

# Nutrition of Lactating Women

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## ABSTRACT

The average meal pattern of the Lactating respondents was three meal pattern very few from rural & urban area consumed and mormy food 4 snacks in their diet, In lactation period only plan preparation used and special foods like lactating women, Diet, Nutrition.

Lactation requires frequent eating however they did not have mid-morning food or snacks. As the lactation stage is very important, because lactation represent a drain on maternal body composition. The required calories and other nutrients is therefore frater during lactation, hence much emphasis gives in providing adequately nutrition diet during lactation, Nutrition during lactation is important for her own health and that of her offspring.

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**KEYWORDS:** *lactating woman, Diet, Nutrition, lactation, Nutrient*

## INTRODUCTION

A lactating woman is a female who is producing and secreting milk from her mammary glands, typically to Norwich her infant lactation is the natural process of milk production in the mammary glands, which is hormonally drive.

Lactating women are considered as nutritionally vulnerable. A section of the population owing to the inevitable loss due to milk secretion, lactation understandably represents a drain on maternal body composition. It involves Considerable nutrient expenditure for the mother.

A section of the population owing to the inevitable loss due to milk secretion, lactation understandably represents a drain on maternal body composition. It involves considerable nutrient expenditure for the mother.

The estimated calorie expenditure for lactation varies from 400-700 k call day (RDA 1984). Mild secretion requires energy over and above mothers own energy requirements. This additional body fat store causes a great strain in the maternal nutritional status during lactation. Hence much emphasis lies in providing adequately nutrition diet during lactation.

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Malnutrition in its serious form is found among children, especially new born and infants in the weaning and post weaning periods especially in rural areas. Nearly 75 percent of in front mortality in India is directly attributed to low nutritional levels of pregnant mothers malnutrition is the direct cause of death of about 500000 children every year.

Malnutrition is undoubtedly the biggest public health problem in our country today. The economic condition of a vast majority of our population is so poor that they are in no position to afford even the least expensive balanced diets.

## Objectives:-

1. TO evaluate the health & nutritional status of pregnant and lactating women by anthropomchic measurements and clinical examination.
2. To evaluate the food and nutrient intake of the selected pregnant and lactating women.

## Research methodology -

The present study was conducted "Nutritional & health status of pregnant and lactating women in Parbhani Taluka

For this study the total 9 villages. were randomly selected from Parbhani Taluka A random Sample of 300 pregnant and 200 lactating women were selected, lactating women who have 15 days to 4 month baby and it was stratified on the basis of women's SES, living area and education

The data pertaining the study were collected by personal interview the respondents, their family members, Visiting their homes or hospitals. Further following 24 hours recall method and weighment method with questionnaire for dietary and nutritional intake by taking Anthropometric measurements. Was performed as per standard procedures.

### Review of Literature:-

National institute of nutrition (1980) reported a significant difference in the dietary intake of all nutrients between lactating women attending immunization clinic and those attending general outpatient department (OPD). The mean values of intake of proteins, calories, worn, thiamine and riboflavin by the women attending immunization OPD were 53.7 g., 1821 kcal, 17 mg, 0.95 mg and 0.63 respectively. The respective values for the corresponding nutrient were 26.3g, 1110 keel, 12 mg, 0.53 mg and 0.39 mg for women attending general OPD.

A total of 95 lactating vegetarian women from urban and rural area of vanes were evaluated for the intake of diet. The intake of diet during the first three months of locational period was obtained by recall method. The results revealed that the intake of calories and nutrients by the lactating women were higher in urban area then in rural areas (PL 0.05). The diets of lactating women in both urban and rural area were noticed to be deficient in calories, calcium, rational, niacin and acerbic acid as compared to the recommendations of Indian council of medical research only 31.5 percent of lactating women were consuming calories at more than 80 percent adequacy level according to the recommendation of ICMR while the percent of lactating women consuming protein, iron and thiamine at the level of adequacy was 79, 87.5 and 87.5 respectively.

