



# A Study Of Food Consumption Patterns And Nutritional Status Of Lactating Mothers From Adiwada Anganwadi

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## **Abstract:**

This research paper aims to investigate the food consumption patterns and nutritional status of lactating mothers attending the Adiwada Anganwadi. Lactating mothers' dietary habits play a crucial role in ensuring the health and well-being of both the mother and the infant. The study employs a mixed-methods approach, combining quantitative surveys and qualitative interviews to gather comprehensive data. The findings of this study will contribute to a better understanding of the nutritional needs of lactating mothers and provide insights into potential interventions to improve their dietary practices.

**Key Words :** Lactating mothers, Food consumption patterns, Nutritional status, Adiwada Anganwadi, Dietary habits, Maternal health, Infant well-being, Public health nutrition, Community nutrition, Maternal and child health.

## **Introduction:**

Lactating mothers require adequate nutrition to support both their own health and the healthy growth of their infants. The Adiwada Anganwadi serves as a vital platform for delivering essential nutrition and guidance to lactating mothers. This research focuses on exploring the current food consumption patterns and nutritional status of lactating mothers attending the Adiwada Anganwadi.

Lactation, the process of milk secretion, is sometimes referred to as the physiological completion of the female reproductive cycle. During pregnancy hormonal action prepares the female mammary glands to produce milk which will continue to be produced in the postpartum period in response to the infant suckling at the breast (Lawrence and Lawrence, 2005).

Human milk ensures the infant's systematic protection, growth, and development; therefore breast feeding is one of the most effective ways to ensure excellent child health and survival (Lawrence and Lawrence, 2001). It is the opinion of many pediatricians and obstetricians that "children should grow up knowing breast feeding is the norm" (Lawrence, 2008). And also, since the physiologic process of breast feeding are a normal part of the maturation of the female body, breastfeeding seems to have the attributes of a preventive health measure for women. Therefore, adequate breastfeeding support for mothers could save many young lives and ensure good health for mothers (Labbok et al, 1990).

The importance of breast feeding in infant nutrition and survival has long been recognized. In the last three decades there has been a growing recognition that lactation may have profound effects on the maternal nutritional status and some effect on the maternal return of fertility after delivery. The advent of the next pregnancy, or contraceptive measures used to avoid this, may have an effect on lactation and maternal nutritional status (Gopalan and Suminder, 1989).

### Objectives:

- To assess the dietary habits and food consumption patterns of lactating mothers.
- To evaluate the nutritional status of lactating mothers based on anthropometric measurements.
- To identify any challenges or barriers faced by lactating mothers in maintaining a nutritious diet.
- To propose recommendations for improving the nutritional support provided by the Adiwada Anganwadi.

### Review of Literature:

The expectant and lactating mothers are considered as nutritionally vulnerable groups especially in the developing countries of the world. Due to nursing process mothers are subjected to nutritional stresses. Frequent pregnancies followed by lactation increase the health risk of mothers resulting in a high maternal mortality. The success of lactation as well as the health status of the infant depends entirely on the type of diet consumed by women during pregnancy and lactation. The quality and quantity of mother's milk is maintained up to some extent by drawing the nutrients from her body reserves indicating additional demand for different nutrients during lactation. Diets consumed by many lactating mothers in our

country are poor and lack in many nutrients. Thus, special attention should be given to the diet of mother during lactation. The diets of the lactating mothers vary from place to place. The study is planned to have an idea of nutritional status and food consumption pattern of lactating mothers living in rural areas so that necessary modification can be suggested in their diet and nutrient intake for improving nutritional status of the mothers and infants too.

