



## Functional and Cultural Dimensions of Bharat's Postpartum Nutrition in India

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### Abstract

Postpartum is one of the most physiologically severe periods of the life of a woman, which presupposes the intake of certain nutrition to restore energy reserves, lactation, and rapid restoration. In India, Ayurvedic traditions of postpartum diet are associated with Ayurvedic traditions that are manifested in works of classical literature and encourage the dominant role of sutika kala and prescribe some nutritional measures. The paper dwells on the crossroad of the ancient Ayurvedic philosophy, particularly the use of the functional foods such as herbal food formulas, and the contemporary sciences of nutrigenomics and food science. The demographic inclinations, postpartum problems, consumer preference and product expectations were also used to perform this research with the help of a structured questionnaire that was applied to 567 women in India. The results show the presence of a significant factor, namely cultural orientation (traditional, modern, rural, urban and hybrid), which influences the practices during postpartum. The most frequent issues that are reported include fatigue, pains, and breastfeeding difficulties, as well as weight gain and weight loss. The natural, organic, affordable, and scientifically proven products ranked high among the preferences of the respondents because one could unite the traditional wisdom and the contemporary demands of the food.

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Results are discussed in the context of Ayurvedic concepts, with an emphasis on the bioactive properties of traditional ingredients (fenugreek, turmeric, jaggery) that are relevant to the modern biomarkers of maternal recovery and lactation support. The research shows that the Indian postpartum practices are models of functional nutrition, thus combining cultural traditions with technological advances, and suggests a prototype of how to develop culturally based, evidence-based maternal nutraceuticals.

**Keywords:** Postpartum Nutrition, Ayurveda, Nutrigenomics, Functional Foods, Maternal Health, Cultural Preservation.

## Introduction

The postpartum period is among the most physiologically strenuous stages of her life, which requires special nutrition to renew energy resources and lactation support and involves a speedy recovery. In India, Ayurvedic philosophy has strong roots in the practice of postpartum dieting, with references to the classical texts providing the central role of the sutika kala and recommendations of the nutritional measures.

### **Ayurvedic Foundations of Postpartum Care:**

The postpartum period (Sutika Kala) has been considered holy in Bharatiya knowledge systems as an auspicious time of healing, renewal, and nourishment. It is a fatiguing ailment according to Ayurveda, which the surrogacy of the mother must be brought to normalcy. Details about the maternal diets, herbal drugs and daily activities at this stage are contained in the guidelines of ancient scriptures like Charaka Samhita, Sushruta Samhita, and Kashyapa Samhita, which not only explained the food as a factor in nourishing (ahara) but also medicine (ausadha). In India, with the same wisdom, we have the culturally diverse but scientifically rational practices in the region:

### **Northern India:**

This area has been found to be vulnerable to curcumin-based anti-inflammatory and antioxidant action; hence, the use of other edibles like Haldi doodh gum (turmeric milk, Curcuma longa) has been administered to this area in postpartum diets. An antimicrobial and a digestive herb, ajwain (carom seeds, Trachyspermum ammi) is gondh laddoo of edible gum (tragacanth gum, Astragalus gummifer).

### **Western India (Maharashtra, Gujarat, Rajasthan):**

Among the popular preparations are methidana food formulation (fenugreek, Trigonella foenum-graecum), which increases breast milk production due to the high content of diosgenin, and dinkache ladoo (gondh-based). Other spices, including saunf (fennel seeds, Foeniculum vulgare) and ajwain (Trachyspermum ammi) are included to help digestion and lactation.

### **Central India (Madhya Pradesh, Chhattisgarh):**

Popular dishes are til food formulations (sweetmeat made from sesame seeds), urad dal halwa and sajji or kera roti (food formulations made of small millet like bajra and jowar). Adaptogenic agents such as ashwagandha churna (*Withania somnifera*) and safed musli (*Chlorophytum borivilianum*) used in the preparations are well-documented for improving resistance to stress, stamina/hormonal balance, and immunomodulation.

### **Eastern India (West Bengal, Odisha, Assam, Bihar):**

Rice-based porridges (payesh), jaggery (*Saccharum officinorum*), sesame sweets (*Sesamum indicum*), and preparations called nolen gur (date palm jaggery *Phoenix sylvestris*). Those foods provide necessary minerals, natural sugars and lignans phytoestrogens and antioxidant role players in seeds.

### **South India (Tamil Nadu, Kerala, Karnataka and Andhra Pradesh):**

Mothers are administered jeeraga kashayam (cumin decoction *Cuminum cyminum*), rasam made from black pepper (*Piper nigrum*) and tamarind (*Tamarindus indica*), and murungai keerai (curry with *Moringa oleifera*). Scientifically we know today that these are high in iron, vitamin C and antioxidants, with known lactation-supportive and immune-boosting properties.

### **Scientific Validation of Traditional Wisdom:**

These culturally abundant rituals can be compared to the stories about the Granthas on Ayurvedic treatment. As an illustration, Kashyapa Samhita recommends the use of fenugreek (*Trigonella foenum-graecum*) to stimulate the production of milk, which, once again, is confirmed by clinical trials that include its galactagogue effect. Simultaneously with the recent research on gut-modifying and carminative bioactive compounds (cumin, *Cuminum cyminum*; ginger, *Zingiber officinale*), Sushruta Samhita is concerned with the consumption of the digestive stimulants.

Contemporary nutrigenomics is an effective tool to decipher these traditions. It has been reported that curcumin (*Curcuma longa*), diosgenin (*Trigonella foenum-graecum*), lignans (*Sesamum indicum*), withanolides (*Withania somnifera*), and allicin (*Allium sativum*) compounds are able to regulate gene expression related to inflammation, immunity, metabolism and hormonal acclimatization. These molecular findings are consonant with the Ayurveda recipe that is meant to heal the ojas (life force), agni (digestive fire) and dosha equilibria in post-parturition mothers.

This discussion can redefine the Indian postpartum diets to be the best maternal care practices in the world by presenting evidence of this wisdom to the Granthic wisdom of Bharat plus the scientific evidence of molecular nutrition and functional foods. These are the thousands-year-old evidence-based nutraceutical products that were created in our home labs (kitchens), and these are the contemporary manifestations of the ancient saying, "Food is the first medicine": Annaseva hi Aushadha Seva.

The need to explore and scientifically advance Sutika Kala practices will provide not only culture but also evidence-based innovations about the practice of consuming food as postpartum nutrition that will allow treating every bite as a food and a medicine in the world.

