

International Journal of Research Publication and Reviews

Journal homepage: www.ijrpr.com ISSN 2582-7421

Food taboos in Pregnancy and Lactation.

Shaikh Alaviya¹, Zainab Momin², Dr. Pooja Gupta³

³ Assistant Professor:

Department of Food Science and Nutraceuticals.

ABSTRACT:

Pregnancy and lactation taboos surrounding food are highly culturally embedded in traditions, socio-economic conditions, and beliefs. Whereas some prohibitions are protective of maternal and fetal health, others can be associated with nutrient deficiencies, with adverse effects on the mother and the child. The present review investigates the multiple food taboos practiced by various cultures, their possible advantages and disadvantages, and their scientific rationale. Particular focus is placed on typically forbidden foods, including dairy, fish, meat, and certain fruits and vegetables, examining their nutritional importance. In addition, the health effects of these taboos on maternal and infant health are examined, as well as measures to reconcile cultural beliefs and evidence-based nutritional recommendations. Education and awareness to address these taboos can assist in enhancing maternal nutrition and neonatal health, with a view to ensuring proper growth and development.

Keywords: pregnancy, lactation, food, miscarriage, taboos, restrictions, myths.

Introduction:

Food taboos are strongly rooted in cultural, religious, and societal customs, influencing dietary habits from generation to generation. Food taboos are especially common during pivotal stages of life like pregnancy and lactation, where maternal nutrition is important for the health and development of both the mother and child. The "food taboo" is used to describe restriction or avoidance of food based on traditional beliefs, health reasons, or religious tenets. Food taboos are extremely diverse across cultures and geographical locations, affecting maternal eating patterns and nutrition.

Pregnancy and lactation are nutrient-demanding stages, necessitating higher consumption of macro and micronutrients to sustain fetal development, maternal well-being, and milk secretion. Yet, food taboos tend to restrict the intake of key nutrient-dense foods, risking deficiencies that could affect pregnancy outcomes, birth weight, and infant growth. Conversely, certain food taboos might confer protective advantages, avoiding the intake of toxic or contaminated foods.

Cultural and Religious Impact on Food Taboos

Food prohibitions during pregnancy and lactation are usually imposed by religious practice and customary traditions. For instance:

Hinduism and Ayurveda: Pregnant women in certain Hindu societies are cautioned against the consumption of papaya and pineapple because these are believed to trigger miscarriage. Spicy foods and very hot foods are also forbidden because these are believed to generate body heat and lead to complications.

Islamic Food Laws: Islam supports healthy eating but has some communities frowning upon eating certain seafood or cold foods when pregnant, as they are thought to be bad for fetal growth.

African Cultural Beliefs: Pregnant women in many African societies are forbidden from eating eggs because they can supposedly cause difficult labour or give birth to a very smart but naughty child.

Chinese Traditional Medicine (TCM): "Hot" and "cold" foods are a core principle in TCM. Pregnant women tend to be dissuaded from eating very "cold" foods (e.g., watermelon and cucumber) so as not to disturb the balance of the body, while "hot" foods (e.g., chili and ginger) are said to promote blood circulation but need to be consumed in moderation.

Latin American and Native American Beliefs: In some Latin American groups, it is forbidden to consume rabbit or deer meat when one is pregnant for fear of it causing the child to be speech-impaired or have physical disabilities.

Traditional Food Taboos in Pregnancy

Most food taboos against food for pregnancy revolve around risks associated with maternal and fetal health. They include:

1. Fruits and Vegetables

Pineapple and Papaya - Thought to cause miscarriage because of their enzymatic nature.

Bananas and Watermelon - Occasionally shunned in Asian cultures for fear of "cooling effects" that might result in gastrointestinal disturbances.

2. Protein Foods:

Eggs - Skipped in certain African and Asian cultures because of legends regarding them and painful labour or an oversized foetus.

Meat and Fish – In a few societies, certain fish are not eaten because they are believed to cause allergies or result in a weak and slow baby. 3. **Dairy Products**:

In a few areas, milk is not consumed because it is believed to produce too much mucus or increase the chances of respiratory problems in infants.

