ISSN No. 2454-6186 | DOI: 10.47772/IJRISS | Volume VIII Issue IX September 2024



# Dietary Practices in Various Regions of India in Post-Partum Women

Deepshikha Jaiswal, Dr. Anuradha Roy

Department of Prasuti Tantra, Faculty of Ayurveda, IMS, Banaras Hindu University, Varanasi, Uttar Pradesh, India

DOI: https://dx.doi.org/10.47772/IJRISS.2024.8090296

Received: 11 September 2024; Accepted: 18 September 2024; Published: 24 October 2024

#### **ABSTRACT**

This research paper explores the dietary practices of postpartum women in Northern and Southern India, emphasizing the profound impact of traditional food customs on maternal and new-born's health. It investigates how cultural beliefs and nutritional norms influence the dietary restrictions and choices made during the postpartum period, particularly the prevalent practice of bland diets and fasting from solid foods. The study aims to assess the benefits of traditional diets, highlighting regional culinary traditions that shape postpartum recovery and lactation support.

In Northern India, diets focus on ghee, whole grains, and nutrient-rich laddus, such as methi and sesame, to enhance milk production and digestive health. Conversely, Southern Indian diets prioritize rice-based dishes and specific spice blends aimed at facilitating recovery and increasing lactation. Both regions share common elements, including the incorporation of easy-to-digest foods and milk products, reinforcing the importance of nutrition in postpartum care.

Through qualitative analysis of dietary practices and their health implications, this research underscores the need for health education programs in rural areas to address malnutrition and improve maternal health outcomes. Ultimately, this study highlights the holistic approach of traditional diets in promoting the well-being of new mothers while respecting cultural practices and beliefs.

**Keywords:** Nutrition, regional food, postpartum health, traditional foods, maternal health, ayurvedic medicine.

#### INTRODUCTION

Post-partum is the period of adjustment after child birth during which the mother's reproductive system returns to its normal pre-pregnant state.

This period has been termed as the "fourth stage of labor", and has three continuous phases.

The initial phase involves the first 6–12 hours of child birth. This is a time of rapid change with a potential for immediate crises such as postpartum haemorrhage, uterine inversion, amniotic fluid embolism, and eclampsia. The second phase is the subacute postpartum period, which lasts 2–6 weeks of delivery. During this phase, the body is undergoing major changes in terms of vascular function, reproductive and urinary system recovery, metabolism, and emotional status. These changes are less rapid than in the initial phase and the patient is generally capable of self-identifying problems. The third phase is the delayed postpartum period, which can last up to 6 months. Changes during this phase are extremely slow and pathology is rare. [1]

Worldwide, 600,000 mothers aged 15 to 49 die annually from complications related to pregnancy and childbirth. There are significant differences in cultural practices and beliefs regarding this phase of a woman's life.

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS | Volume VIII Issue IX September 2024



Inadequate maternal nutrition is associated with negative health outcomes in both the mother and the child. The key nutrients that are particularly important during pregnancy and lactation include iron, folates, calcium and vitamin D. Energy and nutritional requirements increase during lactation and breastfeeding. Women who breastfeed require approximately 500 additional kcal/day more than non-pregnant women recommended. The estimate is taken from the mean volume of breast milk produced per day (mean 780 mL, range 450-1200 mL) and the energy content of milk (67 kcal/100 mL).[2]

In India, most dietary practices and traditional believes have stemmed from deeply rooted traditions and customs. These food practices can be responsible for malnutrition, which in turn is linked to poverty, food insecurity, unhygienic practices and traditional beliefs. It was observed that after childbirth, mother should be given bland diet, this norm was followed by most elders in the family, also believed that after delivery the mother should not eat any solid food for 24 hour period. There is an essential need for health education or awareness programs in rural areas regarding nutrition which will, improve maternal and child health. [3]

Indian traditional foods indeed have a rich history and a deep connection with health and wellness. The intricate preparation techniques and diverse ingredients reflect a profound understanding of nutrition and health. Here's a closer look at how these foods contribute to health through their functional properties:

## 1. Functional Components in Indian Foods:

**Healing Substances:** Many traditional Indian foods are infused with spices and herbs like turmeric, ginger, and garlic, which are known for their anti-inflammatory and healing properties. Curcumin in turmeric, for example, has been extensively studied for its anti-inflammatory and antioxidant benefits.

**Antioxidants:** Indian foods are rich in antioxidants due to the inclusion of spices such as cumin, coriander, and fenugreek. Antioxidants help neutralize free radicals, reducing oxidative stress and potentially lowering the risk of chronic diseases.

**Dietary Fibers:** Whole grains, legumes, and vegetables are staples in Indian cuisine. Foods like lentils, chickpeas, and whole wheat are high in dietary fiber, which supports digestive health and helps in maintaining a healthy weight.

**Probiotics:** Traditional fermentation techniques, like those used in making idli, dosa, and yogurt, introduce beneficial bacteria that promote gut health and improve digestion. [4]

# 2. Processing Techniques and Their Benefits:

**Sprouting:** Sprouting seeds and legumes increases their nutritional value, enhancing the bioavailability of vitamins and minerals. For instance, sprouted moong beans have higher levels of vitamins and antioxidants compared to unsprouted ones.

**Malting:** This process, used for grains such as barley, enhances the enzyme activity, increasing the digestibility and nutritional value of the grains. Malted grains can be easier to digest and provide more nutrients.