The retinal intake was more than 80 percent of adequacy level in the diet of 13 percent of lactating women while 62 percent of the lactating women were consuming rational which was less than 40 percent of ICMR recommendations supply of calcium, riboflavin niacin and ascorbic acid was found to be adequate in meeting the recommend aloneness to more than 80 percent level in the diets of 56, 68, 42 and 35 percent of lactating women respectively (Bhatia etal 1981)

A seven day dietary reward was reported by pat gam et. At (1981) in a longitudinal study on 27 lactating women for a period of 15 months of lactation. The intake of energy was found to be 926, 10.73, 9.06, 8.75, 9.26 and 10.8 mg / 24hg at 1, 3, 6, 9, 12 and 15 moths of lactation respectively. Data showed that there was an increase in energy intake (10.73 mg / 24 h) at third month of lactation and a gradual fall in the energy intake up to nine months of lactation. The reduction in energy intake form third to nine months of lactation was attributed to the profound alternation in metabolism during lactation.

Dietary intake of 31 pregnant and lactating months of Haryana region was assessed by Gupta and Sharma (1980). It was reported that the dietary intake throughout the reproductive period was unsatisfactory. Green leafs vegetables and animal foods were rarely consumed by months. However only calcium and riboflavin intakes were adequate due to high milk consumption. Average contribution of energy from fat was observed to be percent.

The results of a study, carried out by Bhatt et. al (1983) in Hisser district, indicated that the lactating women were found to be consuming foods like cumin seeds, jiggery milk, ghee etc. as special foods to increase milk secretion during lactation.

A study, carried out by Pande and Rrohini Devi (1983) on the tributes of kinuat area, revealed that the consumption of oily and fried food was completely avoided by the lactating women and that was prevalent among the lactation women.

### Result and Discussion

The study entitled "Nutritional and Health status of pregnant and lactating women was carried out in Parbhani Taluka and District of Marathwada region of Maharashtra state. The collected data was pooled analyzed, tabulated and discussed with different heads.

### Background information of the selected lactating women depending then Socio-economic status (SES)

It is clear from the table that (57 %.) of the respondents from rural area were from middle sirocco Economy status. Smiley, 42 percent respondent were from low SES and only one percent respondents were from high SES. On the other hand the majority of the respondents from it is

\* Urban area were from high SES, 40 percent respondents were from middle SES and very few (8%) of them were from low SES. From this results it is clear that low SES group respondents were more in rural area, while the respondents from high SES groups were more in urban areas.

**Background information of the selected lactating women depending on the basis of their living area**

Sr. No.	Particulars	Area		Total frequency
		Rural (103)	Urban (97)	
<b>1.</b>	<b>SES group</b>			
	Low	43(42)	08(08)	31
	Middle	59(57)	39(40)	98
	High	01(01)	50(52)	51
<b>2.</b>	<b>Type of Family</b>			
	Joint	41(40)	39(40)	80
	Nuclear	62(60)	58(60)	120
<b>3.</b>	<b>Religion</b>			
	Hindu	64(62)	65(67)	129
	Muslim	39(38)	32(33)	71
<b>4.</b>	<b>Educational level</b>			
	Non-literate	20(19)	05(05)	25
	Primary	17(16)	06(06)	23
	Middle school	32(31)	08(08)	40
	High school	29(28)	25(26)	54
	College	05(05)	53(55)	58
<b>5.</b>	<b>Occupation</b>			
	Home makers	97(94)	43(44)	140
	Labourer	04(04)	02(02)	06
	Servicelbusiness	01(01)	39(40)	40
	Skilled worker	01(01)	06(06)	07
	Semi professional	Nil	Nil	Nil
	Profesional	Nil	07(08)	07
<b>6.</b>	<b>Food Habit</b>			
	Vegetarian	64(62)	55(51)	119
	Non vegetarian	39(38)	42(43)	81
<b>7.</b>	<b>Age in years</b>			
	Below 20 years	12(12)	18(19)	30
	20-35	91(88)	79(81)	170

**Dietary intake of the selected lactating women depending on their socio-Economic status (SSS)**

From the result of the table, it is clear that the majority of the respondents. (55%) From low SES were habituated of Taking rot, and chutney in their breakfast. The Similar trend was found in middle SES group. Thirty three the higher percepts respondents from high SES group. Were habituated of taking poha, upama usually in their breakfast.