## FOOD CONSUMPTION PATTERN OF RURAL

Bhatia et al. (1981) also found that diets of rural and urban lactating mothers of Varanasi were deficient in calories, calcium, retinol, ascorbic acid and niacin as compared to ICMR recommendations. In a survey conducted on lactating mothers, it was reported that mean nutrient intakes covered only 73.00 per cent of recommendations for energy, 79.00 per cent for protein, 52.00 per cent for calcium, 89.00 per cent for iron and 55.00 per cent for vitamin 'A'. According to Devadas et al. (1983) also the intake of calories, protein, Calcium, iron, vitamin 'A', riboflavin and ascorbic acid by nursing mothers was less than the recommended allowances.

Rajbhandari and Gujral (1981) also observed that lactating mothers with low income consumed less of all the nutrients than the high income mothers. The family size had no impact on the calorie and protein intake. However, the vitamin 'C' and iron intake was influenced by the family size. Bigger the family size lower was the intake of vitamin 'C' and iron. The education of the mother had impact on intake of energy, vitamin 'C' and iron, but had no effect on protein intake.

Rawtani and Verma (1989) reported that lactating women belonging to desert areas subsisted mainly on cereals. Milk, pulses, roots and tubers and other vegetables were consumed in small amount. whereas green leafy vegetables, Fruits, nuts, egg and meat were completely lacking in their diets.

## Methodology:

The present investigation was carried out to fulfill the objectives mentioned in earlier section. The chapter is divided under the following sections and accordingly discussed in detail.

- Location of the study
- Selection of the villages
- Selection of respondents
- Construction of the interview schedule
- Pre testing of the interview schedule

- Collection of the date
- Assessment of nutritional status
- Statistical analysis

Quantitative: A structured questionnaire will be administered to lactating mothers attending the Adiwada Anganwadi to gather information on their dietary habits and food consumption patterns.

Qualitative: In-depth interviews will be conducted with a subset of lactating mothers to explore their perspectives on challenges and barriers related to maintaining a nutritious diet.

The present study was conducted in the areas of Adiwada taluka of Gandhinagar District of Gujarat State and. The main purpose of selecting the Adiwada is that, it has been identified as the most backward Village of District From Gandhinagar. But before planning any development programme for the women of selected taluka; it is necessary to analyse the present situation in terms their dietary pattern.

Adiwada is a situated in Gandhinagar District, Gujarat, India. The population of the Adiwada Villages around 2,899. The main economic activities of the people are agriculture, dairy farming and diamond cutting. The main community of the taluka is Patel, Rajput, Muslim and Thakor. Adiwada is 06 km away from Gandhinagar.

A separate list of the total population of village collected from Block Development Officer of Adiwada taluka.

During the period of investigation list of lactating mother belonging to 0 to 6 month, 6 months to 1 year, 1 to 2 year in the age group of 16 to 40 years was prepared for selected village with the help of data sheet obtained from Primary Health Centre of Adiwada Village. Sample of 60 lactating mother was drawn by applying a proportionate random sampling technique.

The data were collected through personal interview of the respondents. A door to door survey was conducted. The respondents were interviewed either at their residence or at their farm. At the time of interview, all possible efforts were made to develop a good rapport with the respondents.

The data obtained during the study, which was recorded through personal interview, were transferred in the master sheet. Data were classified, tabulated, processed and analyzed to obtain the result (Steel and Torrie, 1980).

Classified the respondents to interpret their personal and socio- economic characteristics, obstetrical history, lactating history, anthropometric measurements, dietary habits and hemoglobin level was obtained in percentage.

Technique was used for classification of the respondents into different categories was obtained by

total score divided by the numbers of the respondents.

To find the association between socio-economic characteristics and anthropometric measurements and the hemoglobin level of the subjects.