### **Focus, Aim and Research Questions**

The article is an Ayurvedic knowledge analysis and its crossing point with some special Ayurvedic functional foods that are founded on the herbs like laddoos and their new disciplines in the areas of nutrigenomics and food science.

The study respondents were 567 randomly surveyed Indian women in order to establish the demographic preferences, postpartum problems, consumer interests, and postpartum product expectations. The findings have indicated that the cultural orientation factors (traditional, modern, rural, urban, and hybrid) are highly critical in affecting the postpartum practices. Fatigue, pain, breastfeeding and weight change problems are the most common records of problems or issues that are reported. Some of the aspects that the respondents favored include natural and organic products, affordable prices and scientifically tested products since they wanted to make a combination between common sense and new standards in nutrition.

According to the surveys, the traditional remedies such as herbal food formulations and galactagogues based on fenugreek are gaining less popularity; the Indian mothers are increasingly being exposed to evidence-based nutritional products. This integration of pre-Islamic wisdom and science suggests that India has long regarded this integrative knowledge as the janmabhoomi (birthplace), a claim supported by contemporary research. This study demonstrates that biomedical evidence and cultural dietary ways of living can be integrated to enhance the health outcomes of the mothers.

Similar Cultural beliefs in certain parts of the world, such as Guatemala, China, Jordan and Mexico, are a significant factor in influencing the recovery of the new moms after birth. They are concerned with remaining in some form of confinement period and adhering to certain food rituals (Kim-Godwin, 2003). Postpartum care, even in Southeast Asia, including Indonesia and the Philippines, has a strong religious and cultural health-related preference to warm the body using foods and methods based on heat (Bazzano et al., 2020; Siregar et al., 2021a, 2021b). Although each region is unique in its own way, many of these traditions have the same underlying concepts, i.e., structured assistance for new mothers, extended rest, and a specified diet (Dennis et al., 2007). Nevertheless, only a minor part of the focus is typically given to the postpartum care compared to the prenatal care, which exposes moms to physical and mental issues, such as recovery worries and body image concerns (Tayyem et al., 2022). That is a serious issue since the postpartum stage requires much physical material to support the healing and milk production. Thus, good nutrition is a key factor in both the mother and the infant (Ford et al., 2020). This research paper will contribute to filling the gap between the cultural and traditional Indian postpartum food practices and the peer-reviewed science and proving the integration of culturally specific diets along with the evidence-based practices into enhancing the health of

both mothers and babies (Sharma, 2021). Food, in Indian families, forms one part of post-birth care. They are generation-old recipes, including the tonics of herbs, laddoo, panjiris, and pastes (Siregar et al., 2021). These foods are believed to boost milk production as well as speed up the process of recovery. Not everything that is passed on is helpful; for example, delaying breastfeeding and discarding colostrum are actual health concerns (Das and Mishra, 2021).

Among the traditional recipes, herbal food formulations are a prime example of functional food that combines traditional medicinal herbs, spices, and nutrient-dense ingredients (Davey & Vallianatos, 2018). These specific formulations are often designed to provide various benefits, such as promoting uterine cleansing, accelerating postpartum recovery, and enhancing lactation (Barnes et al., 2018).

A variety of ingredients, including fenugreek (galactagogue), turmeric (anti-inflammatory), ginger (digestive aid) and jaggery (source of iron), may be consumed to manage postpartum health needs such as milk production, inflammation reduction, and restoration of energy stores (Monteban et al., 2018). Such dietary habits typically included culturally valued foods, believed to replenish the mother's body warmth and balance, assumed to be disrupted by childbirth (Teh et al., 2021). Although such folk dietary therapy is culturally encoded, there are scarcely substantial scientific grounds accessible to justify it. Thus, a study on these indigenous food habits must be conducted concerning the effectiveness and general safety of such dietetic protocols (Monteban et al., 2018). Survey data and functional and cultural analysis are used in this paper to shed light on some of the problems surrounding postpartum nutrition in India in the quest to harmonize the traditional practices with the science to ensure the best maternal health.

### **Research Questions:**

This study is guided by the following research questions:

1. How are the traditional postpartum diet patterns in the different regions of India, what is the current prevalence rate of the same, and what is the perception of the new mother with regard to the same?
2. What is the scientific evidence (nutrigenomics, food science) of the so-called health effects of the essentials of such traditional formulations?
3. What are the primary postpartum complications and the product expectations that the Indian mothers commonly complain about, and how are the same measures vis-à-vis the traditional products and services?

Such an adjustment will transform the section into a roadmap of a particular kind and not a broad introduction. Any reader of your paper will quickly gain the knowledge of the questions you were out to answer.

### **Review of Literature:**

Postpartum as a biological phenomenon is perceived not only on a global scale but also on a cultural scale, and the consumption of food during the postpartum process is largely entrenched in the culture's beliefs. The

literature review shows general trends and theoretical perspectives of the problem of postpartum nutrition; however, it also allows concluding that a significant gap in the research is present, and the given research is likely to close this gap.

One of the significant trends in literature is that the practices of the culturally specific confinement that was aimed at the restoration of maternal equilibrium have been elaborated upon. The scientific literature in Southeast Asia is emphasizing the principle of heating the body with some foods and treatments to defeat the coldness that is produced by the process of childbirth. Similarly, the research of non-Western cultures in Latin America or the Middle East indicates that there are some similarities about belonging to organized nurturing, long sleep and special rations as a universal and yet differentiating knowledge of the vulnerable status of the mother. This general opinion confirms the fact that what one eats during the postpartum period can hardly be regarded as a source of nutrition; it is a medicine.

In the case of India, the theoretical background is well developed with the use of Ayurveda, in which sutika kala, as postpartum care, is a sacred time of healing and regeneration. This framework, as is shown in the literature, is manifest in the excessive diversity of functional food preparations, which are genetically programmed to carry out the role of medicinal interventions. The typical products that they incorporate in such formulations are fenugreek as a galactagogue, turmeric as an anti-inflammatory, and jaggery as a source of iron. The key strength of this recent study is that it has been able to ethnographically capture these practices and embark on a mission to equate them with known actions of pharmacological action and therefore provide a basis for the assertions of traditional arguments.