**Fermentation:** Fermented foods like dosa, idli, and yogurt are rich in probiotics, which are beneficial for gut health. Fermentation also increases the availability of certain nutrients and can help break down antinutrients present in foods. <sup>4</sup>

#### 3. Health Benefits:

a) Lactation- Calcium is crucial both during pregnancy and lactation. It supports the development of the baby's bones and teeth, ensures the production of calcium-rich breast milk, and helps prevent osteoporosis in the mother. Iodine is also important as it supports the mental development of the foetus and infant.

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS | Volume VIII Issue IX September 2024



Additionally, vitamin A is necessary for improving the child's survival during lactation, while vitamins B12 and C are essential for the lactating mother to maintain her health and support her baby's needs. [5]

#### b) General Health-

Weight Management: The high fiber content in many traditional Indian foods helps with satiety, reducing overall calorie intake. Foods like whole grains and legumes provide sustained energy and help in managing weight.

**Blood Sugar Balance:** Many traditional foods have a low glycemic index, which means they release glucose slowly into the bloodstream, helping in better blood sugar management. For example, traditional preparations like whole grain chapati and dals are preferred over refined grains.

**Immune Support:** The combination of spices and herbs used in Indian cooking, such as black pepper, cloves, and fenugreek, has immune-boosting properties. These ingredients can help strengthen the body's defences and improve overall health.

In essence, traditional Indian foods and their preparation methods reflect a deep understanding of how diet impacts health. The use of functional ingredients and processing techniques not only enhances the flavour but also maximizes the nutritional benefits, supporting various aspects of health and well-being.<sup>4</sup>

A breastfeeding mother's nutritional requirement should meet the needs of herself as well as of her baby. [6]

#### **Benefits of Traditional Diets:**

Traditional Indian foods have been made for centuries, with preparation methods varying across the country. Generations of knowledge have established effective ways to process, preserve, and understand the health benefits of these foods. Indian traditional foods are considered functional because they contain beneficial components like healing chemicals, antioxidants, dietary fibers, and probiotics. According to Ayurveda, food plays a crucial role in influencing a person's physical health, temperament, and mental well-being. [7]

## Objectives-

- 1. To evaluate the dietary practices in northern and southern region of India.
- 2. To analyze the benefits of traditional diet on the health of post-partum women.

#### MATERIALS AND METHODS

We conducted a review of literature on post-partum dietary practices across different regions of India. Relevant articles were sourced from PubMed, Google Scholar, ResearchGate, health journals, and websites using keywords such as "traditional diet," "post-partum," "health," and "diet in various regions of India." We included studies that analyze traditional post-partum diets and their health impacts. The data was synthesized to highlight common practices and regional variations.

#### **Observation** -

#### Diet in Northern India-

In Northern India, the diet primarily features chapattis (unleavened flatbreads) paired with dal (lentil dishes), vegetables, and curds (yogurt). While rice is also consumed, it is typically less prominent than chapattis. Meals are complemented with side dishes like chutneys (preserved fruit or vegetable pastes) and achar (spicy pickles). The region's cuisine includes Mughlai and Kashmiri dishes, which reflect a Central Asian culinary influence. Additionally, milk-based sweets are a common and beloved part of the diet.

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS | Volume VIII Issue IX September 2024



For breakfast, people often enjoy parathas (ghee-rich flatbreads) and puris (deep-fried bread). Punjabi cuisine, in particular, features a variety of meat dishes, including lamb and chicken, often cooked with bold flavours such as spicy mustard, sweet sauces, or creamy onion-based sauces. Sweet lassi (buttermilk) and fresh cheese (paneer) are also staple components of Punjabi meals.[8]

Here are some post-partum diet of Northern India-

In Fakir Gujri, Srinagar, dietary practices during the post-partum phase are believed to influence the quality and quantity of breast milk. The traditional diet includes:

- Nun Chai (Kashmiri Pink Salt Tea): Consumed with biscuits, providing essential calories and nutrients.
- **Hund (Dandelion) and Bathua (Chenopodium Album)**: Commonly consumed herbs believed to enhance blood quality and overall health.
- **Post-Partum Dietary Practices**: Include limiting intake of "hot" foods (salt, sugar, spices) and avoiding pulses and cheese due to their perceived difficulty in digestion.
- Milk Production Support: Methi seeds and deshi chawal (rice) cooked with deshi ghee are used to boost breast milk production. [9]

#### **Nutritional Values-**

Food Item	Energy (kcal/100g)	Fat (g)	Carbs (g)	Protein (g)	Fiber (g)	Calcium (mg)		Vitamin A (mcg)	Vitamin C (mg)	Potassium (mg)
Kashmiri Tea	361	3	74	9	-	-	-	-	-	-
Hund (Dandelion)	45	0.7	9.2	2.7	3.5	187	3.1	-	-	397
Bathua	43	0.8	7.3	4.2	4	309	1.2	580	80	452

#### ([10],[11],[12])

A study in the rural area of Mohali district, Punjab, observed that after childbirth, many women consume nutrient-dense foods like panjiri (whole-wheat flour cooked with sugar and ghee), milk, dal, chapatti, and porridge. These foods are believed to support recovery and enhance milk production for new mothers. [13]

1. **Laddus** – In North India, there are different types of laddus are prepared with the help of "ghee". Ghee is added in almost every traditional post- partum recipe because of its high nutritional content and it also helps in the recovery of mother's body. Ghee increases digestive power and makes bowel movement smooth. [14]

#### • Gum /gond laddu-

It is rich in calcium and good for new delivered mothers to make their bones strong and preventing back pain. [15]

#### Methi laddu-

These laddus are good to increase breast milk. It also helps in backpain. Fenugreek or methi is a high source of dietary fibres and other nutrients needed for proper growth. It is also rich in several phytochemicals such as alkaloids, carbohydrates, amino acids, minerals and steroidal saponins. [16]

#### Sesame laddu-

Sesame are high in calcium, iron, copper and magnesium. These laddus fulfil the requirements of nutrients in new mother.