4. Spicy and Acidic Foods:

In most cultures, spicy foods are not consumed because of fear of heartburn, miscarriage, or premature labour.

Food Taboos During Lactation

Like pregnancy, in most cultures, lactating women are subject to food taboos to promote proper milk secretion and the health of the child. Some common taboos are:

Avoidance of "Cooling Foods" – In Traditional Chinese Medicine, lactating women are advised not to consume raw vegetables, cucumber, and watermelon because they are thought to interfere with milk supply.

Limitation of Spices and Strong Flavours – There are some cultures that feel that spicy or garlicky foods will change the flavour of the breast milk, making it unacceptable to the baby.

Avoidance of Citrus Fruits and Acidic Foods – Oranges, lemons, and tomatoes are avoided by most lactating women on the fear that these would be responsible for colic or gastrointestinal problems in the infant.

Restriction of Seafood and Fish – On the grounds of mercury pollution, certain cultures refrain from allowing lactating mothers to have fish, even though it is rich in omega-3, which is important for the development of the baby's brain.

Scientific Explanation of Food Taboos

Scientific Rationale behind Food Taboos during Pregnancy and Lactation

Food taboos are usually regarded as myths with no scientific basis, yet some of these conventional prohibitions relate to actual biological and nutritional issues. Although most cultural beliefs about food avoidance are not scientifically proved, certain taboos are consistent with contemporary nutritional science and maternal-fetal health studies. The following section discusses various food taboos with a scientific foundation, examining their potential dangers, physiological implications, and guidelines for safe ingestion.

1. Papaya and Pineapple – Risk of Uterine Contractions

Cultural Belief:

Most cultures, particularly India and Southeast Asia, prohibit papaya and pineapple for pregnant women because these foods are feared to induce miscarriage or preterm labor.

Scientific Explanation:

Unripe papaya is latex-rich and has a component known as papain, a chemical that is found to trigger uterine contractions that might result in preterm labor or miscarriage, particularly if consumed in excess doses.

Pineapple has bromelain, an enzyme which can soften the cervix and cause mild uterine contractions. Still, a huge amount would need to be taken to cause labor.

Scientific Conclusion: Though unripe papaya is to be avoided because it contains latex, ripe papaya and pineapple in small amounts are safe and contain important vitamins such as vitamin C and folate.

2. Raw and Undercooked Meat - Risk of Infections

Most cultures frown upon eating raw or undercooked meat during pregnancy, warning of the possibility of harming the baby.

Scientific Explanation:

Raw or undercooked meat can be a source of toxoplasmosis, a parasitic disease brought about by Toxoplasma gondii. It can lead to miscarriage, stillbirth, or congenital defects like blindness or neurological defects if acquired during pregnancy.

Listeriosis due to Listeria monocytogenes is another foodborne illness associated with the consumption of raw meat and presents risks of preterm labor, stillbirth, or infection in the neonate.

Scientific Conclusion: Refraining from raw or undercooked meat, raw fish (sushi, oysters), and deli meats is a reasonable measure when pregnant. Thorough cooking of meat decreases the risk of infection.

3. High Mercury Fish – Neurological Risks to the Baby

In a number of cultures, pregnant women are cautioned not to consume fish because it may injure the baby's brain.

Scientific Explanation:

Certain fish, especially large predatory fish like shark, swordfish, king mackerel, and tilefish, are rich in mercury, which can pass through the placenta and accumulate in the developing fetal brain, causing impairments in cognition and neurology.

Mercury exposure is associated with decreased IQ, developmental delay, and poor motor skills in infants.

Scientific Conclusion: Pregnant and breastfeeding women must restrict high-mercury fish but eat low-mercury fish (salmon, sardines, trout, cod), which supply vital omega-3 fatty acids important for fetal brain and eye development.