## RESULTS AND DISCUSSION:

The present study was carried to find out the food consumption pattern and nutritional status of lactating mother from Adiwada Village, Gandhinagar District, Gujarat State. For the study purpose two sixty lactating mothers of 0 to 2 years of lactation were randomly selected from villages of Adiwada Village. The information regarding their food consumption pattern, dietary intakes, nutrient intake and other factors contributing to their nutritional status were gathered through interview method using self-prepared questionnaire. The data pertaining to the food consumption pattern and various aspects of study were analyzed statistically and results were discussed and interpreted under the following heads:

### Personal and socio-economic characteristic

- Obstetrical history of lactating mother
- Lactating history
- Assessment of nutritional status
- Diet survey
- Dietary pattern and habits.
- Food consumption pattern
- Dietary intake
- Anthropometry measurement
- Clinical examination
- Bio-chemical estimation

**PERSONAL AND SOCIO-ECONOMIC CHARACTERISTICS AGE**

Maternal age may be considered a biological determinant of reproductive efficiency because it reflects both the consequences of immaturity of the maternal organism and the consequences of aging.

**Table : 1 A summary of age of lactating mother in the study group (N=60)**

| Sr.No.       | Age (years) | Frequency | %             |
|--------------|-------------|-----------|---------------|
| 1            | 18 to 24    | 17        | 29.50         |
| 2            | 25 to 30    | 25        | 42.00         |
| 3            | 31 to 35    | 10        | 18.00         |
| 4            | 36 to 40    | 08        | 10.50         |
| <b>Total</b> |             | <b>60</b> | <b>100.00</b> |

It is evident from table 1 that majority (42.00 per cent) of the lactating mothers were in age group of 25 to 30 years, whereas 29.50, 18.00 and 10.50 per cent were in the age group of 18 to 24 years, 31 to 35 years and 36 to 40 years, respectively. The more or less similar result observed by Singh and Bhalwar (2006) who stated that in large proportion of lactating mothers (46.24 per cent) belonged to the age group of 25 to 29 years, followed by 44.57 per cent in the age group of 20 to 24 years while 9.15 per cent belonged to the age group of 30 years and above. While study on breastfeeding practices among families of armed forces personnel in a large cantonment, Armed Forces Medical College, Pune. Sahoo (2006) reported that women of Balasore District of Orissa; the mean age at marriage of the respondents was 20.8 years. 53.3 per cent respondents got married within 20 years of age, 42.9 per cent respondents got married between 21 to 25 years of age.

Similarly, Harnagle and Chawla (2013) reported that 83.30 per cent of the lactating mothers were found to be in the age group of 20 to 30 years. While studying of knowledge, attitude and practices of lactating mothers on breast feeding, weaning immunization and dietary practices at Jabalpur cantonment, India. Wagh et al., (2013) reported the majority of 51.21 per cent were between age group 24 to 29 years during studying of breastfeeding practices in a Vidarbha region of Maharashtra, India.

**Table 2 : NUMBER OF PREGNANCY HELD BY LACTATING MOTHER IN THE STUDY AREA**

| Sr.No. | Number of pregnancy | Frequency | %             |
|--------|---------------------|-----------|---------------|
| 1      | No pregnancy        | 14        | 23.00         |
| 2      | 1 to 3              | 36        | 60.00         |
| 3      | 4 to 6              | 10        | 17.00         |
|        | <b>Total</b>        | <b>60</b> | <b>100.00</b> |

Table 2 shown that forty six (23.00 per cent) lactating mother had first pregnancy, while thirty four (17.00 per cent) mothers had four to six pregnancies. The majority of the one hundred twenty mothers (60.00 per cent) had three or less pregnancy. The high fertility rate might be due to lack of knowledge and poor availability along with ineffectiveness of family planning in the region. The prevailing rural believed in larger families rather than small families as they found children as source of income to them and family safety was also an important issue. Similarly, Kawatra et.al., (1998) reported that in rural and urban area of Hisar most around 72.00 per cent of urban and 53.3 per cent of urban and 53.3 per cent of rural lactating mothers had 1 to 2 children. Only 5.4 per cent of rural mothers had 5 to 6 children.

