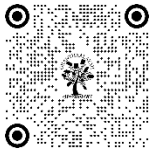


# A STUDY REGARDING NUTRITIONAL STATUS AND AWARENESS DURING 1000 DAYS OF MOTHERHOOD

Dr. Neeta P. Chaudhari

<sup>1</sup>Children Research University, Gandhinagar



## Corresponding Author

Dr. Neeta P. Chaudhari

## DOI

[10.29121/shodhkosh.v4.i2.2023.1966](https://doi.org/10.29121/shodhkosh.v4.i2.2023.1966)

**Funding:** This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

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## ABSTRACT

Pregnancy and lactation are among the most stressful periods in the life of a woman, particularly under conditions of poverty and mal nutrition, since the mother has to provide nutrition for her and the rapidly growing fetus. Pregnancy period is crucial for baby if proper care should not taken. Health of mothers directly depends on diet and nutrition which they consume. Knowledge of nutrition and nutrients must help to maintain good health during 1000 days. Present study was aimed to study about nutritional status and awareness during 1000 days of motherhood and nutritional status. For the study, total 152 urban area's pregnant women were randomly selected from Mehsana city. The present study was conducted with a descriptive, and survey method research design for the assessment of the nutritional status of mothers. An ideal pre structured questionnaire was prepared with suggestions of experts and used for the data collection. The blood haemoglobin data was obtained from secondary data which mentioned in Mamata card of selected mothers. Suitable statistical test was applied. 61.18 % mothers were home makers. 57.14 % mothers consumed vegetarian diet. 78 % had 11-12 g/dl i.e. normal level of haemoglobin. Majority of mothers were aware and had a knowledge regarding health and nutrition for pregnancy but less aware about good weaning practices.

## 1. INTRODUCTION

Pregnancy and lactation are among the most stressful periods in the life of a woman, particularly under conditions of poverty and mal nutrition, since the mother has to provide nutrition for her and the rapidly growing foetus (Bamji et al-2003). The concept of first 1000 days refers to the period from conception through the age of years. During pregnancy, mother's health, nutrition and stress levels can have an effect on baby's future. After baby is born, their physical environment, nutrition and relationships can have a lifelong impact on their health and wellbeing. This period is very crucial to manage each aspects of health, nutrition and mental health. The first 1,000 days refers to a child's life from the moment they are conceived until they reach 2 years of age (24 months). During this period, all the growth and development including brain, body and immune system remarkably significant. Stress, trauma, poverty and violence experienced during the first 1000 days can have long term adverse health effects on a baby. It is important to provide expecting, lactating mothers and baby with good nutrition, safety and security and a loving home environment, especially during the first 1000 days.

In their first 1,000 days, your baby will need:

- Good diet with essential nutrients
- loving relationships
- safety and security
- time to play
- a healthy environment — including in the womb

The concept of the first 1000 days refers to the period from conception through the age of 2 years. This period is very crucial for the growth and development of the fitter and child and its long term health outcomes. Many factor influences this period including maternal health breast and complementary feeding and social economic factors. Biological and metabolic development might be affected permanently by nutritional interventions leading to adaptive path of physiological alteration letter in childhood or adulthood such as non communicable diseases like diabetes mellitus cardiovascular and chronic respiratory diseases cancers and neurogen neuro degenerative disorders(Agosti et.al. 2017). As well as obesity and its adverse consequences in other words children's and adults health risk maybe program by the nutrition status during this period(Blake et.al.2016). Barkar (1990) stated that much of human development is completed during the first thousand days after conception. The theory was later evolved in the development origin of health and disease theory(Wadhva et.al. 2009).

Brain develops more quickly during the first 1,000 days than at any other time of life. The way their brain adapts to its environment contributes to the sort of person they will grow into. The right kind of diet with require essential (nutrition) during pregnancy and in early childhood will help baby's learning, physical skills and emotions to develop properly.

Hunger, or exposure to stress or abuse during this time can have a lifelong effect on a child's overall development. An unsafe or unhealthy environment in the first 1,000 days can affect a child's physical health in later life too. Receiving good nutrition in the womb and through early life is essential for your child's future health. When a lady pregnant, the weight and lifestyle habits can influence baby's metabolism, immune system and organs development. Poor nutrition during pregnancy and early life can lead to obesity, heart disease and stroke later on. It can be achieved with exclusive breast feeding, good start with weaning foods, immunization for healthy life style of child. Present study conducted with the aim of **“A STUDY REGARDING NUTRITIONAL STAUS AND AWARENESS DURING 1000 DAYS OF MOTHERHOOD”** with following objectives.