4. Caffeine – Preterm Birth and Low Birth Weight Risk

Cultural Belief:

Pregnant women in most societies are advised against consuming coffee or tea since it is thought to lead to miscarriage, low birth weight, or hyperactivity in children.

Scientific Explanation:

Caffeine is a stimulant that passes through the placenta and influences the growing foetus. In contrast to adults, fetuses do not have the enzymes to metabolize caffeine effectively, causing extended effects

Research indicates that high levels of caffeine consumption (>200 mg/day, or ~2 cups of coffee) are linked with risk of miscarriage, preterm delivery, and low birth weight.

Scientific Conclusion: Avoidance is not required, but cautionary limits of 150-200 mg/day are a prudent measure during pregnancy.

5. Alcohol – Fetal Alcohol Syndrome Risk

Cultural Belief:

In the majority of cultures, alcohol is absolutely forbidden during pregnancy, with a strong belief that it will hurt the baby.

Scientific Explanation:

Drinking alcohol during pregnancy is associated with Fetal Alcohol Spectrum Disorders (FASD), which result in growth deficiencies, facial defects, and permanent cognitive disabilities.

Alcohol freely passes through the placenta, disrupting fetal brain development and causing an increased risk of stillbirth and premature labor.

Scientific Conclusion: There is no established safe level of alcohol intake during pregnancy, so avoidance is the best option.

6. Spicy Foods – Can They Induce Labor?

Cultural Belief:

Spicy foods are thought to lead to miscarriage, preterm labor, or colic in breastfeeding babies in most cultures.

Scientific Explanation:

Although spicy foods do not cause miscarriage directly, they can induce acid reflux and heartburn, which are usual pregnancy discomforts. Capsaicin (chili pepper) may stimulate the digestive system, potentially leading to diarrhoea and slight uterine contractions in sensitive individuals. During lactation, there is no good evidence that spicy food induces colic, but a few babies can respond to alterations in breast milk taste.

Scientific Conclusion: Spicy foods are not harmful per se, but caution is recommended to prevent gastrointestinal upset.

7. Herbal Teas and Traditional Medicines – Some Are Harmful

Cultural Belief:

Several pregnant women drink herbal teas or conventional medicines to relax, ease nausea, or enhance labor. Some teas are, ne vertheless, shunned because of risks.

Scientific Explanation:

Some herbal teas, including black cohosh, blue cohosh, and pennyroyal, hold chemicals that can stimulate contractions or lead to uterine bleeding. Overuse of licorice root tea has been associated with elevated cortisol levels, which could compromise fetal brain development.

In contrast, ginger tea is scientifically confirmed to alleviate morning sickness when taken in moderation.

Scientific Conclusion: Not all herbal teas are harmless. Pregnant women need to seek advice from healthcare experts prior to using herbal remedies. Impact of Food Taboos on Maternal and Infant Health

Food taboos impact maternal and infant health significantly by limiting vital nutrients. Typical nutritional impacts include:

Iron Deficiency Anaemia – Red meat, eggs, and some green leafy vegetables avoidance can cause iron deficiency, and this raises the risk of maternal fatigue and infant low birth weight.

Protein Deficiency - Meat, fish, and egg avoidance can decrease protein intake, impacting fetal development and postpartum convalescence.

Calcium and Vitamin D Deficiency - Dairy avoidance can decrease calcium consumption, which affects mother's and infant's bone health.

Omega-3 Deficiency – Restricting fish and seafood intake can lower the consumption of omega-3 fatty acids, which are crucial for brain and eye development in infants.

Bridging the Gap Between Cultural Beliefs and Nutritional Needs

In order to counteract food taboos without compromising optimal nutrition, public health interventions should aim at:

- 1. Education and Awareness Health workers must inform pregnant and breastfeeding women about the nutritional consequences of food taboos and offer culturally acceptable alternative foods.
- 2. Evidence-Based Recommendations Research must be employed to distinguish health-damaging food taboos from those that have justifiable reasons for concern.
- 3. **Community Involvement** Involving elders and community leaders in nutrition education can reverse misconceptions and foster healthier food habits.
- 4. **Policy Interventions** Governments and public health organizations must ensure nutrition programs specifically designed to suit cultural settings, with food security and well-balanced diets for pregnant and lactating women.