However, the result of this literature is a painful agonizing struggle and a giant disjunction. Despite the applause of traditions through continuity of culture and the apparent benefits, it has been noted that it may be in conflict with the current biomedical guidelines. A case in point can be provided of late infant breastfeeding or disposal of nutrition-rich colostrum that is occasionally transmitted with positive dieting, having physical health complications. Such an issue presents a challenge to the care providers and the mothers, who have to strike a balance between the traditions, which must be upheld, and those that must be re-evaluated.

The identified gap that is proven to be the largest is the absence of the bridge between descriptive ethnography and applied, evidence-based intervention. A large segment of the available literature serves quite a commendable purpose of demarcating what is being consumed but lacks a focus and an intended study of the benefits, optimal dose and safety of these complicated food preparations systematically and in line with the present-day clinical and regulatory guidelines. Further, there is no study that has brought together the consumer-side knowledge about the experience of the modern Indian mother, her preference for natural yet scientifically tested items, and her willingness to take the reformed traditional format. The existing literature is a fantastic list of what has been done in the past but does not give much advice on what should be done in the future on becoming innovative.

This paper seeks to fill these gaps not only on the recording of the traditions but also on the interaction of the cultural practices critically and the new issues of the consumer mothers and consumer preferences too. It builds upon the classical contribution of ethnographers and food scientists and forms a speculative paradigm where Ayurvedic knowledge will be integrated seamlessly with nutrigenomics and food science to generate the subsequent generation of maternal health nutraceuticals.

### **Methodology:**

#### **Study Design and Sample**

In this study, the cross-sectional survey design has been used to assess nutritional beliefs and practices of Indian women during the postpartum period. This aimed to derive both quantitative and qualitative information on what we want to know about the execution of dietary practices and valuation and perceived utility of certain traditional foods in the postpartum period. Sampling of the respondents takes place in various parts of India to obtain a variety of traditions from diverse socioeconomic classes and various cultural orientations, such as rural, urban, traditional, modern and mixed communities. The number of females is 567, which is sufficient to determine the variations and demographic characteristics of the area 's postpartum nutrition (Li et al., 2022; Sharma et al., 2020).

#### **Sampling Strategy and Eligibility**

The purposive sampling design ensured that women are also included in their recent postpartum experiences and cultural movers such as mothers-in-law and older women who have existing practices influencing dietary patterns. The eligibility criteria include (i) being 18 years or older, (ii) having delivered a child (also women who delivered a child within 24 months), (iii) being familiar with the traditions of postpartum food, and (iv) providing informed consent. Non-pregnant respondents who have no experience of postpartum are excluded. The plan will allow lived experiences to be incorporated, as well as intergenerational knowledge.

#### **Data Collection Tool**

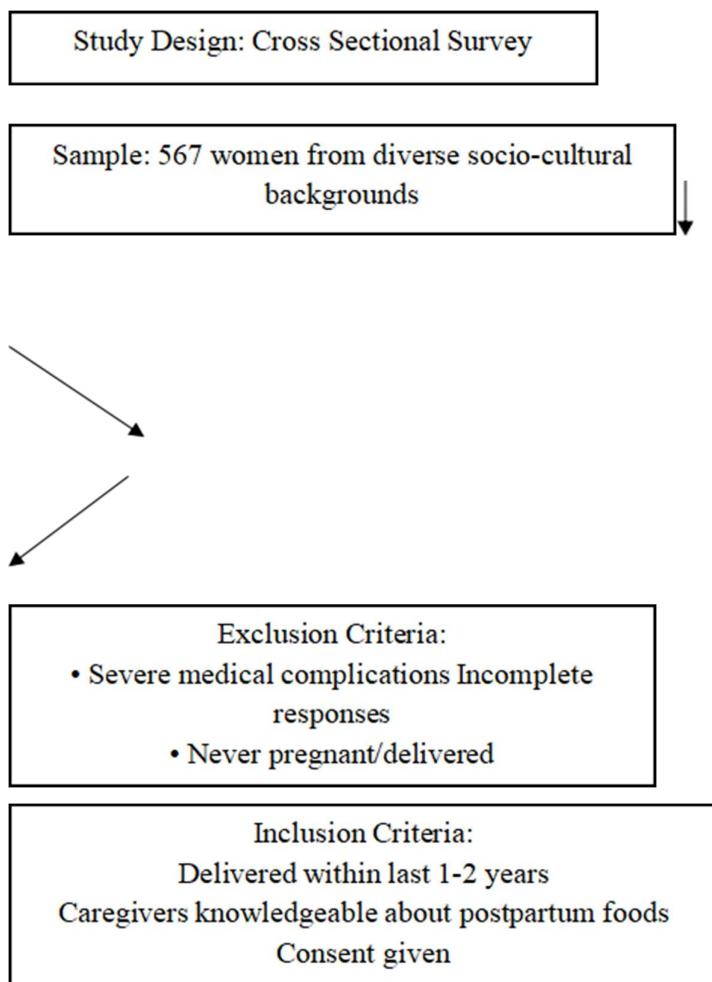
The online survey tool is developed to achieve in-depth information concerning postpartum diets, the food taboos and flavorful preparations, the perceived health benefits, and limitations (Ramulondi et al., 2021). They also use this tool to determine the effectiveness of traditional foods to improve lactation, aid in uterine involution, and maintain maternal energy levels, hence bridging the gap between data achieved and cultural beliefs. The questionnaire will comprise four areas namely (i) demographic and cultural orientation; (ii) postpartum challenges; (iii) consumer preferences of natural, affordable and scientifically proven foods; and (iv) product attributes which entail taste, texture and packaging. Separability, validity and face authenticity are assessed through piloting 20 respondents.