The respondents up to 22 percent of the high SES group were found to consume milk during mid-morning. In comparison only 4 per-cent of respondents consumed milk in case of low SES group. The higher percent of the women were found that not consuming any food during mid-morning irrespective of their SES. Seventy the higher percent of the respondents were found to consume chapati and dhal during lunch in case of high SES group. The similar trend was found in other two groups. In comparison 8 the higher percent of the respondents were found to con-suming chapati, dhal, curry and rice in case of high SES group. Only 2 percent respondents were consumed them from low SES group.

None of the respondents from all groups were found not consuming any fruits in snacks time, only 4 and 2 percent respondents were found to consuming milk in snack time from high and middle SES group but more of the respondents were found to be consuming it

**Dietary intake of the selected lactating women depending on their SES**

Sr. No.	Particulars	SES			Total frequency
		Low (51)	Middle (98)	High (51)	
<b>1</b>	<b>Break fast</b>				
	Tea/Milk	Nil	15(15)	07(14)	22
	Tea with breadl	05(10)	10(10)	04(08)	19
	roti/biscuitsheera	06(12)	10(10)	15(29)	31
	boiled egg/omlet	03(06)	04(04)	05(10)	12
	pohalupamalusal	09(18)	22(22)	17(33)	48
	roti Chutney/subji	28(55)	37(38)	03(06)	68
<b>2</b>	<b>Mid morning</b>				
	Milk	02(04)	07(07)	11(22)	20
	Nil	49(96)	91(93)	40(78)	180
<b>3</b>	<b>Lunch</b>				
	Chapati Dhal	15(29)	46(47)	36(70)	97
	Cbapati Curry	Nil	Nil	Nil	Nil
	Cbapati dhal curry nee	01(02)	03(03)	04(08)	08
	Roti Dbal	35(69)	49(50)	11(22)	95
<b>4</b>	<b>Snacks</b>				
	Fruit	Nil	Nil	Nil	Nil
	Milk	Nil	02(02)	02(04)	04
	Nil	51(100)	96(98)	49(96)	196

In case of the type of family a majority (60%) the respondents of the rural areas were belonging to nuclear type of family and the remaining 40 percent respondents were belonging to joint type of family. The similar observation were found in urban areas sample.

On the whole it is said that more percent of the respondents from rural and urban area found to be nuclear type of family, as today the trend of nuclear families has been increasing.

In case of religion, 62 percent respondents from the rural area belonged to Hindu religion and 38 percent respondents belonged to Muslim religion, whereas from the urban area, 67 percent respondents belonged to Hindu religion and the remaining 33 percent belonged to Muslim religion.

In case of educational level of the respondents it is clear that from a majority (31%) of them were found as middle school educated 28 per-cent were upto high school educated, 19 percent become non-literate, 16 percent women found up to primary educated and only 5 percent women were college educated in rural area.

Among the urban area a majority of the respondents were found to be college educated, 26 percent high school educated, 8 percent middle school educated, 6 percent primary school educated and the remaining 5 percent were found to be non-literate.

On the whole it is concluded that more respondents from urban area were college educated and only 5 percent were non-literate. On the other hand, only one percent respondents from rural were college educated and most of them were only middle school educated.