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS | Volume VIII Issue IX September 2024



#### Dates laddu-

Dates are good in iron and other vitamins. These laddus are served as a snack between meals or as an item in breakfast.

#### 2. Cereals & breads/roti-

## Bajra roti-

Bajra is widely consumed in north India. It is good source of energy and fibre that helps in digestion.

#### • Ajwain paratha-

Ajwain is rich in vitamins and minerals such as potassium, iron and calcium and many more like niacin (vitamin B3), thiamine (vitamin B1), sodium, phosphorus. It also contains carbohydrates, fatty acids, fibres, proteins, and <a href="mailto:antioxidants[17]">antioxidants[17]</a>. In northern India, it is belief that ajwain is help to clean the uterus and aid digestion. It improves lactation.

#### Dalia and khichadi-

Cereals are good in carbohydrates and protein. They are easy to digest. <sup>13</sup>

Food Item	Major ingredient	Nutrient	Per 100g	Ingredients	Benefits
Ghee		Energy	870 kcal	Butter (clarified)	Enhances digestion, smooths bowel movements, high in calories for energy
		Fat	99.5 g		
		Carbohydrates	0 g		
		Protein	0.3 g		
Gum (Gond) Laddu	Gond	Calories	70kcal	Gum (gond), ghee, sugar, flour	Strengthens bones, alleviates back pain, rich in calcium
		Total Fat	86 g		
		Carbohydrates	35 g		
		Fibre	30 g		
		Protein	9.51 g		
Methi Laddu	Methi	Carbohydrates	10.57g	Fenugreek seeds, ghee, sugar, flour	Increases breast milk, helps with back pain, rich in dietary fiber
		Protein	25.41 g		
		Fat	5.72 g		
		Fibre	47.55 g		
		Carbohydrates	10.57g		
		Energy	983 KJ		
		Vitamin B3	1.19 mg		
Sesame Laddu	Sesame	Carbohydrates	26 g	Sesame seeds, ghee, sugar	High in calcium, iron, and magnesium; supports nutritional needs of new mothers
		Protein	16.9 g		

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS | Volume VIII Issue IX September 2024



	Fat	47 g		
	Dietary Fiber	16.9 g		
	Calcium	130 mg		
	Iron	7.76 mg		
	Magnesium	343 mg		
	Zinc			
	Vitamin E			
	Vitamin B1	_		
	Vitamin K			
Dates	Fiber		Dates, ghee, sugar	Good source of iron and other vitamins; useful as a snack or breakfast item
	Iron	4.79 mg		
	Protein	2.38g		
	Energy	1301 KJ		
		67.95g		
Bajra	Carbohydrates	61.78 kcal	Bajra flour	Provides energy and fiber; aids in digestion
	Total Fat	5.43 g		
	Protein	10.96 g		
	Iron	6.42 mg		
	Vitamin B3	0.86mg		
	Fiber	11.49 g		
	Total energy	1456 KJ		
Ajwain	Energy	238 kcal	Ajwain seeds, flour, ghee	Rich in vitamins and minerals; aids digestion, improves lactation
	Carbohydrates	47.62 g		
	Protein	23.81 g		
	Fibre	47.6 g		
	Iron	16.19 mg		
	Calcium	667 mg		
	Fatty Acids (Total Saturated)	0.62 g		
Daliya	Energy	1430KJ	Dalia, rice, spices	Provides carbohydrates and protein; easy to digest
	Carbohydrates	69.06 g		
	Protein	10.84 g		
	1		İ	
	Fat	1.45 g		
	Fat Fiber	1.45 g 8.81 g		
	Bajra	Dietary Fiber Calcium Iron Magnesium Zinc Vitamin E Vitamin B1 Vitamin K  Dates Fiber Iron Protein Energy Carbohydrates Total Fat Protein Iron Vitamin B3 Fiber Total energy Carbohydrates Protein Fibre Iron Calcium Fatty Acids (Total Saturated) Daliya Energy Carbohydrates Protein	Dietary Fiber	Dietary Fiber   16.9 g   Calcium   130 mg   Iron   7.76 mg   Magnesium   343 mg   Zinc   10 mg   Vitamin E   40 mg   Vitamin B1   1.48 mg   Vitamin K   30 meg   Dates, ghee, sugar   Iron   4.79 mg   Protein   2.38g   Energy   1301 KJ   Carbohydrates   61.78 kcal   Bajra flour   Total Fat   5.43 g   Protein   10.96 g   Iron   6.42 mg   Vitamin B3   0.86mg   Fiber   11.49 g   Total energy   1456 KJ   Ajwain   Energy   238 kcal   Ajwain seeds, flour, ghee   Carbohydrates   47.62 g   Protein   23.81 g   Fibre   47.6 g   Iron   16.19 mg   Calcium   667 mg   Fatty Acids (Total Saturated)   Carbohydrates   69.06 g   Protein   10.84 g   Protein

([18],[19],[20],[21],[22])

#### Water-

Drinking water helps to reduces the chance of urinary tract infection and also helps in increasing breast milk for a new born.