## 2. OBJECTIVES

- To study personal characteristics of selected mothers.
- To study nutritional status of selected mothers.
- To study nutritional awareness among selected mothers.
- To study weaning of baby given by selected mothers.

1000 days period is a rapid growth period. Growth of foetus and other developments that take place to facilitate its maintenance throughout pregnancy and delivery of the child involve an increases in the nutritional requirements. To meet the additional nutritional requirements, foods which supply all the nutrients in greater amount to sustain and support the growth and development during 1000 days. This study has the significance that we able to know the what are the exact reasons for poor nutritional status and dietary consumption.

## 3. METHODOLOGY

Urban area's pregnant women selected as a research area i.e. Mehsana city. Total 152 women were randomly selected. Keeping in view the objectives of the study, the data was subjected to the appropriate statistical tests which are presented in the classified and categorized forms, tables and diagrams. The present study was conducted with a descriptive, and survey method research design for the assessment of the nutritional status of pregnant women. An ideal pre structured questionnaire was prepared with suggestions of experts and used for the data collection. The blood haemoglobin data was obtained from secondary data which mentioned in Mamata card of selected pregnant women. The obtained information was transferred to excel sheet for data analysis. Frequency, Mean and t test was applied.

#### 4. RESULTS & DISCUSSION

**Table:1 Distribution of mothers.**

Status	Frequency (F)	Percentage (%)
Expecting mother	52	34.20
Lactating mother	50	32.90
Weaning	50	32.90
<b>Total</b>	<b>152</b>	<b>100</b>

Table 1 depicts the data regarding distribution of mothers. As per given data, 34.20 % were expecting mothers, 32.90 % were lactating mothers and 32.90 % were mothers who were weaning their child. Majority, i.e. 34.20 % were expecting mothers.

**Table: 2 Age wise distribution of mothers.**

Age (Year)	Expecting mother F (%)	Lactating mothers F (%)	Weaning Mothers F (%)
20-25	15 (9.87)	18 (11.84)	17 (11.18)
25-30	20 (13.15)	18 (11.84)	17 (11.18)
30-35	17 (11.18)	14 (9.22)	16 (10.54)
<b>Total</b>	<b>52 (34.20)</b>	<b>50 (32.90)</b>	<b>50 (32.90)</b>

Table 2 depicts the data regarding age wise distribution of mothers. In the study, 9.87 % women were expecting mothers in the age group of 20-25 years. 13.15 % women were expecting mothers in the age group of 25-30 years. 11.18 % women were expecting mothers in the age group of 30-35 years. Table shows that 11.84 % women were lactating mothers from age group of 20-25 years. 11.84 % women were lactating mothers from age group of 25 -30 years. 9.22 % women were lactating mothers from age group of 30-35 years. Table shows that 11.18 % women were weaning their child from the age group of 20-25 years. 11.18 % women were weaning their child from the age group of 25 -30 years. 10.54 % women were weaning their child from the age group of 30-35 years.

**Table: 3 Occupation of mothers.**

Occupation	Expecting mother F (%)	Lactating mothers F (%)	Weaning Mothers F (%)	Overall F (%)
Home Maker	33 (21.70)	29 (19.08)	31 (20.40)	93(61.18)
Working mother	19(12.50)	21(13.82)	19(12.50)	59(38.82)
<b>Total</b>	<b>52(34.20)</b>	<b>50(32.90)</b>	<b>50(32.90)</b>	<b>152(100)</b>

Table 3 depicts the data regarding occupation of mothers. In the present study, 21.70 % expecting mothers were home makers. 12.50 % expecting mothers were working mothers. 19.08 % lactating mothers were home makers and 13.82 % lactating mothers were working makers. 20.40 % weaning mothers were home makers and 12.50 % weaning mothers were working makers. Overall, 61.18 % mothers were home makers and 38.82 % mothers were working mothers.