In case of respondents occupation a majority (94%) the respondents from rural area were homemakers, 4 percent respondents were labor & only one percent respondents were in service business & skilled worker. On the other hand, 44 percent respondents from urban area were homemakers, 40 percent were in service/business, 6 percent were skilled worker, & 8 percent occupied in profession.

Hence a majority of the respondents from rural area were home makers, whereas more respondents were occupied in service from urban areas. Nobody from rural area was occupied in a professional and semiprofessional jobs.

A majority of (62%) the rural respondents were vegetarian and remaining 38 percent were non vegetarian. Whereas from the urban area of the respondents were vegetarian and the remaining 43 percent were non vegetarian



Sr. No.	Particulars	SES			Total Frequency
		Low (51)	Middle	High (51)	
5	Dinner				
	Roti Chapati Milk	13(25)	28(29)	34(67)	75
	Khichadi	08(16)	10(10)	07(14)	25
	Roti Dhal subji	30(59)	60(61)	10(19)	100

Figures in parenthesis indicates percentage from low SES group. Higher percents women were found that not consuming any food during snack time as lactation requires frequent eating, additional dietary requirements also fulfilled. More consumption of calcium also essential to nourish their infants.

The higher (59%) percent of the respondents were noticed to be consuming roti, dhal & subji during dinner from low SES groups.

The similar trend was found in middle SES group. A majority (67 %) of the respondent from high SES group were observed to be taking roti/chapati & milk during dinner. Some of the respondents were found to be taking khichadi irrespective of their SES group.

In conclusion it can be said that, majority of the selected lactating women were following three meal pattern. Lactation requires frequent eating however they did not have mid morning food or snacks. As the lactation stage is very important, because lactation represent a drain on maternal body composition. It involves considerable nutrient expenditure for the mother. The required calories and other nutrients is there fore greater during lactation hence much emphasis gives in providing adequately nutritious diet during lactation. The recommended dietary allowances of lactating women is more than non lactating women. Nutrition during lactation is important for her own health and that of her off-spring. Satisfactory performance of lactation is influenced by the intake of adequate diet.

#### **Adequacy of daily nutrient intake by the selected lactating women on the basis of socio economic status (SES)**

Table 21 and Fig 3 focus on mean percent adequacy of daily nutrient intake by the selected lactating women on the basis of SES. It was found that the mean percent nutrient intake of the lactating women in the low SES was low, energy intake was 54.50 adequae, while it was better for both middle (63.00%) and high (63.49%) SES group. The similar trend was seen for the intake of protein, calcium and iron. There was no difference in the intake of thiamine, riboflavine, niacin and vit. C. but slight difference in the intake of carotene. It was higher in high income group (87%) than middle (79%) and low (77%) SES group respectively. It may be due to avoidance of specific food items like oily and fried foods, citrus fruits, banana, curd, guava from their diet, only specific food like, red gram dhal, ghee, milk and jawar roti consumed.

**Table No. 21 Adequacy of daily nutrient intake by the selected lactat-ing women on the basis of socio economic status (SES)**

Sr. No.	Nutrient	Mean percent of nutrient intake		
		Low	Middle	High
1	Protein	58.93	60.54	63.49
2	Energy	54.50	63.00	68.41
3	Calcium	50.00	72.00	80.00
4	Iron	45.03	54.85	56.40
5	Carotenc	77.00	79.00	87.00
6	Thiamine	56.05	60.04	61.47
7	Riboflavin	51.62	55.00	57.93
8	Niacin	70.00	74.00	80.80
9	Vit.C	58.00	62.00	60.50

These results are in accordance with Bhatia et al, (1981). Vijayalakshmi et al (1988) reported that the food & nutrient intake of low income mothers indicated an inadequacy with respect to all the foods and nutrients compared with that of middle and high income group mothers.

#### **Conclusion**

It is concluded that majority of the lactating women from low and middle SES group were from rural and high SES group were from Urban area Three meal

pattern was followed by women. only pluum preparation such as plain dal and milk way used and avoided spicy, hot food.

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