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS | Volume VIII Issue IX September 2024



These are the wholesome breakfast option or evening snack. It reduces constipation in every new mother.

#### Diet in Southern India-

In the Southern region of India, rice is the predominant staple, and most meals revolve around it. The heavy consumption of rice is complemented by a variety of vegetables, dal (lentil dishes), and chutneys.

For breakfast, the region favors dishes such as:

- **Idlis**: Steamed rice cakes.
- **Dosas**: Thin, crispy pancakes made from rice and dal.
- **Upma**: A savory porridge made from rice or semolina.

**Sambar**, a flavorful lentil-based soup, is commonly enjoyed with these breakfast items. Coconut plays a significant role in Southern cuisine, being used extensively in chutneys and curries, particularly in Kerala. Overall, rice remains the central component of the Southern diet.[23]

In Kurnool, Andhra Pradesh, a study of 140 women found that post-partum dietary practices are influenced by the advice of elders. New mothers typically consume no more than 1 liter of water daily, as it is believed that drinking more water could lead to abdominal bloating and increase the risk of catching a cold. In rural and slum areas, traditional postpartum practices remain common among women. Over 75% increased their food intake after giving birth. However, many avoided certain foods, with 58.5% not eating brinjal and 63.6% avoiding papaya. Additionally, 18.3% of mothers drank less than 500 ml of water daily, and 22% didn't consume any milk.

Most women, about 67%, refrained from household chores, while 79.6% stayed indoors. Many neglected personal hygiene and relied on home remedies for quicker recovery. These practices were influenced by the women's socioeconomic background and education level. [24]

It was noted that many families adhered to a bland diet for new mothers, with a common belief that solid foods should be avoided for the first 24 hours after delivery. For the following week, mothers typically consumed plain rice and curry, with meals limited to twice a day and water intake restricted to just one glass daily. This approach was thought to aid in healing and recovery.

Elderly participants suggested that for the first two days, mothers could eat rava-ganji, transitioning to rice, dry roti, and ghee by day three. This restricted diet continued for about 15 days before normal eating resumed. Foods believed to enhance breast milk production, such as hooves, red meat, chicken, and cow's milk, were commonly provided, while spicy foods were thought to diminish milk supply and increase body heat, potentially leading to boils and constipation.

Green leafy vegetables, non-vegetarian foods, ghee mixed with milk, and ginger were considered beneficial for milk production and were introduced after a week. Additionally, it was believed that eating lamb neck meat could improve a child's head control. Some mothers consumed hinge, seen as a cleansing agent post-partum, while others avoided fish for the first month due to concerns about fish bones affecting the baby.

Water intake was significantly limited, with only one glass allowed during the first week and three glasses for the following three weeks. It was believed that increased water consumption could lead to abdominal distension and complications, particularly after a cesarean section. A few mothers even felt that warm water could cause the baby to have prominent veins, leading them to prefer cool water instead.

Furthermore, many mothers were isolated from family meals to prevent the "evil eye" from affecting their health and that of their child, sometimes for up to three months post-partum. There were also beliefs that

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS | Volume VIII Issue IX September 2024



resuming sexual activity too soon after delivery could negatively impact breast milk quality and quantity, leading to thinner milk and eventual cessation of breastfeeding.[25]

# Here are some traditional post partum diet of south India-

### Pathiyal samyal-

It is a special post-partum diet of south India, especially in Tamil Nadu. Elderly women in the house prepare this diet for new mother. They believed that it is well-balanced nutrition rich food which increases breast milk supply.

In pathiya samayal red/green chillies doesn't use. The spiciness comes from pepper. Vegetables rich in water content and which are not gaseous, **betel leaves**, **garlic**, **milk**, **ghee** are used.[26]

#### Kalathu powder-

This is used for curry rasam. Pepper, Urad dal, Hing, Ghee are used in kalathu podi.

# Angaya powder-

It is a mixture of corriender seeds, neem flower, sundakkai (turkey berry), pepper, cumin seed and salt. It is consumed with hot rice and ghee, which is good for stomach.

#### Manathakkalivattal sadham-

It is consumed along with rice, that helps to increase haemoglobin.

#### Parippu thuvayal-

This is high in proteins and served with hot rice. Thurdal (toor dal), pepper, salt, gingelly (sesame) oil, curry leaves are used in this.

#### Parboiled rice porridge-

This diet is rich in carbohydrates which is good for baby as well as mother.v Major ingredients are parboiled rice (puzhungal arisi), omam, badam, cashew, palm sugar. [13, [27]]

Food Item	Nutrient	Per 100g	Ingredients	Benefits
Pathiyal Samyal			Garlic, betel leaves, milk, ghee, various vegetables	Well-balanced nutrition; increases breast milk supply; easy on the stomach
Garlic	Carbohydrates	21.84g	Garlic	Enhances immune function, supports digestion
	Protein	6.75 g		
	Fat	0.14 g		
	Fiber	5.47 g		
	Energy	514KJ		
	Iron	0.88mg		
Betel Leaves	Energy	44 kcal	Betel leaves	Provides some vitamins and minerals; supports digestive health
	Protein	3-3.5%		