**Table: 4 Types of diet consumed by mothers.**

Type of Diet	Expecting mother F (%)	Lactating mothers F (%)	Weaning Mothers F (%)	Overall F (%)
Vegetarian	32 (21.05)	28 (18.42)	27 (17.76)	87(57.24)
Non vegetarian	00 (--)	00 (--)	00 (--)	00(--)
Mix	20 (13.15)	22 (14.47)	23 (15.14)	65(42.76)
<b>Total</b>	<b>52 (34.20)</b>	<b>50 (32.90)</b>	<b>50 (32.90)</b>	<b>152(100%)</b>

Table 4 depicts the data regarding types of diet consumed by mothers. In the present study, 21.05 % expecting mothers were consumed vegetarian diet. No expecting mothers was purely non vegetarian. 13.15 % expecting mothers were consumed non vegetarian diet. 18.42 % lactating mothers were consumed vegetarian diet. No lactating mothers was purely non vegetarian. 14.47 % lactating mothers were consumed non vegetarian diet. 17.67 % weaning mothers were consumed vegetarian diet. No weaning mothers was purely non vegetarian. 15.54 % lactating expecting mothers were consumed non vegetarian diet. It can be concluded that overall, 57.24 % mothers consumed vegetarian diet and 42.76 % mothers consumed non vegetarian diet.

**Table: 5 Haemoglobin level of lactating women.**

Haemoglobin level	Frequency (F)	Percentage (%)
11-12 g /dl	39	78
10-11 g /dl	11	22
9-10 g/dl	00	00
8-9 g/dl	00	00
<b>Total</b>	<b>50</b>	<b>100</b>

Data revealed about haemoglobin level among lactating women in table 5. Majority, i.e. 78 percentage had 11-12 g/dl i.e. normal level of haemoglobin. 22 percentage had 10 -11 g/dl level of haemoglobin which is slight anaemic condition.

**Table: 6 Knowledge and awareness about diet and nutrition among mothers.**

Sr. No	Statement	Frequency (F)	Percentage (%)
1.	Taking homemade food during pregnancy.	48	90.31
2.	Taking fast made during pregnancy.	06	11.54
3.	Do you follow diet prescribed by doctor?	52	100
4.	Do you consume recipes made from Maida flour?	04	7.69
5.	Do you consume recipes made from Wheat flour?	46	88.46
6.	Do you consume regularly seasonal fruits and vegetables?	49	94.23
7.	Do you consume regularly milk and milk products?	50	96.15
8.	Thepala and paratha is suitable during pregnancy period?	50	96.15
9.	Pizza is suitable to eat during pregnancy?	04	7.69
10.	Sukhdi, methi ladu and glue laddus are suitable to eat during pregnancy?	49	94.23
<b>Mean of knowledge and awareness about diet and nutrition among mothers</b>			<b>68.65</b>

Table no 6 depicts the data regarding knowledge and awareness about diet and nutrition among mothers. In the study, 90.31 % mothers taking homemade food during pregnancy. 11.54 % mothers taking fast food during pregnancy. 100 % mothers followed diet prescribed by doctor. 7.69 % mothers consumed recipes made from maida flour. 88.46 % mothers consumed recipes made from wheat flour. 94.23 % mothers consumed regularly seasonal fruits and vegetables. 96.15 % mothers consumed regularly milk and milk products and thepala and paratha is suitable for mothers during pregnancy. 7.69 % mothers stated that pizza is suitable to eat during pregnancy. 94.23 % mothers stated that sukhadi, methi ladu and glue laddu are suitable eat during pregnancy. pizza is suitable to eat during pregnancy. Overall, the mean of knowledge and awareness about diet and nutrition among mothers were 68.65 %. Thus, it can be concluded that majority i.e. 68.65 % of mothers were aware and had a knowledge regarding health and nutrition.

**Table:7 Knowledge and awareness regarding breast feeding among lactating women.**

Sr. No	Statement	Frequency (F)	Percentage (%)
1.	How long after delivery should the baby be breastfed? <ul style="list-style-type: none"> <li>2 hours</li> <li>3 hours</li> <li>2.5 hours</li> <li>4 hours</li> </ul>	10 10 16 14	6.58 6.58 10.53 28.00
2.	Should the baby be swallowed or sucking? <ul style="list-style-type: none"> <li>Yes</li> <li>No.</li> </ul>	45 05	20.61 3.29
3.	Other than your milk for six months? <ul style="list-style-type: none"> <li>Yes</li> <li>No</li> </ul>	22 28	14.47 18.42
4.	Should you drink coffee? <ul style="list-style-type: none"> <li>Yes</li> <li>No</li> </ul>	07 43	4.60 28.29
5.	<b>Do you consumed any snack with tea or coffee?</b> <ul style="list-style-type: none"> <li>Yes</li> <li>No</li> </ul>	44 06	28.95 3.95
6.	How often should a mother breastfeed her baby?		