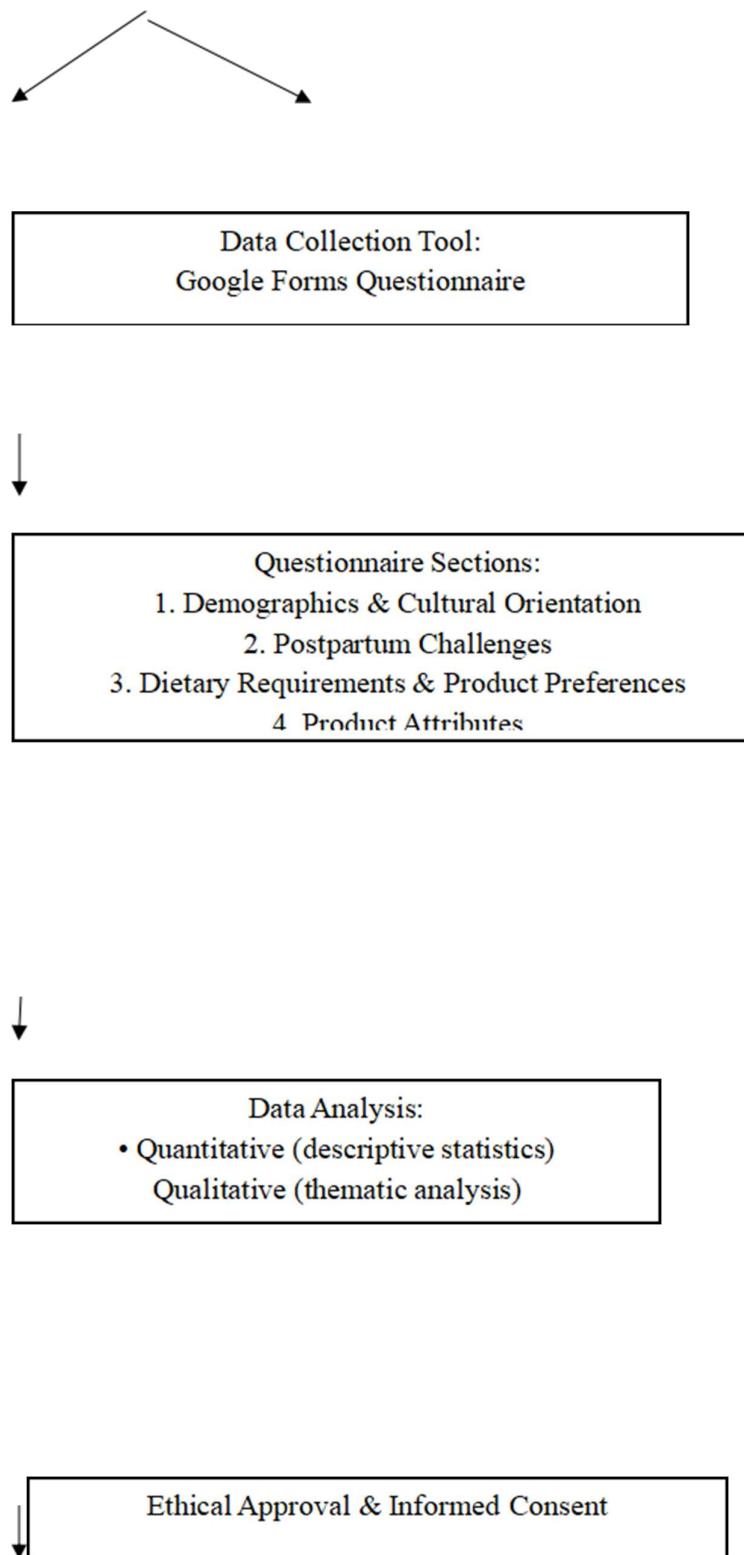
## Data Analysis

Quantitative information is used to determine the prevalence of dietary patterns and geographical variation, so the descriptive statistics are implemented. The thematic analysis is a prospective method of qualitative study and offers the chance to appreciate the narratives of the generally recreated cultural constructs of health outcomes (Zhao et al., 2022). This dichotomy approach tries to provide a general answer to the question regarding the combination of the traditional knowledge and the contemporary nutritional theories.

## Strength of the Sample

This diversity of respondents (geographically and culturally) results in the increased sample representativeness, and the sufficient sample size supplements the validity of results. The given paradigm could not only be characterized as an excellent approach to viewing the problem of postpartum nutrition in India, but it also justifies the found intersection of medical traditions and evidence and preconditions the further intervention (Zhang et al., 2025; Nur et al., 2023).





## **Inclusion and Exclusion Criteria**

### **Inclusion Criteria:**

The women who had recently delivered a baby, caregivers and the mothers-in-law and grandmothers, who had their firsthand information about the postpartum culture of eating, were the respondents of the research. They could only participate after informed consent was issued.

### **Exclusion Criteria:**

The study only factored in women without serious medical complications unattached to nutrition, who fully replied to questionnaires, and had experiences related to pregnancy and childbirth.

### **Ethical Considerations:**

The institutional review board helped to make sure that all participants of the study are informed and agree to take part in the research and all the research ethics are met (Kumari et al., 2022). The details of the courses of action related to the informed consent were presented in detail, and the rationale of the study and its potential effects on the subjects and the assurance of the freedom and credibility of the latter in the framework of the data collection procedure were verbalized (Su et al., 2023). To guarantee the most ethical principles of the research, the research ensured that all respondents were fully sensitized to their rights, such as the right to abandon the research without reprisals at any point (Kumari et al., 2022).

### **Data Collection Tool (Questionnaire Design):**

The questionnaire includes the structured questionnaire in which the collection of the cultural orientation, postpartum experience, and product preferences will be done using Google Forms. The tool was properly structured, as it contained four parts that were based on closed-ended questions with multiple choices, Likert scales and open-ended questions. This bi-directional type of research design enabled gathering both quantitative information on the consumption of diet and information about the assumptions and practices of the culture that may be qualitative. The questionnaire then showed a holistic idea of the correlation between the traditional knowledge of the postpartum and the contemporary nutritional science concerning the practice of the mother.

### **Section 1: Demographics and Cultural Orientation:**

The first section was the information on background gathering whereby the time-setting about the postpartum of the different cultural and societal backgrounds was established. The questions were area-oriented, like the participants' cultural inclination (which may be traditional, modern, rural, or urban or a combination of them), maternal age at birth of the child, birth order of the child born, mode of delivery (normal or cesarean), and structure of the family (nuclear or joint family). Through these variables, a basis was drawn on which the practices of postpartum and cultural effects were determined upon comparing the various groups.

## **Section 2: Postpartum Challenges:**

The second section discussed the common physical and emotional challenges women face postpartum. Questions included fatigue, pain and discomfort, breastfeeding, urinary incontinence, hair loss, and weight changes. The respondents were asked about their coping, such as taking medication and physiotherapy and the use of natural therapies and traditional medicine, family support and lifestyle change. Numerical rating scales were also employed in the questionnaire to identify how intense pain and stress were to make it an objective measure of stress.