Page 3551



ISSN No. 2454-6186 | DOI: 10.47772/IJRISS | Volume VIII Issue IX September 2024

7 RSIS V				
	Fat	0.4-1.0%		
	Fiber	2.3%		
	Vitamin C	0.005- 0.01%		
	Carbohydrates	0.5-10%		
	Iodine	3.4 µg		
	Thiamine (Vitamin B1)	10–70 μg		
	Iron	0.005- 0.007%		
	Calcium	0.2-0.5%		
	Vitamin A	1.9–2.9 mg		
	Riboflavin (Vitamin B2)	1.9–30 μg		
	Nicotinic acid (Niacin)	0.63–0.89 mg		
Milk	Energy	305KJ	Milk	Provides calcium and protein; supports bone health and overall nutrition
	Protein	3.26 g		
	Fat	4.48g		
	Carbohydrates	4.9 g		
	Calcium	118 mg		
Kalathu Powder			Black pepper, urad dal, hing, ghee	Used for enhancing flavor; provides digestive benefits
Black Pepper	Energy	251 kcal	Black pepper	Enhances flavor, aids digestion, and provides antioxidants
	Protein	10.4 g		
	Fat	3.26 g		
	Carbohydrates	64 g		
	Fiber	25.3 g		
	Calcium	443 mg		
	Iron	9.71 mg		
	Magnesium	171 mg		
	Zinc	1.19 mg		
	Thiamine	0.108 mg		
	Niacin	1.14 mg		
	Riboflavin	0.18 mg		
Urad Dal	Carbohydrates	51.00 g	Urad dal	High in protein and fiber; supports overall nutrition
	Energy	1356 KJ		
	Protein	23.06 g		
	Total Fat	1.69 g		
	Dietary Fiber	11.96 g		
	Vitamin B5	2.95 mg		





₹ RSIS ₹				
	Folates	88.75 μg		
Hing (Asafoetida)	Energy	1387KJ	Hing	Aids digestion and reduces bloating
	Total Fat	1.26 g		
	Carbohydrates	71.95g		
	Protein	6.34 g		
	Calcium	266 mg		
Angaya Powder			Coriander seeds, neem flower, turkey berry, pepper, cumin seed, salt	Supports digestion, helps with stomach issues
Coriander Seeds	Energy	1125KJ	Coriander seeds	Provides antioxidants, supports digestive health
	Carbohydrates	12.98 g		
	Protein	10.66 g		
	Water	8.72 g		
	Fat	17.47 g		
	Fiber	44.81 g		
	Vitamin A	942 mcg		
	Phosphorus	393 mg		
	Iron	7.1 mg		
	Calcium	630 mg		
	Magnesium	239 mg		
	Zinc	3.26 mg		
	Folic Acid	32 mcg		
Neem Flower	Protein	16.6 g	Neem flowers	Supports liver health and immune function
	Fiber	16.8 g		
	Calcium	18.3 g		
	Magnesium	3.1 g		
	Zinc	114 mg		
	Copper	13 mg		
	Iron	1012 mg		
Turkey Berry	Protein	15.26 g	Turkey berries	Rich in iron and vitamins; supports overall health
	Carbohydrates	11.57 g		
	Fiber	5.07 g		
	Fat	4.54 g		
	Magnesium	61.10 mg		
	Iron	18.3 mg		
	Zinc	2.9 mg		
	Copper	2.8 mg		
Manathakkalivattal Sadham	Energy	68 kcal	Manathakkali leaves	Boosts hemoglobin levels, supports blood health
	Protein	6 g		
	Fat	1 g		
	Carbohydrates	9 g		





	Calcium	410 mg		
	Phosphorus	70 mg		
	Iron	20 mg		
Parippu Thuvayal			Toor dal, black pepper, salt, sesame oil, curry leaves	High in protein; supports digestion and overall nutrition
Toor Dal	Energy	1384KJ	Toor dal	High in protein and fiber; supports energy and nutrition
	Fat	1.56 g		
	Carbohydrates	55.23g		
	Protein	19.91g		
	Calcium	71.73 mg		
	Iron	3.90 mg		
	Vitamin B3	2.09mg		
Sesame Oil	Energy	884 kcal	Sesame oil	Provides healthy fats and vitamin E; supports overall health
	Fat	100 g		
	Vitamin E	1.4 mg		
	Vitamin K	13.6 mcg		
Parboiled Rice Porridge	Carbohydrates	26.1 g	Parboiled rice, omam, badam, cashew, palm sugar	Rich in carbohydrates; supports energy levels for mother and baby
	Protein	2.9 g		
	Fat	0.4 g		
	Vitamin B3 (Niacin)	2.31 mg		
	Vitamin B5 (Pantothenic Acid)	0.32 mg		
	Calcium	19 mg		
	Iron	0.24 mg		
	Magnesium	9 mg		

# ([28],[29], [30],[31],[32],[33],[34])

# Strategies for improving health education and awareness in rural areas-

Improving the health and nutrition of rural women requires a multifaceted approach. First, promoting health and nutritional education through women's organizations can empower women with essential knowledge. Creating awareness about proper hygiene, sanitation, and safe drinking water is vital for overall well-being. Establishing kitchen gardens can enhance access to fresh produce and improve dietary diversity. Nutrition education should utilize a variety of hands-on teaching methods to engage learners effectively. Additionally, educating students of all ages about nutrition can foster a culture of health within communities. Finally, active involvement of rural women, communities, and local governments in the development and implementation of nutrition programs ensures that initiatives are relevant and sustainable. Together, these strategies can significantly enhance the nutritional status and health of rural women. [35]

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS | Volume VIII Issue IX September 2024



# Government policies or health programs aimed at improving nutrition for mothers after giving birth-

POSHAN Abhiyaan, started in 2018, is India's main program to improve nutrition for children, pregnant women, and new mothers. It focuses on working together with different sectors, using technology, and engaging the community. The program is being upgraded to POSHAN 2.0, which combines it with the Supplementary Nutrition Program to improve nutrition delivery and results.