	• 14-16	08	5.26
	• 10-12	32	21.05
	• 12-14	00	0.00
	• As per the demand of the child	10	6.58
7.	How longer will you breastfeed your child?		
	• 8-10 Months	05	3.29
	• 12 Months	40	26.32
	• 18 Months	05	3.29
	• 24 Months	00	00

Table 7 depicts the data regarding knowledge and awareness regarding breast feeding among lactating women. The data shows that 6.58 % women were breast fed baby after two hours. 7.24 % women were breast fed baby after 3 hours. 10.53 % women were breast fed baby after two and half hours. 9.87 % women were breast fed baby after four hours. Thus, it can be concluded that majority, i.e. 10.53 % women were breast fed baby after two and half hours. As far as swallowed or sucking concern, in the present study, 20.61 % baby were sucked or swallowed milk/ food easily. 3.29 % baby were not sucked milk/ food or swallowed easily.

**Table: 8 Weaning practices of selected mothers.**

Sr. No	Statement	Frequency (F)	Percentage (%)
1.	From which month start weaning food?		
	• After 4 month	20	13.16
	• After 6 month	30	19.74
	• After 8 month	00	00
	• After 10 month	00	00
2.	Which recipe consider as a weaning food?		
	• Bread	01	0.66
	• Khichdi	30	19.74
	• Chapatti	07	4.61
	• Boil dal	12	7.90
3.	How many times weaning foods is given in a day?		
	• Per 1 hours		
	• Per 2 hours	00	00
	• Per 3 hours	00	00
	• Per 4 hours	00	00
		50	100
4.	Do you willing to give commercial baby food to your baby?		
	• Yes		
	• No	45	29.61
		05	3.29
5.	Do you willing to give tea or coffee with baby food to your baby?		
	• Yes	00	00
	• No	50	32.90
<b>Mean</b>			<b>43.03%</b>

Table 8 depicts the data about weaning practices of selected mothers. In the present study, 13.16 % mothers started weaning food after 4 months and 19.74 % mothers started weaning food after 6 months. 0.66 % mothers considered bread as a weaning food. 19.74 % considered khichadi as a weaning food. 4.61 % considered chapatti as a weaning food. 7.90 % mothers considered boiled dal as a weaning food. 100 % mothers were fed weaning food at every 4 hours. 29.61 % mothers willing to give commercial baby food to her child and 3.29 % mothers not willing to give any commercial baby food to their child. 32.90 % mothers were not willing to give tea or coffee to their child. Overall, 43.03 % mothers followed good weaning practices

## 5. CONCLUSION

The study concluded that selected mothers were aware about their diet particularly consumption of foods which are rich sources of vital nutrients require for the normal growth and development of foetus and child during 1000 days. Majority of selected mothers were highly aware about diet and nutrition during pregnancy period but the weaning practices awareness was found low among them.

## CONFLICT OF INTERESTS

None

## ACKNOWLEDGMENTS

None

## REFERENCES

- Agosti M, Tandoi F, Morlacchi L, Angela Bossi. Nutritional and metabolic programming during the first thousand days of life. *La Pediatria Medica e Chirurgica* 2017;39:157. DOI;10.4081/pmc.2017.15.
- Bamji M.S., Krishnaswamy & Brahmama G.N.V. (2003). National Nutrition Intervention Programmes in India and Neighbouring Countries. A Text Book of Human Nutrition. Third Oxford % IBH Publishing Co. Pvt. Ltd. New Delhi.pp-486-499.
- Barker DJ. The fetal and infant origins of adult disease. *BMJ*.1990;301:1111.
- Blake – Lamb TL,Locks LM, Perkins ME, Woo Baidal JA, Cheng ER, Taveras EM. Interventions for childhood obesity in the first 1,000 days: A systematic review. *American Journal of Preventive Medicine*.2016;50(6):780-789.DOI:10.1016/j.amepre.2015.11.010.Epub 6Feb00.
- [https://nhm.gov.in/images/pdf/programmes/RBSK/Resource\\_Documents/Journey\\_of\\_The\\_First\\_1000\\_Days.pdf](https://nhm.gov.in/images/pdf/programmes/RBSK/Resource_Documents/Journey_of_The_First_1000_Days.pdf)
- <https://thousanddays.org/why-1000-days/>
- <https://www.hpa.org.nz/programme/first-1-000-days>
- <https://www.intechopen.com/chapters/73181>
- Wadhwana PD, Buss C, Entringer S, Swanson JM. Development origins of health and disease: Brief history of approach and current focus on epigenetic mechanisms. *Seminars in Reproductive Medicine*. WHO Fact Sheet. 2009;27(5):358-368. DOI: 10.1055 / s - 0029 - 1237427. Available from:<https://www.who.int/news-room/factsheets/detail/obesity-and-overweight>.