## **Section 3: Consumer Preferences:**

The third section was on consumer perception towards postpartum diets and health-related products. It compared such aspects as natural and organic products, price, availability, and the scientific or clinical validation factor. The barriers to healthy eating were also identified, and the respondents were asked about their barriers: time, money, or knowledge. Additionally, their willingness to adopt the other types of postpartum products, like herbal food formulations as sweet balls, teas, premixes, and nutrition bars, was also addressed in this part. In consumer decisions, special attention was paid to sensory qualities, i.e., taste, flavor, and texture.

## **Section 4: Product Attributes:**

The last part examined the expectation of postpartum products by the respondents and the attributes that the respondents thought were the most important. The respondents were invited to discuss their readiness to use the products that could help to overcome postnatal disorders. Other inquiries to the interested parties include the desirable characteristics like natural sourcing, scientific validation, cheapness, easy to use and accessibility. This section also considered product types, such as hormone-regulating supplements, stretch mark cosmetics, relaxation aids, such as teas or oils, meal replacements, physical therapy or exercise, and meditation. Besides this, the respondents were asked to consider the types of products they would like to be offered and consumed as traditional food formulation formats or modern products such as herbal beverages, herbal premixes, herbal bars, and herbal candies. Sensory attributes such as taste, smell and texture were pointed out and the respondents gave preferences in terms of fruity and sweet, mild and neutral, or herbal or spicy and neutral that could be combined with other foods.

This last section proved to be very critical in the debate on the crossroad between the traditional postpartum practice and the modern demands of consumers. It provided an invaluable lesson about how culturally appropriately chosen foods, e.g., herbal sweet balls (laddos), would be altered to become safe under scientific conditions, low-cost and satisfactory in terms of their sensory qualities and be a part of current maternal care.

## Results:

The findings of the present research are based on the constructed questionnaire, which displays quantitative and qualitative findings. The results give the statistical information on the demographic composition of the sample employed in the study, the type and prevalence of the postpartum issues, and the varieties of the diets applied in the postnatal phase. They also solicit the ways women are going to harmonize traditional Ayurvedic and culturally based foods and the up-to-date dietary interventions. With such reactions taken into consideration, it is observed that the results can not only emphasize the reasons as to why certain aspects about the traditional practices of postpartum persist to be practiced in various regions of India but also the increased acceptance regarding the adoption of scientifically proven and commercially viable functional foods. The interplay of the views will present a weak insight into the dynamics of negotiations in the practice of maternal health in the modern conditions when cultural pursuits and changing consumer needs balance.

### Cultural Background of the Subjects (Q2):

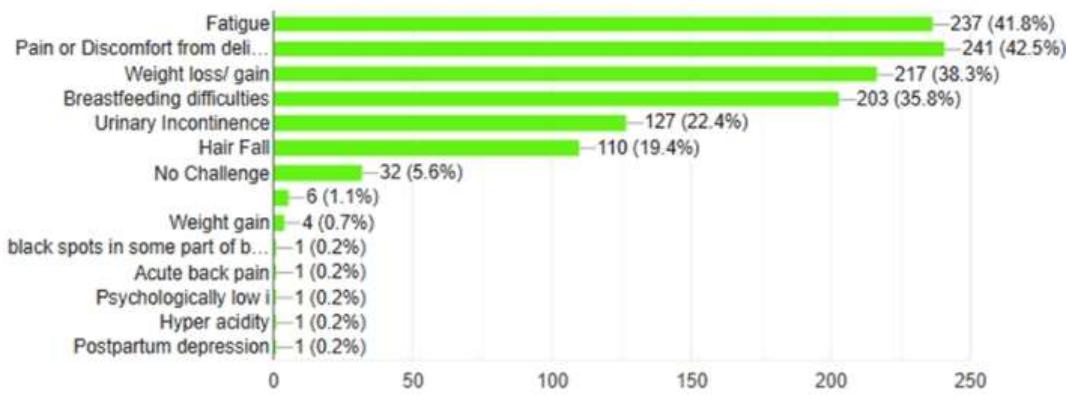
The cultural orientation of the survey respondents has been considered traditional (19.9%), modern (22.1%), rural (22.6%), urban (20.2%), and hybrid (15.2%). It is by this dispersion that the variety of socio-cultural backgrounds influencing the maternal health practices in India comes to the fore. The results show that the postpartum diets do not constitute a blanket; however, there are intergenerational beliefs and social norms and rural-urban environments that affect them. Awareness of these two factors, in the application of an old system of knowledge and scientifically justified consumerism, leads to relatively equal proportional degrees of archaic and modern typological forms. This pluralistic approach, in regard to one constituent of cultural foods, e.g., herbal laddoos, can reach a good point of contact between the past and the present of nutritionism science.



### Physical Challenges (Q12):

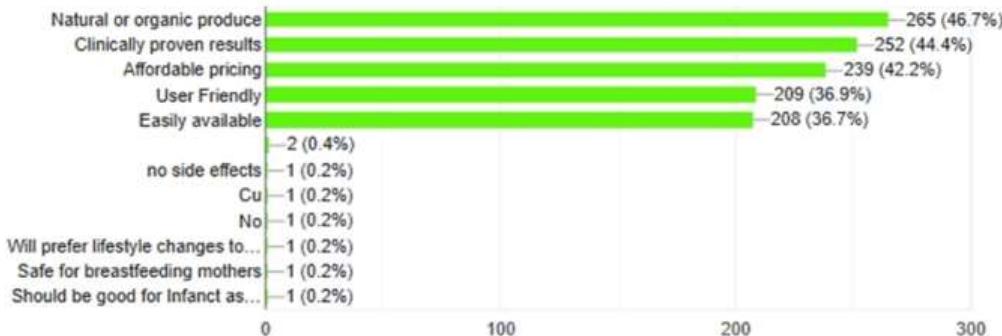
The survey has also revealed that the overlapping of physical complaints unveiled by the postpartum women was quite broad. The former was the most prevalent, with discomfort or pain at 42.5 and fatigue at 41.8. Third (participants also), weight change (38.3%), difficulties with breastfeeding (35.8%), loss of control over urination (22.4%), and loss of hair (19.4%). The percentage of no serious struggles just accumulated to 5.6 percent, which brings in the puerperal influence of morbidity on its burden. These issues can be nutritionally

addressed, particularly those related to fatigue, milk production, and weight. This brings the possibility of functional foods like herbal laddoo made of fenugreek, a galactagogue that has also been used in the local diet in the past. The findings provide the rationale to develop effective and culturally proficient postpartum nutrition programs with a focus on the needs of Indian women, the regional lifestyle, and cultural differences (Chen et al., 2023).