**Table : 03 : COMPLICATIONS OBSERVED AMONG LACTATING MOTHER DURING PREGNANCY IN THE STUDY AREA (N=60)**

| Sr.No. | Complications      | Frequency | Per cent |
|--------|--------------------|-----------|----------|
| 1      | Nausea             | 29        | 48.50    |
| 2      | Vomiting           | 18        | 29.50    |
| 3      | Oedema Swelling    | 10        | 16.00    |
| 4      | Frequent urination | 08        | 13.00    |
| 5      | Muscle cramps      | 28        | 47.00    |
| 6      | Heartburn          | 38        | 63.00    |
| 7      | Breathlessness     | 19        | 18.00    |
| 8      | Diarrhoea          | 07        | 11.50    |
| 9      | Constipation       | 16        | 26.00    |
| 10     | Sleeplessness      | 25        | 42.00    |
| 11     | General weakness   | 43        | 71.00    |
| 12     | Fatigue            | 47        | 78.50    |
| 13     | Backache           | 40        | 66.00    |

Data shown in table 03 revealed that most of the subjects complained fatigue (78.50 per cent) followed by general weakness (71.00 per cent), backache (66.00 per cent) and heartburn (63.00 per cent). Nausea (48.50 per cent), muscle cramps (47.00 per cent), sleeplessness (42.00 per cent), vomiting (29.50 per cent), constipation (26.00 per cent), breathlessness (18.00 per cent), oedema (16.00 per cent), frequent urination (13.00 per cent) and diarrhea (11.50 per cent) were other complications.

The lactating mothers were consumed Ghats mainly as breakfast and to tea and roti was included in the early morning, while chapattis and other seasonal vegetables or sometimes kadhi, dhal, rice and buttermilk included in the lunch. In evening time lactating mother usually consumed to. At the time of dinner. Chapattis/rotla along with vegetables, chutney, kadhi/dhal, khichdi. Milk was included. Four dietary patterns were followed by all the lactating mother. None of the lactating mother taken any modified diet during lactation phase and not even incorporated iron rich food in their diet.

## CONCLUSION:

### General dietary pattern and habits of the lactating Mother.

The majorities 78.00 per cent of the lactating mother studied were vegetarian and followed 91.50 per cent three large meals. 22.50 per cent. rating mother reported to intake special food. No one lactating mother avoided any particular food during lactation. The consumption of special diets during lactation was observed very low level, because of poverty and unavailability of different foods, lack of time and lack nutrition education.

### Food consumption pattern

It was found that cereals were consumed daily by the lactating mother was wheat, bajra and rice. The consumption of legumes and pulses were very less and consumed once a week. Lactating mother (27.00 per cent) were consumed vegetable daily. The vegetables used by the subject mainly depend upon, its seasonal availability. The consumption of green leafy vegetables was reported occasionally or in seasonally, especially in winter. Roots and tubers were consumed daily (80.50 per cent), onion and garlic daily or twice a week and potato used to prepare vegetables. Wild fruits such as mango, banana, apple, guava, grapes, papaya, water melon, sputa, seethaphal, jambun, orange, lemon, pears and alma were consumed (67.00 per cent) by subjects depended upon season and availability. Majority (96.50 per cent) subject consumed milk and milk products daily in the form of buttermilk, tea and whole milk, while 2.00 per cent were not consumed. Mustard oil, ground nut oil, cotton seed, oil and soybean oil was used for cooking, while use of ghee and other fat was reported. All the subject (100.00 per cent) consumed sugar daily while use of any confectionary was not observed. Some of the

lactating mothers were found eating of preserved and processed foods, while some were frequently consumed fast foods. Only 13.00 per cent subjects were consumed egg, meat and meat products once a week, 4.50 percent twice a week and 2.00 per cent consumed it monthly.

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For the present study, the subjects in the reproductive age group i.e., 18 to 40 years were considered age-wise classification of subjects shown in Table 1 indicates four categories-wise distribution of lactating mother.

**Table : 1 A summary of age of lactating mother in the study group**

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