# **Original Research Article**

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# Food taboos among pregnant and lactating mothers in Tumkur: a qualitative study

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#### **ABSTRACT**

**Background:** Maternal nutrition has a huge impact on the health of the mother and the fetus. Pregnancy imposes the need for considerable extra calorie and nutrient requirements. A food taboo is a prohibition against consuming certain foods. The restrictions imposed on people forces them to abstain from certain food and drinking items as these things are embedded into the cultural and religious threads.

**Methods:** A qualitative study was conducted between July 2014 and September 2014. Study was conducted in urban and rural field practice area of Sri Siddhartha medical college, Tumkur, Karnataka. Study involved three groups Mother –in- laws Anganwadi workers, Pregnant and lactating women. Six Focus group discussions were conducted and four themes were used. Quantitative data was tabulated and analyzed using SPSS version 16.

**Results:** All most all women under the study followed some form of restrictive diet. Many nutritive and locally available foods were avoided which includes fruits, vegetables, pulses and green leafy vegetables. Special foods rich in energy were consumed during post-partum period. Concept of hot and cold food is prevailing high and there was no scientific reasoning given for the taboo. Anganwadi workers who are front line health workers were believed in the many of the food taboos.

**Conclusions:** Food taboos in this community are deep rooted. Avoidance of nutritive food was common in both the religion. Many misconceptions are prevalent which do not have scientific basis. Maternal nutrition needs to be prioritized at community level among family members and front line workers. Anganwadi workers need to be sensitized regarding different beliefs about food consumption during pregnancy and lactation.

Keywords: Nutrition, Taboos, Pregnancy, Lactation

# INTRODUCTION

Food is a vital component of life. Nutritional practices play an important role in maintaining the health status of an individual. Pregnancy and lactation is important phase in women's life. Maternal nutrition has a huge impact on health of the mother and the fetus. Pregnancy imposes the need for considerable extra calorie and

nutrient requirements. A balanced and adequate diet is therefore, of utmost importance during pregnancy to meet the increased needs of the mother, and to prevent "nutritional stress". A food taboo is a prohibition against consuming certain foods. The word "taboo" (also spelled "tabu") is Polynesian and means 'sacred' or 'forbidden'; it has a quasi-magical or religious overtone. Taboos represent "unwritten social rules that regulate human

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behaviour<sup>3</sup>. Some foods may be prohibited during certain religious periods (*e.g.*, Lent), at certain stages of life (*e.g.*, pregnancy), or to certain classes of people (*e.g.*, priests), even though the food is otherwise permitted<sup>4</sup>.

Food taboos are known from virtually all human societies. Most religions declare certain food items fit and others unfit for human consumption. Dietary rules and regulations may govern particular phases of the human life cycle and may be associated with special events such as menstrual period, pregnancy, childbirth, lactation, and – in traditional societies – preparation for the hunt, battle, wedding, funeral, etc.<sup>5</sup> Religion has a powerful influence on food habits of the people.<sup>6</sup>

Maternal nutrition is the product of a number of complex factors, including adherence to food 'taboos' and a patriarchal gender order that limits women's mobility and decision-making. Culture has a strong impact on the food behavior of people. The food, habits and practices are closely related to the typical behavior of a particular group of people or culture. Such behavior follows codes of conduct in relation to food choice, methods of food preparation and eating, number of meals eaten per day, time of eating, and the size of the portion eaten. In various studies it was seen that pregnant women in various parts of the world are forced to abstain from nutritious foods as a part of their traditional food habits. Irrespective of whether from urban or rural area people have their own beliefs and practices. 8

The roots of these kinds of customs and taboos are rational at times and some real origins cannot be traced. Malnutrition is one of the most important risk factors for poor health, both directly and in directly. In Asia, young women of reproductive age are considered to be among the most vulnerable to malnourishment. While the issue of malnourished women is problematic all the time, it is particularly so when pregnancy occurs. India continues to struggle with levels of maternal malnutrition that are among the highest in the world. Not only is there a negative impact on children born to malnourished mothers, but there is also an increased risk of maternal morbidity and mortality. Malnutrition during pregnancy and its consequences maximally affect the health and long-term outcomes of the population.

Low birth weight accounts for almost 30% of all births; with maternal malnutrition as a dominant risk factor. Beliefs are crucial in the acceptance of rejection of certain food items and are deeply rooted in the community. Prevailing beliefs and practices may prevent people from consuming nutritive foods.

Taking into account dynamically changing nutrition Practices, the study are aimed to document and elucidate ethno cultural food practices during the pre and post-natal period of pregnancy. There have been very few studies on food taboos among pregnant and lactating mothers. So this study was taken up to find out different reasons and practices behind such beliefs.

The study was conducted with the objective to study socio demographic characteristics of the participants under the study, to explore various food taboos among pregnant and lactating mothers and to find out the food practices and reasons behind it.

#### **METHODS**

# Study design

Cross sectional study design, qualitative study.

# Study area

Urban and Rural field practice area of Sri Siddhartha medical college, Tumkur, Karnataka, India.

# Study duration

July 2014 to September 2014.