### *Preferences and Characteristics of Products (Q21)*

The respondents identified some of the major considerations in the choice of postpartum products. The choice of natural or organic origin was the most desired, with natural or organic origin, clinical validation, and affordability being 46.7, 42.2, and 44.4, respectively. User-friendliness (36.9) and accessibility (36.7) were not prioritized but were also deemed important. The reason is the parallel effect of cultural beliefs on the science of natural remedies and the increased pressure towards scientifically proven solutions. In particular, the results mention the diversity of resources and affordability and accessibility as the main problems in the specified situation and the cost-conscious choices that would in many cases predetermine the adoption. In this case, the herbal laddoo is to be used as a culturally oriented but flexible product, it can be expanded into a useful scheme of postpartum nutrition using scientific nutritional performance profiles and quality control of the supplemented product.



## Discussion:

### Bridging the Information Gap in Postpartum Care:

This research demonstrates that a significant part of the population of interviewed people encounter obstacles to accessing specific and culturally sensitive information about postpartum practices (Lee et al., 2023). Without such guidance, some women seek advice in their families or anecdotal information, which does not always align with the existing body of knowledge on nutrition or what is not required enough to live up to certain health ideals of a person (Son, 2014). These gaps highlight the necessity to apply evidence-based and specific interventions in terms of education that should not dismiss tradition in the name of tradition and allow them access to scientific data to familiarize them with the opportunity to take an informed decision on nutrition (Kay et al., 2017).

### The Interplay of Tradition and Modernity in Dietary Practices:

The findings also lead to the conclusion that postpartum nutrition in India is not a mere case of installing adequate nutrition in the diet but rather a detailed strategy that includes cultural norms, psychosocial health, and practicality in the form of availability and affordability (Cox et al., 2025). The tradition-modernity interplay of rural-traditional to urban-modern (or both), depending on the region and identity, in particular, can demonstrate that the food postpartum habits are determined by the conditions of tradition and modernity interaction. As an illustration, the rural participants tend to adhere to the old recipes, whereas the urban women are keen on acquiring the knowledge about the clinically verified food. This duality suggests the need to possess the interventions that can be utilized to address the cultural heritage and still meet the existing safety and effectiveness criteria.

### Aligning Traditional Ingredients with Contemporary Health Needs:

Other frequent postpartum complications like fatigue, pains, lactational issues, and weight gain give the possibility of nutritional intervention with the aid of naturally bioactive foods. The popularity of fenugreek as a lactation aid, turmeric as an anti-inflammatory, ginger as a digestive, and jaggery as an iron supplement are only the most obvious examples of how much traditional medicine and the Ayurvedic principle of ahara (diet) are truly one in their goal of providing nourishment and medicine. These ingredients were purposely used with the intention of restoring maternal balance, as the Charak Samhita explains. In turn, the Ayurveda ideology of food as medicine appeals to the personal experience of Indian women and offers the premises of culturally based, science-driven interventions (Yadav et al., 2019).

### Consumer-Driven Demand for Validated Traditional Knowledge:

The tendency towards the natural or organic resource, interest in clinical research, and cost to the participants implies that women are not losing the tradition; they simply want to see whether it can be sufficient in the

biomedical systems of today. It may indicate continuity; however, there is no conflict: traditional systems of knowledge do not stop to play their role, but the validity of this system is conditioned more and more with the evidence-based validation. Nutrition science and Ayurveda should then be considered a pair of complementary practices now having a single aim: maternal health.

### **A Path Forward:**

The Bharatiya culture biology that food is medicine extends way past Hippocratic postulates; in India, the quote has been turned into cooking, gurus, and routines so that each bite is a form of healing, maintaining, and extending action. Food preparation was not a common kitchen practice in the postpartum period, and it was more a life-affirming, culture-affirming practice. When service and this spirit have been combined with, and to it a help given such as nutrition profiling provides all the aids necessary to it, a modern nutritional test and a clinical test can offer a plausible direction upon which to innovate. The old panjiris, herbal laddoos, and postpartum tonics need not be relics but instead be used as the role models of functional foods that can be reconfigured into the evidence-supported framework to make them as safe and as satisfying to the consumers as they are today.

In conclusion, these findings can be used to propagate a radical agenda: that is, to ensure that traditional postpartum food production can become a storehouse of bioactive knowledge that can inform the development of nutraceuticals. Well culturally competent and scientifically validated postpartum procedures will be developed, and Ayurveda and its universal wisdom will be at par with even the modern scientific operation, and these interventions will be a source of global and Indian cuisine and even of nutritional innovations.

### **Conclusion:**

The results indicate the need to establish a connection between traditional food-medicine principles and new approaches to develop culturally compatible variations of practical postpartum nutrition (Yao et al., 2022). The use of such an integration would capitalize on the presence of a good body of evidence of traditional Indian postpartum ingredient(s), which can confer bio-enhancer benefits, in an attempt to improve the bioavailability of nutrients and therapeutic effect (Yadav et al., 2019). This essay is semantic: Postpartum nutrition in India is not simply about habit it is a standard practice supported by evidence-based deep science. The results of the surveys depicted that women are confronted with persistent postnatal morbidities, fatigue, insufficient lactation, and unpredictable fluctuations of weight. However, they are also, concurrently, conscious of using natural and cost-efficient, clinically proven nutritional options. These go hand in hand with Ayurveda, the Charak Samhita written thousands of years ago, to prepare food as a line of treatment of first-line therapy in vulnerable concepts during a vulnerable concept known as sutika kala.

The fact that bioactive molecules (not to mention anti-inflammatories and immunomodulators) are found in traditional recipes to be consumed in the postnatal period is evidence of the fact that there already existed in

ancient India dietary regimens that were not only galactagogue but actually designed as family-style functional food, even before the terms in biomedical vocabularies emerged. By so doing, it appears that India's epistemic inheritance is a living cell of this dictum of Hippocrates: "Let food be thy medicine and let medicine be thy food," and a sensuous practice where each alimentary intake is an instance, by nature, of a distinct curative action on its own part. Preventive action within the triad culture, science, and spirituality is to take a bite in India, which has always been.