Another important initiative is the Pradhan Mantri Matru Vandana Yojana (PMMVY), which gives cash incentives to support safe deliveries and good nutrition. Other programs like the National Health Mission and Anemia Mukt Bharat also aim to improve nutrition for mothers. [36]

#### LIMITATIONS

The post-natal practices observed among mothers reveal several negative aspects that can impact their health and well-being:

**Inadequate Nutrition:** Following childbirth, the reliance on a bland diet and restrictions on solid foods for the first 24 hours, along with limited meals (maximum twice a day), can lead to insufficient caloric and nutritional intake. This may hinder recovery and lactation.

**Low Hydration:** The drastic reduction of water consumption to just one glass a day can lead to dehydration, which is especially concerning during the post-natal period when adequate hydration is crucial for healing and milk production.

**Misguided Beliefs:** The belief that certain foods (like spicy foods) can decrease breast milk or cause health issues, such as boils or constipation, may prevent mothers from consuming a balanced diet that supports both their health and that of their baby.

**Isolation During Meals:** Mothers being separated from the family during meals due to fears of the "evil eye" can lead to feelings of isolation and neglect, which may negatively affect mental health.

**Physical Activity Restrictions:** Many mothers are discouraged from engaging in regular activities, which may delay their recovery and lead to decreased physical fitness.

**Unfounded Concerns About Intimacy:** The belief that sexual activity post-partum can affect milk quality may create unnecessary stress and hinder the couple's relationship.

**Cultural Taboos:** Some practices, such as avoiding fish to prevent perceived risks to the baby, may limit the intake of beneficial nutrients found in fish.[37]

#### DISCUSSION

The post-partum period, also known as the "fourth stage of labor," consists of three distinct phases: the Initial Phase (First 6–12 Hours), the Subacute Phase (2–6 Weeks), and the Delayed Phase (Up to 6 Months). During the Initial Phase, new mothers experience rapid changes and face risks such as postpartum hemorrhage and eclampsia. The Subacute Phase involves significant bodily adjustments as recovery of hemodynamics and metabolism takes place, though issues are less immediate and self-detectable. The Delayed Phase encompasses gradual changes and rare complications that may extend up to six months. Proper maternal nutrition is crucial throughout this period, with key nutrients including iron, folates, calcium, and vitamin D being essential. Lactating women require an additional 500 kcal/day due to the energy demands of breastfeeding.

Indian traditional foods are deeply interwoven with health and wellness, offering numerous benefits through their functional properties and preparation techniques. Functional components of these foods include healing

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS | Volume VIII Issue IX September 2024



substances such as turmeric, ginger, and garlic, which possess anti-inflammatory and antioxidant properties. Antioxidants found in ingredients like cumin, coriander, and fenugreek help combat oxidative stress. Dietary fibers present in whole grains, legumes, and vegetables promote digestive health and weight management. Probiotics in fermented foods like idli, dosa, and yogurt enhance gut health. Processing techniques such as sprouting, malting, and fermentation increase the nutritional value of foods, boost probiotics, and improve nutrient availability while reducing antinutrients.

The post-partum diets in Northern and Southern India reflect regional culinary traditions and cultural beliefs. Northern Indian diets emphasize ghee, whole grains, and herbs, focusing on digestive health and milk production. In contrast, Southern Indian diets are rice-based and emphasize traditional porridges and spice blends designed to support recovery and lactation. Despite regional differences, both Northern and Southern diets share common elements, including a focus on nutrition and recovery, the use of ghee for its high nutritional content and digestive benefits, and traditional herbs and spices that promote health. Both regions also emphasize easy-to-digest foods and the inclusion of milk-based products for their nutritional benefits.

Regional variations are evident in the specific foods and preparation methods. In Northern India, the diet includes chapattis, dals, and ghee-rich laddus, such as methi, sesame, and dates laddus. Post-partum recipes like panjiri, which combines whole-wheat flour, sugar, and ghee, are used to boost milk production. Methi seeds and deshi chawal are emphasized for their benefits. In Southern India, the diet is predominantly rice-based, featuring dishes like pathiyal samyal, designed to be gentle and increase milk supply. Specific powders and pastes, like kalathu powder and angaya powder, are used in cooking. Special dishes like parboiled rice porridge and manathakkalivattal sadham focus on nutritional balance and increasing hemoglobin.

A study found that while over 75% increased their food intake post-birth, many restricted themselves to bland diets and limited water, driven by cultural beliefs. These practices can hinder recovery and lactation, and mothers often isolate themselves during meals due to fears of the "evil eye." Health education strategies, such as community programs and kitchen gardens, are crucial for empowering women and improving dietary diversity. Government initiatives like POSHAN Abhiyaan and PMMVY aim to enhance nutrition for mothers and children. While traditional diets contain beneficial components, many practices can negatively impact maternal health, highlighting the need for balanced approaches that integrate traditional knowledge with modern health education

Overall, traditional post-partum diets in both Northern and Southern India are carefully designed to address the unique needs of new mothers. These diets emphasize recovery, lactation support, and overall well-being through nutrient-rich, easy-to-digest foods, and culturally significant practices. They not only facilitate physical recovery but also offer emotional and cultural support, embodying a holistic approach to post-partum care.