#### Study population

Lactating mothers, Mother in laws, Anganwadi workers of selected blocks of that area.

**Table 1: Summary of focus group discussions.** 

Sl. no	Focus group	No. of participants	Location : block
1	Pregnant and lactating mothers	8	UHTC : Maralur Dinne
2	Anganwadi workers	9	UHTC : Maralur Dinne
3	Mother in laws	6	UHTC : Maralur Dinne
4.	Pregnant and lactating mothers	7	RHTC :Nagavalli
5.	Mother in laws	5	RHTC :Nagavalli
6	Anganwadi workers	6	RHTC :Nagavalli

Total number of partcipants (n) = 41

# Method of data collection

Focus group discussion with electronic recording was done after taking written informed consent. Total of six Focus group discussions, three each in rural and urban field practice area of Sri Siddhartha Medical College, Tumkur.

Three groups were used namely pregnant and lactating mothers, mother in law, Anganwadi workers. Each focus group discussion had six to eight respondents.

Approval from institutional review board was taken before the study. Written informed consent was taken from each study participants. Four themes were used in the study.

- Theme 1- Foods avoided during pregnancy.
- Theme 2- Foods Preferred during pregnancy.
- Theme 3- Foods avoided during lactation.
- Theme 4 Foods Preferred during lactation.

Socio- demographic data was collected using a semistructured questionnaire. The recordings were transcribed by a transcriber who was fluent in both English and Kannada. Textual data from all focus group discussions were segmented and coded according to four themes. Each FGD took an average time of 45 minutes. Textual data from all focus group discussions were segmented and coded according to four themes. Quantitative data was tabulated and statistically tabulated and analyzed using SPSS version 16.

#### **RESULTS**

Socio demographic characteristics like age, socioeconomic status, religion, occupation, type of family, literacy levels, and obstetric scores were collected. Mean age of the participants was 38 years.

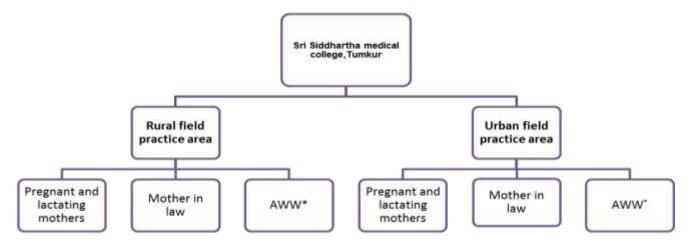


Figure 1: Population under study.

# Types of food avoided during pregnancy

Some of the foods were specifically restricted during the first and second trimester, while certain others were forbidden throughout gestation. A comprehensive list of these food items is given in Table 2.

Most common foods were fruits namely Papaya, Guava, Banana followed by water melon, custard apple and black plum. Vegetable and leafy vegetables like drum sticks and drum fish, egg, stick leaves, pumpkin, amaranth, brinjal. Protein rich foods like egg, meat, pea, was one of the most common foods avoided considering that it induces abortion.

# Reasons for avoiding the food items during pregnancy

One ante natal mother said: "We are not allowed to eat anything made of Ragi and sesame because our child will become dark in color". One Anganwadi worker said "Un ripe papaya, sesame, Fish, Brinjal can cause abortion because they are hot foods".

One more respondent said "Consuming egg during pregnancy will lead to bluish discoloration of the baby".

# Foods avoided during lactation

One lactating mother responded "Only bland rice will be given for a month and water consumption is restricted because it causes swelling of the face of the baby".

One of the respondents said "If mother consumes more water stomach of the baby will swell; only rava ganji should be given for a week".

Another respondent said "Oily food items should not be given as it causes allergy, itching".

# Reasons for avoiding certain foods during lactation

After delivery the mother should not eat any solid diet for 24 hour period. Following this mothers were given plain rice and curry for the first seven days. Most elderly participants opined that the number of meals given to the mother post-delivery were restricted to a maximum of twice a day and water consumption was drastically reduced to just a single glass of water a day. They believed that this aided the mothers' stomach to heal and involution.

Table 2: Socio demographic characteristics of study participants.

Socio demographic character	Frequency	Percentage	
Age group			
20-30	17	41.4	
30-40	9	21.9	
40-50	6	14.6	
>50	9	21.9	
Religion			
Hindu	27	65.9	
Muslim	14	34.1	
Occupation			
Daily wage labor	8	19.5	
Agriculture	3	7.3	
Skilled worker	16	39.0	
Business	14	34.1	
Type of family			
Nuclear	28	68.3	
Joint family	3	7.3	
Three generation	10	24.4	
Literacy levels			
Illiterate	8	19.5	
Primary school	1	2.4	
Middle school	7	17.1	
High school	17	41.5	
Graduates	8	9.5	
Socio economic status			
Class 2	2	5	
Class 3	30	73.1	
Class 4	9	21.9	
Parity			
P1	14	34.1	
P2	10	24.4	
P3	11	26.8	
P4	5	12.2	
>P4	1	2.4	
(n = 41)			

Table 3: Types of food avoided during pregnancy.