For example, *Piper longum*, another constituent in most traditional postpartum preparations, has been found to play the bio-enhancing role of improving the uptake, etc., of the other compounds (Yadav et al., 2019). This bio-enhancing characteristic, which has been more generally known in the Ayurvedic tradition as *Yogvahi*, determines that *Piper longum* and other botanical research may assist in enhancing systemic circulation and bioavailability of varied nutrients in postpartum diets (Yadav et al., 2019). The result of such a study indicates that an extensive approach to postpartum nutrition among Indians through traditional and modern science will probably be adopted.

The new opportunities for new combinations of food items are created with the assistance of modern scientific validation of these ancient traditions. Herbegin laddoos contain tonics and old-fashioned beverages that are not aged but are archetypes of nutraceuticals, which have acquired cultural acceptance and may be created in this century on scientific sensorial profiling and the extension services, clinical evidence and product ingenuity. The collaboration of traditional knowledge and modern science may result in the appearance of some innovative functional food that has a well-known brand and offers some practical and convenient solutions to maternal health. The marriage between tradition and technology will enable Bharat to become a world heavyweight in the field of traditional functional food education. Their character is maternal, heredit-advanced and market-ready at the same time (Esakkimuthu et al., 2018).

This paper will provide a framework with which the education of Indian heritage is not dead but exists based on the current and future health outcomes. In this regard, it is possible to say that the study inhabits the postpartum food items between science and culture, and therefore, the work can bring up the question of following a mother as a scientifically informative object and a place of culture, as a life matter.

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The authors claim no financial or personal connections improperly influenced this work. There is no conflict of interest among the authors.

## References:

Alhashem, A., AlRasheed, F., Alwallan, L. K., Almutairi, M. F., Khathran, Y. M. B., Alenzi, Y. A., & Aldahash, R. (2025). Traditional Nutritional Beliefs and Practices Among Mothers in Riyadh During the Puerperal Period: a Cross-Sectional Study. *International Journal of Women's Health*, 913. <https://doi.org/10.2147/ijwh.s484271>

Barnes, L. A. J., Barclay, L., McCaffery, K., & Aslani, P. (2018). Complementary medicine products used in pregnancy and lactation and an examination of the information sources accessed about maternal health literacy: a systematic review of qualitative studies [Review of *Complementary medicine products used in pregnancy and lactation and an examination of the information sources accessed about maternal health literacy: a systematic review of qualitative studies*]. *BMC Complementary and Alternative Medicine*, 18(1). BioMed Central. <https://doi.org/10.1186/s12906-018-2283-9>

Bathula, S. S., Helena, K., & Avvaru, K. (2024). Nutritional experiences of postpartum mothers - A qualitative study. *Journal of Family Medicine and Primary Care*, 13(4), 1243. [https://doi.org/10.4103/jfmpc.jfmpc\\_904\\_23](https://doi.org/10.4103/jfmpc.jfmpc_904_23)

Bazzano, A. N., Stolow, J., Duggal, R., Oberhelman, R. A., & Var, C. (2020). Warming the postpartum body as a form of postnatal care: An ethnographic study of medical injections and traditional health practices in Cambodia. *PLoS ONE*, 15(2). <https://doi.org/10.1371/journal.pone.0228529>

Chen, M., Makama, M., Skouteris, H., Moran, L., Harrison, C. L., Choi, T., & Lim, S. (2023). Ethnic Differences in Preferences for Lifestyle Intervention among Women after Childbirth: A Multi-Methods Study in Australia. *Nutrients*, 15(2), 472. <https://doi.org/10.3390/nu15020472>

Cox, V., Sharma, P., Verma, G. S., Gill, N., Diamond-Smith, N., Duggal, M., Kumar, V., Bagga, R., Kaur, J., Singh, P., & Ayadi, A. M. E. (2025). User acceptability and perceived impact of a mobile interactive education and support group intervention to improve postnatal health care in northern India: a qualitative study. *BMC Medical Informatics and Decision Making*, 25(1). <https://doi.org/10.1186/s12911-025-02935-7>

Das, S., & Mishra, A. J. (2021). Dietary practices and gender dynamics: understanding the role of women. *Journal of Ethnic Foods*, 8(1). <https://doi.org/10.1186/s42779-021-00081-9>

Davey, C., & Vallianatos, H. (2018). Postpartum Food Traditions of Bhutanese Refugee Women: a Qualitative Study. *Journal of International Migration and Integration / Revue de l'Intégration et de la Migration Internationale*, 19(3), 541. <https://doi.org/10.1007/s12134-018-0562-4>

Dennis, C., Fung, K., Grigoriadis, S., Robinson, G. E., Romans, S., & Ross, L. E. (2007). Traditional Postpartum Practices and Rituals: A Qualitative Systematic Review. *Women's Health*, 3(4), 487. <https://doi.org/10.2217/17455057.3.4.487>

Esakkimuthu, S., Darvin, S. S., Mutheeswaran, S., Paulraj, M. G., Pandikumar, P., Ignacimuthu, S., & Al-Dhabi, N. A. (2018). A study on food-medicine continuum among the non-institutionally trained siddha practitioners of Tiruvallur district, Tamil Nadu, India. *Journal of Ethnobiology and Ethnomedicine*, 14(1). <https://doi.org/10.1186/s13002-018-0240-9>

Ford, E., Underwood, M. A., & German, J. B. (2020). Helping Mom Help Baby: Nutrition-Based Support for the Mother-Infant Dyad During Lactation [Review of *Helping Mom Help Baby: Nutrition-Based Support for the Mother-Infant Dyad During Lactation*]. *Frontiers in Nutrition*, 7. Frontiers Media. <https://doi.org/10.3389/fnut.2020.00054>

Kay, M. C., Wasser, H., Adair, L. S., Thompson, A. L., Siega-Riz, A. M., Suchindran, C., & Bentley, M. E. (2017). Consumption of key food groups during the postpartum period in low-income, non-Hispanic black mothers. *Appetite*, 117, 161. <https://doi.org/10.1016/j.appet.2017.06.023>

Kim-Godwin, Y. S. (2003). Postpartum Beliefs and Practices Among Non-Western Cultures [Review of *Postpartum Beliefs and Practices Among Non-Western Cultures*]. *MCN The American Journal of Maternal/Child Nursing*, 28(2), 74. Lippincott Williams & Wilkins. <https://doi.org/10.1097/00005721-200303000-00006>

Kumari, A., Jaiswal, P., Ranjan, P., Kumari, R., Chadda, R. K., Upadhyay, A. D., & Bhatla, N. (2022). Negative Emotions, Triggers, and Coping Strategies Among Postpartum Indian Women During Second Wave of COVID-19 Pandemic: Lessons for the Subsequent Waves and Beyond. *The Journal of Obstetrics and Gynaecology of India*, 73(2), 146. <https://doi.org/10.1007/s13224-022-01713-z>