# CONCLUSION

In conclusion, the post-partum period, or "fourth stage of labor," is crucial for maternal recovery, requiring careful nutritional support across its three phases. Traditional Indian diets, rich in functional foods and regional variations, play a significant role in promoting health and wellness. Both Northern and Southern Indian diets focus on nutrient-dense, easily digestible foods that support recovery and lactation, while also reflecting cultural beliefs and practices.

However, cultural restrictions on diet can hinder recovery, underscoring the need for health education and community support to empower new mothers. Initiatives like POSHAN Abhiyaan aim to enhance maternal and child nutrition, highlighting the importance of integrating traditional knowledge with modern health strategies. Ultimately, these traditional diets not only facilitate physical healing but also provide emotional and cultural support, representing a holistic approach to post-partum care.

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS | Volume VIII Issue IX September 2024



#### REFERENCES

- [1]Mattea Romano et.al. (2010). Postpartum period: three distinct but continuous phases. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3279173/
- [2] <u>Michelle A. Kominiarek</u> (2017). Nutrition Recommendations in Pregnancy and Lactation <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5104202/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5104202/</a>
- [3] Jose, Nisha & Britto, Rock & Vakayil, Victor & C, Ankita & G, Ashish & P, Delwin & Shanbhag, Deepthi & Bhooma Goud, Ramakrishna. (2015). Beliefs and practices regarding nutrition during pregnancy and lactation in a rural area in Karnataka, India: a qualitative study. International Journal of Community Medicine and Public Health. 2. 116. 10.5455/2394-6040.ijcmph20150509. <a href="https://www.researchgate.net/publication/276440527">https://www.researchgate.net/publication/276440527</a> Beliefs and practices regarding nutrition during pregnancy and lactation in a rural area in Karnataka India a qualitative study
- [4] Preetam Sarkar, Lohith Kumar DH, Chanda Dhumal, Shubham Subrot Panigrahi, Ruplal Choudhary. (2015)

Traditional and ayurvedic foods of Indian origin. <a href="https://doi.org/10.1016/j.jef.2015.08.003">https://doi.org/10.1016/j.jef.2015.08.003</a>

- [5] National Institute of Nutrition. Dietary Guidelines for Indians book (second edition 2011)
- [6] Kaur, Varleen & Kaur, Harminder. (2021). Traditional healthy foods and practices during pregnancy in India: Mini Review. IARJSET. 8. 10.17148/IARJSET.2021.8861. <a href="https://www.researchgate.net/publication/354574933">https://www.researchgate.net/publication/354574933</a> Traditional healthy foods and practices during pregnancy in India Mini Review
- [7] Kaur, Varleen & Kaur, Harminder. (2021). Traditional healthy foods and practices during pregnancy in India: Mini Review. IARJSET. 8. 10.17148/IARJSET.2021.8861. <a href="https://www.researchgate.net/publication/354574933">https://www.researchgate.net/publication/354574933</a> Traditional healthy foods and practices during pregnancy in India Mini Review
- [8] Krishnakumar, T.. (2019). TRADITIONAL FOODS OF INDIA. 10.13140/RG.2.2.18647.11684. https://www.researchgate.net/publication/330533824\_TRADITIONAL\_FOODS\_OF\_INDIA
- [9] Shakeel, Bhinish & Azim, Hummara & Jabeen, Nayeema. (2018). Traditional Food and Health Practices during Post-Partum Period: A Study among Tribal Women of Fakir Gujri, District Srinagar, Jammu and Kashmir. International Journal of Current Microbiology and Applied Sciences. 7. 1076-1081. 10.20546/ijcmas.2018.708.122.

https://www.researchgate.net/publication/327148190 Traditional Food and Health Practices during Post-Partum Period A Study among Tribal Women of Fakir Gujri District Srinagar Jammu and Kashmir

- [10] https://bazaar-foods.co.uk/products/royal-chai-kashmiri-pink-chai-10-sachets-sweetened
- [11] https://fdc.nal.usda.gov/fdc-app.html#/food-details/169226/nutrients
- [12]T. Longvah, R. Ananthan, K. Bhaskarachary and K. Venkaiah. Indian Food Composition Tables (2017).
- [13] Ahuja A, Duggal M, Liu JY, Sharma P, Hosapatna Basavarajappa D, Bagga R, El Ayadi AM, Kankaria A, Kumar V, Singh P, Diamond-Smith NG. A qualitative study to understand sociocultural beliefs around perinatal and neonatal health in rural areas of Mohali, Punjab, India. Front Glob Womens Health. 2023 Nov 30;4:1147762. doi: 10.3389/fgwh.2023.1147762. PMID: 38099272; PMCID: PMC10720706. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10720706/

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS | Volume VIII Issue IX September 2024



