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## To assess the nutritional composition of traditional supplementary foods consumed by lactating mothers in Kanpur city

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### ABSTRACT

One hundred lactating women were taken from 3 maternity Hospitals of Kanpur city. General information and obstetric information were collected through interview schedule. Dietary pattern of lactating mothers was assessed by 24 hours recall method. Anthropometric measurement and clinical observation were done to know the health status of lactating mother. Nutritional composition of traditional foods was assessed by food consumption Table. Dietary Survey revealed the diet of lactating women was deficient in all essential nutrients except fat. Clinical symptoms like bitot spot, pale conjunctiva, thyroid enlargement, xerosis were found. There were 8 types of traditional supplementary foods consumed by lactating mothers.

**Key words :** Lactating women, Anthropometric, Clinical observation, Dietary habit

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### INTRODUCTION

Lactating mothers constitute the most vulnerable segment of a population from the nutritional stand-point. The women in all stages of their life, seems to be the most neglected group in our country, under the influence of prevailing customs and traditions. The various studies have shown that the nutritional status of new born is maximum affected by mothers nutritional status and their dietary intake.

The lactating mother has to maintain not only her health but that of growing infant. Nutrition supplement is judiciously given to the nursing mothers which can improve the lactation performance. During this period, the mother continues to protect her young infant with almost of the same efficiency in feeding.

Nutritional needs of lactating mothers are higher than that of pregnant women because of secretion of milk, the quality and quantity of which depends upon maternal diet.

There is a wide spread belief in the communities that cultural food restrictions practices by breast feeding women have deleterious consequences on the health status of mothers and infants. There is a lot of evidence available

from several studies reported in different parts of the world, the belief concerning the importance of food restrictions on lactation are very common (Ferro-Luzz, 1980, NIN, 1983, Pande and Devi, 1990). In the various regions of India, certain traditional foods are customarily fed during the lactation period. Special attention is being given to the diet during lactation than that of pregnancy period with nutritious supplements. Some special foods such as Ajwain, Sonth ginger, gond (edible gum), jaggery, fenugreek, Battisa (a traditional food), dry fruits, milk and ghee are some of the items which are included in the diet of lactating mothers (Mittal *et al.*, 1980).

Soft diet prepared from rice and pulses and milk are given to the mothers in the evening and night (Lal and Adarsh, 1980). wheat rab, moong kichdi, Battisa laddu, Kotta, Bajara roti with milk, fresh ginger, Gond ka soont, milk, Bydku, Bajara fati, butter milk, Ajmoo, Methi Bhaji, Piparamoor are some of the items which are consumed by the Gujarati lactating mothers (Girijamma *et al.*, 2001).

### MATERIALS AND METHODS

The study was conducted in the urban area of Kanpur

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city in three maternity Hospitals viz., Duffrin Hospital, Mariampur Hospital, K.M.C.(Kanpur Medical Centre). The samples were selected by using purposive random sampling. Total 100 respondents were taken and general information were recorded by interview method. Clinical examination, and anthropometric measurement and diet survey was conducted for the assessment of nutritional status of the lactating mothers. Diet survey were conducted by 24 hrs. recall method. Nutrient intake that is energy, protein, fat, iron, vitamin B<sub>12</sub> were calculated by using food consumption table. Dietary habit of lactating mothers was assessed by interview method.

## RESULTS AND DISCUSSION

In present study, it was found that only 9 per cent lactating women were illiterate most of them (61 per cent) were of 20-25 year age group and rest of the respondents were below 30 year of age and above 25 year. Food habit showed that 56 per cent were vegetarians and 44 per cent were non- vegetarians. General health and obstetric information revealed that 57 per cent in parity number 1, 20 per cent in parity number 2 and rest of women in parity number 3, 4, and 5. Majority of the women were found to be normal. Only 24 per cent respondents were found to ill due to operation, 8 per cent women were suffering from pale tongue and 2 per cent bleeding gum and 8 per cent women were having lusterless hair. There was no significant symptoms related to specific deficiency like koilonychia, Thyroid enlargement and xerosis were found. Average intake of each and every nutrient was less than

recommended dietary allowance except fat that was 60.33 g per day.

There was 8 types of traditional supplementary food consumed by lactating mothers *i.e.* Badam Haluwa, Paga Doodh, Ajwain Pani, Mewa laddu, Panjiri, Harira, Gond laddu and Sothaura (Table 1). Majority of the women (55 per cent ) consumed Sothaura and Harira, and rest of them consumed other items.

Nutrition composition of traditional supplementary foods per 100 g are presented in Table 2. The energy given by special foods varied from 309.73 to 614.52 K calorie in Paga Doodh and Gond laddu, respectively. Protein ranged from 4.97 to 15.5 gram. Gond laddu had the least quantity of protein and Ajwain Pani had a highest quantity of protein. Fat content of each supplementary food ranged from 19.56 to 47.67g and maximum amount being in the Gond laddu and minimum amount in Paga Doodh. Ash content varied from 1.48 to 5.6 gram. Badam Haluwa had the least ash content, while Ajwin pani had the highest. Least amount of carbohydrate was observed in Badam Halwa (25.75 g) and maximum amount being in Gond laddu that was 71.46 g. Calcium and iron content of each food ranged from 53 to 1625 miligram (Fig. 1). The nutritional analysis of each supplementary food showed that all these are richer source of calcium, iron, protein, and energy. It was observed that the highest amount of fat in the form of Ghee was used for the preparation of these traditional foods. So, the fat content of the traditional foods was highest.