Lee, V. V., Vijayakumar, S., Ng, W. Y., Lau, N. Y., Leong, Q. Y., Ooi, D. S. Q., Su, L. L., Lee, Y. S., Chan, S., Blasiak, A., & Ho, D. (2023). Personalisation and localisation are key expectations of digital health interventions in women pre- to post-pregnancy. *Npj Digital Medicine*, 6(1). <https://doi.org/10.1038/s41746-023-00924-6>

Li, J., Grey, H. L., Kim, S., Park, H., Lee, Y., Lee, H., & Song, K. (2022). Postpartum Diet and the Lifestyle of Korean and Chinese Women: A Comparative Study. *Frontiers in Public Health*, 10. <https://doi.org/10.3389/fpubh.2022.803503>

Monteban, M., Velasquez, V. Y., & Velasquez, B. Y. (2018). Comparing Indigenous and public health infant feeding recommendations in Peru: opportunities for optimising intercultural health policies. *Journal of Ethnobiology and Ethnomedicine*, 14(1). <https://doi.org/10.1186/s13002-018-0271-2>

Nur, Z. F., Widati, S., Nurmala, I., Nafikadini, I., & Rokhmah, D. (2023). Sambang Bayi Behaviour among the Osing Tribe in Banyuwangi Regency and Its Impact on Maternal and Infant Health. *Journal of Maternal and Child Health*, 8(5), 588. <https://doi.org/10.26911/thejmch.2023.08.05.06>

Ramulondi, M., Wet, H. D., & Ntuli, N. R. (2021). Traditional food taboos and practices during pregnancy, postpartum recovery, and infant care of Zulu women in northern KwaZulu-Natal. *Journal of Ethnobiology and Ethnomedicine*, 17(1). <https://doi.org/10.1186/s13002-021-00451-2>

Shakeel, B., Azim, H., & Jabeen, N. (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(8), 1076. <https://doi.org/10.20546/ijcmas.2018.708.122>

Sharma, S. (2021). A conceptual model and framework of nutrition-sensitive and specific interventions across Life stages in India [Review of *A conceptual model and framework of nutrition-sensitive and specific interventions across Life stages in India*]. *Journal of Family Medicine and Primary Care*, 10(11), 3976. Medknow. [https://doi.org/10.4103/jfmpc.jfmpc\\_789\\_21](https://doi.org/10.4103/jfmpc.jfmpc_789_21)

Sharma, S., Akhtar, F., Singh, R. K., & Mehra, S. (2020). Dietary Patterns and Determinants of Pregnant and Lactating Women From Marginalised Communities in India: A Community-Based Cross-Sectional Study. *Frontiers in Nutrition*, 7. <https://doi.org/10.3389/fnut.2020.595170>

Siregar, M., Panggabean, H. W. A., Regondola, J. P. B., & Aritonang, S. M. (2021a). Traditional Beliefs in Postpartum Care among Indonesian and Filipino Mothers: A Comparative Study. *DOAJ (DOAJ: Directory of Open Access Journals)*. <https://doi.org/10.5281/zenodo.5036131>

Siregar, M., Panggabean, H. W., Regondola, J. P. B., & Aritonang, M. (2021b). Traditional Beliefs in Postpartum Care among Indonesian and Filipino Mothers: A Comparative Study. *Iberoamerican Journal of Medicine*, 3(3), 241. <https://doi.org/10.53986/ibjm.2021.0038>

Son, J. (2014). Perceptions and Challenges. *Journal of Transcultural Nursing*, 27(3), 241. <https://doi.org/10.1177/1043659614556353>

Su, X., Zhang, Y., Chen, M., Wang, H., & Liu, G. (2023). Influencing factors and risk prediction modelling of maternal postpartum depression: a cross-sectional study in Chinese puerperal women of the third month. *Frontiers in Psychiatry*, 14. <https://doi.org/10.3389/fpsyg.2023.1252789>

Tayyem, R., Al-Bayyari, N., Al-Awwad, N. J., Abuhiyleh, H., Hoteit, R., Qasrawi, R., Badran, E., Basha, A., Allehdan, S., Boukari, K., Arrish, J., Seir, R. A., & Hoteit, M. (2022). Dietary intake and lifestyle practices of eastern mediterranean postpartum women before and during the COVID-19 pandemic:

An internet-based cross-sectional survey. *Frontiers in Nutrition*, 9.  
<https://doi.org/10.3389/fnut.2022.932418>

Teh, K., Quek, I. P., & Tang, W. E. (2021). Postpartum dietary and physical activity-related beliefs and behaviours among women with recent gestational diabetes mellitus: a qualitative study from Singapore. *BMC Pregnancy and Childbirth*, 21(1). <https://doi.org/10.1186/s12884-021-04089-6>

Yadav, V., Krishnan, A., & Vohora, D. (2019). A systematic review on *Piper longum* L.: Bridging traditional knowledge and pharmacological evidence for future translational research [Review of *A systematic review on Piper longum L.: Bridging traditional knowledge and pharmacological evidence for future translational research*]. *Journal of Ethnopharmacology*, 247, 112255. Elsevier BV.  
<https://doi.org/10.1016/j.jep.2019.112255>

Yao, R., He, C., & Xiao, P. (2022). 'Food and medicine continuum' in the East and West: Old tradition and current regulation [Review of *'Food and medicine continuum' in the East and West: Old tradition and current regulation*]. *Chinese Herbal Medicines*, 15(1), 6. Elsevier BV.  
<https://doi.org/10.1016/j.chmed.2022.12.002>

Zhang, X., Liu, Y., Tang, L., Buntinx, F., & Vermandere, M. (2025). Exploring postpartum women's experiences, perspectives, and expectations in maternal health care at a Chinese maternity care centre: a qualitative study. *BMC Pregnancy and Childbirth*, 25(1). <https://doi.org/10.1186/s12884-024-07087-6>

Zhao, A., Lan, H., Szeto, I. M., Huo, S., Yang, Y., Yang, J., & Zhang, Y. (2022). Traditional postpartum customs in modern urban Chinese women and their association with dietary quality. *Global Transitions*, 4, 82.  
<https://doi.org/10.1016/j.glt.2022.12.003>