- [14] Uma Nath (2020) Post Natal Diet Followed in Various Parts of India. <a href="https://medwinpublishers.com/PDRAJ/PDRAJ16000117.pdf">https://medwinpublishers.com/PDRAJ/PDRAJ16000117.pdf</a>
- [15] Drx Hina Firdaus (2020) Benefits of Gond Katira (Tragacanth Gum) And Its Side Effects. <a href="https://www.lybrate.com/topic/gond-katira-tragacanth-gum-benefits#:~:text=Gond%20Katira%20is%20a%20natural,gum%20elect%20or%20gum%20dragon">https://www.lybrate.com/topic/gond-katira-tragacanth-gum-benefits#:~:text=Gond%20Katira%20is%20a%20natural,gum%20elect%20or%20gum%20dragon</a>
- [16] Dr. Rajeev Singh (2024) <a href="https://pharmeasy.in/blog/ayurveda-uses-benefits-side-effects-of-methi-fenugreek/">https://pharmeasy.in/blog/ayurveda-uses-benefits-side-effects-of-methi-fenugreek/</a>
- [17] Dr. Nikita Toshi (2024) https://pharmeasy.in/blog/super-nutritious-ajwain-and-its-health-benefits/
- [18] Wikipedia. <a href="https://en.wikipedia.org/wiki/Ghee">https://en.wikipedia.org/wiki/Ghee</a>
- [19] Sowmya Binu (2024). <a href="https://www.netmeds.com/health-library/post/gond-katira-health-benefits-nutrition-uses-and-side-effects-of-this-natural-coolant#:~:text=Nutritional%20Value%20Per%20100%2Dgram,Carbohydrates%2035%20g</a>
- [20] https://www.medplusmart.com/healthy-life/info/4456/sesame-seeds-n-8211-big-nutrition-in-a-small-package
- [21] Indian Food Composition Tables 2017 T. Longvah, R. Ananthan, K. Bhaskarachary and K. Venkaiah.
- [22] https://fdc.nal.usda.gov/fdc-app.html#/food-details/806341/nutrients .
- [23] Krishnakumar, T.. (2019). TRADITIONAL FOODS OF INDIA. 10.13140/RG.2.2.18647.11684. https://www.researchgate.net/publication/330533824 TRADITIONAL FOODS OF INDIA
- [24] Venkateswarlu, M., Pasha, M. A. M., & Fatima, A. (2019). Assessment of cultural beliefs and practices during the postnatal period in an urban field practice area of SRMC, Nandyal, Kurnool, Andhra Pradesh. *International Journal Of Community Medicine And Public Health*, 6(8), 3378–3383. https://doi.org/10.18203/2394-6040.ijcmph20193459
- [25] Jose, Nisha & Britto, Rock & Vakayil, Victor & C, Ankita & G, Ashish & P, Delwin & Shanbhag, Deepthi & Bhooma Goud, Ramakrishna. (2015). Beliefs and practices regarding nutrition during pregnancy and lactation in a rural area in Karnataka, India: a qualitative study. International Journal of Community Medicine and Public Health. 2. 116. 10.5455/2394-6040.ijcmph20150509. <a href="https://www.researchgate.net/publication/276440527">https://www.researchgate.net/publication/276440527</a> Beliefs and practices regarding nutrition during pregnancy and lactation in a rural area in Karnataka India a qualitative study
- [26] https://www.vidhyashomecooking.com/postpartum-recipes-pathiya-samayal/
- [27] Subbu's kitchen (2013).

https://www.subbuskitchen.com/pathiya-samayalbalanced-diet-food-after/

[28] Guha, Proshanta. (2006). Betel Leaf: The Neglected Green Gold of India. J. Hum. Ecol. 19. 87-93. 10.1080/09709274.2006.11905861. <a href="https://www.researchgate.net/figure/Nutritional-composition-of-fresh-betel-leaf">https://www.researchgate.net/figure/Nutritional-composition-of-fresh-betel-leaf</a> tbl1 228624984

https://fdc.nal.usda.gov/fdc-app.html#/food-details/171016/nutrients

- [29] https://fdc.nal.usda.gov/fdc-app.html#/food-details/170931/nutrients
- [30] https://www.feedipedia.org/node/182





- [31] Dr. Rajeev Singh (2024). <a href="https://pharmeasy.in/blog/ayurveda-uses-benefits-and-side-effects-of-turkey-berry/">https://pharmeasy.in/blog/ayurveda-uses-benefits-and-side-effects-of-turkey-berry/</a>
- [32] <a href="https://www.medindia.net/calories-in-indian-food/common\_foods/leafy\_vegetables/manathakkali-leaves.htm">https://www.medindia.net/calories-in-indian-food/common\_foods/leafy\_vegetables/manathakkali-leaves.htm</a>
- [33] https://fdc.nal.usda.gov/fdc-app.html#/food-details/171016/nutrients
- $[34] https://fitaudit.com/food/158890\#: \sim: text = There \% 20 are \% 20123\% 20 calories \% 20 in, and \% 20 n\% 2Fd\% 20 of \% 20 starch.$
- [35] P., Parvati & Saroj, Shraddha & Tiwari, Saumya & Gupta, Kalpna. (2022). A study on health and nutritional problems of women in rural community. 7. 74 77. 10.1729/Journal.29852,. <a href="https://www.researchgate.net/publication/360317383">https://www.researchgate.net/publication/360317383</a> A study on health and nutritional problems of women in rural community
- [36] <u>Phuong Hong Nguyen</u> et.al. (2021).Maternal Diets in India: Gaps, Barriers, and Opportunities <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8540854/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8540854/</a>
- [37] Catherin N, Rock B, Roger V, Ankita C, Ashish G, Delwin P, ShanbhagD, Goud BR.Beliefs and practices regarding nutrition during pregnancy and lactation in a rural area in Karnataka, India: a qualitative study. Int J Community Med Public Health2015;2:116-20. <a href="https://www.ijcmph.com/index.php/ijcmph/article/view/933/804">https://www.ijcmph.com/index.php/ijcmph/article/view/933/804</a>