sup> mentioned restriction of protein-rich food during pregnancy to facilitate delivery, but this study did not find any such restriction on protein. Only they were advised to eat in less quantity to avoid difficult labor.

According to this study, nursing mothers were advised not to eat something that could cause increase acidity in the newborn. Also, infantile colic and diarrhea were other concerns. For these reasons, citrus food and foods with many seeds were forbidden. On the other hand, study from Bihar noted that all participants followed a form of restrictive diet following delivery in order to recover and prevent post-delivery complications.<sup>[7]</sup> Similar study conducted outside India also admitted this nutritional restrictions of pregnant and nursing mothers which frequently have some ecological backgrounds (necessity to protect the resource or to monopolize the resource).<sup>[13]</sup> Mothers also rejected several foods (the majority [73%] avoided two or more food and 50% three specific foods) in a study conducted in Mexico and those rejected foods belonged to all the basic food groups.<sup>[14]</sup> Interestingly, this study found that most pregnant women have a very poor understanding of the function of each type of food. They eat certain foods because they think that “it is good” without understanding the basic function of the food type in the body. Mothers pointed the elders in the households and neighbors as the source of their knowledge about the foods. The two possible reasons for it could be that either their poor literacy level or there may be some gap regarding antenatal advices by the health workers. Similar to these findings, Anya *et al.*<sup>[15]</sup> reported poor knowledge level regarding food among Gambian mothers those have visited antenatal clinics.

This study has some limitations. First, the effect of the food taboos on nutritional status of the pregnant and lactating mother was not attempted due to time and resource constraints. It is suggested that future studies may use a combination analysis of

dietary intake and anthropometry for determining nutritional status of the women. Second, the FGDs were conducted in the SCs, and in the presence of health workers, women might have opined formally.

## Conclusion

Though traditional avoidances and dietary restrictions are still practiced, the adherence to taboos is slowly diminishing. There is a need for nutrition education and awareness generation among women and they must be convinced that in the era of advanced treatment and investigation modalities, most of the pregnancy-related complications can be well managed.

## Acknowledgments

The authors gratefully acknowledge all participants, ANMs, and ASHAs for the success of the FGDs.

## Financial support and sponsorship

Nil.

## Conflicts of interest

There are no conflicts of interest.

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