Conclusion

Pregnancy and lactation food taboos are a multifaceted interconnection of tradition, religion, and beliefs about health. Though some restrictions are protective, others have the potential to lead to nutritional deficiency with long-term health impacts for mothers and their children. A considered balance that pays attention to cultural beliefs while ensuring evidence-based nutrition is necessary for maintaining the health of mothers and infants.

Acknowledgement

I would like to express my sincere gratitude to Dr. Pooja Gupta, Professor, B.K. Birla College, Department of Food Science and Nutraceuticals, for her valuable guidance and support throughout the preparation of this review article.

REFERENCE

- 1. Abreu, S., Santos, P. C., Montenegro, N., & Mota, J. (2017). Relationship between dairy product intake during pregnancy and neonatal and maternal outcomes among Portuguese women. Obesity Research & Clinical Practice, 11(3),276–286. Doi:10.1016/j.orcp.2016.07.001
- 2. Adebiyi, A., Adaikan, P. G., & Prasad, R. N. (2002). Papaya (Carica papaya) consumption is unsafe in pregnancy: Fact or fable? Scientific evaluation of a common belief in some parts of Asia using a rat model. British Journal Nutrition, 88(02),199–203. Doi:10.1079/bjnbjn2002598
- Agyemang, C., Meeks, K., Beune, E., Owusu-Dabo, E., Mockenhaupt, F. P., Addo, J., ... Stronks, K. (2016). Obesity and type 2 diabetes in sub-Saharan Africans – Is the burden in today's Africa similar to African migrants in Europe? The RODAM study. BMC Medicine, 14(1),166. Doi:10.1186/s12916-016-0709-0
- Arzoaquoi, S. K., Essuman, E. E., Gbagbo, F. Y., Tenkorang, E. Y., Soyiri, I., & Laar, A. K. (2015). Motivations for food prohibitions during pregnancy and their enforcement mechanisms in a rural Ghanaian district. Journal of Ethnobiology and Ethnomedicine, 11(1),59. Doi:10.1186/s13002-015-0044-0
- Bentley, G. R., Aunger, R., Harrigan, A. M., Jenike, M., Bailey, R. C., & Ellison, P. T. (1999). Women's strategies to alleviate nutritional stress in a rural African society. Social Science Medicine, 48(2),149–162. Doi:10.1016/S0277-9536(98)00330-X
- Black, R. E., Victora, C. G., Walker, S. P., Bhutta, Z. A., Christian, P., de Onis, M., ... Uauy, R. (2013). Maternal and child undernutrition and overweight in low-income and middle-income countries. The Lancet, 382(9890),427–451. Doi:10.1016/S0140-6736(13)60937-X
- 7. Brandon, B., & Rupe, H. (2013). The everything guide to pregnancy nutrition and health: From preconception to post-delivery, all you need to know about pregnancy nutrition, fitness, and diet! Avon, MA: Adams Media Corporation.
- Brantsaeter, A. L., Haugen, M., Myhre, R., Sengpiel, V., Englund-Ögge, L., Nilsen, R. M., ... Vejrup, K. (2014). Diet matters, particularly in pregnancy: Results from MoBa studies of maternal diet and pregnancy outcomes. Norsk Epidemiologi, 24(1–2),63–77.
- Christian, C. P., Murray-Kilb, L. E., Khatry, S. K., Katz, J., Schaefer, B. A., Cole, P. M., ... Tielsch, J. M. (2010). Prenatal micronutrient supplementation and intellectual and motor function in early school-aged children in Nepal. JAMA, 304(24),2716–2723. Doi:10.1001/jama.2010.1861
- Darnton-Hill, I., & Mkparu, U. C. (2015). Micronutrients in pregnancy in low- and middle-income countries. Nutrients, 7(3),1744–1768. Doi:10.3390/nu7031744