Food avoided	Food items	Frequency (n=41)	Percentage %	
Fruits	Papaya, Guava, Banana.	25	60.97	
Oil seeds	Sesame	20	48.78	
Animal proteins	Egg, Meat, Fish.	15	36.5	
Green vegetables	Drum stick leaves, Brinjal	10	24.39	

# Foods preferred during pregnancy

One mother in law said "vegetables, fruits, green leafy vegetables should be given". One more respondent said "milk and kesari will be good for complexion of the baby". One of the mother said "Fruits like pomegranate, apple, beet root, and carrot should be given as it makes the baby fairer".

# Perceived benefits of preferred food during pregnancy

One of the participant told that pregnant women should eat four times a day and should drink hot water at night as it aids in digestion. One Anganwadi worker said "egg and fish should be taken more because it makes the vision and brain of the baby sharper".

#### Foods preferred during lactation

One more respondent "Increased intake of milk improves the milk production".

One of the responded said "Centella, Aamirth balli should be given as it improves memory and intelligence".

Table 4: Reasons for avoiding the food items during pregnancy.

Major reasons	Foods	Frequency	Percentage
Induces abortion	Papaya, Sesame, Drum sticks	20	48.7
Hot food	Jaggery, Egg, Fish, Brinjal, Mango.	10	24.3
Dark complexion of the baby	Black Plum, Guava, Ragi, Sesame.	8	19.5
Cold food	Curd, Guava, Custard apple, Water melon.	8	19.5

Table 5: Types of food avoided during lactation and reasons for avoidance.

Food items	Reason for avoidance	Frequency (n=41)	Percentage %
Curd, tea, fruits , water	Cold food	25	60.97
Pea, horse gram, potato, tomato, pumpkin,	Gas producing foods	15	36.58
brinjal			
Brinjal, Oily food	Allergy	10	24.39

Table 6: Foods preferred during pregnancy and perceived benefits.

Food items	Perceived benefits	Frequency	Percentage
Milk, ghee , fish	Improved memory, IQ, milk production	32	78.04
Cashew, Almond, ground nut	Stamina, strong bones, IQ	30	73.17
Drumstick leaves, curry leaves, fenu greek	Milk production	25	60.9
Pomegranate, Apple, Banana, Orange	Fair skin of the baby	20	48.78
Beet root, Carrot,	Blood production, fair complexion	10	9.75

# Perceived benefits of preferred food during lactation

Sergeant Fish consumption reduces the chance of occurrence of puerperal psychosis Said one of the respondents. Many people said consumption of certain herbal products like kasthuri tablets, bhaje, garlic, cardamom are used for the baby.

# **DISCUSSION**

Most of the foods restricted were inexpensive and nutritious. Many beliefs stated for each food item had no scientific explanation. Common and inexpensive vegetables and fruits like papaya, drumsticks, pumpkin and cucumber were restricted. Another study done in coastal Andhra Pradesh Papaya, sesame were avoided.1 Similar to the findings of the study done in Pondicherry Papaya is considered to be a fruit which is 'hot' Conventionally 'hot' food items are avoided during pregnancy as it is thought that it will cause abortion. Similarly 'cold' foods are avoided during lactation as it might affect the quality and quantity of milk production.<sup>1</sup> Milk, green vegetables and fruits were the most commonly mentioned beneficial food items during pregnancy in a study conducted in Bihar, which is similar to our findings. 12 Most common reasons for avoiding certain food are abortion which is similar to other studies done in different parts of country. 11-13 Papaya and sesame

were the most commonest food item tabooed during pregnancy different studies done had similar findings. 13,14 In a study done in Tamil Nadu 82% of the pregnant women avoided papaya.<sup>13</sup> Concept of hot and cold foods are highly prevailing in consistent with other. 12-14 Foods which were considered hot were : papaya, sesame, brinjal, jaggery, mango which is similar to the findings of the study done in Surender Nagar. Hot foods were believed to cause abortion in other different studies too. Foods that generate "gas/air" in the stomach i.e. difficult to digest is also an important reason, foods difficult to digest mainly were pulses which are rich sources of proteins. Food avoided during lactation were cold foods which can lead to respiratory infections, alter the quality of milk were major reasons similar to other study findings.<sup>7</sup> Another study also revealed very restricted diet immediately following the delivery of their child to dry out the uterus and aid in the production of milk. 15 Special foods were consumed during postpartum period, which is similar to findings of the study done in Sikkim. 16

Two studies done in Hyderabad and Rajasthan, reveal that larger numbers of women consumed special foods during pregnancy and lactation. Consumption of special food is mainly intended to improve the quality and quantity of milk, strength of the baby, and improvement of hemoglobin. The lactating mothers were given ghee with nuts which is similar to the finding of a study done in Andhra Pradesh.

#### Limitations

Study area covered was small. Mother in laws in the study was hesitant to speak about the topic. Lactating mothers with kids could not be involved completely because of crying of the kids.

#### **CONCLUSION**

Larger proportion of women still believes in old unscientific tales. With increase in literacy status such taboos/misconceptions can be removed. There is a need for nutrition education and awareness generation among women.

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Institutional Ethics Committee

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