It can be concluded from the present study that intake

**Table 1 : Sub-Category of traditional food consuming group at lactating mother**

Special foods	Number	Percentage	Reason
Sathaura, Harira	55	55%	Hot food, Increases bleedings
Paga Doodh, Mewa laddu	23	23%	For strength, Increases milk secretion
Badam Haluwa, Ajwain Pani, Panjiri	8	8%	Energetic, gives strength hot food
Gond laddu	7	7%	Gives strength to waist.

**Table 2 : Nutritional composition of traditional supplementary foods/100 g**

Sr. No.	Food Items	Protein (g)	Fat (g)	Ash (g)	Fibre (g)	Carbohydrate (g)	Energy (K calorie)	Calcium (mg)	Iron (mg)
1.	Badam Haluwa	9.6	25.2	1.48	0.68	25.75	348.28	142.40	2.11
2.	Paga Doodh	9.32	19.56	2.55	1.28	27.73	309.73	346.00	3.96
3.	Ajwain Pani	15.5	20.8	5.6	18.5	37.2	388.00	1625.00	30.2
4.	Mewa laddu	8.94	25.54	2.19	1.37	55.85	474.25	181.85	3.99
5.	Panjiri	8.40	28.4	1.82	1.01	53.01	501.69	53.00	3.90
6.	Harira	6.02	29.29	2.35	1.01	57.8	503.50	255.76	6.03
7.	Gond laddu	4.97	47.67	1.58	1.09	71.46	614.52	149.18	4.99
8.	Sothura	7.39	27.70	2.27	1.64	48.88	458.34	212.75	5.50

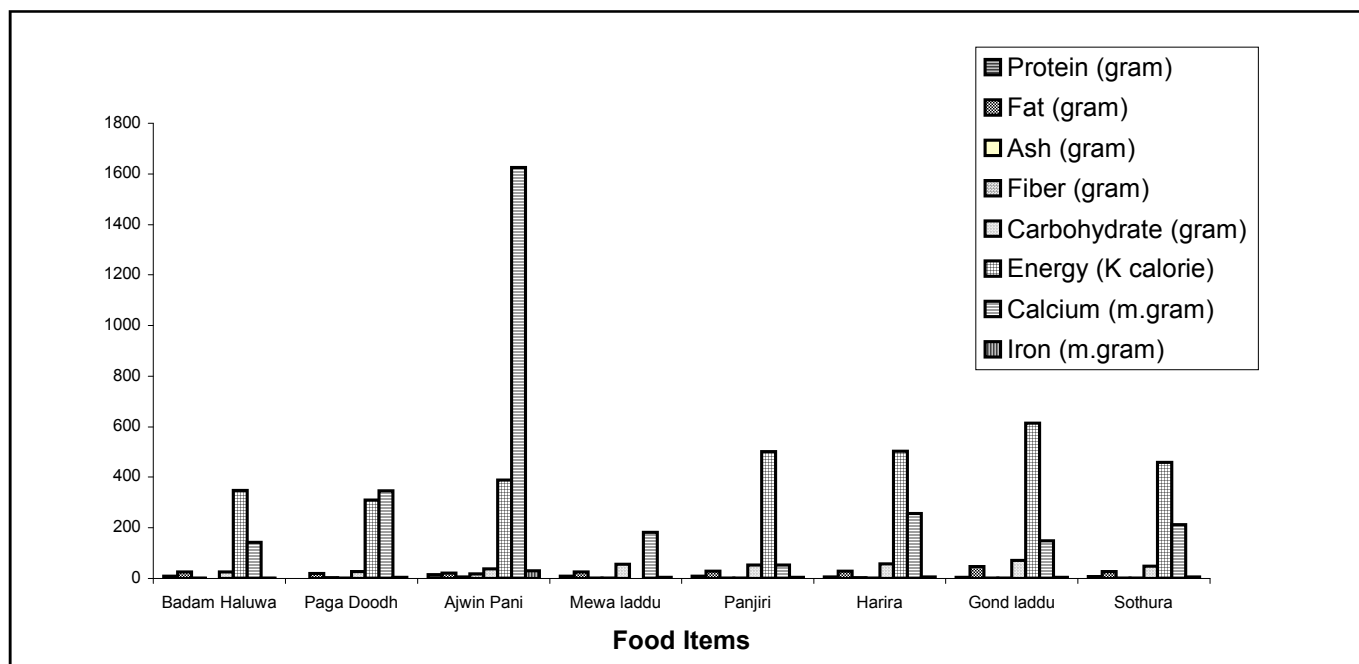


Fig. 1: Nutritional composition of traditional supplementary foods/100g

of all nutrients except fat was unsatisfactory, due to lack of knowledge about balance diet. Despite their poor dietary intake, their weight and height were not below to standard. Traditional supplementary food was rich in all nutrients but excess amount of fat in the form of Ghee was used in its preparation because of traditional belief that edible oils cause cough and Ghee provides strength to the body.

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